UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2020

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from _____ to _____

Commission file number: 001-37599

LivaNova PLC

(Exact name of registrant as specified in its charter)

England and Wales	**98-1268150**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

20 Eastbourne Terrace, London, United Kingdom, W2 6LG
(Address of principal executive offices) *(Zip Code)*

Registrant's telephone number, including area code: **(44) (0) 203 325-0660**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Ordinary Shares - £1.00 par value per share	LIVN	NASDAQ Global Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately $2.3 billion (based on the closing price of these shares on the NASDAQ Global Market on June 30, 2020, the last business day of the most recently completed second fiscal quarter). For purposes of this calculation, ordinary shares held by persons who hold more than 5% of the outstanding ordinary shares and shares held by executive officers and directors of the registrant have been excluded as such persons may be deemed to be affiliates.

As of February 25, 2021, 48,663,429 ordinary shares were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement of LivaNova PLC for the 2021 Annual General Meeting of Shareholders, which will be filed within 120 days of December 31, 2020, are incorporated by reference into Part III of this Annual Report on Form 10-K.

LIVANOVA PLC

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In this Annual Report on Form 10-K, "LivaNova," "the Company," "we," "us" and "our" refer to LivaNova PLC and its consolidated subsidiaries.

This report may contain references to our proprietary intellectual property, including among others:

- Trademarks for our VNS therapy systems, the VNS Therapy® System, the VITARIA® System and our proprietary pulse generator products: Model 102 (Pulse®), Model 102R (Pulse Duo®), Model 103 (Demipulse®), Model 104 (Demipulse Duo®), Model 105 (AspireHC®), Model 106 (AspireSR®), Model 1000 (SenTiva®) and Model 8103 (Symmetry®).
- Trademarks for our Cardiopulmonary product systems: S5® heart-lung machine, S3® heart-lung machine, Inspire®, Heartlink®, XTRA® Autotransfusion System, 3T Heater-Cooler®, Connect™ and Revolution®.
- Trademarks for our line of surgical tissue and mechanical valve replacements and repair products: Mitroflow®, Crown PRT®, Solo Smart™, Perceval®, Miami Instruments™, Top Hat®, Reduced Series Aortic Valves™, Carbomedics Carbo-Seal®, Carbo-Seal Valsalva®, Carbomedics Standard®, Orbis™ and Optiform®, MEMO 4D®, AnnuloFlo®, AnnuloFlex®, Bicarbon Slimline™, Bicarbon Fitline™ and Bicarbon Overline®.
- Trademarks for our advanced circulatory support systems: TandemLife®, TandemHeart®, TandemLung®, ProtekDuo®, and LifeSPARC™.
- Trademarks for our obstructive sleep apnea system: ImThera® and Aura6000®.

These trademarks and trade names are the property of LivaNova or the property of our consolidated subsidiaries and are protected under applicable intellectual property laws. Solely for convenience, our trademarks and tradenames referred to in this Annual Report on Form 10-K may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights to these trademarks and tradenames.

CAUTIONARY STATEMENT ABOUT FORWARD-LOOKING STATEMENTS

Certain statements in this Annual Report on Form 10-K, other than statements of historical or current fact, are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These statements include, but are not limited, to LivaNova's plans, objectives, strategies, financial performance and outlook, trends, prospects or future events and involve known and unknown risks that are difficult to predict. As a result, our actual financial results, performance, achievements or prospects may differ materially from those expressed or implied by these forward-looking statements. Generally, you can identify forward-looking statements by the use of words such as "may," "could," "seek," "guidance," "predict," "potential," "likely," "believe," "will," "should," "expect," "anticipate," "estimate," "plan," "intend," "forecast," "foresee" or variations of these terms and similar expressions, or the negative of these terms or similar expressions. Such forward-looking statements are necessarily based on estimates and assumptions that, while considered reasonable by LivaNova and its management based on their knowledge and understanding of the business and industry, are inherently uncertain. These statements are not guarantees of future performance, and stockholders should not place undue reliance on forward-looking statements. There are a number of risks, uncertainties and other important factors, many of which are beyond our control, that could cause our actual results to differ materially from the forward-looking statements contained in this Annual Report on Form 10-K. Such risks, uncertainties and other important factors include, but are not limited to: the highly competitive nature of the global medical device industry; risks related to the reduction or interruption in our supply of components and raw materials; challenges relating to changes in and compliance with governmental laws and regulations affecting our U.S. and international businesses, including regulations of the U.S. Food and Drug Administration ("FDA") and foreign government regulators, such as more stringent requirements for regulatory clearance of products; the ability to remediate matters identified in any inspectional observations or warning letters issued by the FDA, while continuing to satisfy the demand for our products; the outcome of government investigations; the impact of healthcare reform measures; reductions in reimbursement levels by third-party payors and cost containment efforts of healthcare purchasing organizations; dependence on new product development, technological advances and innovation; control of costs and expenses; the ability to obtain and maintain adequate intellectual property protection; breaches or failures of our information technology systems or products, including by cyberattack, unauthorized access or theft; the ability to form and implement alliances; changes in tax obligations arising from tax reform measures, including European Union rules on state aid, or examinations by tax authorities; product liability, intellectual property, commercial and environmental litigation losses; compliance with evolving environmental laws and obligations; dependence on a limited number of suppliers for key raw materials and outsourced activities; changes in general industry and market conditions, including domestic and international growth rates; changes in general domestic and international economic conditions, including interest rate and currency exchange rate fluctuations; and other unknown or unpredictable factors that could harm our financial performance..

See also the section titled "Risk Factors" (refer to Part I, Item 1A of this report) for further discussion of certain risks and uncertainties that could cause actual results and events to differ materially from the forward-looking statements. All forward-looking statements in this Annual Report on Form 10-K are expressly qualified in their entirety by the cautionary statements set forth above. Forward-looking statements speak only as of the date of this Annual Report on Form 10-K, and we expressly disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. You are advised, however, to consult any further disclosures we make on related subjects in our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. This cautionary note is applicable to all forward-looking statements contained in this report.

The following discussion and analysis should be read in conjunction with and are qualified in their entirety by reference to the discussions included in "Item 1A. Risk Factors," "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in this Annual Report on Form 10-K.

PART I

Item 1. *Business*

Description of the Business and Background

LivaNova PLC, headquartered in London, (collectively with its subsidiaries, the "Company," "LivaNova," "we" or "our"), is a global medical device company focused on the development and delivery of important therapeutic solutions for the benefit of patients, healthcare professionals and healthcare systems throughout the world. Working closely with a global team of medical professionals in the fields of cardiovascular disease and neuromodulation, we design, develop, manufacture and sell innovative therapeutic solutions that are consistent with our mission to provide hope to patients through innovative products, delivering life-changing improvements for both the Head and Heart.

We were organized under the laws of England and Wales on February 20, 2015 for the purpose of facilitating the business combination of Cyberonics, Inc., a Delaware corporation, and Sorin S.p.A. ("Sorin"), a joint stock company organized under the laws of Italy. The business combination became effective in October 2015. LivaNova's ordinary shares are listed for trading on the NASDAQ Global Market under the symbol "LIVN."

Business Overview

LivaNova is comprised of two reportable segments: Cardiovascular and Neuromodulation, corresponding to our primary therapeutic areas. Other corporate activities include corporate shared service expenses for finance, legal, human resources, information technology and corporate business development.

For further information regarding our reportable segments, historical financial information and our methodology for the presentation of financial results, please refer to "Item 15. Exhibits, Financial Statement Schedules" of this Annual Report on Form 10-K.

Cardiovascular

Our Cardiovascular segment is engaged in the development, production and sale of cardiopulmonary products, heart valves and advanced circulatory support products. Cardiopulmonary products include oxygenators, heart-lung machines, autotransfusion systems, perfusion tubing systems, cannulae and other related accessories. Advanced circulatory support includes temporary life support controllers and product kits that can include a combination of pumps, oxygenators and cannulae. Heart valves include mechanical heart valves, tissue heart valves, related repair products and minimally invasive surgical instruments.

Cardiopulmonary Products

During conventional coronary artery bypass graft procedures and heart valve surgery, the patient's heart is temporarily stopped, or arrested. The patient is placed on an extracorporeal circulatory support system that temporarily functions as the patient's heart and lungs and provides blood flow to the body. Our products include systems to enable cardiopulmonary bypass, including heart-lung machines, autotransfusion systems, oxygenators, perfusion tubing sets, cannulae and accessories, as well as related equipment and disposables for autotransfusion and autologous blood washing for neonatal, pediatric and adult patients. Our primary cardiopulmonary products include:

Heart-lung machines. The heart-lung machine product group includes heart-lung machines, heater coolers, related cardiac surgery equipment and maintenance services.

Oxygenators and perfusion tubing systems. The oxygenators product group, which includes oxygenators and other disposable devices for extracorporeal circulation, includes the Inspire systems. The Inspire range of product is comprised of 12 models and provides perfusionists with a customizable approach for the benefit of patients.

Autotransfusion systems. One of the key elements for a complete blood management strategy is autologous blood transfusion. The autotransfusion product group facilitates the collection, processing and reinfusion of the patient's own blood lost at the surgical site during the perioperative period.

Cannulae. Our cannulae product family is used to connect the extracorporeal circulation to the heart of the patient during cardiac surgery.

Connect. Connect is our perfusion charting system. Focused on real time and retrospective calculations and trending tools, Connect assists perfusionists with data management during and after cardiopulmonary bypass.

Advanced Circulatory Support Products

Advanced Circulatory Support products simplify temporary extracorporeal cardiopulmonary life support solutions for critically ill patients. Built around a common compact console and pump, LifeSPARC provides temporary support for emergent rescue patients in a variety of settings. Designed for ease of use, the system offers power and versatility for multi-disciplinary programs to support more patients. The system is accompanied by four specialized and ready-to-deploy kits, each designed to support diverse cannulation strategies.

Heart Valves and Repair Products

On December 2, 2020, LivaNova entered into a Purchase Agreement (the "Purchase Agreement") with Mitral Holdco S.à r.l. ("Mitral"), a company incorporated under the laws of Luxembourg and wholly owned and controlled by funds advised by Gyrus Capital S.A. ("Gyrus"), a Swiss private equity firm. The Purchase Agreement provides for the divestiture of certain of LivaNova's subsidiaries as well as certain other assets and liabilities relating to the Company's Heart Valve business (other than the Company's Heart Valve business in France) and site management operations conducted by the Company's subsidiary LivaNova Site Management ("LSM") at its Saluggia campus. In addition, pursuant to the Purchase Agreement, Gyrus has made a binding offer to purchase the Company's French Heart Valve business. Until the closing, LivaNova will operate the Heart Valves business in the normal course of business.

LivaNova and Gyrus are currently discussing potential amendments to the Purchase Agreement to address possible impediments to transferring LSM as contemplated by the Purchase Agreement. If such an amendment can be agreed, it might include delaying such transfer or separating it from the scope of the Purchase Agreement. In the course of discussing these potential amendments, Gyrus and LivaNova have advised each other that notwithstanding the possible impediments to completing the transfer of LSM, they remain committed to completing the purchase and sale of LivaNova's Heart Valves Business. Consistent with the Company's prior disclosures, the Company continues to believe the initial closings of the transaction, which may exclude LSM, will occur in the first half of 2021.

We offer a comprehensive line of products to treat a variety of heart valve disorders, including a complete line of surgical tissue and mechanical valve replacements and repair products for damaged or diseased heart valves. Our heart valves and repair product offerings include:

Self-anchoring tissue heart valves. Perceval is our sutureless bioprosthetic device designed to replace a diseased native valve or a malfunctioning prosthetic aortic valve using either traditional or minimally invasive heart surgery techniques. Perceval incorporates a unique technology that allows 100% sutureless positioning and anchoring at the implantation site. This, in turn, offers the potential to reduce the time the patient spends in cardiopulmonary bypass.

Other tissue heart valves. Other tissue valves include the Mitroflow aortic pericardial tissue valve with phospholipid reduction treatment ("PRT"), which is designed to mitigate valve calcification and the Crown PRT and Solo Smart aortic pericardial tissue valves. Our Solo Smart aortic pericardial tissue valve is an innovative, completely biological aortic heart valve with no synthetic material and a removable stent. Solo Smart provides the ease of implantation of a stented valve with the hemodynamic performance of a stentless valve.

Mechanical heart valves. Our wide range of mechanical valve offerings includes the Carbomedics Standard, Top Hat and Reduced Series Aortic Valves, as well as the Carbomedics Carbo-Seal and Carbo-Seal Valsalva aortic prostheses. We also offer the Carbomedics Standard, Orbis and Optiform mechanical mitral valves and Bicarbon Slimline, Bicarbon Fitline and Bicarbon Overline aortic and mitral valves.

Heart valve repair products. Mitral valve repair is a well-established solution for patients suffering from a leaky mitral valve, or mitral valve regurgitation ("MR"). We offer a wide range of mitral valve repair products, including the Memo 3D and Memo 3D ReChord, AnnuloFlo and AnnuloFlex.

Minimally invasive surgical instruments. Through the acquisition of the minimally invasive cardiac surgery business from Miami Instruments in June 2019, we offer minimally invasive cardiac surgery instruments that support the implantation of our heart valve products during surgery.

Neuromodulation

Our Neuromodulation segment designs, develops and markets Neuromodulation therapy for the treatment of drug-resistant epilepsy, difficult-to-treat depression ("DTD") and obstructive sleep apnea. We are also developing and conducting clinical testing of the VITARIA System for treating heart failure through vagus nerve stimulation ("VNS").

Our seminal Neuromodulation product, the LivaNova Vagus Nerve Stimulation Therapy ("VNS Therapy") System, is an implantable device authorized for the treatment of drug-resistant epilepsy and DTD. The VNS Therapy System consists of an

implantable pulse generator and connective lead that stimulate the vagus nerve; surgical equipment to assist with the implant procedure; equipment and instruction manuals enabling a treating physician to set parameters for a patient's pulse generator; and for epilepsy, magnets to manually suspend or induce nerve stimulation. The pulse generator and lead are surgically implanted in a subcutaneous pocket in the upper left chest area, generally during an out-patient procedure. The lead, which does not need to be removed to replace a generator with a depleted battery, is connected to the pulse generator and tunneled under the skin to the vagus nerve in the lower left side of the patient's neck.

Epilepsy

There are several broad types of treatment available to patients with epilepsy: multiple seizure medications; various forms of the ketogenic diet; VNS; resective brain surgery; trigeminal nerve stimulation; responsive intracranial neurostimulation; and deep brain stimulation. Seizure medications typically serve as a first-line treatment and are prescribed for virtually all patients diagnosed with epilepsy. After two seizure medications fail to deliver seizure control, the epilepsy is characterized as drug-resistant, at which point, adjunctive non-drug options are considered, including VNS therapy, brain surgery and a ketogenic diet.

Our VNS Therapy System was the first medical device treatment approved by the FDA in 1997 for refractory, drug-resistant epilepsy in adults and adolescents over 12 years of age and is indicated for use as an adjunctive therapy in reducing the frequency of seizures. In June 2017, the FDA approved our VNS Therapy device for use in patients who are at least four years of age and have partial onset seizures that are refractory to antiepileptic medications. At the same time, our VNS Therapy device received FDA approval for expanded magnetic resonance imaging ("MRI"). CE Mark approval followed shortly thereafter, in August 2017. Currently, SenTiva, AspireHC and AspireSR models of VNS Therapy technology provide for this expanded MRI access. Other worldwide regulatory bodies have also approved the VNS Therapy System for the treatment of epilepsy, many without age restrictions or seizure-type limitations.

We sell a number of VNS Therapy System product models for the treatment of epilepsy, including our Model 102 (Pulse), Model 102R (Pulse Duo), Model 103 (Demipulse), Model 104 (Demipulse Duo), Model 105 (AspireHC), Model 106 (AspireSR) and Model 1000 (SenTiva) pulse generators. Our AspireSR and SenTiva generators provide the benefits of VNS Therapy, with an additional feature: automatic stimulation in response to detection of changes in heart rate potentially indicative of a seizure. The SenTiva generator is the smallest and lightest VNS device capable of delivering responsive therapy for epilepsy.

Depression

US

In July 2005, the FDA approved the VNS Therapy System for the adjunctive treatment of chronic or recurrent depression for patients 18 years or older who are experiencing a major depressive episode and have not had an adequate response to four or more antidepressant treatments. In May 2007, the United States ("U.S.") Centers for Medicare and Medicaid Services ("CMS") issued a national non-coverage determination ("NCD") within the U.S. with respect to reimbursement of the VNS Therapy System for patients with DTD, significantly limiting access to this therapeutic option for most patients.

In March 2017, the American Journal of Psychiatry published the results of the longest and largest naturalistic study (D23 study) on treatments for patients experiencing chronic and severe DTD. The findings showed that the addition of the VNS Therapy System to traditional treatment is effective in significantly reducing symptoms of depression and well tolerated compared with traditional treatment alone.

Following publication of the D23 study, we requested CMS to reconsider its previous NCD, and in May 2018, CMS published a tracking sheet to reconsider its NCD.

In February 2019, CMS produced a final decision providing coverage for Medicare beneficiaries through Coverage with Evidence Development ("CED") when offered in a CMS-approved, double-blind, randomized, placebo-controlled trial with a follow-up duration of at least one year, as well as coverage of VNS Therapy device replacement. The CED also includes the possibility to extend the study to a prospective longitudinal registry.

In September 2019, CMS accepted the protocol for our RECOVER clinical study and the first patient was enrolled. RECOVER will include up to 500 unipolar and up to 500 bipolar patients at a maximum of 100 sites in the United States in the randomized part of the trial and up to an additional 5,800 patients in an open label registry.

In February 2020, we announced a research collaboration with Verily, an Alphabet company, to capture clinical biomarkers of depression within our RECOVER clinical study. Using technology and analytics by way of the Verily Study Watch and related Verily mobile phone application, LivaNova and Verily aim to gather quantitative data to further understand depressive

episodes and a patient's response to treatment. These complementary approaches are expected to help investigators better understand the impact of depression and its treatment on study participants' lives in a more objective and multi-dimensional manner.

Outside the U.S.

In January 2018, we announced the launch and enrollment of the first patient in our RESTORE-LIFE study outside the U.S., which evaluates the use of our VNS Therapy System in patients who have DTD and failed to achieve an adequate response to standard psychiatric management.

In March 2020, our VNS Therapy System, Symmetry received CE mark approval for DTD.

Obstructive Sleep Apnea

In January 2018, we acquired full ownership of ImThera Medical, Inc. ("ImThera") and its implantable neurostimulation device system for the treatment of obstructive sleep apnea. The device, which stimulates multiple tongue muscles via the hypoglossal nerve to open the airway while a patient is sleeping. ImThera has a commercial presence in the European market, and an FDA pivotal study is ongoing in the U.S.

Discontinued Operations

We completed the sale of our Cardiac Rhythm Management ("CRM") business to MicroPort Cardiac Rhythm B.V. and MicroPort Scientific Corporation (the "CRM Sale") on April 30, 2018. We previously concluded that the sale of CRM represented a strategic shift in our business that has a major effect on future operations and financial results. Accordingly, the results of operations of the CRM business are reflected as discontinued operations for all periods presented in this Annual Report on Form 10-K. For further information, refer to "Note 6. Discontinued Operations" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Research and Development ("R&D")

The markets in which we participate are subject to rapid technological advances. Product improvement and innovation are necessary to maintain market leadership. We direct our R&D efforts toward maintaining or achieving technological leadership in each of the markets we serve to help ensure that patients using our devices and therapies receive the most advanced and effective treatment possible. We remain committed to developing technological enhancements and new uses for existing products and less invasive and new technologies for new and emerging markets to address unmet patient needs. We initiate and participate in many clinical trials each year as the demand for clinical and economic evidence remains high. We also expect our development activities to help reduce patient care costs and the length of hospital stays in the future.

We expect to continue to identify innovative technologies and continually assess the ability of our R&D programs to deliver economic value to the customer. Our current R&D expenses consist of product design and development efforts, clinical study programs and regulatory activities, which are essential to our strategic portfolio initiatives (including DTD and heart failure).

Acquisitions and Investments

Our strategy of providing a broad range of therapies requires a wide variety of technologies, products and capabilities. The rapid pace of technological development in the medical industry and the specialized expertise required in different areas of medicine make it difficult for one company alone to develop a broad portfolio of technological solutions. In addition to internally generated growth through R&D efforts, we have historically relied, and expect to continue to rely, on acquisitions, investments and alliances to provide access to new technologies in both new and existing markets.

We expect to further our strategic objectives and strengthen our existing businesses by making future acquisitions or investments in areas where we believe we can acquire or stimulate the development of new technologies and products. Mergers and acquisitions of medical technology companies are inherently risky. No assurance can be given that any of our previous or future acquisitions will be successful or will not materially adversely affect our consolidated operations, financial condition and/or cash flows.

ImThera

In January 2018, we acquired the remaining 86% outstanding interest in ImThera (we previously held 14% minority interest). ImThera is focused on neurostimulation for the treatment of obstructive sleep apnea. ImThera manufactures an implantable device that stimulates multiple tongue muscles via the hypoglossal nerve, which opens the airway while a patient is sleeping. The financial results of ImThera are included within Neuromodulation.

TandemLife

In April 2018, we acquired CardiacAssist, Inc., doing business as TandemLife (“TandemLife”). TandemLife is focused on the delivery of leading-edge temporary life support systems, including cardiopulmonary and respiratory support solutions. The financial results of TandemLife are included within Cardiovascular.

Miami Instruments

On June 12, 2019, we acquired Miami Instruments, LLC’s minimally invasive cardiac surgery instruments business and the related operations are integrated into Cardiovascular as part of our Heart Valves portfolio.

Patents and Licenses

We rely on a combination of patents, trademarks, copyrights, trade secrets and non-disclosure and non-competition agreements to protect our intellectual property. We generally file patent applications in the U.S. and countries where patent protection for our technology is appropriate and available. As of December 31, 2020, we held more than 1,100 issued patents worldwide, with approximately 280 pending patent applications that cover various aspects of our technology. Patents typically have a 20-year term from the application filing date. In addition, we hold exclusive and non-exclusive licenses to a variety of third-party technologies covered by patents and pending patent applications. There can be no assurance that pending patent applications will result in the issuance of patents, that patents issued to or licensed by us will not be challenged or circumvented by competitors, or that these patents will be found to be valid or sufficiently broad to protect our technology or to provide us with a competitive advantage. We have also obtained certain trademarks and trade names for our products and maintain certain details about our processes, products and strategies as trade secrets. In the aggregate, we consider these intellectual property assets to be of material importance to our business segments and operations. We regularly review third-party patents and patent applications in an effort to protect our intellectual property and avoid disputes over proprietary rights.

We rely on non-disclosure and non-competition agreements with employees, consultants and other parties to protect, in part, trade secrets and other proprietary technology. There can be no assurance that these agreements will not be breached, that we will have adequate remedies for any breach, that others will not independently develop equivalent proprietary information or that third parties will not otherwise gain access to our trade secrets and proprietary knowledge.

For additional information, please refer to “Item 1A. Risk Factors” of this Annual Report on Form 10-K, under the section entitled “*We are substantially dependent on patent and other proprietary rights and failing to protect such rights or to be successful in litigation related to our rights or the rights of others may result in our payment of significant monetary damages and/or royalty payments, negatively impact our ability to sell current or future products, or prohibit us from enforcing our patent and other proprietary rights against others.*”

Markets and Distribution Methods

The three largest markets for our medical devices are the U.S., Europe and Japan, though emerging markets are an area of increasing focus and opportunity for us. We sell most of our medical devices through direct sales representatives in the U.S. and a combination of direct sales representatives and independent distributors in markets outside the U.S.

Our marketing and sales strategy is focused on rapid, cost-effective delivery of high-quality products to a diverse group of customers worldwide, including perfusionists, neurologists, neurosurgeons and other physicians, hospitals and other medical institutions and healthcare providers. To achieve this objective, we maintain a highly knowledgeable and dedicated sales staff that is able to foster strong relationships with our broad range of customers. We cultivate and maintain close working relationships with professionals in the medical industry. These relationships provide us with a detailed understanding of therapeutic and diagnostic developments, trends and emerging opportunities, and which enable us to respond to the changing needs of providers and patients. We actively participate in medical meetings and conduct comprehensive training and educational activities to enhance our presence in the medical communities we serve. We believe that these activities also contribute to advancing healthcare professionals’ expertise.

Due to the emphasis on cost-effectiveness in healthcare delivery, the current trend among hospitals and other medical device customers is to consolidate into larger purchasing groups to enhance purchasing power. As a result, customer transactions have become increasingly complex. Enhanced purchasing power may also lead to pressure on pricing and an increase in the use of preferred vendors. Our customer base continues to evolve to reflect such economic changes across the geographic markets we serve.

Competition and Industry

We compete in the medical device market with sales to more than 5,500 hospitals and in more than 100 countries. Technological advances and scientific discoveries cause rapid change in this market. Our competitors across our product portfolio range from large manufacturers with multiple business lines to small manufacturers offering a limited selection of specialized products. In addition, we face competition from providers of alternative medical therapies, such as pharmaceutical companies and providers of cannabis derived products, among others.

Product problems, physician advisories, safety alerts and publications about our products can cause major shifts in industry market share, reflecting the importance of product quality, product efficacy and quality systems in the medical device industry. In addition, because of developments in managed care, economically motivated customers, consolidation among healthcare providers, increased competition and declining reimbursement rates, we may be increasingly required to compete on the basis of price. In order to continue to compete effectively, we must continue to create or acquire advanced technology, incorporate this technology into proprietary products, obtain regulatory approvals in a timely manner, maintain high-quality manufacturing processes and successfully market these products.

Our primary medical device competitors in the Cardiovascular and Neuromodulation product groups are Terumo Medical Corporation, Maquet Medical Systems, Medtronic plc, Haemonetics Corporation, Edwards Lifesciences Corp., NeuroPace, Inc., Abiomed, Inc. and Abbott Laboratories, Inc., although not all competitors are present in all product lines.

Production, Quality Systems and Raw Materials

We manufacture a majority of our products at 10 manufacturing facilities located in Italy, Germany, the U.S., Canada, Brazil and Australia. We purchase raw materials and many of the components used in our manufacturing facilities from numerous suppliers in various countries. For quality assurance, sole source availability or cost effectiveness purposes, we may procure certain components and raw materials from a sole supplier. We work closely with our suppliers to ensure continuity of supply while maintaining high quality and reliability. We use quality systems in the design, production, warehousing and distribution of our products to ensure our products are safe and effective. In addition, we utilize environmental management systems and safety programs to protect the environment and our employees, for example, our Mirandola and Saluggia plants are certified ISO 14001 and ISO 45001 and our Munich plant is certified ISO 14001. For additional information related to our manufacturing facilities, refer to “Item 2. Properties” in this Annual Report on Form 10-K.

Government Regulation and Other Considerations

Our medical devices are subject to extensive government regulation by numerous government agencies, both within and outside the U.S. To varying degrees, each of these agencies requires us to comply with laws and regulations governing the research, development, testing, manufacturing, labeling, pre-market clearance or approval, marketing, distribution, advertising, promotion, record keeping, reporting, tracking, and importing and exporting of our products. Our business is also affected by patient privacy and security laws, cost containment initiatives, and environmental health and safety laws and regulations worldwide.

The laws applicable to us are subject to changing and evolving interpretations, and we continue to monitor such shifts. The Company believes it is in compliance with such laws and regulations, and while the impact of regulatory changes cannot be predicted with certainty, the Company does not expect compliance to have a material adverse effect upon the Company’s earnings, competitive position or estimated capital expenditures. However, if a governmental authority were to conclude that we are not in compliance with applicable laws and regulations, we and our officers and employees could be subject to severe civil and criminal penalties, including substantial fines and damages, and exclusion from participation as a supplier of products to beneficiaries covered by government programs, among other potential enforcement actions.

Product Approval and Monitoring

Many countries where we sell our products subject our medical devices to their own approval and requirements regarding performance, safety and quality. The following provides a brief overview of the oversight and requirements to which we are subject for the commercial distribution of our products in the U.S., Europe and Japan, the largest markets for our medical devices.

Each medical device we seek to distribute commercially in the U.S. must receive 510(k) clearance or pre-market approval (“PMA”) from the FDA, unless specifically exempted by the agency. The 510(k) process, also known as pre-market notification, requires us to demonstrate that our new medical device is substantially equivalent to a legally marketed medical device. The PMA process, which is more costly and rigorous than the 510(k) process, requires us to demonstrate independently

that a medical device is safe and effective for its intended use. One or more clinical studies may be required to support a 510(k) application and are almost always required to support a PMA application.

The European Union ("EU"), established a single regulatory approval process, according to which a "*Conformité Européenne*" (French for "European Conformity") or CE Mark certifies conformity with all of the legal requirements of the regulatory process. To obtain a CE Mark, defined products must meet minimum standards of performance, safety and quality (i.e., the essential requirements), and then, according to their classification, comply with one or more of a selection of conformity assessment routes. To demonstrate compliance with the essential requirements, we must undergo a conformity assessment procedure, which varies according to the type of medical device and its classification. As a general rule, demonstration of conformity of medical devices and their manufacturers with the essential requirements must be based on, among other things, the evaluation of clinical data supporting the safety and performance of the products during normal conditions of use. The competent authorities of the EU countries separately regulate the clinical research for medical devices and the market surveillance of products placed on the market, and manufacturers with CE marked devices are subject to regular inspections to monitor compliance with the applicable directives and essential requirements. In 2017, the EU published its Medical Device Regulation ("Reg MDR"), which imposed significantly more premarket and post-market requirements for medical devices upon conclusion of a three-year implementation period. We have initiated a plan of action to obtain the appropriate approvals for our products and intend to be fully compliant prior to the May 2024 deadline.

To be sold in Japan, our medical devices must undergo thorough safety examinations and demonstrate medical efficacy before they are granted approval. The Japanese government, through the Ministry of Health, Labour and Welfare, regulates medical devices under the Pharmaceutical Affairs Law ("PAL"). Penalties for a company's noncompliance with the PAL may include revocation or suspension of a company's business license and/or criminal sanctions. Japanese regulatory bodies also assess the quality management systems of the manufacturer and product conformity to the requirements of the PAL.

Many countries in which we sell our products (outside of the U.S., the EU and Japan) have their own regulatory requirements for medical devices. Most of these countries require that product approvals be recertified on a regular basis, generally every four to five years. The recertification process requires that we evaluate any device changes and any new regulations or standards relevant to the device and, where needed, conduct appropriate testing to document continued compliance. Where recertification applications are required, they must be approved in order to continue selling our products in those countries.

The global regulatory environment is increasingly stringent and unpredictable. Several countries that did not have regulatory requirements for medical devices have established such requirements in recent years, and other countries have expanded, or plan to expand, their existing regulations. While some regulatory bodies have pursued harmonization of global regulations, requirements continue to differ significantly among countries. We expect this global regulatory environment will continue to evolve, which could impact the cost, approval lead time, and ultimately, our ability to maintain existing approvals or obtain future approvals for our products.

Product and Promotional Restrictions

Both before and after we release a product for commercial distribution, we have ongoing responsibilities under various laws and regulations governing medical devices. The FDA and other regulatory agencies in and outside the U.S. review our design and manufacturing practices, labeling, record keeping, and required reports of adverse experiences and other information to identify potential problems with marketed medical devices. We are also subject to periodic inspections for compliance with applicable quality system regulations, which govern the methods used in, and the facilities and controls used for, the design, manufacture, packaging and servicing of finished medical devices intended for human use. In addition, the FDA and other U.S. regulatory bodies monitor the manner in which we promote and advertise our products. Although physicians are permitted to use their medical judgment to prescribe medical devices for indications other than those cleared or approved by the FDA, we are prohibited from promoting products for such "off-label" uses and can only market our products for cleared or approved uses.

Any adverse regulatory action, depending on its magnitude, may limit our ability to market and sell our products effectively, limit our ability to obtain future premarket approvals or result in a substantial modification to our business practices and operations. For additional information, see "Item 1A. Risk Factors" of this Annual Report on Form 10-K, under the section entitled "*Our products are subject to costly and complex laws and governmental regulations, and failure to obtain product approvals or clearance may materially adversely affect our financial condition and business operations.*"

Governmental Trade Regulations

The sale and shipment of our products and services across international borders, as well as the purchase of components and products from international sources, subject us to extensive governmental trade regulations. Many countries control the export and re-export of goods, technology and services for public health, national security, regional stability, antiterrorism and other

reasons. Some governments may also impose economic sanctions against certain countries, persons or entities. In certain circumstances, governmental authorities may require that we obtain an approval before we export or re-export goods, technology or services to certain destinations, to certain end-users and for certain end-uses. Because we are subject to extensive regulations in the countries in which we operate, we are subject to the risk that laws and regulations could change in a way that would expose us to additional costs, penalties or liabilities.

We also sell and provide goods, technology and services to agents, representatives and distributors who may export such items to customers and end-users, and if these third parties violate applicable export control or economic sanctions laws or regulations when engaging in transactions involving our products, we may be subject to varying degrees of liability depending on the extent of our participation in the transaction. The activities of these third parties may cause disruption or delays in the distribution and sale of our products or result in restrictions being placed on our international distribution and sales of products, which may materially impact our business activities.

Patient Privacy and Security Laws

We are subject to various laws worldwide that protect the security and confidentiality of certain patient health information, including patient medical records, and that restrict the use and disclosure of patient health information. Privacy standards are becoming increasingly strict; enforcement actions and financial penalties related to privacy issues in the EU are growing; and new laws and restrictions are being passed in other countries including the U.S. The management of cross-border transfers of information among and outside of EU member countries is becoming more complex, which may complicate our business and clinical research activities, as well as product offerings that involve transmission or use of patient health information. We continue our efforts to comply with those requirements and to adapt our business processes to those standards.

In the U.S., the Health Insurance Portability and Accountability Act of 1996 (“HIPAA”), as amended by the Health Information Technology and Clinical Health Act (“HITECH”) and their respective implementing regulations impose specified requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA’s privacy and security standards directly applicable to “business associates,” defined as independent contractors or agents of covered entities that create, receive, maintain or transmit protected health information in connection with providing a service for or on behalf of a covered entity. We may be deemed to operate as a business associate to covered entities in certain instances. In those cases, the patient data that we receive may include protected health information, as defined under HIPAA. Enforcement actions can be costly and interrupt regular operations of our business. In addition, state laws govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways, thus complicating compliance and data protection efforts. For example, the California Consumer Privacy Act (“CCPA”), a bill to enhance privacy rights and consumer protection for residents of California went into effect January 1, 2020. For additional information, see “Item 1A. Risk Factors” of this Annual Report on Form 10-K, under the section entitled “*Cyber-attacks or other disruptions to our information technology systems could lead to reduced revenue, increased costs, liability claims, fines, harm to our competitive position and loss of reputation.*”

In the EU, Regulation 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (“General Data Protection Regulation” or “GDPR”) came into effect in May 2018, replacing Directive 95/46/EC (“Data Protection Directive”). While many of the principles of the GDPR reflect those of the Data Protection Directive, for example in relation to the requirements relating to the privacy, security and transmission of individually identifiable health information, there are a number of changes. In particular: (1) proactive compliance measures are introduced, such as the requirement to carry out a Privacy Impact Assessment and to appoint a Data Protection Officer where health data is processed on a “large scale.” Although “large scale” is not defined, it is likely that clinical trials involving substantial numbers of patients (or healthy volunteers if applicable) would mean that such requirements apply to us; and (2) the administrative fines that can be levied are significantly increased, the maximum being the higher of €20 million (approximately $24.5 million), or 3% of our total worldwide revenue in the previous financial year.

Cost Containment Initiatives

Government and private sector initiatives to limit the growth of healthcare costs, including price regulation, competitive pricing, bidding and tender mechanics, coverage and payment policies, comparative effectiveness of therapies, technology assessments and managed-care arrangements are continuing in many countries where we do business. These changes are causing the marketplace to put increased emphasis on the delivery of more cost-effective medical devices and therapies. Government programs, private healthcare insurance and managed-care plans have attempted to control costs by limiting the extent of coverage or amount of reimbursement available for particular procedures or treatments, tying reimbursement to outcomes, shifting to population health management, and other mechanisms designed to constrain utilization and contain costs. Hospitals, which purchase implants, are also seeking to reduce costs through a variety of mechanisms, including, for example, creating centralized purchasing functions that set pricing and, in some cases, limit the number of vendors that can participate in

the purchasing program. Hospitals are also aligning their interests with those of physicians through employment and other arrangements, such as gainsharing, whereby a hospital agrees with physicians to share certain realized cost savings resulting from the physicians' collective change in practice patterns, such as standardization of devices where medically appropriate, and participation in affordable care organizations. Such alignment has created increasing levels of price sensitivity among customers for our products.

Some third-party payers must also approve coverage and set reimbursement levels for new or innovative devices or therapies before they will reimburse healthcare providers who use the medical devices or therapies. Even though a new medical device may be cleared for commercial distribution, we may find limited demand for the device until coverage and sufficient reimbursement levels have been obtained from governmental and private third-party payers. In addition, some private third-party payers require that certain procedures or the use of certain products be authorized in advance as a condition of coverage.

As a result of our manufacturing efficiencies, cost controls and other cost-savings initiatives, we believe we are well-positioned to respond to changes resulting from this worldwide trend toward cost containment; however, uncertainty remains as to the nature of any future legislation or other reforms, making it difficult for us to predict the potential impact of cost-containment trends on future operating results.

Applicability of Anti-Corruption Laws and Regulations

Our worldwide business is subject to the U.S. Foreign Corrupt Practices Act of 1977 (the "FCPA"), the UK Bribery Act of 2010 (the "UK Bribery Act") and other anti-corruption laws and regulations applicable in the jurisdictions where we operate. The FCPA can be used to prosecute companies in the U.S. for arrangements with physicians or other parties outside the U.S. if the physician or party is a government official of another country and prohibited payments are made to obtain or retain business. The UK Bribery Act prohibits both domestic and international bribery, as well as bribery across both public and private sectors. There are similar laws and regulations applicable to us outside the U.S. and the UK, all of which are subject to evolving interpretations. For additional information, please refer to "Item 1A. Risk Factors" of this Annual Report on Form 10-K, under the section entitled "*The failure to comply with anti-bribery laws could materially adversely affect our business and result in civil and/or criminal sanctions.*"

Environmental Regulation and Management

We are subject to various environmental laws, directives and regulations both in the U.S. and abroad. Our operations involve the use of substances regulated under environmental laws, primarily in manufacturing and sterilization processes. We believe that sound environmental, health and safety performance contribute to our competitive strength while benefiting our customers, stockholders and employees. We are focused on continuous improvement in these areas by reducing pollution, depletion of natural resources and our overall environmental footprint. Specifically, we work to optimize energy and resource usage, ultimately reducing greenhouse gas emissions and waste. In 2018, we implemented a new system called *trigeneration* in our plant in Mirandola, Italy which is designed to reduce CO2, reduce energy consumption, generate energy savings, and reduce costs, and we have moved from using oil to methane, reducing considerably the air pollution from our plant in Saluggia, Italy. In 2019, we implemented a new vehicle policy, which in addition to generating cost savings and efficiencies throughout the Company, has contributed to our goal of decreasing our carbon output. Not only did we exclude certain vehicle models from our inventory due to their negative environmental impact, but we implemented a cap on our vehicles' CO_2 emissions at 130 g/km. In addition, we replaced fluorescent light in our plants in Arvada, Colorado and Mirandola with LED to reduce overall energy consumption, and we are continually working to improve the efficiency of our machinery, e.g., by replacing HVAC units with more efficient equivalents. Finally, our Mirandola, Italy plant was certified ISO-14001 and ISO-45001 in 2020, joining our Saluggia, Italy plant, which has identical certifications as well as our Munich, Germany plant which has ISO-14001.

Health Care Fraud and Abuse Laws

We are subject to U.S. federal and state government healthcare regulation and enforcement and government regulations and enforcement in other countries in which we conduct our business. The federal healthcare Anti-Kickback Statute prohibits persons from, among other things, knowingly and willfully offering or paying remuneration, directly or indirectly, to a person to induce the purchase, order, lease, or recommendation of a good or service for which payment may be made in whole or part under a federal healthcare program such as Medicare or Medicaid, unless the arrangement fits within one of several statutory exemptions or regulatory "safe harbors." Violations of the federal Anti-Kickback Statute may result in civil monetary penalties up to $100,000 for each violation, plus up to three times the remuneration involved. Violations can also result in criminal penalties, including criminal fines of up to $100,000 and imprisonment for up to 10 years. Finally, violations can result in exclusion from participation in government healthcare programs, including Medicare and Medicaid.

In addition to the Anti-Kickback Statute, many states have their own anti-kickback laws. Often, these laws closely follow the language of the federal law, although they do not always have the same exceptions or safe harbors. In some states, these anti-kickback laws apply with respect to all payers, including commercial health insurance companies.

Additionally, violations of the U.S. False Claims Act (the "False Claims Act") can result in significant monetary penalties and treble damages. The U.S. federal government utilizes the False Claims Act, and the accompanying threat of significant financial liability, to investigate and prosecute device and biotechnology companies in connection with the promotion of products for unapproved uses and other sales and marketing practices. The U.S. government has obtained multi-million and multi-billion-dollar settlements under the False Claims Act, in addition to individual criminal convictions under applicable criminal statutes. Given the U.S. government's success with prosecuting claims under the False Claims Act, we anticipate that the U.S. government will continue to devote substantial resources to investigating healthcare providers' and manufacturers' compliance with applicable fraud and abuse laws.

HIPAA includes federal criminal statutes that prohibit, among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors; knowingly and willfully embezzling or stealing from a healthcare benefit program; willfully obstructing a criminal investigation of a healthcare offense; and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

There has also been a recent trend of increased federal and state regulation of payments made to physicians and other healthcare providers. We are subject, for example, to the Physician Payments Sunshine Act, which requires us to annually report annually certain payments and other transfers of value we make to U.S. licensed physicians or U.S. teaching hospitals. Any failure to comply with such laws and regulations hold the potential for criminal and civil financial penalties.

The evolving commercial compliance environment and the need to build and maintain robust systems to comply with different compliance and/or reporting requirements in multiple jurisdictions increase the possibility that a healthcare company may violate one or more of the requirements. If our operations are found to be in violation of any of such laws or any other governmental regulations that apply to us, we may be subject to penalties, including, without limitation, civil and criminal penalties, damages, fines, the curtailment or restructuring of our operations, and exclusion from participation in federal and state healthcare programs, any of which could adversely affect our ability to operate our business and our financial results.

Environmental Health and Safety Laws

We are also subject to various environmental health and safety laws and regulations worldwide. Like other medical device companies, our manufacturing and other operations involve the use, storage and transportation of substances regulated under environmental health and safety laws, including those related to the transportation of hazardous substances. To the best of our knowledge at this time, we do not expect that compliance with environmental protection laws will have a material impact on our consolidated results of operations, financial position or cash flows.

Disclosure Pursuant to Section 13(r) of the Exchange Act of 1934

Section 13(r) of the Exchange Act requires issuers to disclose in their annual reports certain types of dealings with Iran, including transactions or dealing with government-owned entities, even when those activities are lawful and do not involve U.S. persons. One of our non-U.S. subsidiaries currently sells medical devices, including cardiac surgery and cardiopulmonary products, to privately held distributors in Iran to support patient care in that country.

We have limited visibility into the identity of these distributors' customers in Iran. It is possible that their customers include entities, such as government-owned hospitals or sub-distributors, that are owned or controlled directly or indirectly by the Iranian government. To the best of our knowledge at this time, we do not have any contracts or commercial arrangements with the Iranian government.

Our gross revenues and net profits attributable to the above-mentioned Iranian activities were $1.2 million and $0.2 million for the three months ended December 31, 2020, respectively, and $7.5 million and $2.5 million for the twelve months ended December 31, 2020, respectively.

We believe our activities are consistent with applicable law, including U.S., EU, and other applicable sanctions laws, though such laws are complex and continue to evolve rapidly. We intend to continue our business in Iran.

Human Capital Management

Our almost 4,000 employees worldwide are crucial in our mission to provide hope to our patients and their families through delivering life-changing medical innovation for the head and the heart. We retain, develop and reward exceptional talent to meet the needs of our patients and customers. We have been successful in doing so in a highly competitive labor market due, in large part, to our proactive recruitment strategies, competitive compensation and benefits, collaborative and rewarding work environment, professional training and development programs for managers and employees, and health and wellness measures.

Compensation and Benefits

Our Chief Human Resources Officer is responsible for developing and executing our human capital strategy, and our compensation and benefits programs are managed by our Global Total Rewards Centre of Excellence which sits within the Human Resources organization. We provide robust compensation and benefits programs. In addition to competitive salaries, these programs include, depending on jurisdiction, annual discretionary bonuses, stock awards, pension and health benefits, paid time off, flexible schedules and remote working, among others. To ensure alignment with fair pay standards, we monitor and benchmark our payment policies and practices to ensure that LivaNova continues to be a fair and diverse employer, free from discrimination. We also work closely with our trade unions and works councils to ensure that we are inclusive of the interests of our workers in our policies and decisions. The pandemic in 2020 inspired us to initiate a number of rapid responses in a quickly changing work environment to support our employees and managers in both a challenging business context as well as difficult personal circumstances.

Culture

Our mission seeks to link our employees to our five core values: patients first, meaningful innovation, act with agility, commitment to quality and integrity, and collaborative culture. We bring our mission to life through regular patient stories, monthly employee webcasts, regular senior leader forums, live employee sharing, plant tours with senior management, weekly Bite-Sized Learning and coaching for managers and employees. Most recently we launched the “Stars” program, an online employee recognition program which provides the opportunity to reward and acknowledge employees for delivering exceptional results and promoting our values, in real time.

These values are deeply embedded in our culture, from the Board of Directors and executive leadership team to our field personnel and manufacturing floor. Our values inspire our good citizenship and how we conduct our business responsibly and sustainably while interacting with our communities, employees and the environment. In that vein, LivaNova created the ESG Task Force in 2020, a cross-functional team of leaders focused on establishing a comprehensive program optimizing our environmental, social and governance efforts with full support from the executive team. The ESG Task Force updates the Nominating and Corporate Governance Committee at each of its quarterly meetings. Led by UN Global Compact Principles and Sustainable Development Goals, the team put a framework around the Company’s various ESG efforts and is implementing strategies to invest in LivaNova’s people and give back to the communities in which we live and work.

Training and Development

As part of our promotion and retention efforts, we provide annual performance reviews for all employees, primarily in the form of annual and mid-year activities, which involve an evaluation of goals and performance contributions. A portion of our employees, some of whom include operators involved in the direct production of our devices, receive performance feedback in a form and process tailored based on jurisdiction and local rules and regulations. LivaNova also offers regular performance management training, workshops and training in connection with our LivaNova Business System, which is our guide to excellence in how we operate and our framework to improve our business, day by day.

We also invest in ongoing leadership development by way of our Global Talent and Learning and Development group. In 2020, in connection with our annual Global Leadership Conference, we partnered with the NeuroLeadership Institute, hosting our top 130 leaders to foster deeper understanding of the Company’s vision, best practice sharing, collaboration, self-reflection, inclusive leadership, and resilience as the Company moves into 2021. In addition, we rolled out a deeper talent review and development assessment in 2020 for these leaders to better allow both the employee and the Company to understand needs and development possibilities in relation to our strategy and performance in leadership, considering success planning and the talent pipeline.

Finally, we offer internships and apprenticeships across functions around the globe which can, and do, lead to full-time employment. We believe in continuing education and development regardless of nationality and origin, which is why we partner with organizations to find new talent with hopes of welcoming future, full-time employees.

Mentoring & Women’s Networking

The LivaNova Women's Network (“LWN”), an organic, grassroots mentorship program, by women and for women, is in its third year of operation. The program facilitates pairings between mentors and mentees who meet on a regular basis. In 2020, the LWN consisted of 109 members: 37 mentees, 29 mentors and 43 alumni. This program continues to provide members with new perspectives, more personalized development, and an opportunity to network with other women across the organization, thereby contributing to a better corporate culture based on strong, collaborative relationships and continuous opportunities to grow and develop.

Diversity

At LivaNova, we actively seek out diverse perspectives at all levels of our organization. Accordingly, we closely monitor our diversity metrics. As of December 31, 2020, LivaNova had eleven members on the Board of Directors, of whom 27% are female and 73% are male. Similarly, the Executive Team at the end of 2020 consisted of eleven individuals, 27% of which are female and 73% male. Of LivaNova’s senior leadership team, which includes the executive team, vice presidents and directors, approximately 32% are women and 68% are men. Finally, as of December 31, 2020, LivaNova employed approximately 4,000 employees, 56% women and 44% men. Our bold new strategies for accelerating diversity begins with creating new ways to find extraordinary talent, and examples of our efforts include accurately mapping the talent market, creating job postings that attract highly qualified diverse candidates, expanding the diversity within our interview panels and guiding interviewers to conduct a fair interview process.

In addition, in October 2020, the Diversity, Inclusion and Belonging group was formed, with a mission to empower an environment where conversations of diversity and inclusion develop a culture of belonging. The employee-led, executive-sponsored initiative has expressed a commitment to build a network of LivaNova employees who embrace an open mindset with an appreciation of diverse experiences.

Health and Safety

Saving the lives of our patients starts with the care and well-being of our employees. In response to the COVID-19 pandemic, physical and mental health was at the forefront of our response. In April, we launched a global Healthy Habits campaign, encouraging hygienic habits for all to keep themselves, their families, their customers and their patients safe. We initiated significant changes during the year, allowing the majority of our people to work remotely, while implementing additional safety measures such as personal protective equipment and social distancing measures for essential employees on-site. We have pushed out regular “learning initiatives” to employees and leaders to encourage best practices while they work from home, and we upgraded and rolled-out in all our countries an extensive Employee Assistance Program, a confidential service offering employees and their dependents the support and guidance they need on almost any issues, including financial, psychological, family and/or wellness matters.

Seasonality

For both of our segments, the number of medical procedures incorporating our products is generally lower during the summer months, particularly in European countries, due to summer vacation schedules.

Available Information

Our executive headquarters are located at 20 Eastbourne Terrace, London, UK W2 6LG. Our website address is *www.livanova.com.* We make available free of charge on or through our website our Proxy Statements on Schedule 14A, Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, and reports relating to beneficial ownership of our securities filed or furnished pursuant to Section 16 of the Exchange Act, as soon as reasonably practicable after electronically filing such material with the SEC. Our website also contains the charters for each standing committee of our Board of Directors.

We may from time to time provide important disclosures to investors by posting them in the Investor Relations section of our website, as allowed by SEC rules. Information on our website is not incorporated into this Annual Report on Form 10-K.

The SEC also maintains a website at www.sec.gov that contains reports, proxy statements and other information about SEC registrants, including LivaNova.

Item 1A. *Risk Factors*

An investor should carefully consider the risks described below, as well as other information contained in this Annual Report on Form 10-K and in our other filings with the SEC. Based on the information currently known to us, we believe the following information identifies the most significant risks affecting us, but the risks and uncertainties included below are not the only ones

related to our businesses. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business.

Risks Relating to the Company

The global medical device industry is highly competitive and we may be unable to compete effectively.

We operate in a highly competitive market characterized by increasingly complex products that are expensive and time consuming to develop and manufacture. In the product lines in which we compete, we face a mixture of competitors ranging from large manufacturers with multiple business lines to small manufacturers that offer a limited selection of specialized products. Development by other companies of new or improved products, processes, or technologies, may make our products or proposed products less competitive. In addition, we face competition from providers of alternative medical therapies, such as pharmaceutical companies and providers of cannabis derived products, among others. Competitive factors include: product quality, reliability and performance; product technology; breadth of product lines and product services; ability to identify new market trends; customer support and training; price; capacity to recruit engineers, scientists and other qualified employees; and reimbursement approval from governmental payors and private healthcare insurance providers. Difficulties in any of these areas may cause our operations and financial condition to suffer.

In addition, many healthcare industry companies, including medical device companies, are consolidating to create new companies with greater market power. As the healthcare industry consolidates, competition to provide goods and services to industry participants will become more intense. These industry participants may try to use their market power to negotiate price concessions for medical devices that incorporate components we produce, or may be able to produce and sell their products at prices lower than we can. Increasing pricing pressures as a result of industry consolidation could have an adverse effect on our revenue, results of operations, financial position and cash flows.

Reductions or interruptions in the supply of the materials and components used in manufacturing our products may adversely affect our financial condition and business operations.

We maintain manufacturing operations in six countries located throughout the world and purchase many of the components and raw materials used in manufacturing these products from numerous suppliers in various countries. Any problem affecting a supplier (whether due to external or internal causes) could have a negative impact on us.

In limited cases, specific components and raw materials are purchased from primary or main suppliers (or in some cases, a single supplier) for reasons related to quality assurance, cost-effectiveness ratio and availability. While we work closely with our suppliers to ensure supply continuity, we cannot guarantee that our efforts will always be successful. Moreover, due to strict standards and regulations governing the manufacture and marketing of our products, we may not be able to locate new supply sources quickly or at all in response to a supply reduction or interruption, with negative effects on our ability to manufacture our products effectively and timely.

Our products are subject to costly and complex laws and regulations, and failure to obtain product approvals or clearance may materially adversely affect our financial condition and business operations.

Our medical devices and technologies, as well as our business activities, are subject to a complex set of regulations and rigorous enforcement, including by the FDA, U.S. Department of Justice, Health and Human Services - Office of the Inspector General, and numerous other federal, state, and non-U.S. governmental authorities. To varying degrees, each of these agencies requires us to comply with laws and regulations governing the development, testing, manufacturing, labeling, marketing and distribution of our products. As a part of the marketing clearance or approval process for new products and new indications for existing products, we conduct numerous clinical trials with a variety of study designs, patient populations and trial endpoints. Unfavorable or inconsistent clinical data from existing or future clinical trials, or the market's or FDA's perception of this clinical data, may adversely impact our ability to obtain product approvals, our position in, and share of, the markets in which we participate, and our business, financial condition, results of operations and cash flows. Nevertheless, success in pre-clinical testing and early clinical studies does not always ensure that later clinical studies will be successful, and we cannot be sure that later studies will replicate the results of prior studies. Clinical studies must also be conducted in compliance with Good Clinical Practice requirements administered by the FDA and other non-U.S. regulatory authorities, and global regulatory bodies may undertake enforcement action against us based on a failure to adhere to these requirements. Any delay or termination of our clinical studies will delay the filing of product submissions and, ultimately, our ability to commercialize new products or product modifications. It is also possible that patients enrolled in clinical studies will experience adverse side effects that are not currently part of the product's profile, which could inhibit further marketing and development of such products.

We cannot guarantee that we will be able to obtain or maintain marketing clearance for new products or modifications to existing products, and the failure to maintain approvals or obtain approval or clearance could have a material adverse effect on

our business, results of operations, financial condition and cash flows. Even if we are able to obtain approval or clearance, it may take a significant amount of time; require the expenditure of substantial resources; involve stringent clinical and pre-clinical testing, as well as increased post-market surveillance; and involve modifications, repairs or replacements of our products or limit the proposed uses of our products.

Failure to comply with product-related government regulations may materially adversely affect our financial condition and business operations.

Both before and after a product is commercially released, we have ongoing responsibilities under FDA and other applicable non-U.S. government agency regulations. For instance, many of our facilities and procedures and those of our suppliers are subject to periodic inspections by the FDA, which can result in inspectional observations on FDA's Form-483, warning letters, or other forms of enforcement. If the FDA were to conclude that we are not in compliance with applicable laws or regulations, or that any of our medical products are ineffective or pose an unreasonable health risk, the FDA could ban such medical products, detain or seize adulterated or misbranded medical products, order a recall, repair, replacement, or refund of such products, refuse to grant pending PMA applications or require certificates of non-U.S. governments for exports, and/or require us to notify health professionals and others that the devices present unreasonable risks of substantial harm to the public health. In 2015, we received a warning letter from the FDA alleging certain violations of FDA regulations, which resulted in certain devices that were manufactured in Munich, Germany, to be denied admission to the U.S. until resolution of the issues set forth by the FDA in the warning letter. See "Note 15. Commitments and Contingencies" in our consolidated financial statements included in this Annual Report on Form 10-K. While we continue to work diligently to remediate the FDA's inspectional observations, the FDA and other non-U.S. government agencies could assess civil or criminal penalties against us, our officers or employees and impose operating restrictions on a company-wide basis. The FDA could also recommend prosecution to the U.S. Department of Justice. An adverse regulatory action could restrict us from effectively marketing and selling our products, limit our ability to obtain future pre-market clearances or PMAs, and result in a substantial modification to our business practices and operations. These potential consequences, as well as any adverse outcome from government investigations, could have a material adverse effect on our business, results of operations, financial condition, and cash flows.

In addition, in the U.S., device manufacturers are prohibited from promoting their products other than for the uses and indications set forth in the approved product labeling (so called "off-label uses"). Our VNS Therapy System, for example, is indicated in the U.S., as an adjunctive therapy in reducing the frequency of seizures in patients 4 years of age and older with partial onset seizures that are refractory to antiepileptic medications, yet certain physicians elect to prescribe our device for certain patients suffering from generalized seizures. While physicians may exercise their discretion in prescribing a device off-label, any failure on the part of the device manufacturer to comply with off-label regulations could subject us to significant civil or criminal exposure, administrative obligations and costs, and/or other potential penalties from, and/or agreements with, the federal government.

Governmental regulations outside the U.S. have, and may continue to, become increasingly stringent and common. In the EU, for example, Reg MDR, which becomes effective in May 2021, includes significant additional premarket and post-market requirements. We have initiated a plan of action to obtain the appropriate approvals for our products and intend to be fully compliant prior to the May 2024 deadline. We have already received certificates for several platforms under the new MDR guidelines. Penalties for regulatory non-compliance could be severe, including fines and revocation or suspension of a company's business license, mandatory price reductions and criminal sanctions. Future laws and regulations may also have a material adverse effect on us.

If our marketed medical devices are defective or otherwise pose safety risks, the FDA and similar non-U.S. governmental authorities could require their recall or initiate an enforcement action, or we may initiate a recall of our products voluntarily.

The FDA and similar non-U.S. governmental authorities may require the recall of commercialized products in the event of material deficiencies or defects in design, software or manufacture or in the event that a product poses an unacceptable risk to health. Manufacturers, on their own initiative, may recall a product with a material deficiency. We have initiated voluntary product recalls in the past, and a future recall announcement could harm our reputation with customers and negatively affect our revenue.

Any recall could impair our ability to produce our products in a cost-effective and timely manner. In the future, we may initiate voluntary withdrawal, removal or repair actions that we determine do not require notification as a recall. If a regulating authority were to disagree with our determinations, it could require us to report those actions as recalls.

In addition, depending on the corrective action taken to redress a device's deficiencies or defects, regulators may require, or we may decide, that we need to obtain new approvals or clearances for the device before we market or distribute the corrected

device. Seeking such approvals or clearances may delay our ability to replace the recalled devices in a timely manner. Any corrective action, whether voluntary or involuntary, or litigation, will require the dedication of our time and capital, distract management from operating the business, and may harm our reputation and financial results. Moreover, if we do not adequately address problems associated with our devices, we may face additional regulatory enforcement action, including FDA warning letters, product seizure, injunctions, administrative penalties, or civil or criminal fines.

As a manufacturer of medical devices, we will continue to be exposed to product liability claims that could adversely affect our consolidated financial condition and tarnish our reputation.

Many of the medical devices we manufacture and sell are designed to be implanted in the human body for long periods of time, and this exposes us to potential product liability risks that are inherent in the design, manufacture and marketing of such medical devices. Component failures, manufacturing defects, design flaws or inadequate disclosure of product-related risks or product-related information with respect to these or other products we manufacture or sell could result in an unsafe condition or injury to, or death of, a patient. Such an event could result in product liability claims or a recall of, or safety alert relating to, one or more of our products. We have elected to self-insure with respect to a significant portion of our product liability risks and also hold global insurance policies to cover a portion of future potential losses. Product liability claims or product recalls in the future, regardless of their ultimate outcome, could have a material adverse effect on our business and reputation and on our ability to attract and retain customers for our products, and losses from product liability claims in the future could exceed our product liability insurance coverage and lead to a material adverse effect on our financial condition. In addition, future unanticipated large liability claims may raise substantial doubt about our ability to continue as a going concern.

As described in “Note 15. Commitments and Contingencies” in our consolidated financial statements included in this Annual Report on Form 10-K, we are involved in various product liability litigation matters that may adversely affect our financial condition and may require us to devote significant resources to our defense of these claims.

Such litigation includes a federal multi-district litigation in the U.S. District Court for the Middle District of Pennsylvania and cases in various state courts and jurisdictions outside the U.S. relating to our cardiopulmonary 3T Heater-Cooler product. As of March 1, 2021, we are aware of approximately 85 filed and unfiled claims worldwide, with the majority of the claims filed in various federal or state courts throughout the U.S. The number includes cases that have settled but have not yet been dismissed. The complaints generally seek damages and other relief based on theories of strict liability, negligence, breach of express and implied warranties, failure to warn, design and manufacturing defect, fraudulent and negligent misrepresentation/concealment, unjust enrichment and violations of various state consumer protection statutes. During the year ended December 31, 2018, we recognized a $294.1 million litigation provision and during the years ended December 31, 2019 and December 31, 2020 we recognized $33.2 million and $3.9 million in additional litigation provisions related to these claims. Although we are defending these matters vigorously, we cannot predict the outcome or effect of any claim or other litigation matter.

Global healthcare policy changes and tightening of reimbursement for products may have a material adverse effect on us.

In response to increases in healthcare costs, there have been and continue to be proposals by governments, regulators and third-party payors to control these costs. These proposals have resulted in efforts to enact healthcare system reforms that may lead to pricing restrictions, limits on the amounts of reimbursement available for our products and could limit the acceptance and use of our products. Our ability to commercialize our products is dependent, in large part, on whether third-party payors, including private healthcare insurers, managed care plans, governmental programs and others agree to cover the costs and services associated with our products and related procedures in the U.S. and internationally. Similarly, periodic changes to reimbursement methodologies could have an adverse impact on our business. Adoption of some or all of such healthcare policy and reimbursement proposals could have a material adverse effect on our financial position and results of operations.

Our failure to comply with rules relating to reimbursement of healthcare goods and services, healthcare fraud and abuse, false claims and other applicable laws or regulations may subject us to penalties and adversely impact our reputation and business operations.

Our devices and therapies are subject to regulation by various governmental agencies worldwide responsible for coverage, reimbursement and regulation of healthcare goods and services, including laws and regulations related to kickbacks, false claims, self-referrals and health care fraud. Any failure to comply with these laws and regulations could subject us or our officers and employees to criminal and civil financial penalties.

The risk of being found in violation of these laws is increased by the fact that many of them have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations. Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available under such laws, it is possible that some of our business activities, including our relationships with surgeons and other healthcare providers, some of whom recommend,

purchase and/or prescribe our devices, group purchasing organizations and our independent sales agents and distributors, could be subject to challenge under one or more of such laws.

Cyber-attacks or other disruptions to our information technology systems could lead to reduced revenue, increased costs, liability claims, fines, harm to our competitive position and loss of reputation.

We are increasingly dependent on our information technology systems and those of third parties to operate our business, and certain products of ours include integrated software and information technology. COVID-19 has exacerbated such dependencies due to the challenges in managing such a vast population working remotely. We rely on information technology systems to collect and process customer orders, manage product manufacturing and shipping and support regulatory compliance, and we routinely process, store and transmit large amounts of data, including sensitive personal information, patient health information and confidential business information. The secure processing, maintenance and transmission of this information is critical to our operations but the size and complexity of our products and the information technology systems on which we rely make them vulnerable to cyber-attacks, breakdown, interruptions, destruction, loss or compromise of data, obsolescence or incompatibility among systems or other significant disruptions. Unauthorized persons routinely attempt to access our products or systems in order to disrupt, disable or degrade such products or services, to obtain proprietary or confidential information, or to remotely disrupt or access the systems of large health care providers by exploiting our products or systems. We maintain an information security risk insurance policy and continue to enhance our information security programs. While we have not fallen victim to any material cyber-attacks, such an incident could compromise our networks and the information stored there could be accessed, publicly disclosed, lost or stolen. Further, the negative publicity resulting from such disruptions could significantly impact our reputation and stock price.

In addition, we continue to grow, in part, through new business acquisitions. As a result of acquisitions, we may face risks due to implementation, modification, or remediation of controls, procedures and policies relating to data privacy and cybersecurity at the acquired company. We continue to consolidate and over time integrate the number of systems we operate, and to upgrade and expand our information system capabilities for stable and secure business operations. There can be no assurance that our process of consolidating, protecting, upgrading and expanding our systems and capabilities, continuing to build security into the design of our products, and developing new systems to keep pace with continuing changes in information processing technology will be successful or that additional systems issues will not arise in the future. Any significant breakdown, intrusion, interruption, corruption or destruction of these systems, as well as any data breaches, could have a material adverse effect on our business.

Recently, there has been heightened regulatory and enforcement focus on data protection in the U.S. (at both the state and federal level) and abroad, and an actual or alleged failure to comply with applicable U.S. or foreign data protection regulations or other data protection standards may expose us to litigation (including, in some instances, class action litigation), fines, sanctions or other penalties, which could harm our reputation and adversely impact our business, results of operations and financial condition. This regulatory environment is increasingly challenging and may present material obligations and risks to our business, including significantly expanded compliance burdens, costs and enforcement risks. If we are unable to maintain secure, reliable information technology systems and prevent data breaches, we may suffer legal and regulatory consequences in addition to business consequences. Our worldwide operations mean that we are subject to federal and state data protection and cyber-security laws and regulations in many jurisdictions. For example, if we are in breach of the GDPR's or CCPA's requirement that we ensure a level of security, both in terms of technology and other organizational measures, appropriate to the risk that the confidentiality, integrity or availability of personally identifiable data is compromised, we could be subject to fines and enforcement actions. Violations of GDPR can result in fines of as much as 4% of a company's annual revenue. Other governments have enacted or are enacting similar data protection laws, including data localization laws that require data to stay within their borders. Despite programs to comply with such laws and regulations and cyber insurance policy, there is no guarantee that we will avoid enforcement actions by governmental bodies. Enforcement actions may be costly and interrupt regular operations of our business. In addition, there is a trend of civil lawsuits and class actions relating to breaches of consumer data or other cyber-attacks pursuant to laws such as CCPA. While we have not been named in any such lawsuits, if a breach or loss of data occurs, we could become a target of civil litigation or government enforcement actions.

Quality problems with our processes, goods, and services could harm our reputation for producing high-quality products and erode our competitive advantage, sales, and market share.

Quality is extremely important to us and our customers due to the serious and costly consequences of product failure. Our quality certifications are critical to the marketing success of our goods and services. If we fail to meet these standards, our reputation could be damaged, we could lose customers, and our revenue and results of operations could decline. Aside from specific customer standards, our success depends generally on our ability to manufacture precision-engineered components, sub-assemblies, and finished products to exact tolerances and from multiple materials. If our components fail to meet these

standards or fail to adapt to evolving standards, our reputation as a manufacturer of high-quality components will be harmed, our competitive advantage could be damaged, and we could lose customers and market share.

Our R&D efforts rely on investments and investment collaborations, and we cannot guarantee that any previous or future investments or investment collaborations will be successful.

Our strategy to provide a broad range of therapies to restore patients to fuller, healthier lives requires a wide variety of technologies, products and capabilities. The rapid pace of technological development in the medical industry and the specialized expertise required in different areas of medicine make it difficult for one company alone to develop a broad portfolio of technological solutions. As a result, we also rely on investments and investment collaborations to provide us access to new technologies both in areas served by our existing or legacy businesses as well as in new areas.

We expect to make future investments where we believe that we can stimulate the development of, or acquire new technologies and products to further our strategic objectives and strengthen our existing businesses. Investments and investment collaborations in and with medical technology companies are inherently risky, and we cannot guarantee that any of our previous or future acquisitions, investments or investment collaborations will be successful or will not materially adversely affect our consolidated earnings, financial condition or cash flows.

We are substantially dependent on patent and other proprietary rights and failing to protect such rights or to be successful in litigation related to our rights or the rights of others may result in our payment of significant monetary damages and/or royalty payments, negatively impact our ability to sell current or future products, or prohibit us from enforcing our patent and other proprietary rights against others.

We rely on a combination of patents, trade secrets, and non-disclosure and non-competition agreements to protect our proprietary intellectual property, and we will continue to do so. We operate in an industry characterized by extensive patent litigation, and intellectual property litigation is inherently complex and unpredictable. We are currently engaged in litigation where the plaintiffs' counsel asserts that our VNS Therapy System, when used with the SenTiva Model 1000 generator, infringes the claims of U.S. Patent No. 7,076,307. While the litigation has been stayed pending the outcome of an *inter partes review* with the Patent Trial and Appeal Board of the U.S. Patent and Trademark Office, such litigation can result in significant damage awards and injunctions that could prevent our manufacture and sale of affected products or require us to pay significant royalties in order to continue to manufacture or sell affected products. While we intend to defend against any threats to our intellectual property, these patents, trade secrets, or other agreements may not adequately protect our intellectual property. See "Note 15. Commitments and Contingencies" in our consolidated financial statements included in this Annual Report on Form 10-K.

Further, pending patent applications may not result in patents being issued to us. Patents issued to or licensed by us in the past or in the future may be challenged or circumvented by competitors and such patents may be found invalid, unenforceable or insufficiently broad to protect our technology and may limit our competitive advantage. Third parties could obtain patents that may require us to negotiate licenses to conduct our business, and the required licenses may not be available on reasonable terms or at all. We also rely on non-disclosure and non-competition agreements with certain employees, consultants and other parties to protect, in part, trade secrets and other proprietary rights. We cannot be certain that these agreements will not be breached, that we will have adequate remedies for any breach, that others will not independently develop substantially equivalent proprietary information, or that third parties will not otherwise gain access to our trade secrets or proprietary knowledge.

In addition, the laws and intellectual property systems of certain countries in which we market some of our products do not protect our intellectual property rights to the same extent as in the U.S., which may impact our market position in those countries. If we are unable to protect our intellectual property in those countries, it could have a material adverse effect on our business, financial condition, cash flows and reputation.

We are subject to environmental laws and regulations and the risk of environmental liabilities, violations and litigation in multiple jurisdictions.

Our operations involve the use of substances regulated under environmental laws, primarily those used in manufacturing and sterilization processes in the various jurisdictions where we operate. In addition, certain environmental laws assess liability on current, prior and/or related owners or operators of real property for the costs or investigation, removal or remediation of hazardous substances at their properties or at properties on which they have disposed of hazardous substances, for example, our Saluggia campus contains hazardous substances as a result of nuclear installations, built in 1960 under previous ownership, and the Italian Government has stated that we will eventually be responsible for dismantling the nuclear installation on Company property, which will involve cleaning and dismantling contaminated buildings and equipment as well as delivering the aforementioned waste to a national repository. Similarly, a governmental authority may seek to hold us liable for successor liability violations committed by any companies in which we invest or that we acquire as described in "Note 15. Commitments

and Contingencies" in our consolidated financial statements included in this Annual Report on Form 10-K. We are currently awaiting a decision by the Court of Appeals and Supreme Court in Italy regarding Sorin/LivaNova's liability with SNIA S.p.A ("SNIA") at chemical sites previously operated by SNIA the former parent of Sorin, which was spun off in 2004 and merged into Cyberonics, Inc. to become LivaNova. A negative decision could be judged to have material liability for damages and environmental cleanup. See "Note 15. Commitments and Contingencies" in our consolidated financial statements included in this Annual Report on Form 10-K.

In addition to cleanup actions brought by governmental authorities, private parties could bring personal injury or other claims due to the presence of, or exposure to, hazardous substances. The ultimate cost of site cleanup and timing or future cash outflows is difficult to predict, given the uncertainties regarding the extent of the required cleanup and the interpretation of applicable laws and regulations. The costs of complying with current or future environmental protection and health and safety laws and regulations, or liabilities arising from past or future releases of, or exposures to, hazardous substances, may exceed our estimates, or have a material adverse effect on our business, results of operations, financial condition and cash flows.

We are subject to the risks of conducting business internationally.

We develop, manufacture, distribute and sell our products globally and we intend to continue to pursue growth opportunities worldwide. Our international operations are subject to risks that are inherent in conducting business overseas and under non-U.S. laws, regulations and customs. These risks include possible nationalization, negative consequences associated with Brexit, expropriation, importation limitations, pricing restrictions, government shutdowns and violations of laws. Our profitability and operations are, and will continue to be, subject to a number of risks and potential costs, including: local product preferences and product requirements; longer-term receivables than are typical in the EU or the U.S.; difficulty enforcing agreements; creditworthiness of customers; trade protection measures and import and export licensing requirements; different labor regulations and workforce instability; higher danger of terrorist activity, war or civil unrest; selling our products through distributors and agents; political and economic instability; and the risks further described below in the section entitled "*The failure to comply with anti-bribery laws could materially adversely affect our business and result in civil and/or criminal sanctions.*"

Consolidated financial statements are prepared in our functional currency, while the financial statements of each of our subsidiaries are prepared in the functional currency of that entity. For transactions we enter into denominated in currencies other than our functional currencies, fluctuations in the exchange rate will impact our results of operations and financial condition. Although we may elect to hedge certain foreign currency exposure, we cannot be certain that the hedging activity will eliminate our currency risk.

In addition, in many of the countries where we operate, employees are covered by various laws and/or collective bargaining agreements that endow them, through their local or national representatives, with the right to be consulted in relation to specific issues, including the downsizing or closing of departments and staff reductions. The laws and/or collective bargaining agreements that are applicable to these agreements could have an impact on our flexibility, as they apply to programs to redefine and/or strategically reposition our activities. Our ability to implement staff downsizing programs or even temporary interruptions of employment relationships is predicated on the approval of government entities and the consent of labor unions. A negative response from a works council or union-organized work stoppages by employees could have a negative impact on our business.

COVID-19 has had, and we expect will continue to have, an adverse effect on our business, results of operations, financial condition and cash flows, the nature and extent of which are uncertain and unpredictable.

The continuing global spread of COVID-19 and its variants, including corresponding preventative and precautionary measures that we and other businesses, communities and governments are taking to mitigate the spread of the disease, has led to unprecedented restrictions on, disruptions in, and other related impacts on business. COVID-19 is affecting our employees, customers, facilities, communities and business operations, as well as the global economy and financial markets. As the COVID-19 crisis continues to evolve, the full extent to which the COVID-19 pandemic will impact our business, results of operations, financial condition and liquidity will depend on future developments that are highly uncertain and cannot be accurately predicted. In addition to travel restrictions put in place in early 2020, countries, states and governments may continue to close borders, impose prolonged quarantines or other restrictions and requirements on travel, and further limit our ability to conduct business in-person as we did prior to COVID-19.

Our sales and operating results for the year ended December 31, 2020 were materially adversely impacted. While we are seeing signs of stabilization in certain geographies as elective surgeries resume and expect this trend to continue on a global basis for 2021, recovery rates vary and the ultimate health and economic impact of COVID-19 is uncertain. In certain geographies, hospital systems continue to prioritize treatment of COVID-19 patients and otherwise comply with government

guidelines, thereby resulting in the suspension or cancellation of elective medical procedures, which has caused a reduction in sales of these products. To the extent individuals and hospital systems continue to de-prioritize, delay or cancel these procedures, or if unemployment or loss of insurance coverage adversely impacts an individual's ability to pay for our products and services, our business, cash flows, financial condition and results of operations will continue to be negatively affected. Further, the COVID-19 pandemic is straining hospital systems around the world, resulting in adverse financial impacts to those systems that could result in reduced future expenditures for our products. Clinical trials generally have paused or slowed enrollment due to facility closures and governmental restrictions, which will delay enrollment and timelines, and although many facilities have begun to reopen, there can be no assurance that there will not be additional closures in the future.

For additional information, see "Recent Developments Regarding COVID-19" within "Note 1. Nature of Operations" and "COVID-19" under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" below.

All of our manufacturing plants have been able to remain open during COVID-19. In addition, the supply of raw materials and the distribution of finished products remain operational with no known or foreseen constraints. Regardless, there can be no assurance that any of our facilities will not need to shut down in the future, or that the supply of components, raw materials, and services may be interrupted or insufficient as a direct result of the COVID-19 pandemic. Any disruption of our operations or those of our suppliers could impact our sales and operating results.

In addition, COVID-19 has impacted and may further impact the global economy and capital markets, including by negatively impacting demand for our products and foreign currency exchange rates, each of which may adversely impact our business. Further, the COVID-19 pandemic, and the volatile global economic conditions stemming from the pandemic, could precipitate or amplify the other risk factors that we identify here. We could experience loss of sales and profits due to delayed payments or insolvency of healthcare professionals, hospitals and other customers, suppliers and vendors facing liquidity issues. As a result, we may be compelled to take additional measures to preserve our cash flow.

Finally, COVID-19 could adversely impact our ability to retain key employees and the continued service and availability of skilled personnel necessary to run our productions and operations, including our executive officers and other members of our management team, as well as the ability of our third-party suppliers, manufacturers, distributors and vendors to retain their key employees. To the extent our management or other personnel are impacted in significant numbers by COVID-19 and are not available to perform their job duties, we could experience delays in, or the suspension of, our manufacturing operations, research and product development activities, regulatory work streams, clinical development programs and other important commercial functions.

While the impact of COVID-19 has had, and we expect it to continue to have, an adverse effect on our business, results of operations, financial condition and cash flows, the nature and extent of such impact is uncertain and unpredictable. For more information on the impact of COVID-19 on the Company and LivaNova's mitigation measures, please refer to "Recent Developments Regarding COVID-19" within "Note 1. Nature of Operations," "COVID-19" under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

The failure to comply with anti-bribery laws could materially adversely affect our business and result in civil and/or criminal sanctions.

Our operations are subject to anti-corruption laws, including the UK Bribery Act, FCPA and other anti-corruption laws that apply in countries where we do business, that generally prohibit us and our employees and intermediaries from bribing, being bribed or making other prohibited payments to government officials or other persons to obtain or retain business or gain some other business advantage. Because of the predominance of government-administered healthcare systems in many parts of the world outside the U.S., many of our customer relationships are potentially subject to such laws.

We are, therefore, exposed to the risk that our employees, independent contractors, principal investigators, consultants, vendors, independent sales agents and distributors may engage in fraudulent or other illegal activity in violation of these laws and our Code of Conduct. It is not always possible to identify and deter misconduct by our employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations.

Global enforcement of anti-corruption laws has increased substantially in recent years, with more frequent voluntary self-disclosures by companies, aggressive investigations and enforcement proceedings by governmental agencies, and assessment of significant fines and penalties against companies and individuals. We cannot predict the nature, scope or effect of future regulatory requirements to which our international operations might be subject or the manner in which existing laws might be administered or interpreted. Any alleged or actual violations of these regulations may subject us to government scrutiny, severe

criminal or civil sanctions and other liabilities, including exclusion from government contracting or government healthcare programs, and could negatively affect our business, reputation, operating results and financial condition.

Our inability to integrate recently acquired businesses or to successfully complete and integrate future acquisitions could limit our future growth or otherwise be disruptive to our ongoing business.

From time to time, we acquire businesses and expect to pursue acquisitions in support of our strategic goals. There can be no assurance that acquisition opportunities will be available on acceptable terms or at all, or that we will be able to obtain necessary financing or regulatory approvals to complete potential acquisitions. The success of any acquisition, investment or alliance may be affected by a number of factors, including our ability to properly assess and value the potential business opportunity or to successfully integrate any businesses we may acquire into our existing business. The integration of the operations of acquired businesses requires significant efforts, including the coordination of information technologies, human resources, R&D, sales and marketing, operations, manufacturing, legal, compliance and finance. These efforts result in additional expenses and involve significant amounts of management's time that cannot then be dedicated to other projects. Failure to manage and coordinate the growth of the combined company successfully could also have an adverse impact on our business. In addition, we cannot be certain that our investments, alliances and acquired businesses will become profitable or remain so. If our investments, alliances or acquisitions are not successful, we may incur costs in excess of what we anticipate.

We may incur impairments of intangible assets and goodwill, primarily acquired in acquisitions, including the merger between Sorin and Cyberonics, that adversely affect our financial results.

As of December 31, 2020, the carrying value of our net intangible assets and goodwill totaled $1.4 billion, which represents 56.4% of our total assets. As of December 31, 2019, the carrying value of our net intangible assets and goodwill totaled $1.5 billion, which represented 63.2% of our total assets. During the year ended December 31, 2020, we entered into a Purchase Agreement for the divestiture of certain of LivaNova's subsidiaries as well as certain other assets and liabilities relating to the Company's Heart Valve business that resulted in an impairment of the Heart Valves disposal group of $180.2 million and a $21.3 million impairment to the goodwill associated with our Cardiovascular reporting unit. During the year ended December 31, 2019, we determined that the In Process Research and Development ("IPR&D") asset relating to ImThera was impaired and as a result, recorded an impairment of $50.3 million, and we also fully impaired the goodwill and the IPR&D asset associated with the discontinuation of the Caisson business by recording a $42.4 million impairment to goodwill and a $89.0 million impairment to the IPR&D asset.

We review, when circumstances warrant, the carrying amounts of our intangible assets to determine whether those carrying amounts continue to be recoverable in accordance with U.S. generally accepted accounting principles. Significant negative industry or economic trends, disruptions to our businesses, significant unexpected or planned changes in the use of assets, divestitures and market capitalization declines, among other events, may result in impairments to goodwill and other intangible assets. Current impairments have significantly affected our financial results and future impairments could significantly affect reported financial results.

The closing of the proposed sale of our Heart Valves business is subject to a number of conditions to closing, and may not be completed in accordance with expected plans, on the currently contemplated timeline, or at all.

On December 2, 2020, we entered into a Purchase Agreement with Mitral, a company incorporated under the laws of Luxembourg and wholly owned and controlled by funds advised by Gyrus Capital S.A., a Swiss private equity firm, which provides for the divestiture of certain of LivaNova's subsidiaries as well as certain other assets and liabilities relating to the Company's Heart Valve business (other than the Company's Heart Valve business in France) and site management operations conducted by the Company's subsidiary LSM at its Saluggia campus.

LivaNova and Gyrus are currently discussing amending the purchase agreement to address possible impediments to transferring LSM as contemplated by the Purchase Agreement. If such an amendment can be agreed, it might include delaying such transfer, or separating it from the scope of the Purchase Agreement. If the sale of LSM is not consummated, the Company will retain ownership of LSM, together with any of its liabilities involving certain hazardous substances relating to former operations at its Saluggia campus.

Although LivaNova and Gyrus have advised each other that they remain committed to completing the purchase and sale of LivaNova's Heart Valves business, there can be no assurances that the parties will reach agreement on the terms of any such amendment. In addition, while the Company continues to believe that the initial closings under the Purchase Agreement, which may exclude LSM, will occur in the first half of 2021, the divestiture is subject to a number of closing conditions that are beyond our control, and there can be no assurance that the conditions to the divestiture of LSM or the Heart Valves business will be satisfied or that any such divestiture will occur in accordance with expected plans, on the currently contemplated timeline or at all.

The success and continuing development of our products depend on maintaining strong relationships with physicians and healthcare professionals.

If we fail to maintain our working relationships with physicians and other healthcare professionals, our products may not be developed and marketed in line with the needs and expectations of the professionals who use and support our products. Physicians assist us as researchers, marketing consultants, product consultants, inventors and public speakers, and we rely on these professionals to provide us with considerable knowledge and experience. If we are unable to maintain these strong relationships, the development and marketing of our products could suffer, which could have a material adverse effect on our consolidated financial condition and results of operations.

Inadequate funding for U.S. federal government agencies and government shutdowns could negatively affect our business, results of operations and financial condition.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel, government shutdowns and statutory, regulatory and policy changes.

In addition, a portion of our revenue is dependent on U.S. federal government healthcare program reimbursement. Any disruption in U.S. federal government operations, including government shutdowns, could have a material adverse effect on our business, results of operations and financial condition.

We may experience volatility in the trading price of our shares due to fluctuations in our quarterly operating results or other factors.

We experienced volatility in the trading price of our shares during 2019 and 2020, including following the pre-release of our earnings for the first quarter in 2019 as well as during COVID-19 in 2020. In the future, our operating results may vary significantly from quarter to quarter due to many factors, including factors beyond our control, which may cause further volatility in the trading price of our shares. A number of other factors may also cause future volatility in our stock price, including the items discussed in this "Item 1A. *Risk Factors*."

Shareholder activists could cause a disruption to our business.

In mid-October 2020, an activist investor indicated its concerns with, among other things, our capital allocation, reporting transparency within our sub-segments, and corporate governance and leadership. In the future, our business, operating results or financial condition could be adversely affected because activist proposals can be a significant distraction for our Board of Directors, management and employees and may require us to expend significant time and resources. Shareholder activists may create uncertainty for our employees, investors and customers, additional risk and uncertainties with respect to our financial position, operations, strategies and management, and may adversely affect our ability to attract and retain key employees. Any perceived uncertainties as to our future direction also may affect the market price and volatility of our securities.

Risks Related to our Term Loan and Notes

Paying amounts due in cash in respect of our outstanding Term Loan and Notes on interest payment dates, at maturity and upon exchange thereof will require a cash payment. We may not have sufficient cash flow from our business to pay when due, or raise the funds necessary to pay when due, amounts owed in respect of the Notes and Term Loan, which could adversely affect our business and results of operations.

The ability to make scheduled payments of interest on, and principal of, to satisfy exchanges for cash in respect of, and/or to refinance, our outstanding Notes and Term Loan depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. If we are unable to generate enough cash flow to make payments on the Notes and Term Loan when due, we may be required to adopt one or more alternatives, such as selling assets or obtaining additional debt financing or equity capital on terms that may be onerous or highly dilutive. Our ability to refinance the Notes and Term Loan, which we may need to do in order to satisfy our obligations thereunder, will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on the Notes and Term Loan.

The holders of the Notes have the right to require us to repurchase their Notes upon the occurrence of a fundamental change (as defined in the indenture governing the Notes (the "Indenture")) at a repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid interest, if any. Upon repurchase of the Notes, we will be required to make cash payments as required by the Indenture. We may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of, or exchange of, the Notes for cash. Our failure to repurchase the Notes or

exchange the Notes for cash at a time when the repurchase or exchange is required by the Indenture governing the Notes would constitute a default under such Indenture.

In addition, our indebtedness on the Notes and Term Loan, combined with our other financial obligations and contractual commitments, could have other important consequences. For example, it could:

- Make us more vulnerable to adverse changes in government regulation and in the worldwide economic, industry and competitive environment;
- Limit our flexibility in planning for, or reacting to, changes in our business and our industry;
- Place us at a disadvantage compared to our competitors who have less debt;
- Limit our ability to borrow additional amounts to fund acquisitions, for working capital and for other general corporate purposes; and
- Make an acquisition of the Company less attractive or more difficult.

Any of these factors could harm our business, results of operations and financial condition. In addition, if we incur additional indebtedness, the risks related to our business and our ability to repay our indebtedness on the Notes and Term Loan would increase.

The conditional exchange features of the Notes and contingent embedded features of the Term Loan, when triggered, may adversely affect our liquidity and operating results.

If the conditional exchange feature of the Notes is triggered, holders of Notes are entitled to exchange the Notes at any time during specified periods, at their option. Holders of the Notes for example, are entitled to exchange the Notes during any calendar quarter, if the last reported sale price of LivaNova's ordinary shares, with a nominal value of £1.00 per share for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the exchange price – the exchange price being $60.98 per share and the "conversion trigger" (subject to other conditions per the Indenture) being $79.27 per share – on each applicable trading day. If holders elect to exchange their Notes during future periods following the satisfaction of an exchange condition as laid out in the Indenture, we would be required to settle our exchange obligation through the payment of cash, which could adversely affect our liquidity. In addition, if the contingent embedded features of the Term Loan are triggered, or if the Notes become redeemable due to the satisfaction of an exchange condition, then we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal amounts as a current rather than long-term liability, which would result in a material reduction of our net working capital.

Our debt instruments require us to comply with affirmative covenants and specified financial covenants and ratios and other obligations.

Certain restrictions and covenants in our debt instruments could affect our ability to operate and may limit our ability to react to market conditions or to take advantage of potential business opportunities as they arise. For example, such restrictions could adversely affect our ability to finance our operations, make strategic acquisitions, investments or alliances, restructure our organization or finance capital needs. Additionally, our ability to comply with these covenants and restrictions may be affected by events beyond our control, such as prevailing economic, financial, regulatory and industry conditions. If any of these restrictions or covenants is breached, we could be in default under one or more of our debt instruments, which, if not cured or waived, for example, per recently executed amendments relating to our term loan and revolving credit facility, could result in acceleration of the indebtedness under such agreements and cross defaults under our other debt instruments. (For more information on these amendments, please refer to "Note 12. Financing Arrangements.") In addition, under certain of our debt instruments, obligations under any non-appealable judgements or settlements in litigation matters in excess of $50 million in any one year are required to be paid with the proceeds of junior debt or equity financing in order to avoid triggering an event of default. Any such actions or failure to comply with such obligations could result in the enforcement of our lenders' security interests and/or force us into bankruptcy or liquidation, which could have a material adverse effect on our financial condition and results of operations.

The accounting for the Notes will result in LivaNova having to recognize interest expense significantly greater than the stated interest rates of the Notes and may result in volatility to our reported financial results, which could adversely affect the price at which our ordinary shares trade.

We will settle exchanges of the Notes entirely in cash. Accordingly, the exchange feature that is part of the Notes is accounted for as a derivative pursuant to accounting standards relating to derivative instruments. This resulted in an initial valuation of the exchange feature, which was bifurcated from the debt component of the Notes, resulting in an original issue

discount. The original issue discount is amortized and recognized as a component of interest expense over the term of the Notes, which results in an effective interest rate reported in our consolidated statements of operations in excess of the stated interest rate of the Notes. Although this accounting treatment does not affect the amount of cash interest paid to holders of the Notes or our cash flows, it reduces our earnings and could adversely affect the price at which our ordinary shares trade.

Additionally, for each financial statement period after issuance of the Notes, a derivative gain or loss is and will be reported in our consolidated statements of income (loss) to the extent the valuation of the exchange feature changes from the previous period. The capped call transactions described below and elsewhere in this annual report are also accounted for as derivative instruments. The valuation of the exchange feature of the Notes and capped call transactions utilizes significant observable and unobservable market inputs, including stock price, stock price volatility, risk-free interest rate, and time to expiration of the Notes. The change of inputs at period end from the previous period may result in a material change of the valuation and the gain or loss resulting from the exchange feature of the Notes and capped call transactions may not completely offset each other. As such, there may be a material net impact to our consolidated statements of operations, which could adversely affect the price at which our ordinary shares trade.

The arbitrage or hedging strategy by purchasers of the Notes and Option Counterparties in connection with our capped call transactions may affect the value of our ordinary shares.

We expect that many investors in, and potential purchasers of the Notes will employ, or seek to employ, an arbitrage strategy with respect to the Notes. Investors would typically implement such a strategy by selling short our ordinary shares underlying the Notes and dynamically adjusting their short position while continuing to hold the Notes. Investors may also implement this type of strategy by entering into swaps on our ordinary shares in lieu of or in addition to selling short our ordinary shares. This activity could decrease (or reduce the size of any increase in) the market price of our ordinary shares at that time.

In connection with the pricing of the Notes, we entered into privately negotiated capped call transactions with certain financial institutions (the "Option Counterparties"). The capped call transactions are expected generally to offset cash payments due upon exchange of the Notes in excess of the principal amount thereof in the event that the market value per ordinary share of the Company is at the time of exchange of the Notes greater than the strike price under the capped call transactions, with such offset subject to a cap based on the cap price. We understand the Option Counterparties, or their respective affiliates, in connection with establishing their initial hedges of the capped call transactions, purchased our ordinary shares and/or entered into various derivative transactions with respect to our ordinary shares concurrently with or shortly after the pricing of the Notes. The Option Counterparties or their respective affiliates may modify these initial hedge positions by entering into or unwinding various derivatives with respect to our ordinary shares and/or purchasing or selling our ordinary shares or other securities of ours in secondary market transactions prior to the maturity of the Notes (and are likely to do so during any observation period related to an exchange of the Notes or upon a repurchase or redemption of the Notes). This activity could cause or avoid an increase or decrease in the market price of our ordinary shares at that time.

We are subject to counterparty risk with respect to the capped call transactions.

The Option Counterparties are financial institutions, and we are subject to the risk that they might default under the capped call transactions. Our exposure to the credit risk of the Option Counterparties is not secured by any collateral.

If an Option Counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings, with a claim equal to our exposure at that time under the capped call transactions with that Option Counterparty. Our exposure will depend on many factors but, generally, an increase in our exposure will be correlated to an increase in the market price and in the volatility of our ordinary shares. In addition, upon a default by an Option Counterparty, we may suffer adverse tax consequences and may, on a net basis, have to pay more cash to settle exchanges of the Notes. We can provide no assurances as to the financial stability or viability of the Option Counterparties.

Risks Relating to Tax and Our Jurisdiction of Incorporation

Changes in tax laws or exposure to additional income tax liabilities could have a material impact on our financial condition and results of operations.

We are subject to income taxes as well as non-income based taxes in the U.S., the UK, the EU and various other jurisdictions. No assurances can be given as to what our worldwide effective corporate tax rate will be because of, among other things, uncertainty regarding the tax regulations and laws, enactment and enforceability thereof and policies of the jurisdictions where we operate. Our actual effective tax rate may vary from our expectations or from historical trends and that variance may be material. Our effective tax rates could be affected by changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities or changes in tax laws or their interpretation. We are also subject to ongoing tax audits in various non-U.S. jurisdictions. Tax authorities may disagree with certain positions we have

taken and assess additional taxes. We believe that our accruals reflect the probable outcome of known contingencies. However, there can be no assurance that we will accurately predict the outcomes of ongoing audits, and the actual outcomes of these audits could have a material impact on our consolidated statements of income (loss) or financial condition.

The IRS may not agree with the conclusion that we should be treated as a foreign corporation for U.S. federal tax purposes, and we may be required to pay substantial U.S. federal income taxes.

Based on our management and organizational structure, we believe that we should be regarded as a resident exclusively in the UK for tax purposes and that we are appropriately treated as a foreign corporation for U.S. federal tax purposes. Although we are incorporated in the UK, the U.S. Internal Revenue Service (the "IRS") may assert that we should be treated as a U.S. corporation (and, therefore, a U.S. tax resident) for U.S. federal tax purposes. If we were to be treated as a U.S. corporation for U.S. federal income tax purposes, we could be subject to substantially greater U.S. tax liability than currently contemplated as a non-U.S. corporation.

The IRS may limit Cyberonics' and its U.S. affiliates' ability to utilize their U.S. tax attributes as a result of the merger of Cyberonics and Sorin.

The merger of Cyberonics and Sorin is considered an inversion for tax purposes. The U.S. Internal Revenue Code ("IRC") and regulations under the IRC impose a minimum level of tax on any "inversion gain" of a U.S. corporation (and any U.S. person related to the U.S. corporation) depending on the resulting percentage ownership by U.S. persons of the merged company. The effect of this provision in the IRC is to deny the use of certain U.S. tax attributes (including net operating losses and certain tax credits) to offset U.S. tax liability, if any, attributable to such inversion gain. In our case, we believe that the former stockholders of Cyberonics own less than the IRC's stated percentage of the Company. However, it cannot be assured that the IRS will agree with our position.

The UK's withdrawal from the EU, commonly referred to as "Brexit," could have an adverse impact on our business, financial condition, and operating results.

In December 2020, the UK and EU announced they had entered into a post-Brexit deal on certain aspects of trade and other strategic and political issues (the "December Brexit Deal"), but we do not know if the UK and EU will succeed in negotiating certain terms not addressed or covered by the December Brexit Deal. Failure to negotiate certain terms or modification to terms that previously existed could subject us to increased risk, including, among other things, disruptions in share issuances, changes in regulatory oversight, disruptions to supply, increases in prices, fees, taxes or tariffs on goods that are sold, inspections or barriers on goods sold, extra charges, and/or difficulty staffing.

In addition, the continued uncertainty surrounding Brexit may cause fluctuations in the value of the UK pound sterling and the EU euro. Fluctuations in the exchange rates between the US dollar and foreign currencies may adversely affect our expenses, earnings, cash flows, results of operations, and revenues. Although we attempt to mitigate our exposure to some of our foreign currency exchange risks through hedging arrangements, our hedging arrangements may not target the potential impacts associated with fluctuations in currency resulting from Brexit or otherwise effectively offset the adverse financial impacts.

We and several of our wholly owned subsidiaries that are resident for tax purposes either in the UK, various EU Member States, or in the U.S., are parties to intercompany transactions and agreements under which we receive various tax reliefs and exemptions in accordance with applicable international tax laws, treaties and regulations that could be materially changed in the aftermath of Brexit. Any of the foregoing could adversely affect our ability to conduct and expand our operations in Europe and may have an adverse effect on our business, financial condition and results of operations.

As an English public limited company, certain capital structure decisions require shareholder approval, which may limit our flexibility to manage our capital structure.

We are a public limited company incorporated under the laws of England and Wales. Under English law, our board of directors may only allot shares with the prior authorization of shareholders. English law also generally provides shareholders with preemptive rights when new shares are issued for cash, which rights may be excluded by shareholders. In addition, English law generally prohibits a public company from repurchasing its own shares without the prior approval of shareholders. At the 2020 AGM, our shareholders approved the amendment of our articles of association to authorize the allotment of additional shares of up to 20% of our outstanding share capital without preemptive rights for a period of five years, though prior to the 2020 AGM, the Company declared, based on discussions with stakeholders and advisors, that it would not utilize such authorities for more than 18 months in excess of an amount equal to 10% of our then share capital. As a result, at the 2021 AGM and for the foreseeable future, we will be seeking shareholder approval to renew these authorities. If we do not receive shareholder approval of these matters, we may not be able to raise additional capital, in a timely manner or at all, if and as

needed to fund our operations. In addition, we may not be able to continue to grant equity awards to employees, directors, officers and consultants under our incentive plans.

Transfers of our shares, other than ones effected by means of the transfer of book-entry interests in the Depository Trust Company ("DTC"), may be subject to UK stamp duty or UK stamp duty reserve tax ("SDRT").

Transfers of our shares effected by means of the transfer of book-entry interests in DTC are not subject to UK stamp duty or SDRT. However, if a shareholder holds our shares directly rather than through DTC, any transfer of shares could be subject to UK stamp duty or SDRT at a rate of 0.5% of the consideration paid for the transfer and certain issues or transfers of shares to depositories or into clearance services are charged at a rate of 1.5% of the consideration paid for the transfer, or 1.5% of the market value of the shares if there is no consideration. The transferee generally pays the UK stamp duty or SDRT. The potential for UK stamp duty or SDRT could adversely affect the trading price of our shares.

The facilities of DTC are a widely used mechanism that allow for rapid electronic transfers of securities between the participants in the DTC system, which include many large banks and brokerage firms. Our shares are at present, subject to certain conditions, generally eligible for deposit and clearing within the DTC system. However, DTC generally has discretion to cease to act as a depository and clearing agency for our shares. If DTC determines at any time that our shares are not eligible for continued deposit and clearance within its facilities, then we believe that our shares would not be eligible for continued listing on a U.S. securities exchange and trading in our shares would be disrupted. While we would pursue alternative arrangements to preserve the listing and maintain trading, any such disruption could have a material adverse effect on the trading price of our shares.

Item 1B. *Unresolved Staff Comments*

None.

Item 2. *Properties*

Our principal executive office is located in the UK and is leased by us. Our business segments, corresponding to our main therapeutic areas, Neuromodulation and Cardiovascular, have headquarters located in the U.S. and Italy, respectively. We have manufacturing and research facilities located in Brazil, Canada, Germany, Italy, Australia and the U.S. Our manufacturing and research facilities are approximately 1.4 million square feet. The manufacturing and research facilities located in the U.S., Italy and Brazil are substantially owned by us. Approximately 36% of our manufacturing and research facilities by square feet are located within the U.S. Approximately 65% of our manufacturing and research facilities by square feet are owned by us and the balance is leased.

We also maintain 26 primary administrative offices in 19 countries. Most of these locations are leased. We are using substantially all of our currently available productive space to develop, manufacture and market our products. We believe that all of our facilities are in good operating condition, suitable for their respective uses and adequate for current needs.

Item 3. *Legal Proceedings*

Information pertaining to certain material pending legal and regulatory proceedings and settlements is incorporated herein by reference to "Note 15. Commitments and Contingencies" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K and should be considered an integral part of "Item 3 of Part I" of this Annual Report on Form 10-K.

Item 4. *Mine Safety Disclosures*

Not applicable.

PART II

Item 5. *Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities*

Our ordinary shares are quoted on the NASDAQ Global Market under the symbol "LIVN."

As of February 25, 2021, according to data provided by our transfer agent, there were 22 stockholders of record. A substantially greater number of holders of our ordinary shares are "street name" or beneficial holders, whose shares of record are held by banks, brokers and other financial institutions.

Dividend Policy

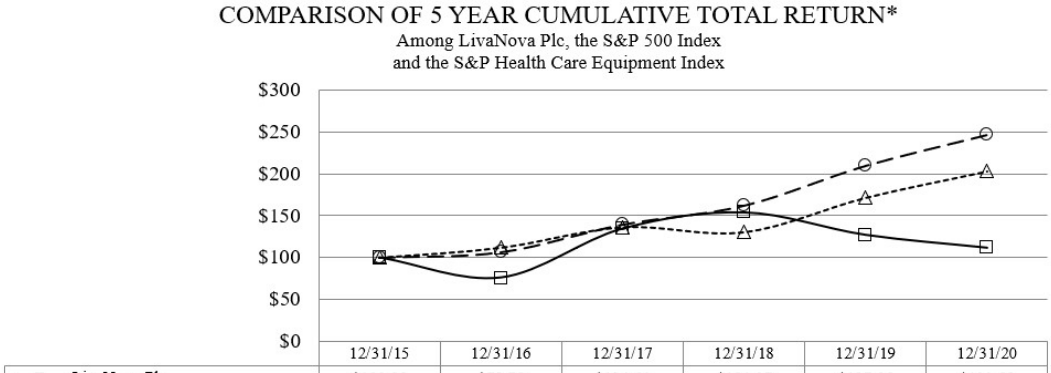
We currently have no intention to declare and pay dividends.

Issuer Purchases of Securities

On August 1, 2016, the Board of Directors of the Company (the "Board of Directors") approved the authorization of a share repurchase plan (the "Share Repurchase Program") pursuant to an authority granted by shareholders at the 2016 annual general meeting held on June 15, 2016. The authority granted by the shareholders has a five-year expiration. Under the Share Repurchase Program, the Company could repurchase up to $150.0 million of our shares traded on NASDAQ between September 1, 2016 through December 31, 2016. On November 15, 2016, the Board of Directors approved an amendment (the "Amended Share Repurchase Program") to the Share Repurchase Program authorizing the Company to repurchase up to $150.0 million of our shares between September 1, 2016 and December 31, 2018. No shares have been repurchased since December 31, 2018.

Stock Performance Graph

The following graph compares our five-year cumulative total return with the five-year cumulative total return of the companies on the Standard & Poor's ("S&P's") 500 Index and the companies on the S&P Health Care Equipment Index. This graph assumes the investment of $100 on December 31, 2015 and the reinvestment of all dividends since that date.



	12/31/15	12/31/16	12/31/17	12/31/18	12/31/19	12/31/20
LivaNova Plc	$100.00	$75.75	$134.61	$154.07	$127.05	$111.52
S&P 500	100.00	111.96	136.40	130.42	171.49	203.04
S&P Health Care Equipment Index	100.00	106.48	139.38	162.02	209.52	246.47

*$100 invested on 12/31/15 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

The information under the caption "Stock Performance Graph" above is not deemed to be "filed" as part of the Annual Report on Form 10-K and is not subject to the liability provisions of Section 18 of the Exchange Act. Such information will not be deemed incorporated by reference into any filing we make under the Securities Act unless we explicitly incorporate it into such filing at such time.

Item 6. *Selected Financial Data*

Part II, Item 6 is no longer required as the Company has adopted certain provisions within the amendments to Regulation S-K that eliminate Item 301.

Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*

The following discussion and analysis should be read in conjunction with the consolidated financial statements and the corresponding notes included elsewhere in this Annual Report on Form 10-K. Certain percentages presented in this discussion and analysis are calculated from the underlying whole-dollar amounts and therefore may not be recalculated from the rounded numbers used for disclosure purposes. The following discussion, analysis and comparisons generally focus on the operating results for the years ended December 31, 2020 ("2020"), December 31, 2019 ("2019") and December 31, 2018 ("2018").

We have elected to omit certain discussions on the earliest of the three years covered in this Annual Report on Form 10-K. Refer to Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations located in our Form 10-K for the year ended December 31, 2019, filed on March 2, 2020, for reference to discussion of the fiscal year ended December 31, 2018, the earliest of the three fiscal years presented.

COVID-19

Our business, operations and financial condition and results have been and may continue to be impacted by the COVID-19 pandemic. We have experienced significant and unpredictable reductions in the demand for our products due to healthcare customers diverting medical resources and priorities towards the treatment of COVID-19. In addition, public health organizations have regularly delayed or suspended elective procedures during the COVID-19 pandemic, which has negatively impacted the usage of our products, including the number of Neuromodulation procedures. Further, there has been a decline in treatment for non-COVID-19 emergency procedures, which has also negatively impacted the demand for our products.

While the ultimate health and economic impact of the COVID-19 pandemic is highly uncertain, our sales and operating results for 2020 were materially adversely impacted. We are seeing signs of stabilization in certain geographies as elective surgeries resume and expect this trend to continue on a global basis through fiscal year 2021. We expect elective procedure recovery rates to vary by country, and to be impacted by COVID-19 case volumes, hospital occupancy and staffing levels, patient's willingness to re-book previously deferred procedures, travel restrictions, transportation limitations, quarantine restrictions, economic uncertainty and potential COVID-19 resurgence. Further cancellations or delays could materially adversely impact our business, results of operations and overall financial performance.

Our business operations have been affected by a range of external factors related to the COVID-19 pandemic that are not within our control. For example, many jurisdictions have imposed a wide range of restrictions on the physical movement of our employees and vendors to limit the spread of COVID-19. If the COVID-19 pandemic has a substantial impact on our employee or vendor attendance or productivity, our operations may suffer, and in turn our results of operations and overall financial performance may be harmed.

During the second quarter of 2020, LivaNova paused RECOVER study patients in progressing beyond the first baseline depression scale measurement because the majority of our study sites and their corresponding surgical centers were closed. In order to maintain momentum, we continued activating new sites and identifying, educating and consenting patients at existing sites. During the third quarter of 2020, certain sites and surgical centers began to open and we re-initiated movement within RECOVER. We expect the number of patient implants to accelerate through fiscal year 2021 as study sites are able to progress consented patients and the impact of COVID-19 diminishes. However, there can be no assurance that there will not be closures of sites in the future.

Additionally, our ANTHEM-HFrEF international pivotal trial was temporarily paused in March due to COVID-19 restrictions after randomizing just over 200 patients. During the second quarter of 2020, we were able to re-initiate enrollment and screening activities in more than half of the sites. We continue to monitor relevant conditions at medical centers participating in the trial.

We have taken numerous steps, and will continue to take further actions, in our approach to addressing the COVID-19 pandemic. We have successfully implemented our business continuity plans, and our management team is responding to changes in our environment quickly and effectively. We have not closed any of our manufacturing plants. Additionally, the supply of raw materials and the distribution of finished products remain operational with no known or foreseen constraints. As a result of the COVID-19 pandemic, we instructed the majority of our employees at many of our facilities across the globe to work from home on a temporary basis and have implemented company-wide travel restrictions. For our manufacturing, operations, and other personnel remaining on site due to the essential nature of their work, we have implemented safety measures such as the use of personal protective equipment and social distancing measures. We have incurred additional expenses in connection with our response to the COVID-19 pandemic, including manufacturing inefficiencies and costs related to enabling our employees to support our customers while working remotely.

We implemented cost reduction efforts to mitigate the impact that reduced revenues had on our fiscal 2020 operating income, and continue to implement these cost reduction efforts. We reduced expenses by evaluating whether projects and initiatives were critical to meet the needs of the Company, protecting strategic priorities for future growth, reducing discretionary spending and tightening management of personnel costs.

The extent to which the COVID-19 pandemic continues to impact the Company's results of operations and financial condition will depend on future developments that are highly uncertain and cannot be predicted, including new information that may emerge concerning the severity and longevity of COVID-19 and its variants, the resurgence of COVID-19 in regions that have begun to recover from the initial impact of the pandemic, the impact of COVID-19 on economic activity and the actions to contain its impact on public health and the global economy.

For further discussion on COVID-19, refer to "Item 1A. Risk Factors" of this Annual Report on Form 10-K under the section entitled "***COVID-19 has had, and we expect will continue to have, an adverse effect on our business, results of operations, financial condition and cash flows, the nature and extent of which are uncertain and unpredictable***."

Description of the Business

We are a public limited company organized under the laws of England and Wales and headquartered in London, England. We are a global medical device company focused on the development and delivery of important therapeutic solutions for the benefit of patients, healthcare professionals and healthcare systems throughout the world. Working closely with medical professionals in the fields of Cardiovascular and Neuromodulation, we design, develop, manufacture and sell innovative therapeutic solutions that are consistent with our mission to improve our patients' quality of life, increase the skills and capabilities of healthcare professionals and minimize healthcare costs.

Background

We were organized under the laws of England and Wales on February 20, 2015 for the purpose of facilitating the business combination of Cyberonics, Inc., a Delaware corporation, and Sorin S.p.A., a joint stock company organized under the laws of Italy. The business combination became effective in October 2015. LivaNova's ordinary shares are listed for trading on the NASDAQ Global Market under the symbol "LIVN."

Business Segments

LivaNova is comprised of two reportable segments: Cardiovascular and Neuromodulation, corresponding to our primary therapeutic areas. Other corporate activities include corporate shared service expenses for finance, legal, human resources, information technology and corporate business development.

Cardiovascular

Our Cardiovascular segment is engaged in the development, production and sale of cardiopulmonary products, heart valves and advanced circulatory support products. Cardiopulmonary products include oxygenators, heart-lung machines, autotransfusion systems, perfusion tubing systems, cannulae and other related accessories. Advanced circulatory support includes temporary life support controllers and product kits that can include a combination of pumps, oxygenators, and cannulae.

Heart valves include mechanical heart valves, tissue heart valves, related repair products and minimally invasive surgical instruments. On December 2, 2020, we entered into a Purchase Agreement with Mitral Holdco S.à r.l., a company incorporated under the laws of Luxembourg and wholly owned and controlled by funds advised by Gyrus Capital S.A., a Swiss private equity firm, for the divestiture of certain of LivaNova's subsidiaries as well as certain other assets and liabilities relating to the Company's Heart Valve business. LivaNova and Gyrus are currently discussing potential amendments to the Purchase Agreement to address possible impediments to transferring LSM as contemplated by the Purchase Agreement. If such an amendment can be agreed, it might include delaying such transfer or separating it from the scope of the Purchase Agreement. In the course of discussing this potential amendment, Gyrus and LivaNova have advised each other that notwithstanding the possible impediments to completing the transfer of LSM, they remain committed to completing the purchase and sale of LivaNova's Heart Valves Business. Consistent with the Company's prior disclosures, the Company continues to believe the initial closings of the transaction, which may exclude LSM, will occur in the first half of 2021. For further information, refer to "Note 5. Assets and Liabilities Held For Sale" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Cardiopulmonary

In July 2019, we launched Bi-Flow, our innovative arterial femoral cannula. Bi-Flow received CE Mark in early 2019 and is the only bidirectional arterial cannula designed to prevent leg ischemia during cardiac surgery procedures requiring femoral artery cannulation.

In April 2020, the U.S. Food and Drug Administration issued temporary guidance that permitted several of our cardiopulmonary products to be used for Extracorporeal Membrane Oxygenation ("ECMO") therapy greater than six hours to temporarily expand the availability of devices to address the COVID-19 pandemic. Product indications for use have been modified accordingly for many products within our Cardiopulmonary and Advanced Circulatory Support portfolios.

Also in April 2020, our Bi-Flow ECMO cannula received CE Mark for ECMO procedures where femoral artery cannulation can be applied. Bi-Flow previously received CE Mark in 2019 for cardiac surgery procedures requiring femoral artery cannulation. Now validated for up to 29 days of use, Bi-Flow ECMO is designed to reduce the risk of limb ischemia for patients receiving ECMO.

Product Remediation

FDA Warning Letter

On December 29, 2015, the FDA issued a Warning Letter alleging certain violations of FDA regulations applicable to medical device manufacturers at our Munich, Germany and Arvada, Colorado facilities and issued inspectional observations on FDA's Form-483 applicable to our Munich, Germany facility.

The Warning Letter further stated that our 3T Heater-Cooler devices (the "3T devices") and other devices we manufactured at our Munich facility were subject to refusal of admission into the U.S. until resolution of the issues set forth by the FDA in the Warning Letter. The FDA informed us that the import alert was limited to the 3T devices, but that the agency reserved the right to expand the scope of the import alert if future circumstances warranted such action. The Warning Letter did not request that existing users cease using the 3T device, and manufacturing and shipment of all our products other than the 3T device were unaffected by the import limitation. To help clarify these issues for current customers, we issued an informational Customer Letter in January 2016 and that same month agreed with the FDA on a process for shipping 3T devices to existing U.S. users pursuant to a certificate of medical necessity program.

Finally, the Warning Letter stated that premarket approval applications for Class III devices to which certain Quality System regulation deviations identified in the Warning Letter were reasonably related would not be approved until the violations had been corrected; however, this restriction applied only to the Munich and Arvada facilities, which do not manufacture or design devices subject to Class III premarket approval.

On February 25, 2020, LivaNova received clearance for K191402, a 510(k) for the 3T devices that addressed issues contained in the 2015 Warning Letter along with design changes that further mitigate the potential risk of aerosolization. Concurrent with this clearance, (1) 3T devices manufactured in accordance with K191402 will not be subjected to the import alert and (2) LivaNova initiated a correction to distribute the updated Operating Instructions cleared under K191402. With this 510(k) clearance, all actions to remediate the FDA's inspectional observations in the Warning Letter are complete, and at this time, LivaNova is awaiting the FDA's close-out inspection.

For further information, refer to "Note 15. Commitments and Contingencies" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Centers for Disease Control and Prevention ("CDC") and FDA Safety Communications, Company Field Safety Notice Update and Product Remediation Plan

On October 13, 2016, the CDC and the FDA separately released safety notifications regarding the 3T devices. The CDC's Morbidity and Mortality Weekly Report ("MMWR") and Health Advisory Notice ("HAN") reported that tests conducted by the CDC and its affiliates indicate that there appears to be genetic similarity between both patient and 3T device strains of the non-tuberculous mycobacterium bacteria *M. chimaera* isolated in hospitals in Iowa and Pennsylvania. Citing the geographic separation between the two hospitals referenced in the investigation, the report asserts that 3T devices manufactured prior to August 18, 2014 could have been contaminated during the manufacturing process. The CDC's HAN and FDA's Safety Communication, issued contemporaneously with the MMWR report, each assess certain risks associated with 3T devices and provide guidance for providers and patients. The CDC notification states that the decision to use the 3T device during a surgical operation is to be taken by the surgeon based on a risk approach and on patient need. Both the CDC's and FDA's communications confirm that 3T devices are critical medical devices and enable doctors to perform life-saving cardiac surgery procedures.

Also on October 13, 2016, concurrent with the CDC's HAN and FDA's Safety Communication, we issued a Field Safety Notice Update for U.S. users of 3T devices to proactively and voluntarily contact facilities to aid in implementation of the CDC and FDA recommendations. In the fourth quarter of 2016, we initiated a program to provide existing 3T device users with a new loaner 3T device at no charge pending regulatory approval and implementation of additional risk mitigation strategies worldwide, including a vacuum canister and internal sealing upgrade program and a deep disinfection service. In April 2017, we obtained CE Mark in Europe for the design change of the 3T device, and in October 2018, the FDA concluded that we could commence the vacuum canister and internal sealing upgrade program in the U.S. On February 25, 2020, LivaNova received clearance for K191402, a 510(k) for the 3T devices that addressed issues contained in the 2015 Warning Letter along with design changes that further mitigate the potential risk of aerosolization. Concurrent with this clearance, (1) 3T devices manufactured in accordance with K191402 will not be subjected to the import alert and (2) LivaNova initiated a correction to distribute the updated Operating Instructions cleared under K191402. We are in the process of completing and closing out all recall activities with the FDA. While our vacuum canister and internal sealing upgrade program and deep cleaning service in the U.S. are substantially complete, these services will continue as a servicing option outside of the U.S.

On December 31, 2016, we recognized a liability for our product remediation plan related to our 3T device. We concluded that it was probable that a liability had been incurred upon management's approval of the plan and the commitments made by management to various regulatory authorities globally in November and December 2016, and furthermore, the cost associated with the plan was reasonably estimable. At December 31, 2020, the product remediation liability was $1.1 million. For further information, refer to "Note 8. Product Remediation Liability" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Product Liability

The Company is currently involved in litigation involving our 3T device. The litigation includes a class action complaint in the U.S. District Court for the Middle District of Pennsylvania, federal multi-district litigation in the U.S. District Court for the Middle District of Pennsylvania, various U.S. state court cases and cases in jurisdictions outside the U.S. The class action, filed in February 2016, consists of all Pennsylvania residents who underwent open heart surgery at WellSpan York Hospital and Penn State Milton S. Hershey Medical Center between 2011 and 2015 and who currently are asymptomatic for NTM infection. Members of the class seek declaratory relief that the 3T devices are defective and unsafe for intended uses, medical monitoring, damages, and attorneys' fees.

On March 29, 2019, we announced a settlement framework that provides for a comprehensive resolution of the personal injury cases pending in the multi-district litigation in U.S. federal court, the related class action pending in federal court, as well as certain cases in state courts across the United States. The agreement, which makes no admission of liability, is subject to certain conditions, including acceptance of the settlement by individual claimants and provides for a total payment of up to $225 million to resolve the claims covered by the settlement. Per the agreed-upon terms, the first payment of $135 million was paid into a qualified settlement fund in July 2019 and the second payment of $90 million was paid in January 2020. Cases covered by the settlement are being dismissed as amounts are disbursed to individual plaintiffs from the qualified settlement fund.

Cases in state courts in the U.S. and in jurisdictions outside the U.S. continue to progress. As of March 1, 2021, including the cases encompassed in the settlement framework described above that have not yet been dismissed, we are aware of approximately 85 filed and unfiled claims worldwide, with the majority of the claims in various federal or state courts throughout the United States. This includes cases that have settled but have not yet been dismissed. The complaints generally seek damages and other relief based on theories of strict liability, negligence, breach of express and implied warranties, failure to warn, design and manufacturing defect, fraudulent and negligent misrepresentation or concealment, unjust enrichment, and violations of various state consumer protection statutes.

At December 31, 2020, the provision for these matters was $36.5 million. While the amount accrued represents our best estimate for those filed and unfiled claims that are both probable and estimable, the actual liability for resolution of these matters may vary from our estimate.

Advanced Circulatory Support

In April 2018, we acquired TandemLife, which is focused on the delivery of leading-edge temporary life support products, including cardiopulmonary and respiratory support solutions. For further information, refer to "Note 4. Business Combinations" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

In July 2019, the FDA approved our LifeSPARC system, a new generation of the Advanced Circulatory Support pump and controller. In the fourth quarter of 2019, we began a limited commercial release in the U.S., followed by a full commercial launch in the second half of 2020.

Neuromodulation

Our Neuromodulation segment designs, develops and markets Neuromodulation therapy for the treatment of drug-resistant epilepsy, DTD and obstructive sleep apnea. We are also developing and conducting clinical testing of the VITARIA System for treating heart failure through vagus nerve stimulation.

Epilepsy

Our product development efforts are directed toward improving the VNS Therapy System and developing new products that provide additional features and functionality. We are conducting ongoing product development activities to enhance the VNS Therapy System pulse generator, lead and programming software, and we support studies for our product development efforts and to build clinical evidence for the VNS Therapy System.

In October 2017, we obtained FDA approval and in April 2018, we received CE mark approval for our SenTiva VNS Therapy System, which consists of the SenTiva implantable generator and the next-generation VNS Therapy Programming System. The SenTiva generator is the smallest and lightest VNS device capable of delivering responsive therapy for epilepsy. The new VNS Therapy Programming System features a wireless wand and new user interface on a small tablet. Together, these components offer patients with drug-resistant epilepsy a physician-directed, customizable therapy with smart technology that reduces the number of seizures, lessens the duration of seizures and enables a faster recovery.

In March 2018, we announced the launch and enrollment of the first patient in a clinical study to examine the use of our VNS Therapy System using Microburst technology. This feasibility study will determine the initial safety and effectiveness of delivering VNS Therapy using high frequency bursts of stimulation in patients who have drug-resistant epilepsy. The study consists of two cohorts, enrolling up to 40 patients at approximately 15 sites in the U.S. and Europe.

In August 2018, we announced a new cost analysis that found our VNS Therapy System results in lower resource utilization and lower cost for drug-resistant epilepsy patients when compared to continued treatment with anti-epileptic drugs. The analysis showed initial costs for the VNS Therapy device, including placement and programming, were estimated to be offset 1.7 years post-implant and equated to an estimated net cost savings of $77,480 per patient over five years. The net cost savings are due primarily to a reduction in seizure-related hospitalizations, resulting in a 21.5% decrease in costs compared to treatment with anti-epileptic drugs alone.

Depression

US

In July 2005, the FDA approved the VNS Therapy System for the adjunctive treatment of chronic or recurrent depression for patients 18 years or older who are experiencing a major depressive episode and have not had an adequate response to four or more antidepressant treatments. In May 2007, CMS issued a national non-coverage determination within the U.S. with respect to reimbursement of the VNS Therapy System for patients with DTD, significantly limiting access to this therapeutic option for most patients.

In March 2017, the American Journal of Psychiatry published the results of the longest and largest naturalistic study (D23 study) on treatments for patients experiencing chronic and severe DTD. The findings showed that the addition of the VNS Therapy System to traditional treatment is effective in significantly reducing symptoms of depression and well tolerated compared with traditional treatment alone.

Following the publication of the D23 study, we requested CMS reconsider its previous NCD, and in May 2018, CMS published a tracking sheet to reconsider its NCD.

In February 2019, CMS produced a final decision providing coverage for Medicare beneficiaries through Coverage with Evidence Development (“CED”) when offered in a CMS-approved, double-blind, randomized, placebo-controlled trial with a follow-up duration of at least one year, as well as coverage of VNS Therapy device replacement. The CED also includes the possibility to extend the study to a prospective longitudinal registry.

In September 2019, CMS accepted the protocol for our RECOVER clinical study and the first patient was enrolled. RECOVER will include up to 500 unipolar and up to 500 bipolar patients at a maximum of 100 sites in the United States in the randomized part of the trial and up to an additional 5,800 patients in an open label registry.

In February 2020, we announced a research collaboration with Verily, an Alphabet company, to capture clinical biomarkers of depression within our RECOVER clinical study. Using technology and analytics by way of the Verily Study Watch and related Verily mobile phone application, LivaNova and Verily aim to gather quantitative data to further understand depressive episodes and a patient’s response to treatment. These complementary approaches are expected to help investigators better

understand the impact of depression and its treatment on study participants' lives in a more objective and multi-dimensional manner.

Outside the U.S.

In January 2018, we announced the launch and enrollment of the first patient in our RESTORE-LIFE study, which evaluates the use of our VNS Therapy System in patients who have DTD and failed to achieve an adequate response to standard psychiatric management.

In March 2020, our VNS Therapy System, Symmetry received CE mark approval for DTD.

Obstructive Sleep Apnea

We have invested in ImThera, a privately held, emerging-growth company developing an implantable neurostimulation device system for the treatment of obstructive sleep apnea, since 2011. On January 16, 2018, we acquired the remaining 86% outstanding equity interests in ImThera for up to approximately $225 million. Up-front costs were approximately $78 million with the balance paid on a schedule driven by regulatory and sales milestones. ImThera manufactures an implantable device that stimulates multiple tongue muscles via the hypoglossal nerve, which opens the airway while a patient is sleeping. ImThera has a commercial presence in the European market, and an FDA pivotal study is ongoing in the U.S.

Heart Failure

We are focused on the development and clinical testing of the VITARIA System for treating heart failure through vagus nerve stimulation.

The VITARIA System provides a specific method of VNS called autonomic regulation therapy ("ART"), and it includes elements similar to the VNS Therapy System: pulse generator, lead, programming computer and wand. In 2012, we initiated a pilot study, ANTHEM-HF, outside the U.S., and the published results support the safety and efficacy of ART delivered by the VITARIA System; the study was extended to continue follow-up of patients through 42 months, the results for which have been published in a peer-reviewed cardiology journal. During 2014, we initiated a second pilot study outside the U.S., ANTHEM-HFpEF, to study ART in patients experiencing symptomatic heart failure with preserved ejection fraction and is currently in progress. The VITARIA System is not approved in the U.S. though it has been granted Expedited Access Pathway as a breakthrough technology by the FDA. The VITARIA System received CE Mark approval in 2015.

In September 2018, we announced the first successful implantation of the VITARIA System in a patient randomized in the ANTHEM-HFrEF Pivotal Study, an international, multi-center, randomized trial (adaptive sample size) to evaluate the VITARIA System (FDA's Breakthrough Technology designation) for the treatment of advanced heart failure. The trial was paused temporarily in March 2020 due to COVID-19 restrictions after randomizing over 200 patients, but we were able to re-initiate enrollment and screening activities shortly thereafter in more than half of the sites. We continue to monitor relevant conditions at medical centers participating in the trial.

Discontinued Operations

We completed the CRM Sale on April 30, 2018 for total cash proceeds of $195.9 million, less cash transferred of $9.2 million, subject to a closing working capital adjustment. In March 2020, we finalized the working capital adjustment and, as a result, made a $16.4 million payment to MicroPort during the first quarter of 2020. In conjunction with the CRM Sale, we entered into transition services agreements to provide certain support services generally for up to twelve months from the closing date of the sale. We previously concluded that the sale of CRM represented a strategic shift in our business that has a major effect on future operations and financial results. Accordingly, the results of operations of the CRM business are reflected as discontinued operations for all periods presented in this Annual Report on Form 10-K. For further information, refer to "Note 6. Discontinued Operations" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Results of Operations

The following table summarizes our consolidated results for the years ended December 31, 2020, 2019 and 2018 (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Net sales	$ 934,241	$ 1,084,170	$ 1,106,961
Costs and expenses:			
Cost of sales - exclusive of amortization	308,062	323,517	361,321
Product remediation	7,860	15,777	10,680
Selling, general and administrative	427,770	506,478	464,967
Research and development	152,902	146,849	145,948
Merger and integration expenses	7,333	23,457	24,420
Restructuring expenses	7,571	12,254	15,915
Impairment of disposal group	180,160	—	—
Impairment of goodwill	21,269	42,417	—
Impairment of long-lived assets	6,762	142,517	567
Amortization of intangibles	38,312	40,375	37,194
Decommissioning provision	42,198	—	—
Litigation provision, net	3,906	(601)	294,021
Operating loss from continuing operations	(269,864)	(168,870)	(248,072)
Interest income	131	803	847
Interest expense	(40,837)	(15,091)	(9,825)
Gain on acquisition	—	—	11,484
Foreign exchange and other losses	(33,417)	(2,536)	(1,881)
Loss from continuing operations before tax	(343,987)	(185,694)	(247,447)
Income tax benefit	(736)	(30,153)	(69,629)
Losses from equity method investments	(264)	—	(644)
Net loss from continuing operations	(343,515)	(155,541)	(178,462)
Net (loss) income from discontinued operations, net of tax	(1,493)	365	(10,937)
Net loss	$ (345,008)	$ (155,176)	$ (189,399)

Net Sales by Segment and Geographic Area:

The following table presents net sales by operating segment and geographic region (in thousands, except for percentages):

	Year Ended December 31,			% Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
Cardiopulmonary					
United States	$ 132,543	$ 161,471	$ 161,134	(17.9)%	0.2 %
Europe [1]	122,062	135,632	141,720	(10.0)%	(4.3)%
Rest of World	192,127	207,613	233,554	(7.5)%	(11.1)%
	446,732	504,716	536,408	(11.5)%	(5.9)%
Heart Valves					
United States	12,488	18,900	24,709	(33.9)%	(23.5)%
Europe [1]	31,259	40,548	44,258	(22.9)%	(8.4)%
Rest of World	44,283	60,559	56,989	(26.9)%	6.3 %
	88,030	120,007	125,956	(26.6)%	(4.7)%
Advanced Circulatory Support					
United States	41,094	30,781	18,588	33.5 %	65.6 %
Europe [1]	1,027	741	580	38.6 %	27.8 %
Rest of World	200	401	293	(50.1)%	36.9 %
	42,321	31,923	19,461	32.6 %	64.0 %
Cardiovascular					
United States	186,125	211,152	204,431	(11.9)%	3.3 %
Europe [1]	154,348	176,921	186,558	(12.8)%	(5.2)%
Rest of World	236,610	268,573	290,836	(11.9)%	(7.7)%
	577,083	656,646	681,825	(12.1)%	(3.7)%
Neuromodulation					
United States	282,509	335,332	348,980	(15.8)%	(3.9)%
Europe [1]	39,019	46,262	42,443	(15.7)%	9.0 %
Rest of World	32,916	42,953	31,567	(23.4)%	36.1 %
	354,444	424,547	422,990	(16.5)%	0.4 %
Other	2,714	2,977	2,146	(8.8)%	38.7 %
Totals					
United States	468,634	546,484	553,411	(14.2)%	(1.3)%
Europe [1]	193,367	223,183	229,001	(13.4)%	(2.5)%
Rest of World	272,240	314,503	324,549	(13.4)%	(3.1)%
Total	$ 934,241	$ 1,084,170	$ 1,106,961	(13.8)%	(2.1)%

(1) Includes countries in Europe where we have a direct sales presence. Countries where sales are made through distributors are included in “Rest of World”.

The following table presents segment loss from continuing operations (in thousands):

	Year Ended December 31,			% Change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
Cardiovascular	$ (194,278)	$ 28,460	$ (258,493)	(782.6)%	(111.0)%
Neuromodulation	109,296	83,483	184,674	30.9 %	(54.8)%
Other	(131,666)	(204,727)	(96,724)	(35.7)%	111.7 %
Total reportable segment loss from continuing operations [1]	$ (216,648)	$ (92,784)	$ (170,543)	133.5 %	(45.6)%

(1) For a reconciliation of segment loss from continuing operations to our consolidated loss from continuing operations before tax, refer to "Note 21. Geographic and Segment Information" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Cardiovascular

Cardiovascular net sales for the year ended December 31, 2020 compared to the year ended December 31, 2019 decreased 12.1% largely due to the impact of COVID-19. Cardiopulmonary sales declined 11.5% to $446.7 million for the year ended December 31, 2020 primarily due to declines in heart lung machines ("HLM") and oxygenator sales. HLM sales were negatively impacted due to COVID-19 impacts on hospital budgets for capital equipment, while oxygenator sales were negatively impacted by a decline of non-emergent cardiac surgery procedures globally resulting from COVID-19. Heart Valves sales declined 26.6% to $88.0 million for the year ended December 31, 2020 primarily due to declines in sales of Perceval, tissue valves and mechanical valves caused by the decline in cardiac surgery procedures globally resulting from COVID-19. These declines in sales were partially offset by a 32.6% increase in Advanced Circulatory Support sales to $42.3 million for the year ended December 31, 2020, resulting from the full U.S. commercial release of LifeSPARC during the third quarter of 2020.

Cardiovascular segment operating loss increased 782.6% for the year ended December 31, 2020 as compared to the year ended December 31, 2019, primarily due to an impairment of $180.2 million recorded to the Heart Valves disposal group and a $21.3 million impairment to the goodwill allocated to the Heart Valves disposal group. For further information refer to "Note 5. Assets and Liabilities Held For Sale" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Cardiovascular net sales for the year ended December 31, 2019 compared to the year ended December 31, 2018 decreased 3.7%. The decline in net sales for the year ended December 31, 2019 was due to declines in Cardiopulmonary and Heart Valves sales of 5.9% and 4.7%, respectively, partially offset by a $12.5 million increase in Advanced Circulatory Support sales due to strong growth in the first half of 2019 and the inclusion of TandemLife's operating results upon the acquisition in April 2018. Cardiopulmonary sales of $504.7 million were negatively impacted as a result of exiting a Canadian distribution agreement on January 1, 2019 that accounted for $32.9 million in sales during the year ended December 31, 2018. Growth in sales of oxygenators, autotransfusion systems and heart-lung machines were mostly offset by the impacts of foreign currency, though growth in oxygenator sales was also impacted by an unexpected component supplier issue that occurred during the fourth quarter of 2019. Heart Valves sales declined as Rest of World growth was more than offset by softness in the U.S. and the impacts of foreign currency.

Cardiovascular segment operating income increased for the year ended December 31, 2019 as compared to the year ended December 31, 2018, primarily due to the recording of a $294.1 million litigation provision liability related to our 3T device during 2018.

Neuromodulation

Neuromodulation net sales for the year ended December 31, 2020 compared to the year ended December 31, 2019 decreased 16.5% to $354.4 million. The decrease in net sales for the year ended December 31, 2020 was primarily due to declines in both new patient and end of service implants globally as patients and physicians delayed implant procedures due to COVID-19.

Neuromodulation segment operating income increased 30.9% for the year ended December 31, 2020 compared to the year ended December 31, 2019 primarily due to an increase in operating income resulting from the net impact of the change in fair value of contingent consideration arrangements of $27.6 million, a decrease in sales, general and administrative expense driven by cost containment actions, as well as a $50.3 million impairment of an IPR&D asset during the year ended December 31, 2019, partially offset by overall declines in net sales, as discussed above.

Neuromodulation net sales for the year ended December 31, 2019 compared to the year ended December 31, 2018 increased 0.4%. The increase in net sales for the year ended December 31, 2019 was due to adoption of the Sentiva VNS Therapy System

and strong growth in Europe and Rest of World, offset by a decline in U.S. sales principally due to competitive dynamics and sales force turnover during the first half of 2019.

Neuromodulation segment operating income decreased for the year ended December 31, 2019 compared to the year ended December 31, 2018 primarily due to a $50.3 million impairment of an IPR&D asset associated with obstructive sleep apnea, increased selling costs in the U.S. and increased R&D expenses associated with DTD, heart failure and obstructive sleep apnea.

Costs and Expenses

The following table illustrates our comparative costs and expenses as a percentage of net sales:

	Year Ended December 31,		
	2020	**2019**	**2018**
Cost of sales - exclusive of amortization	33.0 %	29.8 %	32.6 %
Product remediation	0.8 %	1.5 %	1.0 %
Selling, general and administrative	45.8 %	46.7 %	42.0 %
Research and development	16.4 %	13.5 %	13.2 %
Merger and integration expenses	0.8 %	2.2 %	2.2 %
Restructuring expenses	0.8 %	1.1 %	1.4 %
Impairment of disposal group	19.3 %	— %	— %
Impairment of goodwill	2.3 %	3.9 %	— %
Impairment of long-lived assets	0.7 %	13.1 %	0.1 %
Amortization of intangibles	4.1 %	3.7 %	3.4 %
Decommissioning provision	4.5 %	— %	— %
Litigation provision, net	0.4 %	(0.1)%	26.6 %

Cost of Sales

Cost of sales consisted primarily of direct labor, allocated manufacturing overhead, the acquisition cost of raw materials and components.

Cost of sales as a percentage of net sales was 33.0% for the year ended December 31, 2020, an increase of 3.2% as compared to 2019. The increase was primarily due to product mix and unfavorable manufacturing variances of $20.0 million for the year ended December 31, 2020 due to the decline in demand resulting from COVID-19.

Cost of sales as a percentage of net sales was 29.8% for the year ended December 31, 2019, a decrease of 2.8% as compared to 2018. The decrease was primarily due to the amortization of inventory step-up value associated with the acquisition of TandemLife of $8.0 million for the twelve months ended December 31, 2018, reduced expense associated with the change in the fair value of sales-based contingent consideration arrangements, favorable product mix and the impacts of foreign currency.

Product Remediation

Product remediation as a percentage of net sales was 0.8%, 1.5% and 1.0% for the years ended December 31, 2020, 2019 and 2018, respectively. In addition to changes to the estimated product remediation liability, product remediation expenses include internal labor costs, costs to remediate certain inspectional observations made by the FDA at our Munich facility and costs associated with the incorporation of the modification of the 3T device design into the next generation heater cooler device.

Selling, General and Administrative (“SG&A”) Expenses

SG&A expenses are comprised of sales, marketing, general and administrative activities.

SG&A expenses as a percentage of net sales decreased for the year ended December 31, 2020 as compared to 2019 primarily due to sales and marketing reductions from cost containment actions resulting from COVID-19, a decrease in 3T legal expenses and the settlement of tax litigation that resulted in the reversal of a tax penalty of $4.3 million.

SG&A expenses as a percentage of net sales increased for the year ended December 31, 2019 as compared to 2018 primarily due to increased litigation expenses related to our 3T devices, the full impact of expanding Advanced Circulatory Support commercial capabilities, increased investment in Neuromodulation, strengthening our commercial organization in international markets, costs associated with material weakness remediation, expenses associated with the expiration of a contract with one of our distributors and overall lower sales.

Research and Development Expenses

R&D expenses consist of product design and development efforts, clinical study programs and regulatory activities, which are essential to our strategic portfolio initiatives, including DTD, obstructive sleep apnea and heart failure.

R&D expenses as a percentage of net sales increased for the year ended December 31, 2020 as compared to 2019 primarily due to a decline in net sales as well as an increase in R&D expense resulting from the net impact of changes in fair value of milestone-based contingent consideration arrangements of $8.8 million.

R&D expenses as a percentage of net sales increased for the year ended December 31, 2019 as compared to 2018 primarily due to additional R&D expenses associated with obstructive sleep apnea, heart failure and DTD, offset by reductions in fair value of milestone-based contingent consideration arrangements.

Merger and Integration ("M&I") Expenses

M&I expenses consist primarily of costs associated with computer systems integration efforts, organizational structure integration, synergy and tax planning.

M&I expenses as a percentage of net sales decreased for the year ended December 31, 2020 as compared to 2019 primarily due to completion of certain integration activities associated with our merger and acquisitions.

M&I expenses as a percentage of net sales for the year ended December 31, 2019 was consistent with the year ended December 31, 2018.

Restructuring Expenses

Our restructuring plans leverage economies of scale, eliminate duplicate corporate expenses and streamline distributions, logistics and office functions in order to reduce overall costs. Restructuring expenses are detailed in "Note 7. Restructuring" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Our 2015 and 2016 Reorganization Plans (the "Prior Plans") were initiated in October 2015 and March 2016, respectively, in conjunction with the completion of the merger of Sorin and Cyberonics. The Prior Plans included the Costa Rica manufacturing operation exit plan, initiated in December 2016 and completed during 2017, and the Suzhou, China exit plan, initiated in March 2017 and completed during 2018.

In December 2018, we initiated a reorganization plan (the "2018 Plan") in order to reduce manufacturing and operational costs associated with our Cardiovascular facilities in Saluggia and Mirandola, Italy and Arvada, Colorado. The 2018 Plan resulted in a net reduction of approximately 75 personnel and was completed at the end of 2019.

In November 2019, we initiated a reorganization plan (the "2019 Plan") to streamline our organizational structure in order to address new regulatory requirements, create efficiencies, improve profitability and ensure business continuity. As a result, we incurred restructuring expenses of $4.4 million during the year ended December 31, 2019, primarily associated with severance costs for approximately 35 impacted employees.

Also in November 2019, we announced that we would be ending our Caisson TMVR program effective December 31, 2019 after determining that it was no longer viable to continue to invest in the program. As a result, we recognized restructuring expenses of $3.5 million during the year ended December 31, 2019, primarily associated with severance costs for approximately 50 impacted employees.

During the fourth quarter of 2020, we initiated a reorganization plan (the "2020 Plan") to reduce our cost structure. As a result, we incurred restructuring expenses of $5.3 million during the year ended December 31, 2020, primarily associated with severance costs for approximately 54 employees. We expect the 2020 Plan will result in a future incremental benefit to operating loss from continuing operations, primarily through reductions to cost of sales - exclusive of amortization, selling, general and administrative and research and development.

Impairments of Disposal Group, Goodwill and Long-lived Assets

As a result of entering into the Purchase Agreement, the Company concluded that the assets and liabilities of the Heart Valve business being sold meet the criteria to be classified as held for sale. As a result, we recognized an impairment of $180.2 million to record the Heart Valves disposal group at fair value less estimated cost to sell. Additionally we recorded a $21.3 million impairment to the goodwill allocated to the Heart Valves disposal group based upon the relative fair values of the businesses within the Cardiovascular reporting unit. For further information refer to "Note 5. Assets and Liabilities Held For Sale" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

During the second quarter of 2019, we determined that there would be a delay in the estimated commercialization date of the Company's obstructive sleep apnea product currently under development. This delay constituted a triggering event that required evaluation of the IPR&D asset arising from the ImThera acquisition for impairment. Based on the assessment performed, we determined that the IPR&D asset was impaired and as a result, recorded an impairment of $50.3 million, which is included in our Neuromodulation segment. The estimated fair value of IPR&D was determined using the income approach. Future delays in commercialization or changes in management estimates could result in further impairment.

Our announcement that we would be ending our Caisson TMVR program effective December 31, 2019, triggered an evaluation of finite and indefinite lived assets for impairment. As a result, we fully impaired the goodwill and IPR&D asset associated with the Caisson business of $42.4 million and $89.0 million, respectively.

Amortization of Intangibles

Amortization of intangible assets for the years ended December 31, 2020, 2019 and 2018, consisted primarily of the amortization of finite-lived intangible assets, primarily intellectual property and customer relationships.

Amortization of intangibles decreased for the year ended December 31, 2020 to $38.3 million as compared to $40.4 million for the year ended December 31, 2019 primarily due to the completion of amortization of certain trade names during the fourth quarter of 2020 as well as the ceasing of amortization of Heart Valves' intangible assets, as required for assets under the held for sale accounting classification. For further information, refer to "Note 5. Assets and Liabilities Held For Sale" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Amortization of intangibles increased for the year ended December 31, 2019 to $40.4 million as compared to $37.2 million for the year ended December 31, 2018 primarily due to amortization of developed technology associated with the acquisition of TandemLife. The developed technology of $107.5 million was initially recorded to IPR&D assets upon acquisition in April 2018 but was reclassified to developed technology during the third quarter of 2019 upon receiving FDA approval of the LifeSPARC system.

Decommissioning Provision

During the fourth quarter of 2020, we recognized a $42.2 million provision for our obligation to clean and dismantle contaminated buildings and equipment at our Saluggia, Italy campus as well as to deliver hazardous substances to a national repository. For further information, refer to "Note 15. Commitments and Contingencies" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Litigation Provision, Net

During 2018, we recognized a $294.1 million litigation provision involving our 3T device. During 2019, we entered into agreements with our insurance carriers to recover $33.8 million under our product liability insurance policies. The insurance recovery was received and recognized in 2019. We recorded an additional liability of $33.2 million in 2019 and $3.9 million in 2020 due to additional information obtained, including but not limited to: the nature and quality of filed and unfiled claims; certain settlement discussions with plaintiffs' counsel; and the current stage of litigation in our remaining filed and unfiled claims. For further information, refer to "Note 15. Commitments and Contingencies" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Interest Expense

We incurred interest expense of $40.8 million for the year ended December 31, 2020, as compared to $15.1 million and $9.8 million for 2019 and 2018, respectively. The increase for the year ended December 31, 2020 as compared to 2019 was primarily due to increased debt borrowings in 2020 at increased borrowing rates. The increase for the year ended December 31, 2019 as compared to 2018 was primarily due to increased debt borrowings in 2019 mostly associated with 3T litigation settlements.

Foreign Exchange and Other Losses

Foreign exchange and other losses consist primarily of gains and losses arising from transactions denominated in a currency different from an entity's functional currency, foreign currency exchange rate derivative gains and losses and changes in the fair value of embedded and capped call derivatives.

We incurred foreign exchange and other losses of $33.4 million for the year ended December 31, 2020, as compared to $2.5 million and $1.9 million for 2019 and 2018, respectively. The increase in losses for the year ended December 31, 2020 as compared to 2019 was primarily due to an increase in the fair value of the exchangeable notes embedded derivative and other

derivative liabilities and a net loss on foreign exchange revaluation. These losses were partially offset by an increase in the fair value of the capped call derivative asset.

Income Taxes

LivaNova PLC is resident in the UK. Our subsidiaries conduct operations and earn income in numerous countries and are subject to the laws of taxing jurisdictions within those countries, and the income tax rates imposed in the tax jurisdictions in which our subsidiaries conduct operations vary. As a result of the changes in the overall level of our income, the earnings mix in various jurisdictions, changes in valuation allowances, and the changes in tax laws, our consolidated effective income tax rate may vary substantially from one reporting period to another.

Our effective income tax rate from continuing operations was 0.2%, 16.2% and 28.1% for the years ended December 31, 2020, 2019 and 2018, respectively. Our effective income tax rate fluctuates based on, among other factors, changes in pretax income in countries with varying statutory tax rates, changes in valuation allowances, changes in tax credits and incentives and changes in unrecognized tax benefits associated with uncertain tax positions.

Compared with the year ended December 31, 2019, the decrease in the effective tax rate for 2020 was primarily attributable to a tax benefit related to the Coronavirus Aid, Relief and Economic Security ("CARES") Act, the tax benefit due to the release of the uncertain tax positions upon the settlement of tax litigation in Italy and other items, offset by an increase to the valuation allowance of the UK and other jurisdictions. Comparatively, the effective tax rate for 2019 included a release of uncertain tax positions and a U.S. federal tax benefit from a return to provision reconciliation, partly offset by the valuation allowance for a portion of the U.S. federal and state net operating losses and attributes during the year ended December 31, 2019.

Compared with the year ended December 31, 2018, the decrease in the effective tax rate for 2019 was primarily attributable to the impact of a full valuation allowance for the U.S. losses, release of uncertain tax positions, change in our UK group filing exemption and other discrete items.

Brexit

On January 31, 2020, the UK departed from the EU (in a move commonly referred to as "Brexit"), and the UK entered a transition period that ended on December 31, 2020. During the transition period, the UK ceased being an EU member but the trading relationship remained the same under the EU's rules.

Various tax reliefs and exemptions that apply to transactions between EU Member States under existing tax laws ceased to apply to transactions between the UK and EU Member States at the end of the transition period. It is unclear at this stage if or when any new tax treaties between the UK and the EU or individual EU Member States will replace those reliefs and exemptions.

We and several of our wholly owned subsidiaries that are resident for tax purposes either in the UK, various EU Member States, or in the U.S., are party to intercompany transactions and agreements under which we receive various tax reliefs and exemptions in accordance with applicable international tax laws, treaties and regulations. As it is our intention to indefinitely reinvest undistributed earnings of our foreign subsidiaries, there is no immediate tax impact.

We will not account for the impact of Brexit in our income tax provisions until there are material changes in tax laws or treaties between the UK and other countries.

European Union State Aid Challenge

On April 2, 2019, the EC concluded that "when financing income from a foreign group company, channeled through an offshore subsidiary, derives from UK activities, the group finance exemption is not justified and constitutes State aid under EU rules." Based upon our assessment of the technical arguments as to whether the UK group exemption is State aid, together with no material UK activities involved in our financing, no uncertain tax position reserve has been recognized related to this matter. Furthermore, in December 2019, we amended our 2017 tax return filing to avail ourselves of different rules to determine UK taxation, which are not subject to the EU decision. We filed our 2018 tax return similarly, and therefore, we do not believe that the EU state aid decision will result in a material liability.

Results of Discontinued Operations

In November 2017, we concluded that the sale of CRM represented a strategic shift in our business that would have a major effect on future operations and financial results. Accordingly, the operating results of CRM are classified as discontinued operations in our consolidated statements of income (loss) for all the periods presented in this Annual Report on Form 10-K.

We completed the CRM Sale on April 30, 2018, for total cash proceeds of $195.9 million, less cash transferred of $9.2 million, subject to a closing working capital adjustment. In March 2020, we finalized the working capital adjustment and, as a

result, made a $16.4 million payment to MicroPort during the first quarter of 2020. In conjunction with the sale, we entered into transition services agreements to provide certain support services generally for up to twelve months from the closing date of the sale. The services include, among others, accounting, information technology, human resources, quality assurance, regulatory affairs, supply chain, clinical affairs and customer support. For the year ended December 31, 2019 and December 31, 2018, we recognized income of $0.9 million and $2.8 million, respectively, for providing these services. Income recognized related to the transition services agreements is recorded as a reduction to the related expenses in the associated expense line items in our consolidated statement of income (loss). For further information, refer to "Note 6. Discontinued Operations" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Significant Accounting Policies and Critical Accounting Estimates

We have adopted various accounting policies to prepare the consolidated financial statements in accordance with accounting principles generally accepted in the U.S. ("U.S. GAAP"). Our most significant accounting policies are disclosed in "Note 2. Basis of Presentation, Use of Accounting Estimates and Significant Accounting Policies" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K. New accounting pronouncements are disclosed in "Note 23. New Accounting Pronouncements" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

To prepare our consolidated financial statements in conformity with U.S. GAAP, management makes estimates and assumptions that may affect the reported amounts of our assets and liabilities, the disclosure of contingent liabilities as of the date of our consolidated financial statements and the reported amounts of our revenue and expenses during the reporting period. Our actual results may differ from these estimates. We consider estimates to be critical if we are required to make assumptions about material matters that are uncertain at the time of estimation, or if materially different estimates could have been made or it is reasonably likely that the accounting estimate will change from period to period. The following are areas requiring management's judgment that we consider critical:

Leases

On January 1, 2019, we adopted ASC Update ("ASU") No 2016-02, *Leases*, including subsequent related accounting updates (collectively referred to as "Topic 842"), which supersedes the previous accounting model for leases. We adopted the standard using the modified retrospective approach with an effective date as of January 1, 2019. Prior year financial statements were not recast under the new standard. In addition, we elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed us to carry forward our historical assessment of whether contracts are or contain leases and lease classification. We also elected the practical expedient to account for lease and non-lease components together as a single combined lease component, which is applicable to all asset classes. We did not, however, elect the practical expedient related to using hindsight in determining the lease term as this was not relevant following our election of the modified retrospective approach.

In addition, we elect certain practical expedients on an ongoing basis, including the practical expedient for short-term leases pursuant to which a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize a lease liability and operating lease asset for leases with a term of 12 months or less and that do not include an option to purchase the underlying asset that the lessee is reasonably certain to exercise. We have applied this accounting policy to all asset classes in our portfolio and will recognize the lease payments for such short-term leases within profit and loss on a straight-line basis over the lease term.

Furthermore, from a lessor perspective, certain of our agreements that allow the customer to use, rather than purchase, our medical devices will meet the criteria of being a lease in accordance with the new standard. While the amount of revenue and expenses recognized over the contract term will not be impacted, the timing of revenue and expense recognition will be impacted depending upon lease classification. We enacted appropriate changes to our business processes, systems and internal controls to support identification, recognition and disclosure of leases under the new standard.

We determine if an arrangement is or contains a lease at inception. Operating lease assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at the latter of our lease standard effective date for adoption or the lease commencement date. Variable lease payments, such as common area rent maintenance charges and rent escalations not known upon lease commencement, are not included in determination of the minimum lease payments and will be expensed in the period in which the obligation for those payments is incurred. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at commencement in determining the present value of future payments. The incremental borrowing rate represents an estimate of the interest rate we would incur at lease commencement to borrow an amount equal to the lease payments on a collateralized basis over the term of a lease within a particular currency environment. We used the incremental borrowing rate available

nearest to our adoption date for leases that commenced prior to that date. The operating lease asset also includes any lease payments made in advance and excludes lease incentives. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term.

For additional information refer to “Note 14. Leases” in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Business Combinations and Goodwill

We allocate the amounts we pay for an acquisition to the assets we acquire and liabilities we assume based on their fair values at the date of acquisition, including property, plant and equipment, inventories, accounts receivable, long-term debt, and identifiable intangible assets which either arise from a contractual or legal right or are separable from goodwill. We base the fair value of identifiable intangible assets acquired in a business combination, including IPR&D, on valuations that use information and assumptions provided by management, which consider management’s best estimates of inputs and assumptions that a market participant would use. We allocate any excess purchase price over the fair value of the net tangible and identifiable intangible assets acquired to goodwill. Transaction costs associated with these acquisitions are expensed as incurred and are reported in selling, general and administrative on the consolidated statements of income (loss). We recognize adjustments to the provisional amounts identified during the measurement period with a corresponding adjustment to goodwill in the reporting period in which the adjustment amounts are determined. The effect on earnings of changes in depreciation, amortization or other income effects, if any, as a result of the change to the provisional amounts are recorded in the same period’s consolidated financial statements, calculated as if the accounting had been completed at the acquisition date.

Intangible Assets, Other than Goodwill

Intangible assets shown on the consolidated balance sheets consist of finite-lived and indefinite-lived assets expected to generate future economic benefits and are recorded at their respective fair values as of their acquisition date. Finite-lived intangible assets consist primarily of developed technology and technical capabilities, including patents, related know-how and licensed patent rights, trade names and customer relationships. Customer relationships consist of relationships with hospitals and surgeons in the countries where we operate. Indefinite-lived intangible assets other than goodwill are composed of IPR&D assets acquired in acquisitions. We estimate the useful lives of our intangible assets, which requires significant management judgment. We amortize our finite-lived intangible assets over their useful lives using the straight-line method.

Amortization expense is disclosed separately on our consolidated statements of income (loss). We evaluate our intangible assets each reporting period to determine whether events and circumstances indicate either a different useful life or impairment. If we change our estimate of the useful life of an asset, we amortize the carrying amount over the revised remaining useful life.

Impairment of Long-Lived Assets and Goodwill

We review, when circumstances warrant, the carrying amounts of our property and equipment and our intangible assets to determine whether such carrying amounts continue to be recoverable. Such changes in circumstance may include, among other items, an expectation of a sale or disposal of a long-lived asset or asset group, adverse changes in market or competitive conditions, an adverse change in legal factors or business climate in the markets in which we operate and operating or cash flow losses. For purposes of impairment testing, long-lived assets are grouped at the lowest level for which cash flows are largely independent of other assets and liabilities, generally at or below the reporting unit level. If the carrying amount of the asset or asset group is greater than the expected undiscounted cash flows to be generated by such asset or asset group, an impairment adjustment is recognized. Such adjustment is measured by the amount that the carrying value of such asset or asset group exceeds its fair value. We generally measure fair value by considering sale prices for similar assets, discounted estimated future cash flows using an appropriate discount rate and/or estimated replacement cost. Assets to be disposed of are carried at the lower of their financial statement carrying amount or fair value less costs to sell.

We evaluate the goodwill and indefinite-lived intangible assets for impairment at least annually on October 1st and whenever other facts and circumstances indicate that the carrying amounts of goodwill and other indefinite-lived intangible assets may not be recoverable. In the case of goodwill, if it is more-likely-than-not that a reporting unit’s fair value is less than its carrying value, we then compare the fair value of the reporting unit to its respective carrying amount. A reporting unit is an operating segment or one level below an operating segment (referred to as a “component”). Our operating segments are deemed to be our reporting units. If the carrying value of a reporting unit were to exceed its fair value, we would then compare the implied fair value of the reporting unit’s goodwill to its carrying amount, and any excess of the carrying amount over the fair value would be charged to operations as an impairment loss. Estimating the fair value requires various assumptions, including revenue growth rates, forecasted selling, general and administrative expenses and discount rates. With respect to indefinite-lived intangible assets, if it is more-likely-than-not that the fair value of an indefinite-lived intangible asset is less than its carrying

value, we then estimate its fair value and any excess of the carrying value over the fair value of the indefinite-lived intangible asset is also charged to operations as an impairment loss. Estimating the fair value of indefinite-lived intangible assets requires various assumptions, including revenue growth rates, timing and probability of commercialization, and discount rates.

Revenue

In May 2014, the FASB issued ASC Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers* (Topic 606). Update No. 2014-09 requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers and replaces most existing revenue recognition guidance. We adopted the new revenue guidance on January 1, 2018. We elected the cumulative effect transition method; however, we recognized no cumulative effect to the opening balance of retained earnings because the impact on the timing of when revenue is recognized was insignificant.

We generate our revenue through contracts with customers. Our customers are primarily hospitals, healthcare institutions, distributors and other organizations. Revenue is measured based on consideration specified in a contract with a customer, and excludes amounts collected on behalf of third parties, such as sales tax. We measure the consideration based upon the estimated amount to be received. The amount of consideration we ultimately receive varies depending upon the return terms, sales rebates, discounts, and other incentives that we may offer, which are accounted for as variable consideration when estimating the amount of revenue to recognize. The estimate of variable consideration requires significant judgment.

We recognize revenue when a performance obligation is satisfied by transferring the control of a product, or providing service, to a customer. Some of our contracts include the purchase of multiple products and/or services. In such cases, we allocate the transaction price based upon the relative estimated stand-alone price of each product and/or service sold. Typically, our contracts do not have a significant financing component. We have historically experienced a low rate of product returns and the total dollar value of product returns has not been significant to our consolidated financial statements.

We incur incremental commission fees paid to the sales force associated with the sale of products. We elected the practical expedient within ASC 606-10-50-22 and recognize the incremental costs of obtaining a contract as an expense when incurred if the amortization period of the asset the entity would otherwise recognize is one year or less. As a result, no commissions are capitalized as contract costs at December 31, 2020.

Income Taxes

We are a UK corporation, and we operate through our various subsidiaries in a number of countries throughout the world. Our provision for income taxes is based on the tax laws and rates applicable in the jurisdictions in which we operate and earn income. We use significant judgment and estimates in accounting for our income taxes. We recognize deferred tax assets and liabilities for the anticipated future tax effects of temporary differences between the financial statements basis and the tax basis of our assets and liabilities, which are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

We file federal and local tax returns in many jurisdictions throughout the world and are subject to income tax examinations for our fiscal year 2014 and subsequent years, with certain exceptions. While we believe that our tax return positions are fully supported, tax authorities may disagree with certain positions we have taken and assess additional taxes and as a result, we may establish reserves for uncertain tax positions, which require a significant degree of management judgment. We regularly assess the likely outcomes of our tax positions in order to determine the appropriateness of our reserves; however, the actual outcome of an audit can be significantly different than our expectations, which could have a material impact on our tax provision. The total amount of unrecognized tax benefit, as of December 31, 2020, if recognized, would reduce our income tax expense by approximately $3.4 million. Our tax positions are evaluated for recognition using a more-likely-than-not threshold. Uncertain tax positions requiring recognition are measured as the largest amount of tax benefit that has a greater than 50% likelihood of being realized upon effective settlement with a taxing authority that has full knowledge of all relevant information. Some of the reasons a reserve for an uncertain tax position may be reversed are: completion of a tax audit; a change in applicable tax law including a tax case or legislative guidance; or an expiration of the statute of limitations. We recognize interest and penalties associated with unrecognized tax benefits and record interest in interest expense, and penalties in selling, general and administrative expense, in our consolidated statements of income (loss).

We periodically assess the recoverability of our deferred tax assets by considering whether it is more-likely-than-not that some or all of the actual benefit of those assets will be realized. To the extent that realization does not meet the "more-likely-than-not" criterion, we establish a valuation allowance. We periodically review the adequacy and necessity of the valuation allowance by considering significant positive and negative evidence relative to our ability to recover deferred tax assets and to determine the timing and amount of valuation allowance that should be released. This evidence includes: profitability in the most recent quarters; internal forecasts for the current and next two future years; size of deferred tax asset relative to estimated

profitability; the potential effects on future profitability from increasing competition, healthcare reforms and overall economic conditions; limitations and potential limitations on the use of our net operating losses due to ownership changes, pursuant to IRC Section 382; and the implementation of prudent and feasible tax planning strategies, if any.

We monitor income tax developments in countries where we conduct business. On March 27, 2020, the U.S. enacted the CARES Act which provided for a 5-year loss carryback for losses incurred in 2018-2020. We recorded a discrete tax benefit of $43.3 million to account for the effect of the CARES Act as of December 31, 2020. Further regulations and notices as well as state legislative changes addressing conformity to the CARES Act are still pending. Certain proposed and final regulations for the Tax Cuts and Jobs Act ("TCJA") were issued in 2020. Further changes could be made under the new Presidential administration in the United States. The extent to which these and future legislation or additional regulations clarifying the CARES Act could impact our consolidated effective income tax rate in future periods depends on many factors including, but not limited to, the amount of profit generated by our subsidiaries operating in the U.S., the impact of the Company's current or contemplated tax planning strategies, the impact of new or amended tax laws or regulations by the U.S. and by countries outside the U.S., and other factors beyond our control.

New Accounting Pronouncements

For a discussion of new accounting standards and disclosure requirements, please refer to "Note 23. New Accounting Pronouncements" in our consolidated financial statements and accompanying notes, beginning on page F-1 of this Annual Report on Form 10-K.

Liquidity and Capital Resources

Based on our current business plan, we believe that our existing cash and cash equivalents, future cash generated from operations and borrowings under our existing credit facilities will be sufficient to fund our expected operating needs, working capital requirements, R&D opportunities, capital expenditures, obligations associated with the litigation involving our 3T device and debt service requirements over the 12-month period beginning from the issuance date of these financial statements. We regularly review our capital needs and consider various investing and financing alternatives to support our requirements.

On June 10, 2020, we entered into a $450.0 million five-year senior secured term loan (the "Term Loan"). On December 30, 2020, we entered into a $50.0 million credit facility agreement with ACF FINCO I LP ("2020 Revolving Credit Facility") for working capital needs. On February 24, 2021 the Company entered into amendments (the "Amendments") to the Term Loan and the 2020 Revolving Credit Facility. Pursuant to the Amendments, the definition of "Consolidated EBITDA" for purposes of calculating the total secured leverage ratio was amended to add back an accrual in an amount not to exceed $43.0 million as a loss contingency liability as required under GAAP in connection with the clean-up of a hazardous waste storage site and contaminated areas located in Saluggia, Italy, solely in the case of the periods ending December 31, 2020, March 31, 2021, June 30, 2021 and September 30, 2021. The Company was in compliance with all financial covenants as of December 31, 2020, as amended. Refer to "Note 12. Financing Arrangements" in the consolidated financial statements in this Annual Report on Form 10-K for additional information regarding our debt.

On June 17, 2020, our wholly-owned subsidiary, LivaNova USA, Inc., issued $287.5 million aggregate principal amount of 3.00% cash exchangeable senior notes (the "Notes"). Holders of the Notes are entitled to exchange the Notes at any time during specified periods, at their option, and are entitled to exchange the Notes during any calendar quarter, if the last reported sale price of LivaNova's ordinary shares, with a nominal value of £1.00 per share for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the exchange price, or $79.27 per share, on each applicable trading day. The Notes are exchangeable solely into cash and are not exchangeable into ordinary shares of LivaNova or any other security under any circumstances. The initial exchange rate for the Notes is 16.3980 ordinary shares per $1,000 principal amount of Notes (equivalent to an initial exchange price of approximately $60.98 per share). The exchange rate is subject to adjustment in certain circumstances, as set forth in the indenture governing the Notes.

Our liquidity could be adversely affected by the factors affecting future operating results, including those referred to in "Item 1A. Risk Factors" above and by the contingencies referred to in "Note 15. Commitments and Contingencies" in the consolidated financial statements in this Annual report on Form 10-K.

Cash Flows

Net cash and cash equivalents provided by (used in) operating, investing and financing activities and the net increase (decrease) in the balance of cash and cash equivalents were as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Operating activities	$ (79,422)	$ (91,142)	$ 120,489
Investing activities	(41,844)	(41,290)	(120,556)
Financing activities	310,756	146,581	(42,348)
Effect of exchange rate changes on cash and cash equivalents	2,205	(216)	(3,996)
Net increase (decrease)	$ 191,695	$ 13,933	$ (46,411)

Operating Activities

Cash used in operating activities for the year ended December 31, 2020 decreased $11.7 million as compared to 2019, primarily due to the effect of improved working capital management of $77.7 million, partially offset by a decrease in net income adjusted for non-cash items of $66.0 million.

Cash used in operating activities for the year ended December 31, 2019 increased $211.6 million as compared to 2018, primarily due to $156.9 million in 3T litigation settlement payments made during 2019 and the change in operating assets and liabilities.

Investing Activities

Cash used in investing activities during the year ended December 31, 2020 increased $0.6 million as compared to 2019. The increase is primarily due to an increase in purchases of property, plant and equipment of $10.3 million and an increase in purchases of investments and loans to investees totaling $3.4 million, partially offset by a decrease of $9.0 million in cash paid for acquisitions and a decrease in purchases of intangible assets of $3.3 million.

Cash used in investing activities during the year ended December 31, 2019 decreased $79.3 million as compared to 2018. The decrease primarily resulted from a decrease in cash paid for acquisitions of $268.9 million, partially offset by cash received from the sale of CRM in 2018 of $186.7 million.

Financing Activities

Cash provided by financing activities during the year ended December 31, 2020 increased $164.2 million as compared to 2019, primarily due to an increase in net borrowings and associated costs of $214.5 million and a decrease in payments of contingent consideration of $6.9 million, partially offset by the purchase of a capped call associated with our Notes of $43.1 million and a closing adjustment payment for the sale of our former CRM business of $14.9 million.

Cash provided by financing activities during the year ended December 31, 2019 increased $188.9 million as compared to 2018, primarily due to an increase in net borrowings of $139.0 million and cash used in 2018 of $50.0 million to repurchase shares under a publicly announced repurchase plan.

Debt and Capital

Our capital structure consists of debt and equity. As of December 31, 2020, our total debt of $655.6 million was 58.6% of total equity of $1,118.8 million. As of December 31, 2019, our total debt of $337.7 million was 24.4% of total equity of $1,383.7 million.

During the year ended December 31, 2020, we borrowed $886.9 million in long-term debt, incurred $23.7 million in debt issuance costs, and repaid $482.1 million in long-term debt. Additionally, we reduced our short-term unsecured revolving credit agreements and other agreements with various banks by $1.3 million.

During the year ended December 31, 2019, we borrowed $197.2 million in long-term debt, incurred $3.8 million in debt issuance costs, and repaid $24.2 million in long-term debt. Additionally, we reduced our short-term unsecured revolving credit agreements and other agreements with various banks by $1.2 million.

Off-Balance Sheet Arrangements

As of December 31, 2020, we did not have any off-balance sheet arrangements.

Contractual Obligations

We have various contractual commitments that we expect to fund from existing cash, future operating cash flows and borrowings under our credit facilities. The following table summarizes our significant contractual obligations as of December 31, 2020 and the periods in which such obligations are due (in thousands):

	Less Than One Year	One to Three Years	Three to Five Years	Thereafter	Total Contractual Obligations
Principal payments on debt obligations	$ 13,343	$ 5,854	$ 737,620	$ 360	$ 757,177
Interest payments on long-term debt	43,059	85,741	68,047	—	196,847
3T litigation settlements	5,144	—	—	—	5,144
Operating leases	13,414	20,952	11,263	14,038	59,667
Inventory supply contract obligations	19,406	4,621	2,373	—	26,400
Derivative instruments	8,267	184	121,756	—	130,207
Contingent consideration [1]	13,968	414	89,436	—	103,818
Other commitments	606	50	50	113	819
Total contractual obligations [2]	$ 117,207	$ 117,816	$ 1,030,545	$ 14,511	$ 1,280,079

(1) Includes the fair value of our current and non-current positions of contingent consideration. While it is not certain if and/or when payments will be made, the maturity dates and amounts included in this table reflect our best estimates.
(2) Contractual obligations above do not include $3.9 million of unrecognized tax benefits, inclusive of interest and penalties, included on our consolidated balance sheet as of December 31, 2020, because we are unable to specify with certainty the future periods in which we may be obligated to settle such amounts.

Guarantees and Other Commitments

We have other commitments that we are contractually obligated to fulfill with cash under certain circumstances. Obligations under these guarantees are not normally called, as we typically comply with underlying performance requirements. As of December 31, 2020, no liability has been recorded in the consolidated financial statements associated with these obligations.

The following table summarizes our guarantees as of December 31, 2020 (in thousands):

	Less Than One Year	One to Three Years	Three to Five Years	Thereafter	Total Guarantees
Guarantees on government bids [1]	$ 5,176	$ 5,028	$ 2,348	$ 1,318	$ 13,870
Guarantees - commercial [2]	924	627	327	1,500	3,378
Guarantees to tax authorities [3]	1,494	3,455	—	13,559	18,508
Guarantees to third-parties	135	1	79	445	660
Total guarantees	$ 7,729	$ 9,111	$ 2,754	$ 16,822	$ 36,416

(1) Government bid guarantees include such items as unconditional bank guarantees, irrevocable letters of credit and bid bonds.
(2) Commercial guarantees include our lease and tenancy guarantees.
(3) Guarantees to tax authorities consist of guarantees issued to the Italian Revenue Agency.

Market Risk

We are exposed to certain market risks as part of our ongoing business operations, including risks from foreign currency exchange rates, interest rate risks and concentration of procurement suppliers, that could adversely affect our consolidated financial position, results of operations or cash flows.

We manage these risks through regular operating and financing activities and, at certain times, derivative financial instruments.

Foreign Currency Exchange Rate Risk

Due to the global nature of our operations, we are exposed to foreign currency exchange rate fluctuations. We maintain a foreign currency exchange rate risk management strategy that utilizes derivatives to reduce our exposure to unanticipated fluctuations in forecast revenue and costs and fair values of debt, inter-company debt and accounts receivable caused by changes in foreign currency exchange rates.

We mitigate our credit risk relating to counter-parties of our derivatives through a variety of techniques, including transacting with multiple, high-quality financial institutions, thereby limiting our exposure to individual counter-parties and by entering into International Swaps and Derivatives Association, Inc. ("ISDA") Master Agreements, which include provisions for a legally enforceable master netting agreement, with almost all of our derivative counter-parties. The terms of the ISDA agreements may also include credit support requirements, cross default provisions, termination events, and set-off provisions. Legally enforceable master netting agreements reduce credit risk by providing protection in bankruptcy in certain circumstances and generally permitting the closeout and netting of transactions with the same counter-party upon the occurrence of certain events.

Interest Rate Risk

We are subject to interest rate risk on our investments and debt. If interest rates were to increase or decrease by 0.5%, the effects on our consolidated statement of income (loss) would not be material.

Concentration of Credit Risk

Our trade accounts receivable represent potential concentrations of credit risk. This risk is limited due to the large number of customers and their dispersion across a number of geographic areas, as well as our efforts to control our exposure to credit risk by monitoring our receivables and the use of credit approvals and credit limits. In addition, we have historically had strong collections and minimal write-offs. While we believe that our reserves for credit losses are adequate, essentially all of our trade receivables are concentrated in the hospital and healthcare sectors worldwide, and accordingly, we are exposed to their respective business, economic and country-specific variables. Although we do not currently foresee a concentrated credit risk associated with these receivables, repayment is dependent on the financial stability of these industry sectors and the respective countries' national economies and healthcare systems.

Factors Affecting Future Operating Results and Share Price

The material factors affecting our future operating results and share prices are disclosed in "Item 1A. Risk Factors" of this Annual Report on Form 10-K.

Item 7A. *Quantitative and Qualitative Disclosures About Market Risk*

The information required under 7A. has been incorporated by reference to the information contained in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Annual Report on Form 10-K under the section entitled "*Market Risk.*"

Item 8. *Financial Statements and Supplementary Data*

Our audited consolidated financial statements and notes thereto included in "Item 15. Exhibits, Financial Statement Schedules" of this Annual Report on Form 10-K, beginning on page F-1 of this Annual Report on Form 10-K, are incorporated herein by reference.

Item 9. *Changes in and Disagreements with Accountants on Accounting and Financial Disclosure*

None.

Item 9A. *Controls and Procedures*

Disclosure Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

We maintain a system of disclosure controls and procedures, as defined in Rule 13a-15(e) under the Exchange Act, that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information is accumulated and communicated to management, including our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), as appropriate, to allow timely decisions regarding required disclosure. Our management, under the supervision and with the participation of our CEO and CFO, evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this Annual Report on Form 10-K. Based on that evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of December 31, 2020.

(b) Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2020 using the criteria set forth in the *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, we concluded that the Company's internal control over financial reporting was effective as of December 31, 2020.

The effectiveness of our internal control over financial reporting as of December 31, 2020 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm. Their report is included after "Item 16. Form 10-K Summary" in this Annual Report on Form 10-K.

(c) Changes in Internal Control Over Financial Reporting

During the fourth quarter of 2020, there were no changes to our internal control over financial reporting (as defined in Rules 13a-15(f) under the Exchange Act) that have materially affected, or that are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. *Other Information*

On February 26, 2021, we entered into a Separation and Settlement Agreement ("Separation Agreement") with Roy Khoury, President International Commercial and SVP Global Strategic Marketing in connection with his resignation from the Company, effective March 1, 2021. Pursuant to the Separation Agreement, Mr. Khoury's employment with the Company shall terminate on the earlier of March 31, 2022 and such other day as is agreed in accordance with the Separation Agreement any time after May 6, 2021, i.e., the Garden Leave Period. During his Garden Leave Period, Mr. Khoury will receive his standard salary and benefits, culminating in a payment of £150,000 upon his termination from the Company. Mr. Khoury will not be eligible for

any further equity awards in the Company, though any outstanding equity awards previously granted will continue to vest, in accordance with their terms during the Garden Leave Period through his date of termination.

PART III

Item 10. *Directors, Executive Officers and Corporate Governance*

The information required for this Item 10 is incorporated by reference from our definitive Proxy Statement for the annual meeting of stockholders to be held on June 16, 2021 (the "2021 Proxy Statement").

We have adopted a Code of Business Conduct and Ethics (the "Code of Conduct") that applies to all employees, officers and directors of the Company. A copy of the Code of Conduct is publicly available on our website, *www.livanova.com*. We intend to post any amendments to the Code of Conduct or any grant of a waiver from a provision of the Code of Conduct requiring disclosure under applicable SEC rules on the Investor Relations section of our website.

Item 11. *Executive Compensation*

The information required for this Item 11 is incorporated by reference from our 2021 Proxy Statement.

Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*

The information required for this Item 12 is incorporated by reference from our 2021 Proxy Statement.

Item 13. *Certain Relationships and Related Transactions, and Director Independence*

The information required for this Item 13 is incorporated by reference from our 2021 Proxy Statement.

Item 14. *Principal Accounting Fees and Services*

The information required for this Item 14 is incorporated by reference from our 2021 Proxy Statement.

PART IV

Item 15. *Exhibits, Financial Statement Schedules*

(1) Financial Statements

The Consolidated Financial Statements of LivaNova PLC and its subsidiaries and the Report of Independent Registered Public Accounting Firms are included in this Annual Report on Form 10-K beginning on page F-1:

(2) Financial Statement Schedules

All schedules required by Regulation S-X have been omitted as not applicable or not required, or the information required has been included in the notes to the consolidated financial statements.

(3) Index to Exhibits

The exhibits marked with the asterisk symbol (*) are filed or furnished (in the case of Exhibit 32.1) with this Form 10-K. The exhibits marked with the cross symbol (†) are management contracts or compensatory plans or arrangements filed pursuant to Item 601(b)(10)(iii) of Regulation S-K.

Exhibit Number	Document Description
2.1	Letter of Intent, dated as of November 20, 2017, by and among the Company, MicroPort Cardiac Rhythm B.V. and MicroPort Scientific Corporation (including the form of Stock and Asset Purchase Agreement attached as Exhibit A thereto), incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K, filed on November 20, 2017
2.2	Stock and Asset Purchase Agreement, dated as of March 8, 2018, by and among the Company, MicroPort Cardiac Rhythm B.V. and MicroPort Scientific Corporation (excluding schedules and exhibits, which the Company agrees to furnish supplementally to the Securities and Exchange Commission upon request), incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K, filed on March 8, 2018
2.3	Share and Asset Purchase Agreement, dated as of December 2, 2020, by and between LivaNova PLC and Mitral Holdco S.a.r.l., incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K, filed on December 3, 2020
3.1	Amended Articles of Association, incorporated by reference to Exhibit 3.1 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020
4.1*	Description of Securities Registered Under Section 12 of the Exchange Act
4.2	Indenture, dated as of June 17, 2020, among LivaNova USA, Inc., as Issuer, LivaNova PLC, as Guarantor, and Citibank, N.A., as Trustee, incorporated by reference to Exhibit 4.1 of the Company's current Report on Form 8-K, filed on June 17, 2020
4.3	Form of 3.00% Cash Exchangeable Senior Notes due 2025 (included in Exhibit 4.1 of the Company's current Report on Form 8-K, filed on June 17, 2020)
10.1†	Form of Deed of Indemnification (Directors), each effective October 19, 2015, incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K, filed on October 19, 2015
10.2†	Form of Deed of Indemnification (Officers), each effective October 19, 2015, incorporated by reference to Exhibit 10.4 of the Company's Current Report on Form 8-K, filed on October 19, 2015
10.3†	2015 Incentive Award Plan and related Sub-Plan for U.K. Participants, adopted on October 16, 2015, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed on October 19, 2015

10.4†	Cyberonics, Inc. 2009 Stock Plan, as amended, incorporated by reference to Appendix A to Cyberonics, Inc.'s Proxy Statement on Schedule 14A, filed on August 2, 2012
10.5†	Amended and Restated Cyberonics, Inc. New Employee Equity Inducement Plan, as amended, incorporated by reference to Exhibit 10.3 of Cyberonics, Inc.'s Quarterly Report on Form 10-Q for the fiscal quarter ended October 24, 2008
10.6	Form of Share Repurchase Contract, incorporated by reference to Appendix A of the Company's Proxy Statement on Schedule 14A, filed on May 16, 2016
10.7	Form of Rule 10b5-1 Repurchase Plan, incorporated by reference to Appendix B of the Company's Proxy Statement on Schedule 14A, filed on May 16, 2016
10.8†	Letter Agreement dated July 1, 2016 between Douglas Manko and Cyberonics Inc., a wholly owned subsidiary of the Company, incorporated by reference to Exhibit 10.48 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016
10.9†	Form of the Company's 2017 Service-Based RSU Agreement, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed on May 11, 2017
10.10†	Form of the Company's 2017 Performance-Based RSU Agreement, incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K, filed on May 11, 2017
10.11†	CEO Employment Agreement effective January 1, 2017 between the Company and Damien McDonald, incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K, filed on February 28, 2017
10.12†	Side Letter dated January 1, 2017 between the Company and Damien McDonald, incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K, filed on February 28, 2017
10.13†	Service Agreement effective May 24, 2017, between the Company and Keyna Skeffington, incorporated by reference to Exhibit 10.6 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017
10.14†	Non-Employee Director Compensation Policy, adopted December 2017, incorporated by reference to Exhibit 10.74 of the Company's Annual Report on Form 10-K for the year ended December 31. 2017
10.15	Form of Share Repurchase Contract, incorporated by reference to Appendix A of the Company's Proxy Statement on Schedule 14A, filed on May 16, 2017
10.16	Form of Rule 10b5-1 Repurchase Plan, incorporated by reference to Appendix B of the Company's Proxy Statement on Schedule 14A, filed on May 16, 2017
10.17†	Description of 2018 Long Term Incentive Plan, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed on March 16, 2018
10.18†	Form of 2018 Long Term Incentive Plan RSU Award Agreement, incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K, filed on March 16, 2018
10.19†	Form of 2018 Long Term Incentive Plan SAR Award Agreement, incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K, filed on March 16, 2018
10.20†	Form of 2018 Long Term Incentive Plan PSU Award Agreement (rTSR condition), incorporated by reference to Exhibit 10.4 of the Company's Current Report on Form 8-K, filed on March 16, 2018
10.21†	Form of 2018 Long Term Incentive Plan PSU Award Agreement (FCF condition), incorporated by reference to Exhibit 10.5 of the Company's Current Report on Form 8-K, filed on March 16, 2018
10.22†	General Provisions of the Company's Global Employee Share Purchase Plan dated 12 June 2018, incorporated by reference to Exhibit 10.4 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018
10.23†	Service Agreement, dated February 28, 2017, between Alistair Simpson and LivaNova PLC, incorporated by reference to Exhibit 10.9 of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019
10.24†	2019 LivaNova Short-Term Incentive Plan approved February 20, 2019, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K/A, filed on March 6, 2019
10.25†	Description of 2019 Long Term Incentive Plan approved March 29, 2019, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed on April 1, 2019
10.26†	Form of the Company's 2019 Long Term Incentive Plan RSU Award Agreement, incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K, filed on April 1, 2019
10.27†	Form of the Company's 2019 Long Term Incentive Plan SAR Award Agreement, incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K, filed on April 1, 2019
10.28†	Form of the Company's 2019 Long Term Incentive Plan PSU Award Agreement (rTSR condition), incorporated by reference to Exhibit 10.4 of the Company's Current Report on Form 8-K, filed on April 1, 2019
10.29†	Form of the Company's 2019 Long Term Incentive Plan PSU Award Agreement (FCF condition), incorporated by reference to Exhibit 10.5 of the Company's Current Report on Form 8-K, filed on April 1, 2019

10.30†	Service Agreement, dated January 2, 2019, between Trui Hebbelinck and LivaNova PLC, incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019
10.31†	Separation and Settlement Agreement, dated November 2019, between Alistair Simpson and LivaNova PLC, incorporated by reference to Exhibit 10.46 of the Company's Annual Report on Form 10-K for the year ended December 31, 2019
10.32†	Separation Agreement, dated December 2019, between Edward S. Andrle and LivaNova USA, Inc., incorporated by reference to Exhibit 10.47 of the Company's Annual Report on Form 10-K for the year ended December 31, 2019
10.33	Credit Agreement, dated as of June 10, 2020 , among LivaNova USA, Inc., as Borrower, the Company, as Guarantor, the several lenders from time to time parties thereto, Ares Capital Corporation, as Administrative Agent, and Ares Capital Corporation, as Collateral Agent incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed on June 11, 2020
10.34	Form of Capped Call Confirmation incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed on June 17, 2020
10.35†	Amendment to Outstanding 2019 and 2020 Restricted Stock Unit Awards under the LivaNova PLC 2015 Incentive Award Plan, dated June 15, 2020, incorporated by reference to Exhibit 10.10 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020
10.36†	Amendment to Outstanding 2018 Restricted Stock Unit Awards under the LivaNova PLC 2015 Incentive Award Plan dated June 15, 2020, incorporated by reference to Exhibit 10.11 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020
10.37†	Amendment to Outstanding 2018, 2019 and 2020 Performance Stock Unit Awards under the LivaNova PLC 2015 Incentive Award Plan, dated June 15, 2020, incorporated by reference to Exhibit 10.12 of the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020
10.38†	Form of Long Term Incentive Plan Restricted Stock Unit Award Agreement, incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020
10.39†	Form of Long Term Incentive Plan Performance Stock Unit Award Agreement, incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020
10.40†	Form of Long Term Incentive Plan Stock Appreciation Right Award Agreement, incorporated by reference to Exhibit 10.3 of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020
10.41*†	Separation and Settlement Agreement dated October 27, 2020 between LivaNova PLC and Thad Huston
10.42*†	Form of Director Restricted Stock Unit Award Grant Notice, dated June 2020 and Director Restricted Stock Unit Award Agreement under the Company's 2015 Incentive Award Plan (Non-Employee Directors),
10.43*†	Form of Non-Executive Director Appointment Letter
10.44*†	Alex Shvartsburg offer of employment in the role of Vice President Strategy and Innovation, dated 21 September 2017
10.45*†	Alex Shvartsburg letter, dated January 2019, regarding compensation increase
10.46*†	Alex Shvartsburg letter, dated October 2020, regarding additive compensation package for interim CFO position
10.47*†	Roy Khoury Separation and Settlement Agreement, dated February 2021
10.48*	Conformed Copy Incorporating Amendment No. 1, dated December 30, 2020, to Credit Agreement, dated June 10, 2020, among LivaNova USA, Inc., as Borrower, the Company, as Guarantor, the several lenders from time to time parties thereto, Ares Capital Corporation, as Administrative Agent, and Ares Capital Corporation, as Collateral Agent
10.49*	Amendment No. 2 to Credit Agreement among LivaNova USA, Inc., as Borrower, LivaNova PLC, as Holdings, and Ares Capital Corporation, as Administrative Agent and Collateral Agent, and certain other Lenders party thereto, dated as of February 24, 2021
16.1	Letter from PricewaterhouseCoopers SpA to the Securities and Exchange Commission, dated March 26, 2018, incorporated by reference to Exhibit 16.1 of the Company's Current Report on Form 8-K, filed on March 26, 2018
21.1*	List of Subsidiaries of LivaNova PLC
23.1*	Consent of PricewaterhouseCoopers LLP
31.1*	Certification of the Chief Executive Officer of LivaNova PLC pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification of the Chief Financial Officer of LivaNova PLC pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1*	Certification of the Chief Executive Officer and of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

101*	Interactive Data Files Pursuant to Rule 405 of Regulation S-T formatted in Inline XBRL: (i) the Consolidated Statements of Income (Loss) for the years ended December 31, 2020, December 31, 2019 and December 31, 2018, (ii) the Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2020, December 31, 2019 and December 31, 2018, (iii) the Consolidated Balance Sheets as of December 31, 2020 and December 31, 2019, (iv) the Consolidated Statements of Stockholders' Equity for the years ended December 31, 2020, December 31, 2019 and December 31, 2018, (v) the Consolidated Statements of Cash Flows for the years ended December 31, 2020, December 31, 2019 and December 31, 2018, and (vi) the Notes to the Consolidated Financial Statements.
104*	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

LIVANOVA PLC

By: /s/ DAMIEN MCDONALD

Damien McDonald
Chief Executive Officer
(Principal Executive Officer)

LIVANOVA PLC

By: /s/ ALEX SHVARTSBURG

Alex Shvartsburg
Chief Financial Officer
(Principal Accounting and Financial Officer)

Date: March 1, 2021

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/s/ DANIEL J. MOORE Daniel J. Moore	Chairman of the Board of Directors	March 1, 2021
/s/ DAMIEN MCDONALD Damien McDonald	Director, Chief Executive Officer *(Principal Executive Officer)*	March 1, 2021
/s/ ALEX SHVARTSBURG Alex Shvartsburg	Chief Financial Officer *(Principal Accounting and Financial Officer)*	March 1, 2021
/s/ FRANCESCO BIANCHI Francesco Bianchi	Director	March 1, 2021
/s/ WILLIAM A. KOZY William A. Kozy	Director	March 1, 2021
/s/ HUGH M. MORRISON Hugh M. Morrison	Director	March 1, 2021
/s/ ALFRED J. NOVAK Alfred J. Novak	Director	March 1, 2021
/s/ SHARON O'KANE Sharon O'Kane, Ph.D.	Director	March 1, 2021
/s/ ARTHUR L. ROSENTHAL Arthur L. Rosenthal, Ph.D.	Director	March 1, 2021
/s/ ANDREA L. SAIA Andrea L. Saia	Director	March 1, 2021
/s/ STACY ENXING SENG Stacy Enxing Seng	Director	March 1, 2021
/s/ TODD C. SCHERMERHORN Todd C. Schermerhorn	Director	March 1, 2021

Item 16. Form 10-K Summary

None.

CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2020, December 31, 2019 and December 31, 2018

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of LivaNova PLC

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of LivaNova PLC and its subsidiaries (the "Company") as of December 31, 2020 and 2019, and the related consolidated statements of income (loss), of comprehensive income (loss), of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2020, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Changes in Accounting Principles

As discussed in Notes 2 and 19 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019 and the manner in which it accounts for the income tax effects of intra-entity transfers of assets other than inventory in 2018, respectively.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Goodwill Impairment Assessment – Cardiovascular Reporting Unit

As described in Notes 2 and 9 to the consolidated financial statements, the Company's consolidated goodwill balance was $922.3 million as of December 31, 2020, and the amount of goodwill associated with the Cardiovascular reporting unit was $523.6 million. Management conducts impairment testing of goodwill on October 1st each year. Management tests goodwill for impairment between annual tests if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount. Fair value refers to the price that would be received if management were to sell the unit as a whole in an orderly transaction. An impairment loss is recognized when the carrying amount of the reporting unit's net assets exceeds the estimated fair value of the reporting unit, up to and including the carrying amount of the goodwill. Fair value is estimated using a discounted cash flow model and requires various assumptions, including revenue growth rates, forecasted selling, general and administrative expenses and discount rates.

The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment of the Cardiovascular reporting unit is a critical audit matter are (i) the significant judgment by management when developing the estimated fair value of the reporting unit; (ii) a high degree of auditor

judgment, subjectivity, and effort in performing procedures and evaluating management's assumptions relating to revenue growth rates, forecasted selling, general and administrative expenses, and discount rates; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment assessment. These procedures also included, among others (i) testing management's process for developing the fair value of the Cardiovascular reporting unit; (ii) evaluating the appropriateness of the discounted cash flow model; (iii) testing the completeness, accuracy, and relevance of the underlying data used in the model; and (iv) evaluating the reasonableness of the significant assumptions used by management related to the revenue growth rates, forecasted selling, general and administrative expenses, and discount rates. Evaluating the reasonableness of the revenue growth rates and forecasted selling, general and administrative expenses involved considering evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the reporting unit; (ii) the consistency with third-party industry data; and (iii) whether the assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in the evaluation of the discounted cash flow model and the discount rates assumption.

/s/ PricewaterhouseCoopers LLP
Houston, Texas
March 1, 2021

We have served as the Company's auditor since 2018.

LIVANOVA PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME (LOSS)
(In thousands, except per share amounts)

	Year Ended December 31,		
	2020	**2019**	**2018**
Net sales	$ 934,241	$ 1,084,170	$ 1,106,961
Costs and expenses:			
Cost of sales - exclusive of amortization	308,062	323,517	361,321
Product remediation	7,860	15,777	10,680
Selling, general and administrative	427,770	506,478	464,967
Research and development	152,902	146,849	145,948
Merger and integration expenses	7,333	23,457	24,420
Restructuring expenses	7,571	12,254	15,915
Impairment of disposal group (Note 5)	180,160	—	—
Impairment of goodwill	21,269	42,417	—
Impairment of long-lived assets	6,762	142,517	567
Amortization of intangibles	38,312	40,375	37,194
Decommissioning provision	42,198	—	—
Litigation provision, net	3,906	(601)	294,021
Operating loss from continuing operations	(269,864)	(168,870)	(248,072)
Interest income	131	803	847
Interest expense	(40,837)	(15,091)	(9,825)
Gain on acquisition	—	—	11,484
Foreign exchange and other losses	(33,417)	(2,536)	(1,881)
Loss from continuing operations before tax	(343,987)	(185,694)	(247,447)
Income tax benefit	(736)	(30,153)	(69,629)
Losses from equity method investments	(264)	—	(644)
Net loss from continuing operations	(343,515)	(155,541)	(178,462)
Net (loss) income from discontinued operations, net of tax	(1,493)	365	(10,937)
Net loss	$ (345,008)	$ (155,176)	$ (189,399)
Basic (loss) income per share:			
Continuing operations	$ (7.07)	$ (3.22)	$ (3.68)
Discontinued operations	(0.03)	0.01	(0.23)
	$ (7.10)	$ (3.21)	$ (3.91)
Diluted (loss) income per share:			
Continuing operations	$ (7.07)	$ (3.22)	$ (3.68)
Discontinued operations	(0.03)	0.01	(0.23)
	$ (7.10)	$ (3.21)	$ (3.91)
Shares used in computing basic (loss) income per share	48,592	48,349	48,497
Shares used in computing diluted (loss) income per share	48,592	48,349	48,497

See accompanying notes to the consolidated financial statements

LIVANOVA PLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(In thousands)

	Year Ended December 31,		
	2020	**2019**	**2018**
Net loss	$ (345,008)	$ (155,176)	$ (189,399)
Other comprehensive income (loss):			
Net change in unrealized gain (loss) on derivatives	2,379	1,917	(33)
Tax effect	(573)	(460)	8
Net of tax	1,806	1,457	(25)
Foreign currency translation adjustment, net of tax	45,395	3,627	(69,764)
Total other comprehensive income (loss)	47,201	5,084	(69,789)
Total comprehensive loss	$ (297,807)	$ (150,092)	$ (259,188)

See accompanying notes to the consolidated financial statements

LIVANOVA PLC AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
December 31, 2020 and 2019
(In thousands, except share data)

ASSETS	**2020**	**2019**
Current Assets:		
Cash and cash equivalents	$ 252,832	$ 61,137
Accounts receivable, net of allowance of $10,310 at December 31, 2020 and $13,105 at December 31, 2019	184,356	257,769
Inventories	126,675	164,154
Prepaid and refundable taxes	60,240	37,779
Assets held for sale	70,539	—
Prepaid expenses and other current assets	24,792	28,604
Total Current Assets	719,434	549,443
Property, plant and equipment, net	163,805	181,354
Goodwill	922,318	915,794
Intangible assets, net	437,636	607,546
Operating lease assets (Note 14)	50,525	54,372
Investments	31,094	27,256
Deferred tax assets	2,990	68,676
Long-term derivative assets	72,302	—
Other assets	11,247	7,356
Total Assets	$ 2,411,351	$ 2,411,797
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Current debt obligations	$ 13,343	$ 77,396
Accounts payable	73,668	85,892
Accrued liabilities and other	95,408	120,100
Current litigation provision liability	28,612	146,026
Taxes payable	16,463	12,719
Accrued employee compensation and related benefits	51,879	70,420
Liabilities held for sale	29,679	—
Total Current Liabilities	309,052	512,553
Long-term debt obligations	642,298	260,330
Contingent consideration	89,850	114,396
Litigation provision liability	7,878	24,378
Deferred tax liabilities	8,915	32,219
Long-term operating lease liabilities (Note 14)	42,221	46,027
Long-term employee compensation and related benefits	20,628	22,797
Long-term derivative liabilities	121,940	61
Other long-term liabilities	49,740	15,319
Total Liabilities	1,292,522	1,028,080
Commitments and contingencies (Note 15)		
Stockholders' Equity:		
Ordinary Shares, £1.00 par value: unlimited shares authorized; 49,447,473 shares issued and 48,655,863 shares outstanding at December 31, 2020; 49,411,016 shares issued and 48,443,830 shares outstanding at December 31, 2019	76,300	76,257
Additional paid-in capital	1,768,156	1,734,870
Accumulated other comprehensive income (loss)	27,809	(19,392)
Accumulated deficit	(752,402)	(406,755)
Treasury stock at cost, 791,610 ordinary shares at December 31, 2020, 967,186 ordinary shares at December 31, 2019	(1,034)	(1,263)
Total Stockholders' Equity	1,118,829	1,383,717
Total Liabilities and Stockholders' Equity	$ 2,411,351	$ 2,411,797

See accompanying notes to the consolidated financial statements

LIVANOVA PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands)

	Ordinary Shares	Ordinary Shares - Amount	Additional Paid-In Capital	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
December 31, 2017	48,290	$ 74,750	$ 1,735,048	$ (133)	$ 45,313	$ (39,664)	$ 1,815,314
Adoption of ASU No. 2016-16	—	—	—	—	—	(22,516)	(22,516)
Share issuances	1,423	1,887	—	(1,887)	—	—	—
Share repurchases	(500)	(640)	(49,360)	—	—	—	(50,000)
Stock-based compensation plans	110	147	19,423	558	—	—	20,128
Net loss	—	—	—	—	—	(189,399)	(189,399)
Other comprehensive loss	—	—	—	—	(69,789)	—	(69,789)
December 31, 2018	49,323	76,144	1,705,111	(1,462)	(24,476)	(251,579)	1,503,738
Stock-based compensation plans	88	113	29,759	199	—	—	30,071
Net loss	—	—	—	—	—	(155,176)	(155,176)
Other comprehensive income	—	—	—	—	5,084	—	5,084
December 31, 2019	49,411	76,257	1,734,870	(1,263)	(19,392)	(406,755)	1,383,717
Adoption of ASU No. 2016-13 [(1)]	—	—	—	—	—	(639)	(639)
Stock-based compensation plans	109	140	33,189	229	—	—	33,558
Cancellation of shares	(73)	(97)	97	—	—	—	—
Net loss	—	—	—	—	—	(345,008)	(345,008)
Other comprehensive income	—	—	—	—	47,201	—	47,201
December 31, 2020	49,447	$ 76,300	$ 1,768,156	$ (1,034)	$ 27,809	$ (752,402)	$ 1,118,829

(1) Refer to "Note 23. New Accounting Pronouncements"

See accompanying notes to the consolidated financial statements

LIVANOVA PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,		
Operating Activities:	**2020**	**2019**	**2018**
Net loss	$ (345,008)	$ (155,176)	$ (189,399)
Non-cash items included in net loss:			
Impairment of disposal group	180,160	—	—
Amortization	38,312	40,375	37,194
Deferred tax expense (benefit)	37,292	(26,277)	(95,050)
Stock-based compensation	35,089	32,553	26,923
Depreciation	29,031	30,317	32,746
Remeasurement of derivative instruments	22,085	(26)	(3,668)
Impairment of goodwill	21,269	42,417	—
Remeasurement of contingent consideration to fair value	(20,463)	(29,406)	(4,311)
Amortization of operating lease assets	13,977	12,297	—
Amortization of debt issuance costs	9,710	2,204	222
Impairment of long-lived assets	6,762	142,517	567
Amortization of income taxes payable on inter-company transfers of property	2,171	2,575	13,370
Gain on acquisition	—	—	(11,484)
Other	1,236	3,208	4,424
Changes in operating assets and liabilities:			
Accounts receivable, net	58,796	(5,321)	21,181
Inventories	1,403	(10,608)	(10,647)
Other current and non-current assets	(39,645)	(2,077)	(9,321)
Accounts payable and accrued current and non-current liabilities	(923)	(38,577)	11,030
Taxes payable	3,596	(8,442)	2,651
Litigation provision liability, net	(134,272)	(123,695)	294,061
Net cash (used in) provided by operating activities	**(79,422)**	**(91,142)**	**120,489**
Investing Activities:			
Purchases of property, plant and equipment	(35,024)	(24,691)	(37,188)
Purchases of investments	(3,184)	(2,500)	(3,770)
Loans to investees	(2,691)	—	—
Acquisitions, net of cash acquired	(1,719)	(10,750)	(279,691)
Purchases of intangible assets	—	(3,289)	(809)
Proceeds from asset sales	1,433	1,261	14,220
Proceeds from the sale of CRM business, net of cash disposed	—	—	186,682
Other	(659)	(1,321)	—
Net cash used in investing activities	**(41,844)**	**(41,290)**	**(120,556)**
Financing Activities:			
Proceeds from long-term debt obligations	886,899	197,160	103,570
Repayment of long-term debt obligations	(482,065)	(24,210)	(23,827)
Proceeds from short-term borrowing (maturities greater than 90 days)	47,053	—	240,000
Repayment of short-term borrowing (maturities greater than 90 days)	(44,838)	—	(260,000)
Purchase of capped call	(43,096)	—	—
Debt issuance costs	(23,736)	(3,795)	—
Closing adjustment payment for sale of CRM business	(14,891)	—	—
Payment of contingent consideration	(12,018)	(18,955)	(651)
Shares repurchased from employees for minimum tax withholding	(5,601)	(7,064)	(11,611)
Proceeds from share issuances under ESPP	3,744	4,468	—
Change in short-term borrowing, net	(872)	(1,188)	(30,745)
Share repurchases under share repurchase program	—	—	(50,000)
Payment of deferred consideration - acquisition of Caisson Interventional, LLC	—	—	(12,994)
Other	177	165	3,910
Net cash provided by (used in) financing activities	**310,756**	**146,581**	**(42,348)**
Effect of exchange rate changes on cash and cash equivalents	2,205	(216)	(3,996)
Net increase (decrease) in cash and cash equivalents	**191,695**	**13,933**	**(46,411)**
Cash and cash equivalents at beginning of period	61,137	47,204	93,615
Cash and cash equivalents at end of period	**$ 252,832**	**$ 61,137**	**$ 47,204**
Supplementary Disclosures of Cash Flow Information:			
Cash paid for interest	$ 28,573	$ 15,828	$ 9,278
Cash paid for income taxes	7,493	2,011	26,393

See accompanying notes to the consolidated financial statements

Note 1. Nature of Operations

Description of the Business

LivaNova PLC, headquartered in London, (collectively with its subsidiaries, the "Company," "LivaNova," "we" or "our") is a global medical device company focused on the development and delivery of important therapeutic solutions for the benefit of patients, healthcare professionals and healthcare systems throughout the world. Working closely with medical professionals in the fields of cardiovascular disease and neuromodulation, we design, develop, manufacture and sell innovative therapeutic solutions that are consistent with our mission to improve our patients' quality of life, increase the skills and capabilities of healthcare professionals and minimize healthcare costs. We are a public limited company organized under the laws of England and Wales, and headquartered in London, England.

Business Segments

LivaNova is comprised of two reportable segments: Cardiovascular and Neuromodulation, corresponding to our primary therapeutic areas. Other corporate activities include corporate shared service expenses for finance, legal, human resources, information technology and corporate business development.

Recent Developments Regarding COVID-19

Our business, operations and financial condition and results have been and may continue to be impacted by the COVID-19 pandemic. We have experienced significant and unpredictable reductions in the demand for our products due to healthcare customers diverting medical resources and priorities towards the treatment of COVID-19. In addition, public health organizations have regularly delayed or suspended elective procedures during the COVID-19 pandemic, which has negatively impacted the usage of our products, including the number of Neuromodulation procedures. Further, there has been a decline in treatment for non-COVID-19 emergency procedures, which has also negatively impacted the demand for our products.

While the ultimate health and economic impact of the COVID-19 pandemic is highly uncertain, our sales and operating results for 2020 were materially adversely impacted. We are seeing signs of stabilization in certain geographies as elective surgeries resume and expect this trend to continue on a global basis through fiscal year 2021. We expect elective procedure recovery rates to vary by country, and to be impacted by COVID-19 case volumes, hospital occupancy and staffing levels, patient's willingness to re-book previously deferred procedures, travel restrictions, transportation limitations, quarantine restrictions, economic uncertainty and potential COVID-19 resurgence. Further cancellations or delays could materially adversely impact our business, results of operations and overall financial performance.

Note 2. Basis of Presentation, Use of Accounting Estimates and Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements of LivaNova have been prepared in accordance with generally accepted accounting principles in the United States ("U.S." and such principles, "U.S. GAAP").

Consolidation

The accompanying consolidated financial statements for LivaNova include LivaNova's wholly owned subsidiaries and the LivaNova PLC Employee Benefit Trust ("the Trust"). All intercompany accounts and transactions have been eliminated.

Use of Estimates

The preparation of our consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in such financial statements and accompanying notes. These estimates are based on management's best knowledge of current events and actions we may undertake in the future. Estimates are used in accounting for, among other items, valuation and amortization of intangible assets, goodwill, measurement of deferred tax assets and liabilities, uncertain income tax positions, stock-based compensation, obsolete and slow-moving inventories, models, such as an impairment analysis, and in general, allocations to provisions and the fair value of assets and liabilities recorded in a business combination. Actual results could differ materially from those estimates.

Reclassifications

We have reclassified certain prior period amounts for comparative purposes. These reclassifications did not have a material effect on our financial condition, results of operations or cash flows.

Cash and Cash Equivalents

We consider all highly liquid investments with an original maturity of three months or less, consisting of demand deposit accounts and money market mutual funds, to be cash equivalents. Cash equivalents are carried on the consolidated balance sheet at cost, which approximates their fair value.

Accounts Receivable

Our accounts receivable consisted of trade receivables from direct customers and distributors. We maintain an allowance for doubtful accounts for potential credit losses based on our estimates of the ability of customers to make required payments, historical credit experience, existing economic conditions and expected future trends. We write off uncollectible accounts against the allowance when all reasonable collection efforts have been exhausted.

Inventories

We state our inventories at the lower of cost, using the first-in first-out ("FIFO") method, or net realizable value. Our calculation of cost includes the acquisition cost of raw materials and components, direct labor and overhead, including depreciation of manufacturing related assets. We reduce the carrying value of inventories for those items that are potentially excess, obsolete or slow moving based on changes in customer demand, technology developments or other economic factors.

Property, Plant and Equipment ("PP&E")

PP&E is carried at cost, less accumulated depreciation. Maintenance, repairs and minor replacements are charged to expense as incurred, while significant renewals and improvements are capitalized. We compute depreciation using the straight-line method over estimated useful lives. Leasehold improvements are depreciated over the shorter of the following terms: the useful life of the asset or a term that includes required lease periods and renewals that are deemed to be reasonably assured at the date the leasehold improvements are purchased. Capital improvements to the building are added as building components and depreciated over the useful life of the improvement or the building, whichever is less.

Goodwill

We allocate the amounts we pay for an acquisition to the assets we acquire and liabilities we assume based on their fair values at the date of acquisition, including property, plant and equipment, inventories, accounts receivable, long-term debt, and identifiable intangible assets which either arise from a contractual or legal right or are separable from goodwill. We base the fair value of identifiable intangible assets acquired in a business combination, including IPR&D, on valuations that use information and assumptions provided by management, which consider management's best estimates of inputs and assumptions that a market participant would use. We allocate any excess purchase price over the fair value of the net tangible and identifiable intangible assets acquired to goodwill. Transaction costs associated with these acquisitions are expensed as incurred and are reported in selling, general and administrative on the consolidated statements of income (loss). We recognize adjustments to the provisional amounts identified during the measurement period with a corresponding adjustment to goodwill in the reporting period in which the adjustment amounts are determined. The effect on earnings of changes in depreciation, amortization or other income effects, if any, as a result of the change to the provisional amounts are recorded in the same period's consolidated financial statements, calculated as if the accounting had been completed at the acquisition date.

Intangible Assets, Other than Goodwill

Intangible assets shown on the consolidated balance sheets consist of finite-lived and indefinite-lived assets expected to generate future economic benefits and are recorded at their respective fair values as of their acquisition date. Finite-lived intangible assets consist primarily of developed technology and technical capabilities, including patents, related know-how and licensed patent rights, trade names and customer relationships. Customer relationships consist of relationships with hospitals and surgeons in the countries where we operate. Indefinite-lived intangible assets other than goodwill are composed of IPR&D assets acquired in acquisitions. We estimate the useful lives of our intangible assets, which requires significant management judgment. We amortize our finite-lived intangible assets over their useful lives using the straight-line method.

Amortization expense is disclosed separately on our consolidated statements of income (loss). We evaluate our intangible assets each reporting period to determine whether events and circumstances indicate either a different useful life or impairment. If we change our estimate of the useful life of an asset, we amortize the carrying amount over the revised remaining useful life.

Impairments of Long-Lived Assets and Goodwill

Long-lived Assets Impairment

Assets Held and Used

We evaluate the carrying value of our long-lived assets and investments for impairment when events or changes in circumstances indicate that the carrying value of such assets may not be recoverable. Such changes in circumstance may include, among other items, (i) an expectation of a sale or disposal of a long-lived asset or asset group, (ii) adverse changes in market or competitive conditions, (iii) an adverse change in legal factors or business climate in the markets in which we operate and (iv) operating or cash flow losses.

For PP&E and intangible assets used in our operations, recoverability generally is determined by comparing the carrying value of an asset, or group of assets to their expected undiscounted future cash flows. If the carrying value of an asset (asset group) is not recoverable, the amount of impairment loss is measured as the difference between the carrying value of the asset (asset group) and its estimated fair value. The asset grouping as well as the determination of expected undiscounted cash flow amounts requires significant judgments, estimates, and assumptions, including cash flows generated upon disposition. We measure fair value as the price that would be received if we were to sell the assets in an orderly transaction. Assets to be disposed of are carried at the lower of their financial statement carrying amount or fair value less costs to sell.

We conduct impairment testing of our indefinite-lived intangible assets on October 1st each year. We test indefinite-lived intangible assets for impairment between annual tests if an event occurs or circumstances change that would indicate the carrying amount may be impaired. An impairment loss is recognized when the asset's carrying value exceeds its fair value.

Assets Held for Sale

We classify long-lived assets as held for sale in the period in which we commit to a plan to sell the asset, the asset is available for immediate sale, the asset is being actively marketed for sale at a price that is reasonable in relation to its current fair value and the sale of the asset is probable within the next twelve months and when actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn. A long-lived asset classified as held for sale is measured at the lower of its carrying amount or fair value less cost to sell and depreciation is discontinued. We recognize an impairment for any excess of carrying value over the fair value less cost to sell.

When an impairment of a disposal group is deemed necessary and the amount of the impairment exceeds the carrying value of the long-lived assets, we record the impairment to the disposal group rather than long-lived assets. We also allocate goodwill of the associated reporting unit to the disposal group based upon the relative fair value of the businesses within the reporting unit. The goodwill allocated to the disposal group is then tested for impairment.

Goodwill Impairment

We conduct impairment testing of our goodwill on October 1st each year. Testing is performed at the reporting unit level, which is defined as an operating segment or a component of an operating segment that constitutes a business for which financial information is available and is regularly viewed by management. Our operating segments are deemed to be our reporting units for purposes of goodwill impairment testing. We test goodwill for impairment between annual tests if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount.

If we determine that goodwill is more-likely-than-not impaired, we compare the fair value of the reporting unit to its carrying amount, including goodwill. Fair value refers to the price that would be received if we were to sell the unit as a whole in an orderly transaction. Fair value is estimated using a discounted cash flow model and requires various assumptions, including revenue growth rates, forecasted selling, general and administrative expenses and discount rates. If the carrying amount of our reporting unit is greater than zero and its fair value exceeds its carrying amount, goodwill of the reporting unit is considered not impaired. If the carrying value of the reporting unit, which includes goodwill, exceeds its fair value an impairment loss is recognized.

If the aggregate fair value of our reporting units exceeds our market capitalization, we evaluate the reasonableness of the implied control premium which includes a comparison to implied control premiums from recent market transactions within our industry or other relevant benchmark data.

Goodwill impairment evaluations are highly subjective. In most instances, they involve expectations of future cash flows that reflect our judgments and assumptions regarding future industry conditions and operations. The estimates, judgments and assumptions used in the application of our goodwill impairment policies reflect both historical experience and an assessment of current operational, industry, market, economic and political environments. The use of different estimates, judgments,

assumptions and expectations regarding future industry and market conditions and operations would likely result in materially different asset carrying values and operating results.

Quantitative factors used to determine the fair value of the reporting units reflect our best estimates, and we believe they are reasonable. Future declines in the reporting units' operating performance or our anticipated business outlook may reduce the estimated fair value of our reporting units and result in an impairment. Factors that could have a negative impact on the fair value of the reporting units include, but are not limited to:

- decreases in revenue as a result of the inability of our sales force to effectively market and promote our products;
- increased competition, patent expirations or new technologies or treatments;
- declines in anticipated growth rates;
- the outcome of litigation, legal proceedings, investigations or other claims resulting in significant cash outflows; and
- increases in the market-participant risk-adjusted Weighted Average Cost of Capital ("WACC").

Derivatives and Risk Management

U.S. GAAP requires companies to recognize all derivatives as assets and liabilities on the balance sheet and to measure the instruments at fair value through earnings unless the derivative qualifies for hedge accounting. If the derivative qualifies for hedge accounting, depending on the nature of the hedge and hedge effectiveness, changes in the fair value of the derivative will either be recognized immediately in earnings or recorded in other comprehensive income ("OCI") until the hedged item is recognized in earnings. The changes in the fair value of the derivative are intended to offset the change in fair value of the hedged asset, liability or probable commitment. We evaluate hedge effectiveness at inception. Cash flows from derivative contracts are reported as operating activities on the consolidated statements of cash flows.

We use currency exchange rate derivative contracts and interest rate derivative instruments to manage the impact of currency exchange and interest rate changes on earnings and cash flows. Forward currency exchange rate contracts are designed to hedge anticipated foreign currency transactions and changes in the value of specific assets and liabilities. At inception of the forward contract, the derivative is designated as either a freestanding derivative or a cash flow hedge. We do not enter into derivative contracts for speculative purposes. All derivative instruments are recorded at fair value on the consolidated balance sheets, as assets or liabilities (current or non-current) depending upon the gain or loss position of the contract and contract maturity date.

Forward contracts designated as cash flow hedges are designed to hedge the variability of cash flows associated with forecasted transactions denominated in a foreign currency that will take place in the future. For derivative instruments that are designated and qualify as a cash flow hedge, the gain or loss on the derivative instrument is reported as a component of accumulated other comprehensive income ("AOCI") and reclassified into earnings to offset exchange differences originated by the hedged item or the current earnings effect of the hedged item. We use freestanding derivative forward contracts to offset exposure to the variability of the value associated with assets and liabilities denominated in a foreign currency. These derivatives are not designated as hedges, and therefore changes in the value of these forward contracts are recognized in earnings, thereby offsetting the current earnings effect of the related change in value of foreign currency denominated assets and liabilities.

Fair Value Measurements

We follow the authoritative guidance on fair value measurements and disclosures with respect to assets and liabilities that are measured at fair value on both a recurring and nonrecurring basis. Under this guidance, fair value is defined as the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The authoritative guidance also establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs market participants would use in valuing the asset or liability, based on market data obtained from sources independent of us. Unobservable inputs are inputs that reflect our assumptions about the factors market participants would use in valuing the asset or liability developed based upon the best information available in the circumstances. The categorization of financial assets and financial liabilities within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The hierarchy is broken down into three levels defined as follows:

- Level 1 - Inputs are quoted prices in active markets for identical assets or liabilities;
- Level 2 - Inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability, either directly or indirectly; and
- Level 3 - Inputs are unobservable for the asset or liability.

Our financial assets and liabilities classified as Level 2 include derivative instruments, primarily forward and option currency contracts and interest rate swaps contracts, which are valued using standard calculations and models that use readily observable market data as their basis.

Our financial assets and liabilities classified as Level 3 include contingent consideration liability arrangements, derivative and embedded derivative instruments and convertible notes receivable.

Contingent consideration liabilities are from arrangements resulting from acquisitions that involve potential future payment of consideration that is contingent upon the achievement of performance milestones and sales-based earn-outs. Contingent consideration is recognized at fair value at the date of acquisition based on the consideration expected to be transferred and estimated as the probability of future cash flows, discounted to present value in accordance with accepted valuation methodologies. The discount rate used is determined at the time of measurement. Contingent consideration is remeasured each reporting period with the change in fair value, including accretion for the passage of time, recorded in earnings. The change in fair value of contingent consideration based on the achievement of regulatory milestones is recorded as research and development expense while the change in fair value of sales-based earnout contingent consideration is recorded as cost of sales. Contingent consideration payments made soon after the acquisition date are classified as an investing activity. Contingent consideration payments that are not made soon after the acquisition date are classified as a financing activity up to the amount of the contingent consideration liability recognized at the acquisition date, with any excess classified as an operating activity. For further information on our Level 3 contingent consideration liability arrangements, please refer to “Note 11. Fair Value Measurements.” For further information on our Level 3 derivative and embedded derivative instruments, please refer to “Note 12. Financing Arrangements and Note 11. Fair Value Measurements.” For further information on our Level 3 convertible notes receivable, please refer to “Note 10. Investments.”

Investments in Equity Securities

Our investments in equity securities, and related loans, are investments in affiliates that are in varied stages of development and not publicly traded. Our equity investments are reported in investments, and related loans in other assets, on the consolidated balance sheets.

We elect to measure investments that do not have readily determinable fair values, at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for an identical or a similar investment of the same issuer.

Our investments in affiliates in which we have significant influence but not control are accounted for using the equity method. Our share of net income or loss is reflected as one line item on our consolidated statements of income (loss) under losses from losses from equity-method investments and will increase or decrease, as applicable, the carrying value of our equity method investments reported under investments on the consolidated balance sheets. We regularly review our investments for changes in circumstance or the occurrence of events that suggest our investment may not be recoverable, and if an impairment is considered to be other-than-temporary, the loss is recognized on the consolidated statements of income (loss) in the period the determination is made and reported as losses from equity-method investments.

Warranty Obligation

We offer a warranty on various products. We estimate the costs that may be incurred under warranties and record a liability in the amount of such costs at the time the product is sold. The amount of the reserve recorded is equal to the net costs to repair or otherwise satisfy the claim. We include the warranty obligation in accrued liabilities and other on the consolidated balance sheets. Warranty expense is recorded to cost of goods sold on our consolidated statements of income (loss).

Retirement Benefit Plan Assumptions

We sponsor various retirement benefit plans, including defined benefit pension plans (pension benefits), defined contribution savings plans and termination indemnity plans, covering substantially all U.S. employees and employees outside the U.S. Pension benefit costs include assumptions for the discount rate, retirement age, compensation rate increases and the expected return on plan assets.

Product Liability Accruals

Accruals for product liability claims are recorded when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated based on existing information. Accruals for product liability claims are adjusted periodically as additional information becomes available.

Revenue Recognition

Refer to “Note 3. Revenue Recognition.”

Research and Development

All R&D costs are expensed as incurred. R&D includes costs of basic research activities as well as engineering and technical effort required to develop a new product or make significant improvements to an existing product or manufacturing process. R&D costs also include regulatory and clinical study expenses, including post-market clinical studies.

Leases

On January 1, 2019, we adopted ASC Update (“ASU”) No 2016-02, *Leases*, including subsequent related accounting updates (collectively referred to as “Topic 842”), which supersedes the previous accounting model for leases. We adopted the standard using the modified retrospective approach with an effective date as of January 1, 2019. Prior year financial statements were not recast under the new standard. In addition, we elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed us to carry forward our historical assessment of whether contracts are or contain leases and lease classification. We also elected the practical expedient to account for lease and non-lease components together as a single combined lease component, which is applicable to all asset classes. We did not, however, elect the practical expedient related to using hindsight in determining the lease term as this was not relevant following our election of the modified retrospective approach.

In addition, we elect certain practical expedients on an ongoing basis, including the practical expedient for short-term leases pursuant to which a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize a lease liability and operating lease asset for leases with a term of 12 months or less and that do not include an option to purchase the underlying asset that the lessee is reasonably certain to exercise. We have applied this accounting policy to all asset classes in our portfolio and will recognize the lease payments for such short-term leases within profit and loss on a straight-line basis over the lease term.

Furthermore, from a lessor perspective, certain of our agreements that allow the customer to use, rather than purchase, our medical devices meet the criteria of being a lease in accordance with the new standard. While the amount of revenue and expenses recognized over the contract term will not be impacted, the timing of revenue and expense recognition will be impacted depending upon lease classification. We enacted appropriate changes to our business processes, systems and internal controls to support identification, recognition and disclosure of leases under the new standard.

We determine if an arrangement is or contains a lease at inception. Operating lease assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at the latter of our lease standard effective date for adoption or the lease commencement date. Variable lease payments, such as common area rent maintenance charges and rent escalations not known upon lease commencement, are not included in determination of the minimum lease payments and will be expensed in the period in which the obligation for those payments is incurred. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at commencement in determining the present value of future payments. The incremental borrowing rate represents an estimate of the interest rate we would incur at lease commencement to borrow an amount equal to the lease payments on a collateralized basis over the term of a lease within a particular currency environment. We used the incremental borrowing rate available nearest to our adoption date for leases that commenced prior to that date. The operating lease asset also includes any lease payments made in advance and excludes lease incentives. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term.

For additional information refer to “Note 14. Leases.”

Prior to the adoption of ASU No. 2016-02, *Leases* (Topic 842) and subsequent amendments on January 1, 2019, we accounted for leases that transfer substantially all benefits and risks incidental to the ownership of property as an acquisition of an asset and the incurrence of an obligation, and we accounted for all other leases as operating leases. Certain of our leases provide for tenant improvement allowances that were recorded as deferred rent and amortized using the straight-line method over the life of the lease as a reduction to rent expense. In addition, scheduled rent increases and rent holidays were recognized on a straight-line basis over the term of the lease.

Stock-Based Compensation

Stock-Based Incentive Awards

We may grant stock-based incentive awards to directors, officers, key employees and consultants. We measure the cost of employee services received in exchange for an award of equity instruments based on the grant date fair market value of the award. We recognize equity-based compensation expense ratably over the period that an employee is required to provide service in exchange for the entire award (all vesting periods). We issue new shares upon stock option exercises, otherwise issuance of stock for vesting of restricted stock units or exercises of stock appreciation rights are issued from treasury shares. We have the right to elect to pay the cash value of vested restricted stock units in lieu of the issuance of new shares.

Stock Appreciation Rights ("SARs")

A SAR confers upon an employee the contractual right to receive an amount of cash, stock, or a combination of both that equals the appreciation in the company's stock from an award's grant date to the exercise date. SARs may be exercised at the employee's discretion during the exercise period and do not give the employee an ownership right in the underlying stock. SARs do not involve payment of an exercise price. We use the Black-Scholes option pricing methodology to calculate the grant date fair market value of SARs and compensation is expensed ratably over the service period. We determine the expected volatility of the awards based on historical volatility. Calculation of compensation for stock awards requires estimation of volatility, employee turnover and forfeiture rates.

Restricted Stock Units ("RSUs")

We may grant RSUs at no purchase cost to the grantee. The grantees of unvested RSUs have no voting rights or rights to dividends. Sale or transfer of the stock and stock units is restricted until they are vested. The fair market value of service-based RSUs is determined using the market closing price on the grant date, and compensation is expensed ratably over the service period. Calculation of compensation for stock awards requires estimation of employee turnover and forfeiture rates.

Market Performance-Based RSU's

We may grant market performance-based RSUs at no purchase cost to the grantee. The grantees of the units have no voting rights or rights to dividends. Sale or transfer of the units is restricted until they are vested. The number of shares that are ultimately transferred to the grantee is dependent upon the Company's percentile rank of total shareholder return relative to a peer group. The fair market value of market performance-based RSUs is determined utilizing a Monte Carlo simulation on the grant date and compensation is expensed ratably over the service period. Calculation of compensation for market performance-based stock awards requires estimation of employee turnover, historical volatility and forfeiture rates.

Operating Performance-Based Awards RSU's

We may grant operating performance-based RSUs at no purchase cost to the grantee. The grantees of the units have no voting rights or rights to dividends. Sale or transfer of the units is restricted until they are vested. The number of shares that are ultimately transferred to the grantee is dependent upon the Company's achievement of certain thresholds for cumulative adjusted free cash flow. The fair market value of operating performance-based RSUs is determined using the market closing price on the grant date. Compensation is expensed ratably over the service period and adjusted based upon the percent achievement of cumulative adjusted free cash flow. Calculation of compensation for operating performance-based stock awards requires estimation of employee turnover, adjusted free cash flow and forfeiture rates.

Income Taxes

We are a UK corporation, and we operate through our various subsidiaries in a number of countries throughout the world. Our provision for income taxes is based on the tax laws and rates applicable in the jurisdictions in which we operate and earn income. We use significant judgment and estimates in accounting for our income taxes. We recognize deferred tax assets and liabilities for the anticipated future tax effects of temporary differences between the financial statements basis and the tax basis of our assets and liabilities, which are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

We periodically assess the recoverability of our deferred tax assets by considering whether it is more-likely-than-not that some or all of the actual benefit of those assets will be realized. To the extent that realization does not meet the "more-likely-than-not" criterion, we establish a valuation allowance. We periodically review the adequacy and necessity of the valuation allowance by considering significant positive and negative evidence relative to our ability to recover deferred tax assets and to determine the timing and amount of valuation allowance that should be released. This evidence includes: profitability in the most recent quarters; internal forecasts for the current and next two future years; size of deferred tax asset relative to estimated

profitability; the potential effects on future profitability from increasing competition, healthcare reforms and overall economic conditions; limitations and potential limitations on the use of our net operating losses due to ownership changes, pursuant to IRC Section 382; and the implementation of prudent and feasible tax planning strategies, if any.

We file federal and local tax returns in many jurisdictions throughout the world and are subject to income tax examinations for our fiscal year 2014 and subsequent years, with certain exceptions. While we believe that our tax return positions are fully supported, tax authorities may disagree with certain positions we have taken and assess additional taxes and as a result, we may establish reserves for uncertain tax positions, which require a significant degree of management judgment. We regularly assess the likely outcomes of our tax positions in order to determine the appropriateness of our reserves; however, the actual outcome of an audit can be significantly different than our expectations, which could have a material impact on our tax provision. Our tax positions are evaluated for recognition using a more-likely-than-not threshold. Uncertain tax positions requiring recognition are measured as the largest amount of tax benefit that has a greater than 50% likelihood of being realized upon effective settlement with a taxing authority that has full knowledge of all relevant information. Some of the reasons a reserve for an uncertain tax benefit may be reversed are: completion of a tax audit; a change in applicable tax law including a tax case or legislative guidance; or an expiration of the statute of limitations. We recognize interest and penalties associated with unrecognized tax benefits and record interest in interest expense, and penalties in selling, general and administrative expense, on our consolidated statements of income (loss).

Foreign Currency

Our functional currency is the U.S. dollar; however, a portion of the revenues earned and expenses incurred by certain of our subsidiaries are denominated in currencies other than the U.S. dollar. We determine the functional currency of our subsidiaries that exist and operate in different economic and currency environments based on the primary economic environment in which the subsidiary operates, that is, the currency of the environment in which an entity primarily generates and expends cash. Our significant foreign subsidiaries are located in Europe and the U.S. The functional currency of our significant European subsidiaries is the Euro, and the functional currency of our significant U.S. subsidiaries is the U.S. dollar.

Assets and liabilities of subsidiaries whose functional currency is not the U.S. dollar are translated into U.S. dollars based on a combination of both current and historical exchange rates, while their revenues earned and expenses incurred are translated into U.S. dollars at average period exchange rates. Translation adjustments are included as AOCI on the consolidated balance sheets. Gains and losses arising from transactions denominated in a currency different from an entity’s functional currency are included in foreign exchange and other losses on our consolidated statements of income (loss). Taxes are not provided on cumulative translation adjustments, as substantially all translation adjustments are related to earnings which are intended to be indefinitely reinvested in the countries where earned.

Contingencies

We are subject to product liability claims, environmental obligations, government investigations and other legal proceedings in the ordinary course of business. Legal fees and other expenses related to litigation are expensed as incurred and included in selling, general and administrative expenses on our consolidated statements of income (loss). Contingent liabilities are recorded when we determine that a loss is both probable and reasonably estimable. Due to the fact that legal proceedings and other contingencies are inherently unpredictable, our assessments involve significant judgment regarding future events.

Note 3. Revenue Recognition

We generate our revenue through contracts with customers that primarily consist of hospitals, healthcare institutions, distributors and other organizations. Revenue is measured based on consideration specified in a contract with a customer, and excludes amounts collected on behalf of third parties. We measure the consideration based upon the estimated amount to be received. The amount of consideration we ultimately receive varies depending upon the return terms, sales rebates, discounts, and other incentives that we may offer, which are accounted for as variable consideration when estimating the amount of revenue to recognize. The estimate of variable consideration requires significant judgment.

We have historically experienced a low rate of product returns, and the total dollar value of product returns has not been significant to our consolidated financial statements.

We recognize revenue when a performance obligation is satisfied by transferring the control of a product or providing service to a customer. Some of our contracts include the purchase of multiple products and/or services. In such cases, we allocate the transaction price based upon the relative estimated stand-alone price of each product and/or service sold. We record state and local sales taxes net; that is, we exclude sales tax from revenue. Typically, our contracts do not have a significant financing component.

We incur incremental commission fees paid to the sales force associated with the sale of products. We apply the practical expedient within ASC 606-10-50-22 and have elected to recognize the incremental costs of obtaining a contract as an expense when incurred if the amortization period of the asset the entity would otherwise recognize is one year or less. As a result, no commissions have been capitalized as contract costs since adoption of ASC 606. The following is a description of the principal activities (separated by reportable segments) from which we generate our revenue. For more detailed information about our reportable segments including disaggregated revenue results by major product line and primary geographic markets, see “Note 21. Geographic and Segment Information.”

Cardiovascular Products and Services

Our Cardiovascular segment has three primary product lines: cardiopulmonary products, heart valves and advanced circulatory support.

Cardiopulmonary products include oxygenators, heart-lung machines, autotransfusion systems, perfusion tubing systems, cannulae and other related accessories. Heart valves include mechanical heart valves, tissue heart valves, related repair products and minimally invasive surgical instruments. Advanced circulatory support includes temporary life support product kits that can include a combination of pumps, oxygenators, and cannulae.

Cardiopulmonary products may include performance obligations associated with assembly and installation of equipment. Accordingly, we allocate a portion of the sales prices to installation obligations and recognize that revenue when the service is provided. We recognize revenue for equipment and accessory product sales when control of the equipment or product passes to the customer.

Technical services include installation, repair and maintenance of cardiopulmonary equipment under service contracts or upon customer request. Technical service agreements generally provide for upfront payments in advance of rendering services or periodic billing over the contract term. Amounts billed in advance are deferred and recognized as revenue when the performance obligation is satisfied. Technical services are not a significant component of Cardiovascular revenue and have been presented with the related equipment and accessories revenue.

Heart valve revenue is recognized when control passes to the customer, usually at the point of surgery.

Advanced circulatory support revenue is recognized when control passes to the customer, usually at the point of shipment.

Neuromodulation Products

Neuromodulation segment products are comprised of Neuromodulation therapy systems for the treatment of drug-resistant epilepsy, DTD and obstructive sleep apnea. Our Neuromodulation product line includes the VNS Therapy System, which consists of an implantable pulse generator, a lead that connects the generator to the vagus nerve, and other accessories. Our Neuromodulation product line also includes an implantable device for the treatment of obstructive sleep apnea that stimulates multiple tongue muscles via the hypoglossal nerve, which opens the airway while a patient is sleeping. We recognize revenue for Neuromodulation product sales when control passes to the customer.

Contract Balances

Due to the nature of our products and services, revenue producing activities may result in contract assets and contract liabilities. These activities relate primarily to Cardiovascular technical services contracts for short-term and multi-year service agreements. Contract assets are primarily comprised of unbilled revenues, which occur when a performance obligation has been completed, but not billed to the customer. Contract liabilities are made up of deferred revenue, which occurs when a customer pays for a service, before a performance obligation has been completed. Contract assets are included within prepaid expenses and other current assets on the consolidated balance sheets and were insignificant at December 31, 2020 and 2019. As of December 31, 2020 and December 31, 2019, contract liabilities of $8.6 million and $8.6 million, respectively, were included within accrued liabilities and other and other long-term liabilities on the consolidated balance sheets.

Note 4. Business Combinations

ImThera

ImThera manufactures an implantable device for the treatment of obstructive sleep apnea that stimulates multiple tongue muscles via the hypoglossal nerve, which opens the airway while a patient is sleeping. ImThera has a commercial presence in the European market, and an FDA pivotal study is ongoing in the U.S.

On January 16, 2018, we acquired the remaining 86% outstanding interest in ImThera for cash consideration of up to $225 million. Cash in the amount of $78.3 million was paid at closing with the balance to be paid based on achievement of a certain regulatory milestone and a sales-based earnout.

The following table presents the acquisition date fair value of the consideration transferred and the fair value of our interest in ImThera prior to the acquisition (in thousands):

Cash	$	78,332
Contingent consideration		112,744
Fair value of our interest in ImThera prior to the acquisition [(1)]		25,580
Fair value of consideration transferred	$	216,656

(1) The fair value of our previously held interest in ImThera was determined based on the fair value of total consideration transferred and application of a discount for lack of control. As a result, we recognized a gain of $11.5 million for the fair value in excess of our carrying value of $14.1 million. The gain is included in Gain on acquisition on our consolidated statement of income (loss) for the year ended December 31, 2018.

Goodwill arising from the ImThera acquisition, which is not deductible for tax purposes, primarily represents the synergies anticipated between ImThera and our existing Neuromodulation business. The assets acquired, including goodwill, are recognized in our Neuromodulation segment.

TandemLife

TandemLife is focused on the delivery of leading-edge temporary life support systems, including cardiopulmonary and respiratory support solutions. TandemLife complements our Cardiovascular segment portfolio and expands our existing product line of cardiopulmonary products.

On April 4, 2018, we acquired TandemLife for cash consideration of up to $254 million. Cash of $204 million was paid at closing with up to $50 million in contingent consideration based on the achievement of regulatory milestones.

The following table presents the acquisition date fair value of the consideration transferred (in thousands):

Cash	$	203,671
Contingent consideration		40,190
Fair value of consideration transferred	$	243,861

Goodwill arising from the TandemLife acquisition, which is not deductible for tax purposes, primarily represents the synergies anticipated between TandemLife and our existing Cardiovascular business. The assets acquired, including goodwill, are recognized in our Cardiovascular segment.

Miami Instruments

On June 12, 2019, we acquired the minimally invasive cardiac surgery instruments business from Miami Instruments, LLC (“Miami Instruments”) for cash consideration of up to $17.0 million. The related operations have been integrated into our Cardiovascular segment as part of our Heart Valves business. Cash of $10.8 million was paid at closing with up to $6.0 million in contingent consideration based on achieving certain milestones. The purchase price allocation for the Miami Instruments acquisition was finalized during the second quarter of 2020 and resulted in no measurement period adjustment. In connection with this acquisition, we recognized $14.7 million in developed technology and IPR&D intangible assets and $1.5 million in goodwill.

Note 5. Assets and Liabilities Held For Sale

Heart Valves

On December 2, 2020, LivaNova entered into a Share and Asset Purchase Agreement (“Purchase Agreement”) with Mitral Holdco S.à r.l. (“Mitral”), a company incorporated under the laws of Luxembourg and wholly owned and controlled by funds advised by Gyrus Capital S.A., a Swiss private equity firm. The Purchase Agreement provides for the divestiture of certain of LivaNova’s subsidiaries as well as certain other assets and liabilities relating to the Company’s Heart Valve business (other than the Company’s Heart Valve business in France) and site management operations conducted by the Company’s subsidiary LivaNova Site Management (“LSM”) at the Company’s Saluggia campus. The purchase price of €60.0 million (approximately $73.6 million as of December 31, 2020) will be payable in two tranches: €50.0 million (approximately $61.3 million as of December 31, 2020) payable at closing, subject to customary trade working capital and net indebtedness adjustments, as set forth in the Purchase Agreement, and an additional €10.0 million (approximately $12.3 million as of December 31, 2020)

payable on December 30, 2022. In addition, pursuant to the Purchase Agreement, Purchaser has made a binding offer to purchase the Company's French Heart Valve business for no additional consideration.

LivaNova and Mitral are currently discussing amending the purchase agreement to address possible impediments to transferring LSM as contemplated by the Purchase Agreement. If such an amendment can be agreed, it might include delaying such transfer, or separating it from the scope of the Purchase Agreement. The Purchase Agreement includes customary warranties and limitations on the Company's liability and customary covenants. Pursuant to the Purchase Agreement, from and after the closing of the sale of LSM, the Company has agreed for a period of seven years following closing to reimburse the Purchaser for certain expenses and liabilities incurred in connection with the removal, maintenance or remediation of certain hazardous substances relating to former operations at the Company's Saluggia campus, to the extent such removal, maintenance or remediation is required by applicable law. The Company's reimbursement obligations relating to these hazardous substances are capped at €37.5 million (approximately $46.0 million as of December 31, 2020). In the event that the sale of LSM is not consummated, the Company will retain ownership of LSM with any such liability. In addition, the Company's liability for breach of warranty (other than fundamental warranties) is limited to €8.0 million (approximately $9.8 million as of December 31, 2020) and the Company's liability for all matters under the Purchase Agreement (including pre-closing taxes, breach of warranties and breach of covenant) is generally limited to the purchase price.

As a result of entering into the Purchase Agreement, the Company concluded that the assets and liabilities of the Heart Valve business being sold meet the criteria to be classified as held for sale. As a result, we recognized an impairment of $180.2 million to record the Heart Valves disposal group at fair value less estimated cost to sell. Additionally we recorded a $21.3 million impairment to the goodwill allocated to the Heart Valves disposal group based upon the relative fair values of the businesses within the Cardiovascular reporting unit.

The major classes of assets and liabilities held for sale on the consolidated balance sheet as of December 31, 2020 were as follows (in thousands):

	December 31, 2020
Accounts receivable, net	$ 20,059
Inventories	45,081
Prepaid and refundable taxes	2,751
Prepaid expenses and other current assets	2,436
Property, plant and equipment, net	25,042
Intangible assets, net	153,632
Operating lease assets	1,698
Impairment charge of disposal group	(180,160)
Total assets held for sale	$ 70,539
Accounts payable	$ 9,518
Accrued liabilities and other	4,205
Taxes payable	363
Accrued employee compensation and related benefits	8,781
Deferred tax liabilities	671
Long-term employee compensation and related benefits	4,994
Long-term operating lease liabilities	841
Other long-term liabilities	306
Total liabilities held for sale	$ 29,679

Note 6. Discontinued Operations

In November 2017, we concluded that the sale of CRM represented a strategic shift in our business that would have a major effect on future operations and financial results. Accordingly, the operating results of CRM are classified as discontinued operations on our consolidated statements of income (loss) for all the periods presented in this Annual Report on Form 10-K.

We completed the CRM Sale on April 30, 2018 to MicroPort Cardiac Rhythm B.V. and MicroPort Scientific Corporation for total cash proceeds of $195.9 million, less cash transferred of $9.2 million, subject to a closing working capital adjustment. In

March 2020, we finalized the working capital adjustment and, as a result, made a $16.4 million payment to MicroPort during the first quarter of 2020. In conjunction with the sale, we entered into transition services agreements to provide certain support services generally for up to twelve months from the closing date of the sale. The services include, among others, accounting, information technology, human resources, quality assurance, regulatory affairs, supply chain, clinical affairs and customer support. During the year ended December 31, 2019 and December 31, 2018 we recognized income of $0.9 million and $2.8 million, respectively, for providing these services. Income recognized related to the transition services agreements is recorded as a reduction to the related expenses in the associated expense line items on our consolidated statements of income (loss).

The following table represents the financial results of CRM presented as net income (loss) from discontinued operations, net of tax on our consolidated statements of income (loss) (in thousands) for the years ended December 31, 2020, 2019 and 2018:

	Year Ended December 31,		
	2020	2019	2018
Net sales	$ —	$ —	$ 77,366
Costs and expenses:			
Cost of sales	—	(43)	28,028
Selling, general and administrative expenses	—	(161)	43,382
Research and development	—	(161)	16,592
Restructuring expenses	—	—	651
Revaluation gain on assets and liabilities held for sale	—	—	(1,213)
Loss on sale of CRM	1,578	—	214
Operating (loss) income from discontinued operations	(1,578)	365	(10,288)
Foreign exchange and other gains	—	—	102
(Loss) income from discontinued operations, before tax	(1,578)	365	(10,186)
Income tax benefit	(85)	—	(460)
Losses from equity method investments	—	—	(1,211)
Net (loss) income from discontinued operations	$ (1,493)	$ 365	$ (10,937)

Cash flows attributable to our discontinued operations are included on our consolidated statements of cash flows. For the year ended December 31, 2018, CRM's capital expenditures were $1.0 million and stock-based compensation expense was $2.0 million.

Note 7. Restructuring

We initiate restructuring plans to leverage economies of scale, streamline distribution and logistics and strengthen operational and administrative effectiveness in order to reduce overall costs. Costs associated with these plans were reported as restructuring expenses in the operating results of our consolidated statements of income (loss).

Our 2015 and 2016 Reorganization Plans (the "Prior Plans") were initiated October 2015 and March 2016, respectively, in conjunction with the completion of the merger of Cyberonics, Inc. and Sorin S.p.A. in October 2015. The Prior Plans include the closure of the R&D facility in Meylan, France and consolidation of its R&D capabilities into the Clamart, France facility. Also included in Prior Plans was our commitment to sell our Suzhou Industrial Park facility in Shanghai, China, which we announced in March 2017. We completed the sale of the Suzhou facility in April 2018 and received cash proceeds from the sale of $13.3 million. The Prior Plans were completed during 2018.

In December 2018, we initiated a reorganization plan (the "2018 Plan") in order to reduce manufacturing and operational costs associated with our Cardiovascular facilities in Saluggia and Mirandola, Italy and Arvada, Colorado. The 2018 Plan resulted in a net reduction of approximately 75 personnel and was completed during 2019.

In November 2019, we initiated a reorganization plan (the "2019 Plan") to streamline our organizational structure in order to address new regulatory requirements, create efficiencies, improve profitability and ensure business continuity. As a result, we incurred restructuring expenses of $4.4 million during the year ended December 31, 2019 and $1.9 million during the year ended December 31, 2020, primarily associated with severance costs for approximately 35 impacted employees. The 2019 Plan was completed during 2020.

Additionally, we ended our Caisson TMVR program effective December 31, 2019 after determining that it was no longer viable to continue to invest in the program. As a result, we recognized restructuring expenses of $3.5 million during the year

ended December 31, 2019 and $0.3 million during the year ended December 31, 2020, primarily associated with severance costs for approximately 50 impacted employees. The Caisson TMVR restructuring plan was completed during 2020.

During the fourth quarter of 2020, we initiated a reorganization plan (the "2020 Plan") to reduce our cost structure. As a result, we incurred restructuring expenses of $5.3 million during the year ended December 31, 2020, primarily associated with severance costs for approximately 54 employees.

The following table provides a reconciliation of the beginning and ending balance of the accruals and other reserves recorded in connection with our restructuring plans included within accrued liabilities and other and other long-term liabilities on the consolidated balance sheet (in thousands):

	Employee Severance and Other Termination Costs	Other	Total
Balance at December 31, 2017	$ 3,889	$ 2,625	$ 6,514
Charges	15,641	925	16,566
Cash payments	(9,335)	(481)	(9,816)
Balance at December 31, 2018	10,195	3,069	13,264
Charges	11,472	782	12,254
Cash payments	(17,570)	(2,451)	(20,021)
Balance at December 31, 2019	4,097	1,400	5,497
Charges	7,571	—	7,571
Cash payments	(5,919)	(854)	(6,773)
Balance at December 31, 2020 [1]	$ 5,749	$ 546	$ 6,295

(1) Cumulatively, we have recognized a total of $119.1 million in restructuring expense, inclusive of discontinued operations.

The following table presents restructuring expense by reportable segment (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Cardiovascular [1]	$ 1,570	$ 3,592	$ 11,497
Neuromodulation	3,223	1,082	1,595
Other [2]	2,778	7,580	2,823
Restructuring expense from continuing operations	7,571	12,254	15,915
Discontinued operations	—	—	651
Total	$ 7,571	$ 12,254	$ 16,566

(1) Cardiovascular restructuring expense for the year ended December 31, 2018 included $6.5 million of 2018 Plan expenses.
(2) Other restructuring expense for the year ended December 31, 2019 included $3.5 million of Caisson restructuring expenses.

Note 8. Product Remediation Liability

On December 29, 2015, we received an FDA Warning Letter (the "Warning Letter") alleging certain violations of FDA regulations applicable to medical device manufacturing at our Munich, Germany and Arvada, Colorado facilities. On October 13, 2016, the CDC and FDA separately released safety notifications regarding 3T Heater-Cooler devices in response to which we issued a Field Safety Notice Update for U.S. users of our 3T Heater-Cooler devices to proactively and voluntarily contact facilities to facilitate implementation of the CDC and FDA recommendations.

On December 31, 2016, we recognized a liability for a product remediation plan related to our 3T Heater-Cooler device ("3T device"). The remediation plan consisted primarily of a modification of the 3T device design to include internal sealing and the addition of a vacuum system to new and existing devices to address regulatory actions and to reduce further the risk of possible dispersion of aerosols from 3T devices in the operating room. We concluded that it was probable that a liability had been incurred upon management's approval of the plan and the commitments made by management to various regulatory authorities globally in November and December 2016, and furthermore, the cost associated with the plan was reasonably estimable.

In April 2017, we obtained CE Mark in Europe for the design change of the 3T device, and in October 2018, the FDA concluded that we could commence the vacuum canister and internal sealing upgrade program in the U.S. On February 25,

2020, LivaNova received clearance for K191402, a 510(k) for the 3T devices that addressed issues contained in the 2015 Warning Letter along with design changes that further mitigate the potential risk of aerosolization. Concurrent with this clearance, (1) 3T devices manufactured in accordance with K191402 will not be subjected to the import alert and (2) LivaNova initiated a correction to distribute the updated Operating Instructions cleared under K191402. We are in the process of completing and closing out all recall activities with the FDA. While our vacuum canister and internal sealing upgrade program and deep cleaning service in the U.S. are substantially complete, these services will continue as a servicing option outside of the U.S.

Changes in the carrying amount of the product remediation liability are as follows (in thousands):

Balance at December 31, 2017	$	27,546
Adjustments		(200)
Remediation activity		(12,212)
Effect of changes in foreign currency exchange rates		(389)
Balance at December 31, 2018		14,745
Adjustments		3,663
Remediation activity		(14,909)
Effect of changes in foreign currency exchange rates		(248)
Balance at December 31, 2019		3,251
Adjustments		3,199
Remediation activity		(5,743)
Effect of changes in foreign currency exchange rates		349
Balance at December 31, 2020	$	1,056

We recognized product remediation expenses during the years ended December 31, 2020, 2019 and 2018 of $7.9 million, $15.8 million and $10.7 million, respectively. In addition to changes to the estimated product remediation liability, product remediation expenses include internal labor costs, costs to remediate certain inspectional observations made by the FDA at our Munich facility and costs associated with the incorporation of the modification of the 3T device design into the next generation 3T device. These costs and related legal costs are expensed as incurred and are not included within the product remediation liability presented above. During the fourth quarter of 2018, we recognized a $294.1 million liability related to the litigation involving the 3T device. As of December 31, 2020, the liability was $36.5 million. Our related legal costs are expensed as incurred. For further information, please refer to “Note 15. Commitments and Contingencies.”

Note 9. Goodwill and Intangible Assets

The following table represents our finite-lived and indefinite-lived intangible assets as of December 31, 2020 and 2019 (in thousands):

	2020	2019
Finite-lived intangible assets:		
Customer relationships	$ 202,546	$ 320,023
Developed technology	227,247	293,785
Trade names	26,261	25,004
Other intangible assets	1,035	975
Total gross finite-lived intangible assets	457,089	639,787
Accumulated amortization - Customer relationships	56,787	75,156
Accumulated amortization - Developed technology	56,933	57,362
Accumulated amortization - Trade names	16,837	14,811
Accumulated amortization - Other intangible assets	902	712
Total accumulated amortization	131,459	148,041
Net finite-lived intangible assets	$ 325,630	$ 491,746
Indefinite-lived intangible assets:		
IPR&D	$ 112,006	$ 115,800
Goodwill	922,318	915,794
Total indefinite-lived intangible assets	$ 1,034,324	$ 1,031,594

The amortization periods for our finite-lived intangible assets as of December 31, 2020, are as follows:

	Minimum Life in years	Maximum Life in years
Customer relationships	10	18
Developed technology	14	17
Trade names	15	15
Other intangible assets	7	8

The estimated future amortization expense based on our finite-lived intangible assets at December 31, 2020, is as follows (in thousands):

2021	$ 26,724
2022	26,724
2023	26,724
2024	26,724
2025	26,724
Thereafter	192,010
Total	$ 325,630

Intangible Asset Impairments

In November 2019, we announced that we would be ending our Caisson TMVR program. The announcement triggered an evaluation of finite and indefinite lived assets for impairment. As a result, we fully impaired the IPR&D asset and goodwill of $89.0 million and $42.4 million, respectively.

During the second quarter of 2019, we determined that there would be a delay in the estimated commercialization date of our obstructive sleep apnea product currently under development, which was acquired in the ImThera acquisition. This delay constituted a triggering event that required an evaluation of the IPR&D asset arising from the ImThera acquisition for impairment. Based on the assessment performed, we determined that the IPR&D asset was impaired and as a result, recorded an impairment of $50.3 million, which is included in our Neuromodulation segment. The estimated fair value of IPR&D was determined using the income approach. Estimating the fair value of the IPR&D asset requires various assumptions, including

revenue growth rates, timing and probability of commercialization and the discount rate. Future delays in commercialization or changes in management estimates could result in further impairment.

Intangible Asset Reclassification

During the third quarter of 2019, upon receiving FDA approval of the LifeSPARC system, we reclassified the IPR&D asset of $107.5 million from the acquisition of TandemLife to finite-lived developed technology intangible assets and began amortizing the intangible asset over a useful life of 15 years.

Goodwill

The following table represents the changes in the carrying amount of goodwill by reportable segment (in thousands):

	Cardiovascular	Neuromodulation	Other	Total
December 31, 2018	$ 515,859	$ 398,539	$ 42,417	$ 956,815
Goodwill as a result of acquisitions [1]	1,550	—	—	1,550
Measurement period adjustments	(3,326)	—	—	(3,326)
Impairment	—	—	(42,417)	(42,417)
Foreign currency adjustments	2,957	215	—	3,172
December 31, 2019	517,040	398,754	—	915,794
Impairment [2]	(21,269)	—	—	(21,269)
Foreign currency adjustments	27,793	—	—	27,793
December 31, 2020	$ 523,564	$ 398,754	$ —	$ 922,318

(1) Goodwill recognized during the year ended December 31, 2019 was the result of the Miami Instruments acquisition. Refer to “Note 4. Business Combinations.”

(2) During the year ended December 31, 2020, the Company recognized a $21.3 million impairment of goodwill allocated to Heart Valves. Refer to “Note 5. Assets and Liabilities Held For Sale” for additional information.

We performed a quantitative assessment for our Cardiovascular and Neuromodulation reporting units as of October 1, 2020. The quantitative impairment assessment was performed using management’s current estimate of future cash flows. We concluded that the fair value of our Cardiovascular and Neuromodulation segments exceeded the carrying value of the respective reporting units by 14% and 517%, respectively, as evidenced by the estimated fair value of our Cardiovascular and Neuromodulation reporting units calculated for the purpose of reconciling the fair value of our reporting units to our market capitalization. Therefore, we concluded that our Cardiovascular and Neuromodulation reporting units’ goodwill was not impaired on the October 1, 2020 test date.

On December 2, 2020, LivaNova entered into a Purchase Agreement for the divestiture of certain of LivaNova’s subsidiaries as well as certain other assets and liabilities relating to the Company’s Heart Valve business. We performed a quantitative assessment as of December 2, 2020 of the goodwill associated with the Cardiovascular reporting unit and concluded that the goodwill was not impaired. We then allocated $21.3 million of Cardiovascular goodwill to the Heart Valves disposal group based on the relative fair values of the businesses within the Cardiovascular reporting unit and recognized a $21.3 million impairment to the allocated goodwill. For additional information refer to “Note 5. Assets and Liabilities Held For Sale.”

Cumulative goodwill impairments from continuing operations since the merger of Cyberonics, Inc. and Sorin S.p.A. in October 2015 total $63.7 million.

Note 10. Investments

The following table details the carrying value of our investments in equity securities of non-consolidated affiliates without readily determinable fair values for which we do not exert significant influence over the investee. These equity investments are reported at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment of the same issuer. These below equity investments are included in investments on the consolidated balance sheets as of December 31, 2020 and 2019 (in thousands):

	2020	2019
Respicardia Inc. [1]	$ 17,706	$ 17,706
ALung Technologies, Inc. [2]	3,000	—
Ceribell, Inc. [3]	3,000	3,000
ShiraTronics, Inc. [4]	2,045	2,045
MD Start II [5]	1,227	1,121
Rainbow Medical Ltd. [6]	1,201	1,099
Highlife S.A.S. [7]	1,163	1,064
Other	1,359	770
	30,701	26,805
Equity method investments [8]	393	451
	$ 31,094	$ 27,256

(1) Respicardia Inc. (“Respicardia”) is a privately funded U.S. company developing an implantable device designed to restore a more natural breathing pattern during sleep in patients with central sleep apnea by transvenously stimulating the phrenic nerve. We have a loan outstanding to Respicardia with a carrying amount of $0.8 million and $0.6 million as of December 31, 2020 and December 31, 2019, respectively, which is included in prepaid expenses and other current assets on the consolidated balance sheet.

(2) During the first quarter of 2020, we invested in ALung Technologies, Inc. (“ALung”). ALung is a privately held medical device company focused on creating advanced medical devices for treating respiratory failure. ALung’s Hemolung Respiratory Assist System is a dialysis-like alternative or supplement to mechanical ventilation which removes carbon dioxide directly from the blood in patients with acute respiratory failure. As of December 31, 2020, we have a convertible note receivable due from ALung of $2.5 million, which is included in prepaid expenses and other current assets on the consolidated balance sheet.

(3) On September 7, 2018, we acquired 1,007,319 shares of Series B Preferred Stock of Ceribell, Inc. (“Ceribell”). Ceribell is focused on utilizing electroencephalography to improve the diagnosis and treatment of patients at risk for seizures.

(4) ShiraTronics, Inc. (“ShiraTronics”) is a privately held early-stage medical device company located in the U.S. and Ireland and is focused on developing neuromodulation technologies for the treatment of debilitating migraine headaches. We are required to invest up to a total of $5 million dependent upon ShiraTronics achieving certain milestones.

(5) MD Start II is a private venture capital collaboration for the development of medical device technology in Europe.

(6) Rainbow Medical Ltd. (“Rainbow Medical”) is a private Israeli venture capital company that seeds and grows companies developing medical devices in a diverse range of medical fields.

(7) Highlife S.A.S. (“Highlife”) is a privately held clinical-stage medical device company located in France and is focused on the development of a unique TMVR replacement system to treat patients with MR. Due to an additional investment by a third party during the year ended December 31, 2018, our equity interest in Highlife decreased to 7.8% from 24.6%. We determined that we no longer had significant influence over Highlife and, as a result, we no longer account for Highlife under the equity method.

(8) During 2019 we invested $0.5 million in equity securities that we account for under the equity method of accounting. We are required to fund up to a total of approximately €5.0 million (approximately $6.1 million as of December 31, 2020) based on cash calls.

Note 11. Fair Value Measurements

We review the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy. There were no transfers between Level 1, Level 2, or Level 3 during the years ended December 31, 2020, 2019 or 2018.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following tables provide information by level for assets and liabilities that are measured at fair value on a recurring basis (in thousands):

	Fair Value as of December 31, 2020	Fair Value Measurements Using Inputs Considered as:		
		Level 1	Level 2	Level 3
Assets:				
Derivative assets - designated as cash flow hedges (foreign currency exchange rate "FX")	$ 2,893	$ —	$ 2,893	$ —
Derivative assets - freestanding instruments (FX)	55	—	55	—
Derivative assets - capped call derivatives	72,302	—	—	72,302
Convertible notes receivable	2,775	—	—	2,775
	$ 78,025	$ —	$ 2,948	$ 75,077
Liabilities:				
Derivative liabilities - designated as cash flow hedges (FX)	$ 14	$ —	$ 14	$ —
Derivative liabilities - freestanding instruments (interest rate swaps)	74	—	74	—
Derivative liabilities - freestanding instruments (FX)	4,073	—	4,073	—
Derivative liabilities - embedded exchange feature	121,756	—	—	121,756
Derivative liabilities - other	4,290	—	—	4,290
Contingent consideration arrangements	103,818	—	—	103,818
	$ 234,025	$ —	$ 4,161	$ 229,864

	Fair Value as of December 31, 2019	Fair Value Measurements Using Inputs Considered as:		
		Level 1	Level 2	Level 3
Assets:				
Derivative assets - designated as cash flow hedges (FX)	$ 535	$ —	$ 535	$ —
Derivative assets - freestanding instruments (FX)	26	—	26	—
	$ 561	$ —	$ 561	$ —
Liabilities:				
Derivative liabilities - designated as cash flow hedges (FX)	$ 169	$ —	$ 169	$ —
Derivative liabilities - designated as cash flow hedges (interest rate swaps)	374	—	374	—
Derivative liabilities - freestanding instruments (FX)	3,137	—	3,137	—
Contingent consideration arrangements	137,349	—	—	137,349
	$ 141,029	$ —	$ 3,680	$ 137,349

The following table provides a reconciliation of the beginning and ending balances of our recurring fair value measurements, using significant unobservable inputs (Level 3) (in thousands):

	Capped Call Derivative Asset	Convertible Notes Receivable	Embedded Exchange Feature Derivative Liability	Other Derivative Liabilities	Contingent Consideration Liability Arrangements
December 31, 2018	$ —	$ —	$ —	$ —	$ 179,911
Additions [1]	—	—	—	—	7,184
Payments [2]	—	—	—	—	(20,204)
Changes in fair value [3] [4] [5]	—	—	—	—	(29,406)
Effect of changes in FX	—	—	—	—	(136)
December 31, 2019	—	—	—	—	137,349
Additions	43,096	2,691	74,951	—	—
Payments [2]	—	—	—	—	(12,868)
Changes in fair value [3] [5] [6]	29,206	84	46,805	4,290	(20,463)
Effect of changes in FX	—	—	—	—	(200)
December 31, 2020	72,302	2,775	121,756	4,290	103,818
Less current portion at December 31, 2020	—	2,515	—	4,106	13,968
Long-term portion at December 31, 2020	$ 72,302	$ 260	$ 121,756	$ 184	$ 89,850

(1) See “Note 4. Business Combinations” for additional discussion.

(2) In July 2019, we achieved a regulatory milestone upon receiving FDA approval of the LifeSPARC system, triggering the payment of $19.0 million during the third quarter of 2019 to settle the related contingent consideration liability in connection with our TandemLife acquisition. During the year ended December 31, 2020, we also paid $11.8 million under the contingent consideration arrangement for the acquisition of TandemLife. Additionally, we made final payments under contingent consideration arrangements resulting from the acquisitions of two distributors.

(3) During the year ended December 31, 2020, the contingent consideration change in fair value resulted in a decrease of $13.0 million and $7.5 million recorded to cost of sales - exclusive of amortization and research and development, respectively. During the year ended December 31, 2019, the change in fair value resulted in a decrease of $13.2 million and $16.2 million recorded to cost of sales - exclusive of amortization and research and development, respectively.

(4) In November 2019, we announced that we would be ending our Caisson TMVR program effective December 31, 2019. As such, we released the contingent consideration provision associated with the acquisition of Caisson. At December 31, 2018, the fair value of the Caisson contingent consideration provision was $27.9 million.

(5) The contingent consideration change in fair value during the year ended December 31, 2020 is primarily due to a one-year delay in the projected achievement of a certain regulatory milestone and timing of sales-based earnout payments for ImThera, and the impact of an increase in discount rates utilized in the valuation of contingent consideration. Refer to the tables below for further information regarding the fair value measurements of contingent consideration. The contingent consideration change in fair value during the year ended December 31, 2019 reflects a delay in the timing of anticipated regulatory approval and commercialization for ImThera. See “Note 9. Goodwill and Intangible Assets” for additional discussion.

(6) Changes in the fair value of the embedded exchange feature derivative, capped call derivatives and other derivative liabilities are recognized in foreign exchange and other losses in the consolidated statements of income (loss).

Embedded Exchange Feature and Capped Call Derivatives

In June 2020, the Company issued $287.5 million in cash exchangeable senior notes and entered into related capped call transactions. The cash exchangeable senior notes include an embedded exchange feature that is bifurcated from the cash exchangeable senior notes. Please refer to “Note 12. Financing Arrangements” for further details. The embedded exchange feature derivative is measured at fair value using a binomial lattice model and discounted cash flows that utilize observable and unobservable market data. The capped call derivative is measured at fair value using the Black-Scholes model utilizing observable and unobservable market data, including stock price, remaining contractual term, expected volatility, risk-free interest rate and expected dividend yield, as applicable.

The embedded exchange feature and capped call derivatives are classified as Level 3 as the Company uses historical volatility and implied volatility from options traded to determine expected stock price volatility which is an unobservable input that is significant to the valuation. In general, an increase in our stock price or stock price volatility would increase the fair value of the embedded exchange feature and capped call derivatives which would result in an increase in expense. As time to the expiration of the derivatives decreases with passage of time, the fair value of the derivatives would decrease. The future impact on net

income depends on how significant inputs such as stock price, stock price volatility and time to the expiration of the derivatives change in relation to other inputs.

The stock price volatility as of December 31, 2020 was 34%. As of December 31, 2020, a 10% lower volatility, holding other inputs constant, would result in approximate fair value for the embedded exchange feature derivative of $103.1 million and a 10% higher volatility, holding other inputs constant, would result in approximate fair value of $141.1 million. As of December 31, 2020, a 10% lower volatility, holding other inputs constant would result in approximate fair value for the capped call derivatives of $70.0 million and a 10% higher volatility, holding other inputs constant, would result in approximate fair value of $69.3 million.

Contingent Consideration Arrangements

The following table provides the fair value of our Level 3 contingent consideration arrangements by acquisition (in thousands):

	December 31,	
	2020	**2019**
ImThera	$ 89,436	$ 113,503
TandemLife	8,809	17,311
Miami Instruments	5,573	5,338
Drilltex	—	294
Other	—	903
	$ 103,818	$ 137,349

The ImThera business combination involved contingent consideration arrangements composed of potential cash payments upon the achievement of a certain regulatory milestone and a sales-based earnout associated with sales of products. The sales-based earnout is valued using projected sales from our internal strategic plan. Both arrangements are Level 3 fair value measurements and include the following significant unobservable inputs as of December 31, 2020:

ImThera Acquisition	Valuation Technique	Unobservable Input	Ranges
Regulatory milestone-based payment	Discounted cash flow	Discount rate	6.3%
		Probability of payment	85%
		Projected payment year	2024
Sales-based earnout	Monte Carlo simulation	Risk-adjusted discount rate	11.7% - 12.1%
		Credit risk discount rate	6.6% - 7.3%
		Revenue volatility	32.5%
		Probability of payment	85%
		Projected years of earnout	2025 - 2028

The TandemLife business combination involved a contingent consideration arrangement composed of potential cash payments upon the achievement of certain regulatory milestones. The arrangement is a Level 3 fair value measurement and includes the following significant unobservable inputs as of December 31, 2020:

TandemLife Acquisition	Valuation Technique	Unobservable Input	Ranges
Regulatory milestone-based payment	Discounted cash flow	Discount rate	5.4%
		Probability of payments	70%
		Projected payment years	2021

The Miami Instruments business combination involved a contingent consideration arrangement composed of potential cash payments upon the achievement of certain regulatory milestones. The arrangement is a Level 3 fair value measurement and includes the following significant unobservable inputs as of December 31, 2020:

Miami Instruments Acquisition	Valuation Technique	Unobservable Input	Ranges
Regulatory milestone-based payments	Discounted cash flow	Discount rate	5.3% - 5.7%
		Probability of payment	90% - 100%
		Projected payment year	2021 - 2022

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

Our investments in equity securities of non-consolidated affiliates without readily determinable fair values are reported at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment of the same issuer. Our investments in non-financial assets such as, goodwill, intangible assets, and PP&E, are measured at fair value if there is an indication of impairment and recorded at fair value only when an impairment is recognized. We classify the measurement input for these assets as Level 3 inputs within the fair value hierarchy.

Other

The carrying values of our cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate their fair values due to the short-term nature of these items.

The carrying value of our long-term debt including the current portion, as of December 31, 2020, was $650.7 million, which we believe approximates fair value.

Note 12. Financing Arrangements

The outstanding principal amount of our long-term debt as of December 31, 2020 and 2019, was as follows (in thousands, except interest rates):

	2020	2019	Maturity	Interest Rate
2020 Senior Secured Term Loan	$ 424,002	$ —	June 2025	LIBOR (1% Floor) + 6.50%
2020 Cash Exchangeable Senior Notes	212,073	—	December 2025	3.00%
Bank of America Merrill Lynch Banco Múltiplo S.A.	6,515	8,422	July 2021	4.81%
Mediocredito Italiano	5,406	6,222	December 2023	0.50 % - 2.94%
Bank of America, U.S.	2,019	2,004	January 2023	2.08%
2019 Debt Facility	—	184,275		
2017 European Investment Bank	—	103,570		
2014 European Investment Bank	—	28,053		
Other	660	965		
Total long-term facilities	650,675	333,511		
Less current portion of long-term debt	8,377	73,181		
Total long-term debt	$ 642,298	$ 260,330		

Contractual annual principal maturities of our long-term debt facilities as of December 31, 2020, are as follows (in thousands):

2021	$ 8,377
2022	1,913
2023	3,941
2024	60
2025	737,560
Thereafter	360
Total payments	752,211
Less: Debt issuance costs	101,536
Total long-term facilities	$ 650,675

Revolving Credit

The outstanding principal amount of our short-term unsecured revolving credit agreements and other agreements with various banks was $5.0 million and $4.2 million at December 31, 2020 and December 31, 2019, respectively, with interest rates ranging from 3.06% to 7.65% and loan terms ranging from overnight to 364 days.

On December 30, 2020, we entered into the $50.0 million 2020 Revolving Credit Facility for working capital needs. The 2020 Revolving Credit Facility has a maturity of June 30, 2024 and borrowings bear interest at either LIBOR (subject to a 1% floor) plus 5.0% or ABR (subject to a 2% floor) plus 4.0%. There were no borrowings under the 2020 Revolving Credit Facility during 2020. The 2020 Revolving Credit Facility has financial covenants consistent with those of the Term Loan described below.

2020 Senior Secured Term Loan

On June 10, 2020, we entered into a $450.0 million five-year Term Loan through our wholly owned subsidiary LivaNova USA Inc., with funds managed by affiliates of Ares Management Corporation, as administrative agent and collateral agent, resulting in cash proceeds of approximately $421.5 million, net of discounts and issuance costs. The obligations under the Term Loan are guaranteed by LivaNova and its existing and future wholly owned material subsidiaries, and are secured by a perfected security interest in substantially all tangible and intangible assets of LivaNova and certain U.S. and UK subsidiaries of LivaNova, subject in each case to certain exceptions contained in the Term Loan. Borrowings under the Term Loan bear interest at a variable annual rate equal to the three-month LIBOR rate (subject to a 1% floor), plus an applicable margin of 6.5% per annum. The effective interest rate of the Term Loan at December 31, 2020 was 9.0%. The Term Loan will mature on June 30, 2025 and includes certain affirmative, negative and financial covenants. The financial covenants under the Term Loan state (i) the net revenue of LivaNova PLC, LivaNova USA, Inc. and any restricted subsidiaries on a consolidated basis shall not be lower than $700 million for each trailing 12 month period, such threshold to decrease pro rata (not below $550 million) upon prepayments of the Term Loan made by LivaNova USA, Inc. out of the proceeds of certain asset sales, and (ii) the total secured leverage ratio (as defined in the debt agreement) for LivaNova PLC, LivaNova USA, Inc. and any restricted subsidiaries on a consolidated basis shall not be greater than the applicable ratio set forth below:

Test Period	Total Secured Leverage Ratio [1]
4 Quarters ending June 30, 2020 through each fiscal quarter thereafter until (and including) the fiscal quarter ending June 30, 2021	5.625 : 1.00
4 Quarters ending September 30, 2021 and ending each fiscal quarter thereafter	4.5 : 1.00

(1) On February 24, 2021 the Company entered into Amendments to the Term Loan and the 2020 Revolving Credit Facility. Pursuant to the Amendments, the definition of "Consolidated EBITDA" for purposes of calculating the total secured leverage ratio was amended to add back an accrual in an amount not to exceed $43.0 million as a loss contingency liability as required under GAAP in connection with the clean-up of a hazardous waste storage site and contaminated areas located in Saluggia, Italy, solely in the case of the periods ending December 31, 2020, March 31, 2021, June 30, 2021 and September 30, 2021. The Company was in compliance with all financial covenants as of December 31, 2020, as amended.

Debt discounts and issuance costs related to the Term Loan were approximately $28.5 million and included various legal, bank and accounting fees. Amortization of debt discount and issuance costs was $2.5 million for the year ended December 31, 2020 and was included in interest expense on the consolidated statement of income (loss). The unamortized discount related to the Term Loan as of December 31, 2020 was $26.0 million.

2020 Cash Exchangeable Senior Notes

On June 17, 2020, our wholly-owned subsidiary, LivaNova USA, Inc., issued $287.5 million aggregate principal amount of 3.00% Notes by private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. The sale of the Notes resulted in approximately $278.0 million in net proceeds to the Company after deducting issuance costs. Interest is payable semiannually in arrears on June 15 and December 15 of each year, beginning on December 15, 2020. The effective interest rate of the Notes at December 31, 2020 was 9.9%. The Notes mature on December 15, 2025 unless earlier exchanged, repurchased, or redeemed.

Debt discounts and issuance costs related to the Notes were approximately $82.0 million and included $75.0 million of discount attributable to the embedded exchange feature, discussed below, and $7.0 million of allocated issuance costs to the Notes related to legal, bank and accounting fees. Amortization of debt discount and issuance costs was $6.6 million for the year ended December 31, 2020 and is included in interest expense on the consolidated statement of income (loss). The unamortized discount related to the Notes as of December 31, 2020 was $75.4 million.

Holders of the Notes are entitled to exchange the Notes at any time during specified periods, at their option, and are entitled to exchange the Notes during any calendar quarter, if the last reported sale price of LivaNova's ordinary shares, with a nominal value of £1.00 per share for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the exchange price, or $79.27 per share, on each applicable trading day. The Notes are exchangeable solely into cash and are not exchangeable into ordinary shares of LivaNova or any other security under any circumstances. The initial exchange rate for the Notes is 16.3980 ordinary shares per $1,000 principal amount of Notes (equivalent to an initial exchange price of approximately $60.98 per share). The exchange rate is subject to adjustment in certain circumstances, as set forth in the indenture governing the Notes.

The Company may redeem the Notes at its option, on or after June 20, 2023 and prior to the 51st scheduled trading day immediately preceding the maturity date, in whole or in part, if the last reported sale price per ordinary share has been at least

130% of the exchange price then in effect for at least 20 trading days (whether or not consecutive), including the trading day immediately preceding the date on which the Company provides notice of redemption, during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company provides notice of redemption, at a redemption price equal to 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. Additionally, the Company may redeem the Notes at its option, prior to their stated maturity, in whole but not in part, in connection with certain tax-related events.

Embedded Exchange Feature

The embedded exchange feature of the Notes requires bifurcation from the Notes and is accounted for as a derivative liability. The fair value of the Notes' embedded exchange feature derivative at the time of issuance was $75.0 million and was recorded as debt discount on the Notes. This discount is amortized as interest expense using the effective interest method over the term of the Notes. The Notes' embedded exchange feature derivative is carried on the consolidated balance sheets at its estimated fair value and is adjusted at the end of each reporting period, with unrealized gain or loss reflected in the consolidated statements of income (loss). The fair value of the embedded exchange feature derivative liability was $121.8 million as of December 31, 2020.

Capped Call Transactions

In connection with the pricing of the Notes, the Company entered into privately negotiated capped call transactions with certain of the initial purchasers of the Notes or their respective affiliates. The capped call transactions cover, subject to anti-dilution adjustments substantially similar to those applicable to the Notes, the number of LivaNova's ordinary shares underlying the Notes and are expected generally to offset any cash payments the Company is required to make upon exchange of the Notes in excess of the principal amount thereof in the event that the market value per ordinary share, as measured under the capped call transactions, is greater than the strike price of the capped call transactions, with such offset being subject to an initial cap price of $100.00 per share. The aggregate cost of the capped calls derivative assets was $43.1 million. The capped call transactions expire on December 15, 2025 and must be settled in cash. The capped calls are carried on the consolidated balance sheets as a derivative asset at their estimated fair value and are adjusted at the end of each reporting period, with unrealized gain or loss reflected in the consolidated statement of income (loss). The fair value of capped call derivative assets was $72.3 million as of December 31, 2020.

The current and non-current classification is evaluated at each balance sheet date and may change depending on whether any exchange conditions are met. As of December 31, 2020, no exchange conditions have been met and the Notes, embedded exchange feature derivative liability, and the capped call derivative assets are classified as non-current. Please refer to "Note 11. Fair Value Measurements" for details on the valuation of the embedded exchange feature derivative liability and capped call derivative assets.

Extinguishment of Debt

The Company used the net proceeds from the Term Loan, together with a portion of the net proceeds of the Notes, after fees, discounts, commissions and other expenses, to repay outstanding indebtedness under the Company's 2017 European Investment Bank loan, 2014 European Investment Bank loan, Banca Nazionale del Lavoro S.p.A loan, and 2019 Debt Facility and related expenses. The Company repaid approximately $528.0 million in aggregate outstanding principal, accrued interest and associated fees, including breakage fees and legal fees. The Company recognized a loss on debt extinguishment of $1.4 million during the year ended December 31, 2020. The loss on debt extinguishment was recognized in foreign exchange and other losses in the consolidated statements of income (loss).

The remainder of the proceeds from the concurrent financing transactions were used to pay the cost of capped call transactions and for general corporate purposes.

Note 13. Derivatives and Risk Management

Due to the global nature of our operations, we are exposed to foreign currency exchange rate fluctuations. We enter into FX derivative contracts to reduce the impact of foreign currency exchange rate fluctuations on earnings and cash flow. We are also exposed to equity price risk in connection with our Notes, including exchange and settlement provisions based on the price of our ordinary shares at exchange or maturity of the Notes. In addition, the capped call transactions associated with the Notes also include settlement provisions that are based on the price of our ordinary shares, subject to a capped price per share.

We measure all outstanding derivatives each period end at fair value and report the fair value as either financial assets or liabilities on the consolidated balance sheets. We do not enter into derivative contracts for speculative purposes. At inception of the contract, the derivative is designated as either a freestanding derivative or a hedge. Derivatives that are not designated as hedging instruments are referred to as freestanding derivatives with changes in fair value included in earnings.

If the derivative qualifies for hedge accounting, changes in the fair value of the derivative will be recorded in AOCI until the hedged item is recognized in earnings upon settlement/termination. FX derivative gains and losses in AOCI are reclassified to our consolidated statements of income (loss) as shown in the tables below. We evaluate hedge effectiveness at inception. Cash flows from derivative contracts are reported as operating activities on our consolidated statements of cash flows.

Freestanding FX Derivative Contracts

The gross notional amount of FX derivative contracts not designated as hedging instruments outstanding at December 31, 2020 and December 31, 2019 was $352.6 million and $338.0 million, respectively. These derivative contracts are designed to offset the FX effects in earnings of various intercompany loans and trade receivables. We recorded net (losses) gains for these freestanding derivatives of $(16.6) million, $3.1 million and $(11.2) million for the years ended December 31, 2020, 2019 and 2018, respectively. These (losses) and gains are included in foreign exchange and other losses on our consolidated statements of income (loss).

Counterparty Credit Risk

We are exposed to credit risk in the event of non-performance by the counterparties to our derivatives.

The two counterparties to the capped call transactions are financial institutions. To limit our credit risk, we selected financial institutions with a minimum long-term investment grade credit rating. Our exposure to the credit risk of the counterparties is not secured by any collateral. If a counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings, with a claim equal to our exposure at that time under the capped call transactions with that counterparty.

To manage credit risk with respect to our other derivatives, the Company selects and periodically reviews counterparties based on credit ratings, limits its exposure with respect to each counterparty, and monitors the market positions. However, if one or more of these counterparties were in a liability position to the Company and were unable to meet their obligations, any transactions with the counterparty could be subject to early termination, which could result in substantial losses for the Company.

Cash Flow Hedges

We utilize FX derivative contracts, designed as cash flow hedges, to hedge the variability of cash flows associated with our 12 months U.S. dollar forecasts of revenues and costs denominated in British Pound, Japanese Yen and the Euro. We transfer to earnings from AOCI the gain or loss realized on the FX derivative contracts at the time of invoicing.

The gross notional amounts of open derivative contracts designated as cash flow hedges as of December 31, 2020 and 2019, were as follows (in thousands):

Description of Derivative Contract	2020	2019
FX derivative contracts to be exchanged for British Pounds	$ 9,545	$ 10,128
FX derivative contracts to be exchanged for Japanese Yen	18,637	25,342
FX derivative contracts to be exchanged for Euros	47,444	48,838
Interest rate swap contracts	—	22,442
	$ 75,626	$ 106,750

After-tax net gain associated with derivatives designated as cash flow hedges recorded in the ending balance of AOCI and the amount expected to be reclassified to earnings in the next 12 months are as follows (in thousands):

Description of Derivative Contract	After-tax net gain in AOCI as of December 31, 2020	Amount Expected to be Reclassified to Earnings in Next 12 Months
FX derivative contracts	$ 2,319	$ 2,319

Pre-tax gains (losses) for derivative contracts designated as cash flow hedges recognized in OCI and the amount reclassified to earnings from AOCI were as follows (in thousands):

		Year Ended December 31, 2020	
Description of Derivative Contract	**Location in Earnings of Reclassified Gain or Loss**	**Gains Recognized in OCI**	**(Losses) Gains Reclassified from AOCI to Earnings:**
FX derivative contracts	Foreign exchange and other losses	$ 1,724	$ (1,522)
FX derivative contracts	SG&A	—	980
Interest rate swap contracts	Interest expense	—	(113)
		$ 1,724	$ (655)

		Year Ended December 31, 2019	
Description of Derivative Contract	**Location in Earnings of Reclassified Gain or Loss**	**Gains Recognized in OCI**	**Gains (Losses) Reclassified from AOCI to Earnings:**
FX derivative contracts	Foreign exchange and other losses	$ 2,757	$ 3,003
FX derivative contracts	SG&A	—	(2,071)
Interest rate swap contracts	Interest expense	—	(92)
		$ 2,757	$ 840

		Year Ended December 31, 2018	
Description of Derivative Contract	**Location in Earnings of Reclassified Gain or Loss**	**Gains Recognized in OCI**	**Gains (Losses) Reclassified from AOCI to Earnings:**
FX derivative contracts	Foreign exchange and other losses	$ 44	$ 2,697
FX derivative contracts	SG&A	—	(2,554)
Interest rate swap contracts	Interest expense	—	(66)
		$ 44	$ 77

We offset fair value amounts associated with our derivative instruments on our consolidated balance sheets that are executed with the same counterparty under master netting arrangements. Our netting arrangements include a right to set off or net together purchases and sales of similar products in the settlement process.

The following tables present the fair value and the location of derivative contracts reported on the consolidated balance sheets (in thousands):

December 31, 2020	Asset Derivatives		Liability Derivatives	
Derivatives Designated as Hedging Instruments	**Balance Sheet Location**	**Fair Value [1]**	**Balance Sheet Location**	**Fair Value [1]**
FX derivative contracts	Prepaid expenses and other current assets	$ 1,998	Accrued liabilities	$ 14
FX derivative contracts	Accrued liabilities	895		
Total derivatives designated as hedging instruments		2,893		14
Derivatives Not Designated as Hedging Instruments				
Interest rate swap contracts			Accrued liabilities	74
FX derivative contracts	Prepaid expenses and other current assets	55	Accrued liabilities	4,073
Capped call derivatives	Long-term derivative assets	72,302		
Embedded exchange feature			Long-term derivative liability	121,756
Other derivatives			Accrued liabilities	4,106
Other derivatives			Long-term derivative liability	184
Total derivatives not designated as hedging instruments		72,357		130,193
Total derivatives		$ 75,250		$ 130,207

December 31, 2019	Asset Derivatives		Liability Derivatives	
Derivatives Designated as Hedging Instruments	**Balance Sheet Location**	**Fair Value [1]**	**Balance Sheet Location**	**Fair Value [1]**
Interest rate swap contracts			Accrued liabilities	$ 313
Interest rate swap contracts			Other long-term liabilities	61
FX derivative contracts	Prepaid expenses and other current assets	$ 148	Accrued liabilities	169
FX derivative contracts	Accrued liabilities	387		
Total derivatives designated as hedging instruments		535		543
Derivatives Not Designated as Hedging Instruments				
FX derivative contracts	Accrued liabilities	26	Accrued liabilities	3,104
FX derivative contracts			Prepaid expenses and other current assets	33
Total derivatives not designated as hedging instruments		26		3,137
Total derivatives		$ 561		$ 3,680

(1) For the classification of inputs used to evaluate the fair value of our derivatives, refer to “Note 11. Fair Value Measurements.”

Note 14. Leases

We have operating leases primarily for (i) office space, (ii) manufacturing, warehouse and research and development facilities and (iii) vehicles. Our leases have remaining lease terms up to 11 years, some of which include options to extend the leases, and some of which include options to terminate the leases at our sole discretion. The components of operating lease assets, liabilities and costs are as follows (in thousands):

	December 31,	
Operating Lease Assets and Liabilities	**2020**	**2019**
Assets		
Operating lease right-of-use assets	$ 50,525	$ 54,372
Liabilities		
Accrued liabilities and other	$ 11,276	$ 11,110
Long-term operating lease liabilities	42,221	46,027
Total lease liabilities	$ 53,497	$ 57,137

	Year Ended December 31,	
Operating Lease Cost	**2020**	**2019**
Operating lease cost	$ 14,156	$ 14,002
Variable lease cost	1,097	873
Short-term lease cost	415	788
Total lease cost	$ 15,668	$ 15,663

Contractual maturities of our lease liabilities, including lease liabilities held for sale, as of December 31, 2020, are as follows (in thousands):

2021	$ 13,414
2022	12,051
2023	8,901
2024	6,920
2025	4,343
Thereafter	14,038
Total lease payments	59,667
Less: Amount representing interest	4,351
Present value of lease liabilities	$ 55,316

Lease Term and Discount Rate	**December 31, 2020**
Weighted Average Remaining Lease Term	6.3 years
Weighted Average Discount Rate	2.4 %

Other information (in thousands)	Year Ended December 31,	
	2020	**2019**
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows for operating leases	$ 14,601	$ 13,522
Operating lease assets obtained in exchange for lease liabilities	$ 8,547	$ 8,712

Note 15. Commitments and Contingencies

FDA Warning Letter

On December 29, 2015, the FDA issued a Warning Letter alleging certain violations of FDA regulations applicable to medical device manufacturers at our Munich, Germany and Arvada, Colorado facilities.

The FDA inspected the Munich facility from August 24, 2015 to August 27, 2015 and the Arvada facility from August 24, 2015 to September 1, 2015. On August 27, 2015, the FDA issued a Form 483 identifying two observed non-conformities with certain regulatory requirements at the Munich facility. We did not receive a Form 483 in connection with the FDA's inspection of the Arvada facility. Following the receipt of the Form 483, we provided written responses to the FDA describing corrective and preventive actions that were underway or to be taken to address the FDA's observations at the Munich facility. The Warning Letter responded in part to our responses and identified other alleged violations related to the manufacture of our 3T Heater-Cooler device that were not previously included in the Form 483.

The Warning Letter further stated that our 3T devices and other devices we manufactured at our Munich facility were subject to refusal of admission into the U.S. until resolution of the issues set forth by the FDA in the Warning Letter. The FDA had informed us that the import alert was limited to the 3T devices, but that the agency reserved the right to expand the scope of the import alert if future circumstances warranted such action. The Warning Letter did not request that existing users cease using the 3T device, and manufacturing and shipment of all of our products other than the 3T device were unaffected by the import limitation. To help clarify these issues for current customers, we issued an informational Customer Letter in January 2016 and that same month agreed with the FDA on a process for shipping 3T devices to existing U.S. users pursuant to a certificate of medical necessity program.

Finally, the Warning Letter stated that premarket approval applications for Class III devices to which certain Quality System regulation deviations identified in the Warning Letter were reasonably related would not be approved until the violations had been corrected; however, this restriction applied only to the Munich and Arvada facilities, which do not manufacture or design devices subject to Class III premarket approval.

On February 25, 2020, LivaNova received clearance for K191402, a 510(k) for the 3T devices that addressed issues contained in the 2015 Warning Letter along with design changes that further mitigate the potential risk of aerosolization. Concurrent with this clearance, (1) 3T devices manufactured in accordance with K191402 will not be subjected to the import alert and (2) LivaNova initiated a correction to distribute the updated Operating Instructions cleared under K191402. With this 510(k) clearance, all actions to remediate the FDA's inspectional observations in the Warning Letter are complete, and at this time, LivaNova is awaiting the FDA's close-out inspection.

CDC and FDA Safety Communications and Company Field Safety Notice

On October 13, 2016, the CDC and the FDA separately released safety notifications regarding the 3T devices. The CDC's Morbidity and Mortality Weekly Report ("MMWR") and Health Advisory Notice ("HAN") reported that tests conducted by CDC and its affiliates indicate that there appears to be genetic similarity between both patient and 3T device strains of the non-tuberculous mycobacterium ("NTM") bacteria M. chimaera isolated in hospitals in Iowa and Pennsylvania. Citing the geographic separation between the two hospitals referenced in the investigation, the report asserts that 3T devices manufactured prior to August 18, 2014 could have been contaminated during the manufacturing process. The CDC's HAN and FDA's Safety Communication, issued contemporaneously with the MMWR report, each assess certain risks associated with 3T devices and provide guidance for providers and patients. The CDC notification states that the decision to use the 3T device during a surgical operation is to be taken by the surgeon based on a risk approach and on patient need. Both the CDC's and FDA's communications confirm that 3T devices are critical medical devices and enable doctors to perform life-saving cardiac surgery procedures.

Also on October 13, 2016, concurrent with the CDC's HAN and FDA's Safety Communication, we issued a Field Safety Notice Update for U.S. users of 3T devices to proactively and voluntarily contact facilities to aid in implementation of the CDC and FDA recommendations. In the fourth quarter of 2016, we initiated a program to provide existing 3T device users with a new loaner 3T device at no charge pending regulatory approval and implementation of additional risk mitigation strategies worldwide, including a vacuum canister and internal sealing upgrade program and a deep disinfection service. In April 2017, we obtained CE Mark in Europe for the design change of the 3T device, and in October 2018, the FDA concluded that we could commence the vacuum canister and internal sealing upgrade program in the U.S. On February 25, 2020, LivaNova received clearance for K191402, a 510(k) for the 3T devices that addressed issues contained in the 2015 Warning Letter along with design changes that further mitigate the potential risk of aerosolization. Concurrent with this clearance, (1) 3T devices manufactured in accordance with K191402 will not be subjected to the import alert and (2) LivaNova initiated a correction to distribute the updated Operating Instructions cleared under K191402. We are in the process of completing and closing out all recall activities with the FDA. While our vacuum canister and internal sealing upgrade program and deep cleaning service in the U.S. are substantially complete, these services will continue as a servicing option outside of the U.S.

On December 31, 2016, we recognized a liability for our product remediation plan related to our 3T device. We concluded that it was probable that a liability had been incurred upon management's approval of the plan and the commitments made by management to various regulatory authorities globally in November and December 2016, and furthermore, the cost associated

with the plan was reasonably estimable. At December 31, 2020, the product remediation liability was $1.1 million. Refer to “Note 8. Product Remediation Liability” for additional information.

Saluggia Site Hazardous Substances

LivaNova Site Management S.r.l. (“LSM”), formerly a subsidiary of Sorin, one of the companies that merged into LivaNova PLC in 2015, manages site services for the campus in Saluggia, Italy. In addition to a LivaNova manufacturing facility, the Saluggia campus is also the location of manufacturing facilities of third parties, a cafeteria for workers, and storage facilities for hazardous substances and equipment previously used in a nuclear research center, later turned nuclear medicine business, between the 1960s and the late 1990s. Pursuant to authorization from the Italian government, LSM has, and continues to, perform ordinary maintenance, secure the facilities, monitor air and water quality and file applicable reports with the competent environmental authorities.

During 2020, LSM received correspondence from ISIN (a sub-body of the Italian Ministry of Economic Development) requesting that within five years, LSM demonstrate the financial capacity to meet its obligations under Italian law to clean and dismantle any contaminated buildings and equipment as well as to deliver hazardous substances to a national repository. This repository will be built by the Italian government at a location and time yet to be determined. ISIN subsequently published Technical Guide n. 30, which identifies the technical criteria, and general safety and protection requirements for the design, construction, operation and dismantling of temporary storage facilities for the hazardous substances. Most recently, in January 2021, a list of 67 potential sites for the national repository was published. There is no legal obligation to begin any work or deliver the hazardous substances, as the performance of these obligations is contingent on the construction of the as-yet unbuilt national repository.

However, as a result of the above correspondence and publication from ISIN and the publication of potential sites for the national repository, some of the substantial uncertainties regarding the obligation became more certain. In connection with developing the plan required by ISIN, we retained a third party specialist to assist in the estimation of the potential costs. Based on the aforementioned factors, the Company concluded its obligation to clean, dismantle, and deliver any hazardous substances to a national repository, is probable and reasonably estimable as of December 31, 2020. Accordingly, in the fourth quarter of 2020, we recognized a $42.2 million provision for this matter. The liability as of December 31, 2020 is $43.0 million which represents the low end of the estimated range of loss of $43.0 million to $55.0 million.

Litigation

Product Liability

The Company is currently involved in litigation involving our 3T device. The litigation includes a class action complaint in the U.S. District Court for the Middle District of Pennsylvania, federal multi-district litigation in the U.S. District Court for the Middle District of Pennsylvania, various U.S. state court cases and cases in jurisdictions outside the U.S. The class action, filed in February 2016, consists of all Pennsylvania residents who underwent open heart surgery at WellSpan York Hospital and Penn State Milton S. Hershey Medical Center between 2011 and 2015 and who currently are asymptomatic for NTM infection. Members of the class seek declaratory relief that the 3T devices are defective and unsafe for intended uses, medical monitoring, damages, and attorneys’ fees.

On March 29, 2019, we announced a settlement framework that provides for a comprehensive resolution of the personal injury cases pending in the multi-district litigation in U.S. federal court, the related class action pending in federal court, as well as certain cases in state courts across the United States. The agreement, which makes no admission of liability, is subject to certain conditions, including acceptance of the settlement by individual claimants and provides for a total payment of up to $225 million to resolve the claims covered by the settlement. Per the agreed-upon terms, the first payment of $135 million was paid into a qualified settlement fund in July 2019 and the second payment of $90 million was paid in January 2020. Cases covered by the settlement are being dismissed as amounts are disbursed to individual plaintiffs from the qualified settlement fund.

Cases in state courts in the U.S. and in jurisdictions outside the U.S. continue to progress. As of March 1, 2021, including the cases encompassed in the settlement framework described above that have not yet been dismissed, we are aware of approximately 85 filed and unfiled claims worldwide, with the majority of the claims in various federal or state courts throughout the United States. This number includes cases that have settled but have not yet been dismissed. The complaints generally seek damages and other relief based on theories of strict liability, negligence, breach of express and implied warranties, failure to warn, design and manufacturing defect, fraudulent and negligent misrepresentation or concealment, unjust enrichment, and violations of various state consumer protection statutes.

In the fourth quarter of 2018, we recognized a $294.1 million provision for these matters. In the fourth quarter of 2019, we recorded an additional liability of $33.2 million due to additional information obtained, including but not limited to: the nature and quantity of filed and unfiled claims; certain settlement discussions with plaintiffs' counsel; and the current stage of litigation in our remaining filed and unfiled claims. At December 31, 2020, the provision was $36.5 million. While the amount accrued represents our best estimate for those filed and unfiled claims that are both probable and estimable, the actual liability for resolution of these matters may vary from our estimate.

Changes in the carrying amount of the litigation provision liability are as follows (in thousands):

Total litigation provision liability at December 31, 2018	$	294,061
Payments		(156,928)
Adjustments		33,233
FX and other		38
Total litigation provision liability at December 31, 2019		170,404
Payments		(138,178)
Adjustments		3,906
FX and other		358
Total litigation provision liability at December 31, 2020		36,490
Less current portion of litigation provision liability at December 31, 2020		28,612
Long-term portion of litigation provision liability at December 31, 2020	$	7,878

In 2019, we recovered $33.8 million from our insurance carriers under our product liability insurance policies related to the litigation involving our 3T device. The insurance recovery was recorded in litigation provision, net on the consolidated statements of income (loss) during 2019.

Environmental Liability

Sorin was created as a result of a spin-off (the "Sorin spin-off") from SNIA in January 2004, and in October 2015, Sorin was merged into LivaNova. SNIA subsequently became insolvent and the Italian Ministry of the Environment and the Protection of Land and Sea (the "Italian Ministry of the Environment"), sought compensation from SNIA in an aggregate amount of approximately $4 billion for remediation costs relating to the environmental damage at chemical sites previously operated by SNIA's other subsidiaries.

In September 2011 and July 2014, the Bankruptcy Court of Udine and the Bankruptcy Court of Milan held (in proceedings to which we are not parties) that the Italian Ministry of the Environment and other Italian government agencies (the "Public Administrations") were not creditors of either SNIA or its subsidiaries in connection with their claims in the Italian insolvency proceedings. The Public Administrations appealed and in January 2016, the Court of Udine rejected the appeal. The Public Administrations have also appealed that decision to the Supreme Court. In addition, the Bankruptcy Court of Milan's decision has been appealed.

In January 2012, SNIA filed a civil action against Sorin in the Civil Court of Milan asserting joint liability of a parent and a spun-off company. On April 1, 2016, the Court of Milan dismissed all legal actions of SNIA and of the Public Administrations further requiring the Public Administrations to pay Sorin approximately €292,000 (approximately $358,000 as of December 31, 2020) for legal fees. The Public Administrations appealed the 2016 Decision to the Court of Appeal of Milan. On March 5, 2019, the Court of Appeal issued a partial decision on the merits declaring Sorin/LivaNova jointly liable with SNIA for SNIA's environmental liabilities in an amount up to the fair value of the net worth received by Sorin because of the Sorin spin-off, an estimated €572.1 million (approximately $701.9 million as of December 31, 2020). Additionally the Court issued a separate order, staying the proceeding until a panel of three experts can assess the environmental damages, the costs of clean-up, and the costs that the Public Administrations has already borne for the clean-up of the sites to allow the Court to decide on the second claim of the Public Administrations against LivaNova, (i.e., to refund the Public Administration for the SNIA environmental liabilities). In the interim, we are appealing the decision to the Italian Supreme Court (Corte di Cassazione).

In 2011, Caffaro, a SNIA subsidiary, sold its Brescia chemical business to Caffaro Brescia, a third party belonging to the Todisco group, and as part of the acquisition, Caffaro Brescia agreed to secure hydraulic barriers at the site and maintain existing environmental security measures. In September 2020, Caffaro Brescia declared it was withdrawing from its agreement to maintain the environmental measures. In January 2021, we (in addition to Caffaro Brescia, and other non-LivaNova entities) received an administrative order ("Order") from the Italian Ministry of the Environment requiring us to ensure the maintenance of the environmental measures and to guarantee that such works remain fully operational, the annual management and

maintenance for which is estimated at approximately €1 million per year. LivaNova's receipt of the Order appears to be based on the aforementioned Court of Appeals decision regarding our alleged joint liability with SNIA for SNIA's environmental liabilities. Our response, dated February 16, 2021, disputes the grounds upon which the Order is based.

We have not recognized an expense in connection with these related matters matter because any potential loss is not currently probable or reasonably estimable.

Patent Litigation

On May 11, 2018, Neuro and Cardiac Technologies LLC ("NCT"), a non-practicing entity, filed a complaint in the United States District Court for the Southern District of Texas asserting that the VNS Therapy System, when used with the SenTiva Model 1000 generator, infringes the claims of U.S. Patent No. 7,076,307 owned by NCT. The complaint requests damages that include a royalty, costs, interest, and attorneys' fees. On September 13, 2018, we petitioned the Patent Trial and Appeal Board of the U. S. Patent and Trademark Office (the "Patent Office") for an *inter partes review* ("IPR") of the validity of the '307 patent, and on May 18, 2020, the Patent Office issued a Final Written Decision determining that all challenged claims are unpatentable. NCT is appealing the Final Written Decision. On March 24, 2020 we were granted our request for an *ex parte* reexamination of the '307 patent, and in December, the Patent Office issued a Non-Final Rejection of all the '307 claims. NCT is appealing. The Court has stayed the litigation pending the outcome of the IPR appeal proceeding. We have not recognized an expense in connection with this matter because any potential loss is not currently probable or reasonably estimable.

Contract Litigation

On November 25, 2019, LivaNova received notice of a lawsuit initiated by former members of Caisson Interventional, LLC ("Caisson"), a subsidiary of the Company acquired in 2017. The lawsuit, Todd J. Mortier, as Member Representative of the former Members of Caisson Interventional, LLC v. LivaNova USA, Inc., is currently pending in the United States District Court for the District of Minnesota. The complaint alleges (i) breach of contract, (ii) breach of the covenant of good faith and fair dealing and (iii) unjust enrichment in connection with the Company's operation of Caisson's Transcatheter Mitral Valve Replacement ("TMVR") program and the Company's November 20, 2019 announcement that it was ending the TMVR program at the end of 2019. The lawsuit seeks damages arising out of the 2017 acquisition agreement, including various regulatory milestone payments. We intend to vigorously defend this claim. The Company has not recognized an expense related to this matter because any potential loss is not currently probable or reasonably estimable.

Other Matters

Additionally, we are the subject of various pending or threatened legal actions and proceedings that arise in the ordinary course of our business. These matters are subject to many uncertainties and outcomes that are not predictable and that may not be known for extended periods of time. Since the outcome of these matters cannot be predicted with certainty, the costs associated with them could have a material adverse effect on our consolidated net income, financial position or liquidity.

Note 16. Stockholders' Equity

Share repurchase plans

On August 1, 2016, the Board of Directors of LivaNova approved the authorization of a share repurchase plan (the "Share Repurchase Program") pursuant to an authority granted by shareholders at the 2016 annual general meeting held on June 15, 2016. The authority granted by the shareholders has a five-year expiration. The Share Repurchase Program was structured to enable us to buy back up to $150.0 million of our shares on NASDAQ between September 1, 2016 through December 31, 2016. On November 15, 2016, the Board of Directors approved an amendment (the "Amended Share Repurchase Program") to the Share Repurchase Program authorizing the Company to repurchase up to $150.0 million of our shares between September 1, 2016 and December 31, 2018.

For the year ended December 31, 2018, we repurchased and canceled 500,333 shares under this plan at a cost of $50.0 million and an average price per share of $99.91. We did not purchase any shares during the years ended December 31, 2019 or December 31, 2020.

Treasury Stock

For the year ended December 31, 2018, we issued 1.4 million shares to our Employee Benefit Trust ("EBT"). Shares held by the EBT are issued to employees and directors at exercise of stock-based compensation grants. The balance of shares in the EBT are reported as treasury shares. We did not issue any additional shares to our EBT during the years ended December 31, 2019 or December 31, 2020.

Accumulated other comprehensive income (loss)

The table below presents the change in each component of AOCI, net of tax and the reclassifications out of AOCI into net income for the years ended December 31, 2020, 2019 and 2018 (in thousands):

	Change in Unrealized Gain (Loss) on Cash Flow Hedges	Foreign Currency Translation Adjustments [1]	Total
As of December 31, 2017	**$ (919)**	**$ 46,232**	**$ 45,313**
Other comprehensive income (loss) before reclassifications, before tax	44	(69,764)	(69,720)
Tax expense	(11)	—	(11)
Other comprehensive income (loss) before reclassifications, net of tax	33	(69,764)	(69,731)
Reclassification of gain from accumulated other comprehensive income (loss), before tax	(77)	—	(77)
Reclassification of tax expense	19	—	19
Reclassification of gain from accumulated other comprehensive income (loss), after tax	(58)	—	(58)
Net current-period other comprehensive loss, net of tax	(25)	(69,764)	(69,789)
As of December 31, 2018	**(944)**	**(23,532)**	**(24,476)**
Other comprehensive income before reclassifications, before tax	2,757	3,627	6,384
Tax expense	(661)	—	(661)
Other comprehensive income before reclassifications, net of tax	2,096	3,627	5,723
Reclassification of gain from accumulated other comprehensive income (loss), before tax	(840)	—	(840)
Reclassification of tax expense	201	—	201
Reclassification of gain from accumulated other comprehensive income (loss), after tax	(639)	—	(639)
Net current-period other comprehensive income, net of tax	1,457	3,627	5,084
As of December 31, 2019	**513**	**(19,905)**	**(19,392)**
Other comprehensive income before reclassifications, before tax	1,724	45,395	47,119
Tax expense	(415)	—	(415)
Other comprehensive income before reclassifications, net of tax	1,309	45,395	46,704
Reclassification of loss from accumulated other comprehensive income (loss), before tax	655	—	655
Reclassification of tax benefit	(158)	—	(158)
Reclassification of loss from accumulated other comprehensive income (loss), after tax	497	—	497
Net current-period other comprehensive income, net of tax	1,806	45,395	47,201
As of December 31, 2020	**$ 2,319**	**$ 25,490**	**$ 27,809**

(1) Taxes were not provided for foreign currency translation adjustments as translation adjustments are related to earnings that are intended to be reinvested in the countries where earned.

Note 17. Stock-Based Incentive Plans

Stock-Based Incentive Plans

Stock-based awards may be granted under the 2015 Incentive Award Plan (the “2015 Plan”) in the form of stock options, SARs, RSUs and other stock-based and cash-based awards. As of December 31, 2020, there were approximately 3,575,752 shares available for future grants under the 2015 Plan. During the year ended December 31, 2020, we issued stock-based compensatory awards with terms approved by the Compensation Committee of our Board of Directors. The awards with service conditions generally vest ratably over four years, subject to forfeiture unless service conditions are met. Market performance-based awards cliff vest after three years, subject to the rank of our total shareholder return for the three-year period ending December 31, 2022 relative to the total shareholder returns for a peer group of companies. Operating performance-based

awards cliff vest after three years subject to the achievement of certain thresholds of cumulative adjusted free cash flow for the three-year period ending December 31, 2022.

On January 1, 2019, we initiated the LivaNova Global Employee Share Purchase Plan ("ESPP"). Compensation expense related to the ESPP for the years ended December 31, 2020 and December 31, 2019 was $1.2 million and $1.3 million, respectively.

The stock-based compensation tables below include expense and share activity related to discontinued operations.

Stock-Based Compensation

Amounts of stock-based compensation recognized on our consolidated statements of income (loss), by expense category, are as follows (in thousands):

	Year Ended December 31,		
	2020	**2019**	**2018**
Cost of goods sold	$ 1,898	$ 1,343	$ 1,060
Selling, general and administrative	29,661	25,588	19,393
Research and development	3,530	5,622	4,510
Stock-based compensation from continuing operations	35,089	32,553	24,963
Stock-based compensation from discontinued operations	—	—	1,960
Total stock-based compensation expense	35,089	32,553	26,923
Income tax benefit	992	6,590	6,443
Total expense, net of income tax benefit	$ 34,097	$ 25,963	$ 20,480

Amounts of stock-based compensation expense recognized on our consolidated statements of income (loss), by type of arrangement, are as follows (in thousands):

	Year Ended December 31,		
	2020	**2019**	**2018**
Service-based restricted stock units	$ 18,320	$ 14,113	$ 10,622
Service-based stock appreciation rights	12,715	10,349	8,282
Market performance-based restricted stock units	3,200	2,900	2,357
Operating performance-based restricted stock units	(370)	3,918	3,702
Employee stock purchase plan	1,224	1,273	—
Total stock-based compensation expense from continuing operations	$ 35,089	$ 32,553	$ 24,963

Unrecognized Stock-Based Compensation

Amounts of stock-based compensation cost not yet recognized related to non-vested awards, including awards assumed or issued, as of December 31, 2020, are as follows (in thousands):

	Unrecognized Compensation Cost	**Weighted Average Remaining Vesting Period (in years)**
Service-based stock appreciation rights	$ 25,678	2.64
Service-based restricted stock unit awards	36,086	2.83
Performance-based restricted stock unit awards	7,051	1.19
Total stock-based compensation cost unrecognized	$ 68,815	2.22

Stock Appreciation Rights and Stock Options

We use the Black-Scholes option pricing methodology to calculate the grant date fair market value of SARs. The following table lists the assumptions we utilized as inputs to the Black-Scholes model:

	Year Ended December 31,		
	2020	2019	2018
Dividend yield [1]	—	—	—
Risk-free interest rate [2]	0.4%	1.4 % - 2.2 %	2.5 % - 2.9 %
Expected option term - in years [3]	5.4	5.0 - 5.1	5.0 - 5.1
Expected volatility at grant date [4]	39.5%	32.2 % - 35.7 %	29.2 % - 29.9 %

(1) We have not paid dividends and no future dividends have been approved.
(2) We use yield rates on U.S. Treasury securities for a period that approximates the expected term of the awards granted to estimate the risk-free interest rate.
(3) We estimated the expected term of the awards granted using historic data of actual time elapsed between the date of grant and the exercise or forfeiture of options or SARs for employees.
(4) We determine the expected volatility of the awards based on historical volatility.

The following tables detail the activity for service-based SARs and stock option awards:

SARs and Stock Options	Number of Optioned Shares	Wtd. Avg. Exercise Price per Share	Wtd. Avg. Remaining Contractual Term (years)	Aggregate Intrinsic Value (in thousands) [1]
Outstanding — at December 31, 2019	2,215,056	$ 74.41		
Granted	1,132,742	$ 43.63		
Exercised	(58,768)	$ 48.65		
Forfeited	(173,923)	$ 73.05		
Expired	(231,087)	$ 70.99		
Outstanding — at December 31, 2020	2,884,020	$ 63.20	7.5	$ 34,829
Fully vested and exercisable — end of year	1,131,868	$ 66.28	5.6	$ 9,563
Fully vested and expected to vest — end of year [2]	2,815,269	$ 63.39	7.4	$ 33,633

(1) The aggregate intrinsic value of SARs and options is based on the difference between the fair market value of the underlying stock at December 31, 2020, using the market closing stock price, and exercise price for in-the-money awards.
(2) Includes the impact of expected future forfeitures.

	Year Ended December 31,		
	2020	2019	2018
Weighted average grant date fair value of SARs granted during the year (per share)	$ 15.73	$ 31.22	$ 28.13
Aggregate intrinsic value of SARs and stock options exercised during the year (in thousands)	$ 773	$ 2,064	$ 27,281

Restricted Stock Units Awards

The following tables detail the activity for service-based RSU awards:

RSUs	Number of Shares	Wtd. Avg. Grant Date Fair Value
Non-vested shares at December 31, 2019	523,833	$ 84.98
Granted	609,076	$ 44.28
Vested	(221,314)	$ 75.51
Forfeited	(63,136)	$ 75.46
Non-vested shares at December 31, 2020	848,459	$ 58.00

	Year Ended December 31,		
	2020	2019	2018
Weighted average grant date fair value of service-based RSUs issued during the year (per share)	$ 44.28	$ 92.54	$ 95.63
Aggregate fair value of RSUs that vested during the year (in thousands)	$ 13,674	$ 12,710	$ 11,505

The following tables detail the activity for performance-based and market-based RSU awards:

Performance-based and market-based RSUs	Number of Shares	Wtd. Avg. Grant Date Fair Value
Non-vested shares at December 31, 2019	285,669	$ 71.02
Granted	185,940	$ 41.70
Vested	(63,305)	$ 41.79
Forfeited	(27,505)	$ 64.35
Non-vested shares at December 31, 2020	380,799	$ 56.55

	Year Ended December 31,		
	2020	2019	2018
Weighted average grant date fair value of performance and market-based restricted share units granted during the year (per share)	$ 41.70	$ 98.50	$ 95.62
Aggregate fair value of performance and market-based restricted share units that vested during the year (in thousands)	$ 4,106	$ 6,697	$ 9,409

Note 18. Employee Retirement Plans

Defined Benefit Plans

We sponsor several defined benefit pension plans, which include plans in the U.S., Italy, Germany, Japan and France. We maintain a frozen cash balance retirement plan in the U.S. that is a contributory, defined benefit plan designed to provide the benefit in terms of a stated account balance dependent on the employer's promised interest-crediting rate. In Italy and France, we maintain a severance pay defined benefit plan that obligates the employer to pay a severance payment in case of resignation, dismissal or retirement. In other jurisdictions, we sponsor non-contributory, defined benefit plans designated to provide a guaranteed minimum retirement benefits to eligible employees.

The change in benefit obligations and funded status of our U.S. pension benefits is as follows (in thousands):

	U.S. Pension Benefits		
	Year Ended December 31,		
	2020	2019	2018
Accumulated benefit obligations at year end	$ 13,085	$ 11,232	$ 10,591
Change in projected benefit obligation:			
Projected benefit obligation at beginning of year	$ 11,232	$ 10,591	$ 11,001
Interest cost	290	382	336
Plan settlement	(384)	(366)	(340)
Actuarial loss	2,225	871	8
Benefits paid	(278)	(246)	(414)
Projected benefit obligation at end of year	$ 13,085	$ 11,232	$ 10,591
Change in plan assets:			
Fair value of plan assets at beginning of year	$ 7,574	$ 6,767	$ 6,879
Actual return on plan assets	646	628	(405)
Employer contributions	1,130	546	1,047
Plan settlement	(384)	(366)	(340)
Benefits paid	(278)	(1)	(414)
Fair value of plan assets at end of year	$ 8,688	$ 7,574	$ 6,767
Funded status at end of year:			
Fair value of plan assets	$ 8,688	$ 7,574	$ 6,767
Projected benefit obligations	13,085	11,232	10,591
Underfunded status of the plans	4,397	3,658	3,824
Recognized liability	$ 4,397	$ 3,658	$ 3,824
Amounts recognized on the consolidated balance sheets consist of:			
Non-current liabilities	$ 4,397	$ 3,658	$ 3,824
Recognized liability	$ 4,397	$ 3,658	$ 3,824

The change in benefit obligations and funded status of our non-U.S. pension benefits is as follows (in thousands):

	Non-U.S. Pension Benefits		
	Year Ended December 31,		
	2020	2019	2018
Accumulated benefit obligations at year end	$ 12,091	$ 17,744	$ 18,676
Change in projected benefit obligation:			
Projected benefit obligation at beginning of year	$ 18,087	$ 18,975	$ 21,548
Service cost	691	478	478
Interest cost	121	232	289
Actuarial loss (gain)	(208)	1,071	(818)
Benefits paid	(1,245)	(2,380)	(1,631)
Reclassified to liabilities held for sale [1]	(6,012)	—	—
Foreign currency exchange rate changes and other	1,605	(289)	(891)
Projected benefit obligation at end of year	$ 13,039	$ 18,087	$ 18,975
Change in plan assets:			
Fair value of plan assets at beginning of year	$ 3,423	$ 3,341	$ 3,075
Actual return on plan assets	52	(34)	51
Employer contributions	454	383	361
Benefits paid	(290)	(332)	(156)
Reclassified to liabilities held for sale [1]	(1,018)	—	—
Foreign currency exchange rate changes	195	65	10
Fair value of plan assets at end of year	$ 2,816	$ 3,423	$ 3,341
Funded status at end of year:			
Fair value of plan assets	$ 2,816	$ 3,423	$ 3,341
Projected benefit obligations	13,039	18,087	18,975
Underfunded status of the plans [2]	10,223	14,664	15,634
Recognized liability	$ 10,223	$ 14,664	$ 15,634
Amounts recognized on the consolidated balance sheets consist of:			
Non-current liabilities	$ 10,223	$ 14,664	$ 15,634
Recognized liability	$ 10,223	$ 14,664	$ 15,634

(1) Refer to “Note 5. Assets and Liabilities Held For Sale.”
(2) In certain non-U.S. countries, fully funding pension plans is not a common practice. Consequently, certain pension plans have been partially funded.

The tables below present net periodic benefit cost of the defined benefit pension plans by component (in thousands):

	U.S. Pension Benefits		
	Year Ended December 31,		
	2020	2019	2018
Interest cost	$ 290	$ 382	$ 336
Expected return on plan assets	(318)	(298)	(318)
Settlement and curtailment loss	180	—	135
Amortization of net actuarial loss	182	148	571
Net periodic benefit cost	$ 334	$ 232	$ 724

	Non-U.S. Pension Benefits		
	Year Ended December 31,		
	2020	2019	2018
Service cost	$ 691	$ 478	$ 478
Interest cost	121	232	289
Expected return on plan assets	(52)	34	(51)
Amortization of net actuarial loss (gain)	(208)	1,071	(818)
Net periodic benefit cost	$ 552	$ 1,815	$ (102)

To determine the discount rate for our U.S. benefit plan, we used the FTSE Above Median Pension Discount Curve. For the discount rate used for the other non-U.S. benefit plans we consider local market expectations of long-term returns, primarily utilizing the Iboxx Corporate Index Bond rating AA, duration higher than 10 years. The resulting discount rates are consistent with the duration of plan liabilities.

The expected long-term rate of return on plan assets assumption for our U.S. benefit plan was derived from a study conducted by our investment managers. The study includes a review of anticipated future long-term performance of individual asset classes and consideration of the appropriate asset allocation strategy given the anticipated requirements of the plan to determine the average rate of earnings expected on the funds invested to provide for the pension plan benefits.

Major actuarial assumptions used in determining the benefit obligations and net periodic benefit cost for our significant U.S. benefit plans as of December 31, 2020, 2019 and 2018, are presented in the following table:

	U.S. Pension Benefits		
	2020	2019	2018
Weighted-average assumptions used to determine benefit obligation:			
Discount rate	1.91%	2.88%	3.97%
Weighted-average assumptions used to determine net periodic benefit cost:			
Discount rate	2.88%	3.97%	3.28%
Expected return on plan assets	5.00%	5.00%	5.00%

Major actuarial assumptions used in determining the benefit obligations and net periodic benefit cost for our significant non-U.S. benefit plans as of December 31, 2020, 2019 and 2018, are presented in the following table:

	Non-U.S. Pension Benefits		
	2020	2019	2018
Weighted-average assumptions used to determine benefit obligation:			
Discount rate	0.23% - 0.35%	0.20% - 0.71%	0.20% - 1.55%
Rate of compensation increase	2.50% - 3.00%	2.50% - 3.00%	2.50% - 3.00%
Weighted-average assumptions used to determine net periodic benefit cost:			
Discount rate	0.23% - 0.35%	0.20% - 0.71%	0.27% - 1.55%
Rate of compensation increase	2.50% - 3.00%	2.50% - 3.00%	2.50% - 3.00%

Retirement Benefit Plan Investment Strategy

In the U.S., we have an account that holds the defined benefit frozen balance pension plan assets. The Qualified Plan Committee (the “Plan Committee”) sets investment guidelines for U.S. pension plans. The plan assets in the U.S. are invested in accordance with sound investment practices that emphasize long-term fundamentals. The investment objectives for the plan assets in the U.S. are to achieve a positive rate of return that would be expected to close the current funding deficit and so enable us to terminate the frozen pension plan at a reasonable cost. The Plan Committee also oversees the investment allocation process, selects the investment managers, and monitors asset performance. The investment portfolio contains a diversified portfolio of fixed income and equity index funds. Securities are also diversified in terms of domestic and international securities, short- and long-term securities, growth and value styles, large cap and small cap stocks.

Outside the U.S., pension plan assets are typically managed by decentralized fiduciary committees. There is a significant variation in policy asset allocation from country to country. Local regulations, local funding rules, and local financial and tax considerations are part of the funding and investment allocation process in each country.

The table below presents our U.S. pension plan target allocations by asset category as of December 31, 2020:

Equity securities	29%
Debt securities	70%
Other	1%

Retirement Benefit Fair Values

The following is a description of the valuation methodologies used for retirement benefit plan assets measured at fair value:

Equity Mutual Funds: Valued based on the year-end net asset values of the investment vehicles. The net asset values of the investment vehicles are based on the fair values of the underlying investments of the partnerships valued at the closing price reported in the active markets in which the individual security is traded. Equity mutual funds have a daily reported net asset value.

Fixed Income Mutual Funds: Valued based on the year-end net asset values of the investment vehicles. The net asset values of the investment vehicles are based on the fair values of the underlying investments of the partnerships valued based on inputs other than quoted prices that are observable.

Money Markets: Valued based on quoted prices in active markets for identical assets.

The following tables provide information by level for the retirement benefit plan assets that are measured at fair value, as defined by U.S. GAAP (in thousands):

	Fair Value as of December 31, 2020	Fair Value Measurement Using Inputs Considered as:		
		Level 1	Level 2	Level 3
Equity mutual funds	$ 2,405	$ —	$ 2,405	$ —
Fixed income mutual funds	5,788	—	5,788	—
Money market funds and cash	94	94	—	—
	$ 8,287	$ 94	$ 8,193	$ —

	Fair Value as of December 31, 2019	Fair Value Measurement Using Inputs Considered as:		
		Level 1	Level 2	Level 3
Equity mutual funds	$ 2,262	$ —	$ 2,262	$ —
Fixed income mutual funds	5,225	—	5,225	—
Money market funds	74	74	—	—
	$ 7,561	$ 74	$ 7,487	$ —

Refer to “Note 2. Basis of Presentation, Use of Accounting Estimates and Significant Accounting Policies” for discussion of the fair value measurement terms of Levels 1, 2, and 3.

Defined Benefit Retirement Funding

We make the minimum required contribution to fund the U.S. pension plan as determined by MAP - 21 and the Highway and Transportation Funding Act of 2014 (“HAFTA”). We contributed $1.6 million, $0.9 million and $1.4 million to the pension plans (U.S. and non-U.S.) during the years ended December 31, 2020, 2019 and 2018, respectively. We anticipate that we will make contributions to the U.S. pension plan of approximately $0.9 million during the year ended December 31, 2021.

Benefit payments, including amounts to be paid from our assets, and reflecting expected future service as of December 31, 2020, are expected to be paid as follows (in thousands):

	U.S. Plans	Non-U.S. Plans
2021	4,003	600
2022	1,175	881
2023	680	1,129
2024	774	837
2025	940	898
2026 - 2030	3,159	6,205

Defined Contribution Plans

We sponsor defined contribution plans in the U.S. including the Cyberonics, Inc. Employee Retirement Savings Plan, which qualifies under Section 401(k) of the IRC covering U.S. employees and the Cyberonics, Inc. Non-Qualified Deferred Compensation Plan (the "Deferred Compensation"), covering certain U.S. middle and senior management. In addition, we sponsor the Belgium Defined Contribution Pension Plan for Cyberonics' Belgium employees. We incurred expenses for our defined contribution plans of $11.8 million, $12.4 million and $12.0 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Note 19. Income Taxes

Earnings Before Income Taxes and Components of Income Tax Provision

The U.S. and non-U.S. components of (loss) income from continuing operations before income taxes and our income tax expense (benefit) from continuing operations (in thousands):

	Year Ended December 31,		
	2020	2019	2018
(Loss) income from continuing operations before income taxes:			
UK and Non-U.S.	$ (258,466)	$ 28,788	$ 59,528
U.S.	(85,521)	(214,482)	(306,975)
	$ (343,987)	$ (185,694)	$ (247,447)
Total income tax expense (benefit) from continuing operations consisted of the following:			
Current:			
UK and Non-U.S.	$ 2,899	$ 1,112	$ 9,645
U.S.	(41,010)	(4,988)	1,291
	(38,111)	(3,876)	10,936
Deferred:			
UK and Non-U.S.	37,375	(7,407)	533
U.S.	—	(18,870)	(81,098)
	37,375	(26,277)	(80,565)
Total income tax (benefit) expense from continuing operations	$ (736)	$ (30,153)	$ (69,629)

Effective Income Tax Rate Reconciliation

LivaNova PLC is resident in the UK for tax purposes. Our subsidiaries conduct operations and earn income in numerous countries and are subject to the laws of taxing jurisdictions within those countries, and the income tax rates imposed in the tax jurisdictions in which our subsidiaries conduct operations vary. As a result of the changes in the overall level of our income, the earnings mix in various jurisdictions and the changes in tax laws, our consolidated effective income tax rate may vary from one reporting period to another.

The following table is a reconciliation of the statutory income tax rate to our effective income tax rate expressed as a percentage of income from continuing operations before income taxes:

	Year Ended December 31,		
	2020	**2019**	**2018**
Statutory tax rate at UK Rate	19.0 %	19.0 %	19.0 %
Deferred tax valuation allowance	(35.4)	(17.6)	(0.8)
Foreign tax rate differential	6.9	6.7	3.0
U.S. state and local tax expense, net of federal benefit	1.5	6.1	4.3
Effect of changes in tax rate	2.2	(3.1)	0.6
Write-off/impairment of investments	1.8	(2.8)	(1.3)
Reserve for uncertain tax positions	0.8	2.5	(0.7)
Research and development tax credits	0.9	2.2	1.1
UK CFC tax	—	2.1	(1.0)
U.S. tax on non-U.S. operations	—	(1.6)	(0.5)
Base erosion anti-abuse tax	(0.7)	1.5	(1.2)
Exempt income	—	1.2	6.1
Foreign tax withholding and credits	(0.2)	—	(0.4)
CARES Act rate differential	2.8	—	—
Other, net	0.6	—	(0.1)
Effective tax rate	0.2 %	16.2 %	28.1 %

CARES Act

On March 27, 2020, the U.S. enacted the CARES Act, which contains numerous income tax provisions and other stimulus measures. Of the tax measures that impact our income tax provision, the ability to carry back, U.S. tax net operating losses (“NOL”) generated in 2018, 2019, or 2020 to tax years with a higher statutory tax rate has the most significant impact. Based on our analysis as of December 31, 2020, we recorded an overall tax benefit of approximately $43.3 million with a permanent benefit of $9.6 million. This tax benefit reflects the carryback of all or a portion of the 2019 and 2020 U.S. tax losses, inclusive of release of valuation allowance previously recorded on these losses.

UK Tax Increase

Due to the change in law effective April 1, 2020, which received royal assent in July 2020, and provided for the UK tax rate to remain at 19% and reversed the prior decrease to 17%, there was a revaluation to increase deferred taxes. Similarly, the UK valuation allowance was also increased by the revaluation.

Deferred Income Tax Assets and Liabilities

The significant components of our deferred tax assets and liabilities as of December 31, 2020 and 2019, are as follows (in thousands):

	2020	2019
Deferred tax assets:		
Net operating loss carryforwards	$ 133,504	$ 125,883
Tax credit carryforwards	37,629	28,272
Accruals and reserves	68,744	69,562
Deferred compensation	11,868	9,692
Inventory	8,317	9,436
Other	17,522	12,135
Gross deferred tax assets	277,584	254,980
Valuation allowance	(188,114)	(76,317)
Net deferred tax assets	89,470	178,663
Deferred tax liabilities:		
Property, equipment & intangible assets	(54,326)	(89,115)
Gain on sale of intellectual property	(41,069)	(53,091)
Investments	—	—
Other	—	—
Gross deferred tax liabilities:	(95,395)	(142,206)
Net deferred tax (liabilities) assets	$ (5,925)	$ 36,457
Reported on the consolidated balance sheet as (after valuation allowance and jurisdictional netting):		
Net deferred tax assets	$ 2,990	$ 68,676
Net deferred tax liabilities	(8,915)	(32,219)
Net deferred tax (liabilities) assets	$ (5,925)	$ 36,457

Net operating loss ("NOL") and tax credit carryforwards as of December 31, 2020, which can be used to reduce our income tax payable in future years (in thousands):

Region	Gross Amount	Tax Benefit	Amount with No Expiration	Amount with Expiration	Carryforward Period
Europe NOL	$ 329,587	$ 69,574	$ 69,477	$ 97	2026 - 2036
U.S. Federal NOL	191,447	40,204	5,096	35,108	2021 - 2036
U.S. State NOL	325,979	17,827	2,944	14,883	2021 - 2040
South America NOL	15,909	5,402	5,327	75	2030
Far East NOL	2,021	497	—	497	2025 - 2030
U.S. foreign tax credits	—	15,802	—	15,802	2025 - 2029
U.S. research & development tax credits	—	14,404	—	14,404	2021 - 2040
U.S. State research & development tax credits	—	5,553	—	5,553	2030 - 2040
Other non-U.S. tax credits	—	1,870	—	1,870	2021 - 2032
	$ 864,943	$ 171,133	$ 82,844	$ 88,289	

We review the realizability of our deferred tax assets by jurisdiction regularly. As of December 31, 2020 and 2019, we had valuation allowances of $188.1 million and $76.3 million, respectively. These valuation allowances were primarily related to continuing operations and are a result of significant negative evidence in the form of cumulative losses in certain jurisdictions, including the extended impact of COVID-19 globally.

No provision has been made for income taxes on undistributed earnings of foreign subsidiaries as of December 31, 2020 because it is our intention to indefinitely reinvest undistributed earnings of our foreign subsidiaries. In the event of the distribution of those earnings in the form of dividends, a sale of the subsidiaries, or certain other transactions, we may be liable for income taxes and withholding taxes. As of December 31, 2020, it was not practicable to determine the exact amount of the deferred tax liability related to those investments.

Uncertain Income Tax Positions

The following is a roll-forward of our total gross unrecognized tax benefit (in thousands):

	Year Ended December 31,		
	2020	**2019**	**2018**
Balance at beginning of year	$ 15,995	$ 22,883	$ 26,137
Increases:			
Tax positions related to current year	—	176	671
Tax positions related to prior year	—	—	3,309
Decreases:			
Tax positions related to prior years for settlement with tax authorities	(13,989)	(2,104)	(3,999)
Tax positions related to prior years for lapses of statute of limitations	—	(4,632)	(2,343)
Impact of foreign currency exchange rates	1,427	(328)	(892)
Balance at end of year	$ 3,433	$ 15,995	$ 22,883

The $14.0 million decrease in tax positions related to prior years for settlements with tax authorities reflects a decrease of $13.3 million due to the settlement of the outstanding Cobe tax litigation in Italy.

Unrecognized tax benefits of $11.4 million and $11.6 million at December 31, 2019 and 2018, respectively, included in the table above are presented in the balance sheet as a reduction to the related deferred tax assets for net operating loss carryforwards.

Accrued interest and penalties totaled $0.4 million, $5.7 million and $6.3 million as of December 31, 2020, 2019 and 2018, respectively, and were included in other long-term liabilities on our consolidated balance sheets.

We operate in multiple jurisdictions with complex legal and tax regulatory environments and our tax returns are periodically audited or subjected to review by tax authorities. We monitor tax law changes and the potential impact to our results of operations. Tax authorities may disagree with certain positions we have taken and assess additional taxes. We regularly assess the likely outcomes of our tax positions in order to determine the appropriateness of our reserves for uncertain tax positions. However, there can be no assurance that we will accurately predict the outcome of these audits and the actual outcome of an audit could have a material impact on our consolidated results of income, financial position or cash flows. If all of our unrecognized tax benefits as of December 31, 2020 were recognized, $3.4 million would impact our effective tax rate. We believe our gross unrecognized tax benefits will not be reduced over the next 12 months as a result of the resolution of tax matters in various global jurisdictions and the lapses of statutes of limitations.

We record accrued interest and penalties related to unrecognized tax benefits in interest expense and foreign exchange and other losses, respectively, on our consolidated statements of income (loss).

The major jurisdictions where we are subject to income tax examinations are as follows:

Jurisdiction	**Earliest Year Open**
U.S. - federal and state	2017
Italy	2015
Germany	2014
England and Wales	2017
Canada	2016

Brexit

On January 31, 2020, the UK departed from the EU (in a move commonly referred to as “Brexit”), and the UK entered a transition period that ended on December 31, 2020. During the transition period, the UK ceased being an EU member but the trading relationship remained the same under the EU's rules.

Various tax reliefs and exemptions that apply to transactions between EU Member States under existing tax laws ceased to apply to transactions between the UK and EU Member States at the end of the transition period. It is unclear at this stage if or when any new tax treaties between the UK and the EU or individual EU Member States will replace those reliefs and exemptions.

We and several of our wholly owned subsidiaries that are resident for tax purposes either in the UK, various EU Member States, or in the U.S., are party to intercompany transactions and agreements under which we receive various tax reliefs and exemptions in accordance with applicable international tax laws, treaties and regulations. As it is our intention to indefinitely reinvest undistributed earnings of our foreign subsidiaries, there is no immediate tax impact.

We will not account for the impact of Brexit in our income tax provisions until there are material changes in tax laws or treaties between the UK and other countries.

European Union State Aid Challenge

On April 2, 2019, the EC concluded that “when financing income from a foreign group company, channeled through an offshore subsidiary, derives from UK activities, the group finance exemption is not justified and constitutes State aid under EU rules.” Based upon our assessment of the technical arguments as to whether the UK group exemption is State aid, together with no material UK activities involved in our financing, no uncertain tax position reserve has been recognized related to this matter. Furthermore, in December 2019, we amended our 2017 tax return filing to avail ourselves of different rules to determine UK taxation, which are not subject to the EU decision. We filed our 2018 tax return similarly, and therefore, we do not believe that the EU state aid decision will result in a material liability.

Note 20. Earnings Per Share

The following table sets forth the basic and diluted weighted-average shares outstanding used in the computation of basic and diluted net income per share (in thousands of shares):

	Year Ended December 31,		
	2020	**2019**	**2018**
Basic and diluted weighted average shares outstanding [(1)]	48,592	48,349	48,497

(1) Excluded from the computation of diluted earnings per share for the years ended December 31, 2020, 2019 and 2018 were stock options, SARs and RSUs totaling 4.1 million, 2.9 million and 2.7 million because to include them would have been anti-dilutive under the treasury stock method.

Note 21. Geographic and Segment Information

Segment Information

We identify operating segments based on the way we manage, evaluate and internally report our business activities for purposes of allocating resources, developing and executing our strategy, and assessing performance. We have two reportable segments: Cardiovascular and Neuromodulation.

The Cardiovascular segment generates its revenue from the development, production and sale of cardiopulmonary products, heart valves and related products and advanced circulatory support. Cardiopulmonary products include oxygenators, heart-lung machines, autotransfusion systems, perfusion tubing systems, cannulae and other related accessories. Advanced circulatory support includes temporary life support product kits that can include a combination of pumps, oxygenators, and cannulae. Heart valves include mechanical heart valves, tissue heart valves, related repair products and minimally invasive surgical instruments. On June 12, 2019, we acquired the minimally invasive cardiac surgery instruments business from Miami Instruments, which are integrated into our Cardiovascular segment as part of our Heart Valves portfolio.

Our Neuromodulation segment generates its revenue from the design, development and marketing of neuromodulation therapy systems for the treatment of drug-resistant epilepsy, DTD and obstructive sleep apnea. Neuromodulation products include the VNS Therapy System, which consists of an implantable pulse generator, a lead that connects the generator to the vagus nerve, and other accessories.

"Other" includes corporate shared service expenses for finance, legal, human resources, information technology and corporate business development.

Net sales of our reportable segments include revenues from the sale of products they each develop and manufacture or distribute. We define segment income as operating income before merger and integration, restructuring and amortization and intangibles.

We operate under three geographic regions: U.S., Europe, and Rest of World. The table below presents net sales by operating segment and geographic region (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Cardiopulmonary			
United States	$ 132,543	$ 161,471	$ 161,134
Europe	122,062	135,632	141,720
Rest of World	192,127	207,613	233,554
	446,732	504,716	536,408
Heart Valves			
United States	12,488	18,900	24,709
Europe	31,259	40,548	44,258
Rest of World	44,283	60,559	56,989
	88,030	120,007	125,956
Advanced Circulatory Support			
United States	41,094	30,781	18,588
Europe	1,027	741	580
Rest of World	200	401	293
	42,321	31,923	19,461
Cardiovascular			
United States	186,125	211,152	204,431
Europe	154,348	176,921	186,558
Rest of World	236,610	268,573	290,836
	577,083	656,646	681,825
Neuromodulation			
United States	282,509	335,332	348,980
Europe	39,019	46,262	42,443
Rest of World	32,916	42,953	31,567
	354,444	424,547	422,990
Other	2,714	2,977	2,146
Totals			
United States	468,634	546,484	553,411
Europe [1]	193,367	223,183	229,001
Rest of World	272,240	314,503	324,549
Total [2] [3]	$ 934,241	$ 1,084,170	$ 1,106,961

(1) Europe sales include those countries in which we have a direct sales presence, whereas European countries in which we sell through distributors are included in Rest of World.

(2) Net sales to external customers includes $29.7 million, $37.7 million and $34.8 million in the United Kingdom, our country of domicile, for the years ended December 31, 2020, 2019 and 2018, respectively.

(3) No single customer represented over 10% of our consolidated net sales. No country's net sales exceeded 10% of our consolidated sales except for the U.S.

The table below presents a reconciliation of segment loss from continuing operations to consolidated loss from continuing operations before tax (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Cardiovascular [1] [2]	$ (194,278)	$ 28,460	$ (258,493)
Neuromodulation [3]	109,296	83,483	184,674
Other [4]	(131,666)	(204,727)	(96,724)
Total reportable segment loss from continuing operations	(216,648)	(92,784)	(170,543)
Merger and integration expenses	7,333	23,457	24,420
Restructuring expenses	7,571	12,254	15,915
Amortization of intangibles	38,312	40,375	37,194
Operating loss from continuing operations	(269,864)	(168,870)	(248,072)
Interest income	131	803	847
Interest expense	(40,837)	(15,091)	(9,825)
Gain on acquisition	—	—	11,484
Foreign exchange and other losses	(33,417)	(2,536)	(1,881)
Loss from continuing operations before tax	$ (343,987)	$ (185,694)	$ (247,447)

(1) Results for the year ended December 31, 2020 include $180.2 million and $21.3 million in impairments of the Heart Valves disposal group and allocated goodwill, respectively. Refer to “Note 5. Assets and Liabilities Held For Sale” for additional information.

(2) Results for the years ended December 31, 2020, 2019 and 2018 include a Litigation provision, net of $3.9 million, $(0.6) million and $294.0 million, respectively. Refer to “Note 15. Commitments and Contingencies” for additional information.

(3) Results for the year ended December 31, 2019 include the ImThera impairment of the IPR&D asset of $50.3 million. Refer to “Note 9. Goodwill and Intangible Assets” for additional information.

(4) Results for the year ended December 31, 2020 include a $42.2 million decommissioning provision at our Saluggia site. Refer to “Note 15. Commitments and Contingencies” for additional information. Results for the year ended December 31, 2019 include the Caisson impairments of goodwill and the IPR&D asset of $42.4 million and $89.0 million, respectively. Refer to “Note 9. Goodwill and Intangible Assets” for additional information.

Assets by reportable segment as of December 31, 2020 and 2019, was as follows (in thousands):

Assets	2020	2019
Cardiovascular	$ 1,361,669	$ 1,546,520
Neuromodulation	673,586	749,069
Other	376,096	116,208
Total	$ 2,411,351	$ 2,411,797

Capital expenditures by segment were as follows (in thousands):

	Year Ended December 31,		
Capital Expenditures	2020	2019	2018
Cardiovascular	$ 24,892	$ 20,779	$ 27,621
Neuromodulation	7,318	3,415	1,728
Other	3,706	3,783	7,630
Discontinued operations	—	—	1,018
Total	$ 35,916	$ 27,977	$ 37,997

Geographic Information

Property, plant, and equipment, net by geographic region as of December 31, 2020 and 2019, was as follows (in thousands):

PP&E	2020	2019
United States	$ 64,553	$ 61,410
Europe	93,821	110,270
Rest of World	5,431	9,674
Total	$ 163,805	$ 181,354

Note 22. Supplemental Financial Information

Inventories as of December 31, 2020 and 2019, consisted of the following (in thousands):

	2020	2019
Raw materials	$ 43,257	$ 45,225
Work-in-process	8,055	14,581
Finished goods	75,363	104,348
	$ 126,675	$ 164,154

Inventories included adjustments totaling $6.6 million and $12.7 million at December 31, 2020 and 2019, respectively, to record balances at lower of cost or net realizable value.

PP&E as of December 31, 2020 and 2019, consisted of the following (in thousands):

	2020	2019	Lives in Years
Land	$ 15,750	$ 15,165	
Building and building improvements	77,061	86,814	3 to 39
Equipment, software, furniture and fixtures	200,696	205,711	3 to 20
Other	9,390	9,431	3 to 10
Capital investment in process	19,531	18,220	
Total	322,428	335,341	
Accumulated depreciation	(158,623)	(153,987)	
Net	$ 163,805	$ 181,354	

Accrued liabilities as of December 31, 2020 and 2019, consisted of the following (in thousands):

	2020	2019
Legal and other administrative costs	$ 15,820	$ 11,066
Contingent consideration [1]	13,968	22,953
Operating lease liabilities [2]	11,276	11,110
Derivative contract liabilities [3]	7,372	3,173
Contract liabilities	6,929	6,728
Restructuring related liabilities [4]	6,258	4,315
Research and development costs	4,257	5,160
Provisions for agents, returns and other	3,063	3,922
Product remediation [5]	1,056	3,251
CRM purchase price adjustments payable to MicroPort Scientific Corporation	—	14,891
Other amounts payable to MicroPort Scientific Corporation	—	1,340
Other accrued expenses	25,409	32,191
	$ 95,408	$ 120,100

(1) Refer to “Note 11. Fair Value Measurements.”
(2) Refer to “Note 14. Leases.”
(3) Refer to “Note 13. Derivatives and Risk Management.”
(4) Refer to “Note 7. Restructuring.”
(5) Refer to “Note 8. Product Remediation Liability.”

Note 23. New Accounting Pronouncements

Adoption of New Accounting Pronouncements

The following table provides a description of our adoption of new Accounting Standards Updates ("ASUs") issued by the FASB and the impact of the adoption on our condensed financial statements:

Issue Date & Standard	Description	Date of Adoption	Effect on Financial Statements or Other Significant Matters
June 2016 ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326)	The amendments in this update require a financial asset (or a group of financial assets) measured at amortized cost basis to be presented at the net amount expected to be collected. We adopted the update effective January 1, 2020, applying this standard to our accounts receivable by use of a provision matrix approach. This approach utilizes historical loss rates based on the number of days past due, adjusted to reflect current economic conditions and forecasts of future economic conditions.	January 1, 2020	We recognized the following cumulative-effect adjustments, including to retained earnings, upon adoption at January 1, 2020: Accounts receivable, net decreased $0.6 million and accumulated deficit increased $0.6 million.
January 2017 ASU No. 2017-04, Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment	This update removes step 2 of the goodwill impairment test that compares the implied fair value of goodwill with its carrying amount. Instead, an impairment test is performed by comparing the fair value of a reporting unit with its carrying amount. An impairment charge will be recorded by the amount a reporting unit's carrying amount exceeds its fair value.	January 1, 2020	There was no material impact to our consolidated financial statements as a result of adopting this ASU.
August 2018 ASU No. 2018-13, Fair Value Measurement (Topic 820): Changes to the Disclosure Requirements for Fair Value Measurement	This update removes, modifies and adds certain disclosure requirements related to fair value measurements.	January 1, 2020	There was no material impact to our consolidated financial statements as a result of adopting this ASU.
August 2018 ASU No. 2018-15, Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract	This update clarifies and aligns the accounting for implementation costs for hosting arrangements with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software.	January 1, 2020	There was no material impact to our consolidated financial statements as a result of adopting this ASU.

Future Adoption of New Accounting Pronouncements

The following table provides a description of future adoptions of new accounting standards that may have an impact on our financial statements when adopted:

Issue Date & Standard	Description	Projected Date of Adoption	Effect on Financial Statements or Other Significant Matters
August 2018 ASU No. 2018-14, Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): Changes to the Disclosure Requirements for Defined Benefit Plans	This update adds and removes certain disclosure requirements related to defined benefit plans. This ASU is to be implemented on a retrospective basis for all periods presented with early adoption permitted.	January 1, 2021	We do not expect the adoption of this update to have a material effect on our consolidated financial statement disclosures.

Exhibit 4.1

DESCRIPTION OF SECURITIES REGISTERED

UNDER SECTION 12 OF THE EXCHANGE ACT

LivaNova PLC (the "Company") has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which are its ordinary shares, which have a nominal or par value of £1.00 each (the "ordinary shares"). The below is a summary of the applicable provisions of the Company's Articles of Association (the "Articles") and certain relevant provisions of applicable law. The summary is not complete and we encourage you to read this summary, the Articles and the other documents we refer to herein for a more complete understanding of the ordinary shares.

General

Under English law, persons who are neither residents nor nationals of the U.K. may freely hold, vote and transfer the ordinary shares in the same manner and under the same terms as U.K. residents or nationals.

Share Capital

As of December 31, 2020, the entire issued share capital of the Company is comprised of 49,447,473 ordinary shares.

Dividends and Distributions

Under English law, the Company may only pay dividends out of profits that are available for that purpose. The Company's profits available for distribution are (in basic terms) its accumulated, realized profits, so far as not previously utilized by distribution or capitalization, less its accumulated, realized losses, so far as not previously reduced or extinguished in a reduction or reorganization of capital duly made. The amount of the Company's distributable reserves is a cumulative calculation. The Company may be profitable in a single financial year but unable to pay a dividend if the profits of that year do not offset all previous years' accumulated, realized losses.

Additionally, the Company may only make a distribution if the amount of its net assets is not less than the aggregate of its called-up share capital and undistributable reserves, and if, and to the extent that, the distribution does not reduce the amount of those assets to less than that aggregate.

The Articles permit the Company shareholders, by ordinary resolution (a resolution passed by a simple majority of those shareholders present in person or by proxy and voting in respect of the relevant resolution), to declare dividends but no dividend shall exceed the amount recommended by the directors.

In addition, the directors may decide to pay interim dividends. The entitlement to a dividend lapses if unclaimed by a shareholder for 12 years from the date when it became due for payment.

The Articles also permit a scrip dividend scheme under which the directors of the Company may offer any holders of ordinary shares the right to receive shares, credited as fully paid, instead of cash in respect of all or any dividend subject to certain terms and conditions set out in the Articles.

Voting Rights

The shareholders in general meeting must vote by poll. On a poll taken at a general meeting, each qualifying Company shareholder present in person or by proxy and entitled to vote on the resolution has one vote for every ordinary share held by such shareholder.

In the case of joint holders, the vote of the senior holder who tenders a vote shall be accepted to the exclusion of the votes of the other joint holders. The necessary quorum for a general meeting is shareholders who together represent at least a majority of the voting rights of all Company shareholders entitled to vote at the meeting, present in person or by proxy, save that if the Company has only one shareholder entitled to attend and vote at the general meeting, one qualifying Company shareholder present at the meeting and entitled to vote is a quorum.

Amendment to the Articles

Under the UK Companies Act 2006 (the "Companies Act"), the shareholders may amend the articles of association of the Company by special resolution (a resolution passed by the holders of at least 75% of those shares voted either in person or by proxy on the relevant resolution) at a general meeting. The notice of the general meeting at which a special resolution is proposed shall be required to specify the intention to propose any resolutions at the meeting as special resolutions.

Modification of rights

The rights attaching to the ordinary shares may be modified with the written consent of the holders of 75% in nominal value of the issued ordinary shares (excluding any shares of that class held as treasury shares), or by a special resolution of the holders of the issued ordinary shares, but not otherwise.

General Meetings and Notices

An annual general meeting must be called by not less than 21 clear days' notice (i.e., excluding the date of receipt or deemed receipt of the notice and the date of the meeting itself). All other general meetings must be called by not less than 14 clear days' notice. General meetings that are not annual general meetings may be called by shorter notice if agreed to by a majority in number of the Company shareholders having the right to attend and vote at the meeting, being a majority who together hold not less than 95% in nominal or par value of the ordinary shares given that right. At least seven clear days' notice is required for any adjourned meeting, and such meeting must be held not less than 14 days but not more than 28 days after adjournment at such time and place specified for the purpose in the notice calling the meeting or as decided by the chairman of the meeting.

Subject to the Companies Act, notices of general meetings shall be given to every holder of ordinary shares as of the record date for the relevant meeting. Beneficial owners nominated to enjoy information rights under the Companies Act and the Company's auditors are also entitled to receive notices of, and other communications relating to, general meetings. Under the Companies Act, the Company is required to hold an annual general meeting of its shareholders within six months from the day following the end of its fiscal year. Subject to the foregoing, a general meeting may be held at a time and place determined by the Company's board.

Under the Companies Act, the Company must convene such a meeting once it has received requests to do so from Company shareholders representing at least 5% of the paid up share capital of the Company carrying voting rights at general meetings (excluding any paid-up capital held as treasury shares).

Under the Articles, a general meeting may also be called if the company has fewer than two directors and the director (if any) is unable or unwilling to appoint sufficient directors to make up a quorum or to call a general meeting to do so. In such case, two or more Company shareholders may call a general meeting for the purpose of appointing one or more directors.

Disclosure of interests in ordinary shares

Under the Companies Act, the Company may serve a notice requiring a person it knows, or has reasonable cause to believe, has an interest in any ordinary shares (or to have had an interest in the previous three years) to confirm or deny the fact, and, if the former, to disclose certain information about the interest, including information about any other person with an interest in the ordinary shares. If a shareholder fails to comply with such a notice within such reasonable period of time as may be set out in the notice, the shareholder shall not be entitled to attend or vote either personally or by proxy at a general meeting, and, where the shares to which such failure to comply represent at least 0.25 per cent. in nominal value of the issued shares of their class, in respect of such shares, no dividends shall be paid, and no transfers of such shares shall be registered save in certain circumstances.

Return of Capital and Winding Up

On a return of capital on a liquidation, reduction of capital or otherwise, the surplus assets of the Company available for distribution among the holders of the ordinary shares shall be applied in the same order of priority as applies in respect of dividends (i.e. on a pro rata basis based on the number of ordinary shares held by each holder, with all ordinary shares ranking equally amongst themselves for such purpose).

In the event of a voluntary winding up of the Company, the liquidator may, with the sanction of a special resolution of the Company and any other sanction required by law, subject to the Companies Act, divide among the Company shareholders the whole or any part of the assets of the Company, whether they consist of property of the same kind or not, and the liquidator may, for that purpose, value any assets as they deem fair and determine how the division shall be carried out as between the shareholders or different classes of shareholders, and may vest the whole or any part of the assets in trustees upon such trusts for the benefit of the Company shareholders as he, with the like sanction, may determine. No Company shareholder shall be compelled to accept any assets upon which there is a liability.

Authority to Allot New Shares and Pre-Emption Rights

Under the Companies Act, the Board may only allot shares in the Company or grant rights to subscribe for, or to convert any security into, shares in the Company if it is authorized to do so by the Articles or by ordinary shareholder resolution. There are certain exceptions under the Companies Act, including for equity securities allotted pursuant to an employees' share scheme (as such term is defined in the Companies Act).

At the annual general meeting of shareholders held on June 29, 2020 (the "2020 AGM"), the Company's shareholders passed an ordinary resolution granting the Board authority to allot new shares and to grant rights to subscribe for, or to convert any

securities into, shares up to an aggregate nominal value of: (a) £9,882,722 for general purposes; and (b) an additional £3,218,206 in connection with the grant or exercise of awards made under the Company's incentive plans from time to time. The amount set out under (a) is equivalent to approximately 20% of the Company's total issued ordinary share capital as at May 14, 2020. The amount set out under (b) is equivalent to the approximate number of shares in respect of which future grants can be made under the Company's 2015 Incentive Award Plan. Although this authority was expressed to expire on the date that is five (5) years after the date of the 2020 AGM (unless previously revoked, varied or renewed), the Company has committed that it will not utilize this authority for more than 18 months after the 2020 AGM and will seek renewal of this authority at the annual general meeting of shareholders to be held in 2021 (the "2021 AGM").

Under the Companies Act, the allotment of equity securities that are to be paid for wholly in cash must be offered first to the existing holders of equity securities in proportion to the respective nominal amounts (i.e., par values) of their holdings on the same or more favorable terms, unless a special resolution to the contrary has been passed or the Articles otherwise provide an exclusion of these pre-emption rights. In this context, equity securities generally means shares other than shares which, with respect to dividends or capital, carry a right to participate only up to a specified amount in a distribution, which, in relation to the Company, will include the ordinary shares, and all rights to subscribe for or to convert securities into such ordinary shares. There are certain exceptions under the Companies Act, including for equity securities allotted pursuant to an employees' share scheme (as such term is defined in the Companies Act).

At the 2020 AGM, the Company's shareholders passed a special resolution to give the Board the power to allot new equity securities or to sell treasury shares held by the Company without first offering them to shareholders in proportion to their existing holdings up to an aggregate nominal amount of: (a) £9,882,722 for general purposes; and (b) an additional £3,218,206 in connection with the grant or exercise of awards made under the Company's incentive plans from time to time. The amount set out under (a) is equivalent to approximately 20% of the Company's total issued ordinary share capital as at May 14, 2020. The amount set out under (b) is equivalent to the number of shares in respect of which future grants can be made under the Company's 2015 Incentive Award Plan. However, the Company has committed not to utilize the power granted under this resolution to allot new equity securities or to sell treasury shares held by the Company (otherwise than in accordance with existing shareholders' pre-emption rights) with an aggregate nominal amount in excess of: (a) £2,429,232 for any purpose; and (b) an additional £2,429,232 only for the purposes of financing an acquisition or other capital investment. The amounts set out under (a) and (b) are each equal to approximately 5% (and together equal to approximately 10%) of the Company's issued ordinary share capital as at May 14, 2020. Although this power was expressed to expire on the date that is five (5) years after the date of the 2020 AGM (unless previously revoked, varied or renewed), the Company has committed that it will not utilize this power for more than 18 months after the 2020 AGM and will seek renewal of this authority at the 2021 AGM.

Alteration of Share Capital/Repurchase of Ordinary Shares

Subject to the Companies Act, and without prejudice to any relevant special rights attached to any class of shares, the Company may, from time to time, among other things:

- increase its share capital by allotting and issuing new shares in accordance with the Articles and any relevant shareholder resolution (see "Authority to Allot New Shares and Pre-Emption Rights" above);
- consolidate all or any of its share capital into shares of a larger nominal amount (i.e., par value) than the existing shares, subject to this being approved by its shareholders by means of an ordinary resolution;

- subdivide any of its shares into shares of a smaller nominal amount (i.e., par value) than its existing shares, subject to this being approved by its shareholders by means of an ordinary resolution; or
- redenominate its share capital or any class of share capital, subject to this being approved by its shareholders by means of an ordinary resolution.

The Companies Act prohibits the Company from purchasing its own shares unless the terms of the contract pursuant to which the purchase(s) are to be made have been approved by its shareholders by means of an ordinary resolution.

Transfer of ordinary shares

The Articles allow holders of ordinary shares to transfer all or any of their shares by instrument of transfer in writing in any usual form or in any other form which is permitted by the Companies Act and is approved by the Company's board. The instrument of transfer must be executed by or on behalf of the transferor and (in the case of a transfer of any ordinary shares which are not fully paid) by or on behalf of the transferee.

The Company may not charge a fee for registering the transfer of a share.

The Company's board may, in its absolute discretion, refuse to register a transfer of shares in certificated form if it is not fully paid or is with respect to a share on which the Company has a lien and sums in respect of which the lien exists is payable and is not paid within 14 clear days after due notice has been sent. If the Company's board refuses to register a transfer of a share, it shall send notice to the transferee of notice of the refusal together with reasons for the refusal and any instrument of transfer shall (except in the case of fraud) be returned when the notice of refusal is sent.

Material U.K. Tax Consequences of Holding Ordinary Shares for U.S. Holders

The following summarizes certain U.K. tax consequences generally applicable to ordinary shares and is based on current U.K. tax law and HM Revenue & Customs ("HMRC") published practice, both of which are subject to change. It does not purport to be a complete analysis of all U.K. tax considerations which may arise. It relates only to persons who (i) are absolute beneficial owners holding ordinary shares as a capital investment, (ii) are resident for tax purposes solely in the United States, and (iii) do not carry on (whether solely or in partnership) any trade, profession or vocation in the United Kingdom through a branch or agency to which those shares are attributable, or, in the case of corporate holders of ordinary shares, do not carry on a trade in the United Kingdom through a permanent establishment to which those shares are attributable (persons meeting each of the descriptions in (i), (ii) and (iii) being "US Holders"). It may not apply to certain categories of U.S Holders, such as those who acquired their ordinary shares in connection with employment.

Shareholders should consult their own tax advisors in respect of the tax consequences related to receipt, ownership, purchase or sale or other disposition of their ordinary shares.

Dividends

U.S. Holders will not be subject to U.K. income tax or U.K. corporation tax on income in relation to any dividends received in respect of their ordinary shares. Additionally, no U.K. tax is required to be withheld from any dividends paid in respect of ordinary shares.

Disposition and Transfers

U.S. Holders will not be subject to U.K. tax on capital gains arising on the disposal of their ordinary shares.

Treaty relief

If the U.K. tax treatment of dividends paid to U.S. Holders, or on the taxation of capital gains realized by U.S. Holders from the disposal of ordinary shares, were to change, then eligible U.S. Holders may be able to claim relief from applicable U.K. tax under the provisions of the tax treaty between the U.K. and the United States of America. Relief under the treaty generally has to be claimed rather than applying automatically.

Stamp duty and stamp duty reserve tax ("SDRT")

Transfers of ordinary shares within a clearance service or depositary receipt system should not give rise to a liability to U.K. stamp duty or SDRT, provided that no instrument of transfer is entered into and that no election that applies to ordinary shares is, or has been, made by the clearance service or depositary receipt system under Section 97A of the U.K. Finance Act 1986. We understand that HMRC regards the facilities of the Depositary Trust Company as a clearance service for these purposes.

Transfers of ordinary shares within a clearance service or depositary receipt system where an election has been made by the clearance service or depositary receipt system under Section 97A of the U.K. Finance Act 1986 will generally be subject to SDRT (rather than U.K. stamp duty) at the rate of 0.5% of the amount or value of the consideration or, in certain circumstances, the value of the shares. SDRT is a liability of the transferee of the shares.

Transfers of ordinary shares that are held in certificated form by means of an instrument of transfer will generally be subject to U.K. stamp duty at the rate of 0.5% of the consideration given (rounded up to the nearest £5 per instrument), payable by the transferee. An exemption from U.K. stamp duty is available for a written instrument transferring an interest in ordinary shares where the amount or value of the consideration is £1,000 or less, and it is certified on the instrument that the transaction effected by the instrument does not form part of a larger transaction or series of transactions for which the aggregate consideration exceeds £1,000. SDRT may be payable on an agreement to transfer such ordinary shares, generally at the rate of 0.5% of the consideration given in money or money's worth under the agreement to transfer ordinary shares. This charge to SDRT would be discharged if an instrument of transfer is executed pursuant to the agreement which gave rise to SDRT and U.K. stamp duty is duly paid on the instrument transferring ordinary shares within six years of the date on which the agreement was made or, if the agreement was conditional, the date on which the agreement became unconditional. In certain circumstances the stamp duty or SDRT liability may be calculated by reference to the market value of the ordinary shares concerned in the relevant transaction, rather than the consideration given for the transfer or agreement for transfer.

If ordinary shares (or interests therein) are subsequently transferred into a clearance service or depositary receipt system, U.K. stamp duty or SDRT will generally be payable at the rate of 1.5% of the amount or value of the consideration given or, in certain circumstances, the value of the shares (save to the extent that an election has been made under Section 97A of the U.K. Finance Act 1986). This liability for U.K. stamp duty or SDRT will strictly be accountable by the clearance service or depositary receipt system, as the case may be, but will, in practice, generally be reimbursed by participants in the clearance service or depositary receipt system.

Transfers through CREST of CREST depositary interests (“CDIs”), representing underlying ordinary shares will be generally liable to SDRT, rather than U.K. stamp duty, at the 0.5% rate. CREST is obliged to collect SDRT on relevant transactions settled within the CREST system. The issue and deposit into CREST, and any subsequent cancellation, of CDIs representing underlying ordinary shares should not give rise to any liability to U.K. stamp duty or SDRT, although this will be the subject of a clearance to be sought from HMRC and no guarantee can be given on the outcome of such an application.

This discussion is for general information only and does not constitute tax or legal advice. In addition, US Holders should consult their own tax advisors regarding the U.S. tax consequences of the purchase, ownership and disposition of ordinary shares.

Stock Exchange Listing

The ordinary shares trade on Nasdaq under the symbol “LIVN”.

Exhibit 10.41

LIVANOVA PLC

THAD HUSTON

SEPARATION AND SETTLEMENT AGREEMENT

THIS SEPARATION AND SETTLEMENT AGREEMENT (the "**Agreement**") is made on 27, October 2020

BETWEEN

(1) **LIVANOVA PLC**, a company registered in England with registered number 09451374 and having its registered office at 20 Eastbourne Terrace, W2 6LG London (the "**Company**"); and

(2) **THAD HUSTON**, residing, in London, United Kingdom (the "**Executive**").

BACKGROUND

The Company has employed the Executive as Chief Financial Officer since May, 20 2017 under the terms of a Service Agreement dated 27, April 2017 as varied by the parties prior to the date of this Agreement (the "**Service Agreement**"). In accordance with the Service Agreement both parties are required to give 12 months notice to terminate the Executive's employment. The Executive and the Company desire to plan for the Executive's separation from the Company.

IT IS AGREED as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement, unless the context otherwise requires:

"**the Acts**" means the Employment Rights Act 1996 section 203(3) and the Equality Act 2010, section 147;

"**Claims"** means the claims that the Executive believes that he has against the Company or any Group Company or against any of its or their respective shareholders, officers, employees or agents, being:

(a) for damages for wrongful dismissal or breach of contract arising out of his employment, or termination of the employment, or otherwise including but not limited to any claim in respect of unpaid salary, bonus, commission, overtime, holiday pay, sick pay, pension contributions, benefits, allowances, re-imbursement of expenses, notice pay or any other termination or severance payment howsoever arising and in respect of stigma;

(b) for unfair dismissal under the Employment Rights Act 1996;

(c) in relation to unauthorized deductions from wages;

(d) for discrimination, harassment or victimisation on the grounds of age, sex, race or nationality or any other unlawful ground, pursuant to the Equality Act 2010;

(e) for breach of contract or any other rights to or in respect of shares or other securities or securities based incentives in the Company or any Group Company;

(f) for unlawful detriment under the Employment Rights Act 1996; and

(g) under the Public Interest Disclosure Act 1998.

"**Effective Date**" means the earlier of 31 October 2020 and the date of the next 10Q filing for the Company;

"**Employment**" means the employment of the Executive under this Agreement or, as the context requires, the duration of that employment;

"**Group**" means the Company, any presently existing or future holding company or undertaking of the Company and any presently existing or future subsidiaries and subsidiary undertakings of the Company or such holding company or undertaking (and the words "subsidiary" and "holding company" shall have the meanings given to them in section 1159 in the Companies Act 2006);

"**Group Company**" means any company within the Group; and

"**Termination Date**" has the meaning given in Clause 2.1.

1.2 Interpretation and Construction

Save to the extent that the context or the express provisions of this Agreement require otherwise, in this Agreement:

(a) words importing the singular shall include the plural and vice versa;

(b) words importing any gender shall include all other genders;

(c) words importing the whole shall be treated as including reference to any part of the whole;

(d) any reference to a Clause, the Schedule or part of the Schedule is to the relevant Clause, Schedule or part of the Schedule of or to this Agreement unless otherwise specified;

(e) reference to this Agreement or to any other document is a reference to this Agreement or to that other document as modified, amended, varied, supplemented, assigned, novated or replaced from time to time;

(f) reference to a provision of law is a reference to that provision as extended, applied, amended, consolidated or re-enacted or as the application thereof is modified from time to time and shall be construed as including reference to any order, instrument, regulation or other subordinate legislation from time to time made under it;

(g) references to a "person" includes any individual, firm, company, corporation, body corporate, government, state or agency of state, trust or foundation, or any association, partnership or unincorporated body (whether or not having separate legal personality) or two or more of the foregoing;

(h) general words shall not be given a restrictive meaning because they are followed by words which are particular examples of the acts, matters or things covered by the general words and "including", "include" and "in particular" shall be construed without limitation; and

(i) the meaning of any words coming after "other" or "otherwise" shall not be constrained by the meaning of any words coming before "other" or "otherwise where a wider construction is possible.

1.3 Headings

The table of contents and the headings in this Agreement are included for convenience only and shall be ignored in construing this Agreement.

2. TERMINATION AND TRANSITION PERIOD/GARDEN LEAVE

2.1 Termination Date

2.1.1 The Executive's employment with the Company shall terminate on the earlier of the first anniversary of the Effective Date and such other day as is agreed in accordance with Clause 2.2.1 (the "**Termination Date**"), unless terminated earlier in accordance with Clause 18 of the Service Agreement.

2.1.2 On the Effective Date, the Executive will resign from the office of Chief Financial Officer of the Company and as an officer and director of any of its Group Companies .

2.1.3 The Executive shall do all such acts and things as the Company may reasonably require to effect the Executive's resignations referred to above and from any other offices with the Company or any of its Group Companies or which the Executive held by reason of employment by the Company.

2.1.4 Between the date of this Agreement and the Effective Date, Executive agrees to assist with the transition of his current responsibilities to a successor appointed by the Company.

2.2 Garden Leave

2.2.1 The Executive shall spend the notice period required by his Service Agreement (from the Effective Date until the Termination Date) on garden leave (the "**Garden Leave Period**"). The Garden Leave Period may be terminated at the Executive's election at any time after 24 May 2021 by notifying the Company of his intention in writing. During the Garden Leave Period, save as otherwise required by the Company the Executive:

(a) shall not carry out any of his normal duties;

(b) shall not attend for work at the Company's premises without the prior written consent of the Board;

(c) shall not contact or deal with (or attempt to contact or deal with) any consultant, client, customer, supplier, agent, distributor, shareholder, adviser or other business contact of the Company or any Group Company except such persons and for such purposes as the Board may approve in writing;

(d) shall not transact any business on behalf of the Company or any Group Company and if the Executive is contacted by any supplier, customer, client or employee of the Company or any Group Company prior to the Termination Date, the Executive shall refer them to Alex Shvartsburg;

(e) shall not have any contact with other employees of the Company or any Group Company (except for purely social purposes) unless specifically authorised by the Board to do so;

(f) shall not have access to the Company's information systems;

(g) shall take all accrued untaken holiday and shall notify the Company in advance of the dates on which he intends to take such holiday; and

(h) the Executive's obligations to act in good faith and in the best interests of the Company and all Group Companies and the Executive's obligations under the Service Agreement shall remain in full force and effect.

2.3 Remuneration During Transition Period/Garden Leave

2.3.1 The Company will pay the Executive his normal remuneration and benefits required under the Service Agreement, other than bonus as provided in 3.1.1(b) [until the Termination Date (less such sums as the Company is obliged by law to deduct by way of tax and employee's National Insurance), and forward the Executive's P45 in due course.

2.3.2 The Company will make the payments in 2.3.1 in the normal course.

2.4 Expenses

The Company will reimburse the Executive for all expenses reasonably and properly incurred and accounted for in connection with the Executive's employment up to the Termination Date provided that the Company receives the appropriate receipts or invoices within 7 days of the Termination Date.

2.5 Restrictions During the Garden Leave Period and After Termination of Employment

2.5.1 The Executive shall adhere to the terms of Clause 15 (Restrictions During Employment) of the Service Agreement until the Termination Date.

2.5.2 During the Employment, including the Garden Leave Period and at any time (without limitation) after the Termination Date, Executive shall adhere to the terms of Clause 16 (Confidentiality and Company Documents) of the Service Agreement.

2.5.3 The Executive shall comply with Clause 20 (Restrictions after Termination) of the Service Agreement. It is agreed that for the purposes of such restrictions the Restricted Period shall commence on the Effective Date.

2.5.4 The Executive acknowledges and agrees that nothing in this Agreement is intended to or does prevent him from: 1) filing a charge or complaint with any governmental agency or regulatory body (including, but not limited to, the Health and Safety Executive, Equality and Human Rights Commission, or Securities and Exchange Commission) or 2) disclosing information for the purpose of making a protected disclosure within the meaning of Part IVA of the Employment Rights Act 1996 (Protected Disclosures), provided that the disclosure is made in accordance with the provisions of that Act.

3. CONSIDERATION

3.1 Severance

3.1.1 Subject to and conditional upon the Executive's compliance with the terms and warranties of this Agreement the Company shall (without any admission of liability) (provided that the Executive has also returned to the Company a copy of this Agreement signed by him with a completed Adviser's Certificate):

(a) within 28 days of the Termination Date or the date on which the Company receives the Reaffirmation of Waiver and Release of Claims at Schedule 2, if later:

(i) pay to the Executive the sum of £250,000 as compensation for the loss of the Executive's employment, including loss of office, and damages for breach of contract, less such sums as the Company is obliged by law to deduct by way of tax and employee's National Insurance (the "**Severance Payment**");

(ii) if the Executive elects to terminate the Garden Leave Period at any time prior to the first anniversary of the Effective Date, pay to the Executive his basic salary in lieu of the balance of the Executive's contractual notice period from the end of the Garden Leave Period to the first Anniversary of the Effective Date, less such sums as the Company is obliged by law to deduct by way of tax and employee's National Insurance (the "**Notice Payment**"); and

(b) for fiscal year 2020, no later than April 30, 2021, pay the Executive his annual bonus according the agreement and approvals of the Short Term Incentive plan by the compensation committee and the board of the Company, less such sums as the Company is obliged by law to deduct by way of tax and employee's National Insurance (the "**Bonus Payment**"). It is anticipated that the Bonus Payment will be paid at 15% of the Executive's basic salary based on his leadership objectives, unless it is otherwise collectively determined by the Company’s compensation committee that all members of the Executive Leadership Team should receive another amount. Any other components will be calculated consistently with those for other members of the Executive Leadership Team. For the avoidance of doubt the Executive will not be eligible for a bonus for the fiscal year 2021.

3.2 Equity Awards

The Executive shall not be eligible to receive any further equity awards in the Company. Any outstanding equity awards previously granted to Executive (the “**Equity Awards**”), will continue to vest, in accordance with their terms during the period through to the Termination Date. All unvested Equity Awards will immediately lapse on the Termination Date pursuant their terms.

3.3 Relocation assistance

3.3.1 The Company will provide the Executive and his accompanying dependents with Relocation Services provided via a vendor selected by the Company for a total maximum cost of £100,000. The list of the Relocation Services includes, but it is not limited to i) reasonable temporary living expenses while the Executive and the Executive’s family are in between permanent housing, ii) packing, shipping from the United Kingdom to the United States and unpacking Executive’s household possessions at the Company’s expense, iii) reimbursement of travel expenses for two trips for the Executive and the Executive’s family to the United States, iv) reimbursement of other miscellaneous relocation expenses, v) immigration support services (in the United Kingdom and/or the United States), and vi) customary closing costs in relation to

the acquisition of a new property. The Relocation Services will be available to the Executive to use up to 24 months after the Effective Date.

3.3.2 If the Executive is compelled to pay income taxes on any of the foregoing Relocation Services provided by the Company, the Executive will be responsible for the related income tax and national insurance.

3.4 Tax assistance

3.4.1 In addition to the Relocation Services, the Company will provide the Executive with tax assistance through a professional tax services firm for the preparation and filing of the 2021 US tax year and 2020/2021 and 2021/2022 UK tax year. In addition, the tax consultant will provide a consultation to explain tax implications resulting from the end of the employment relationship, the relocation to the United States and to review the Executive's expected tax responsibilities associated with it.

3.4.2 If the Executive is compelled to pay income taxes on the foregoing tax assistance, the Executive will be responsible for the related income tax and national insurance.

3.5 Attorney Fees

3.5.1 The Executive warrants that he has before signing this Agreement taken advice from Simon Malcolm of Greenwoods GRM LLP (the "**Adviser**") on the terms and effect of this Agreement and in particular its effect on his ability to pursue a complaint before an Employment Tribunal, the County Court or High Court.

3.5.2 It is a condition of this Agreement that the Adviser provides the Certificate annexed to this Agreement at Schedule 1.

3.5.3 The Company shall within 30 days of receipt pay against a properly constituted VAT invoice addressed to the Executive but marked payable by the Company, a sum not exceeding £5,000.00 plus VAT to the Adviser in respect of legal fees incurred in taking independent legal advice in relation to this Agreement.

3.6 Future Inquiries

The Executive shall direct all inquiries from prospective employers to Human Resources, who will advise said prospective employers of Executive's dates of service and positions held.

3.7 Satisfaction of Payment in Lieu of Notice

Executive agrees that the terms of Clauses 2 and 3 of this Agreement are intended to satisfy, and do in fact satisfy, the Company's obligations under Clauses 3.2 (Duration and Notice) and 3.3 (Payment in Lieu of Notice) of the Service Agreement. The Executive expressly agrees that, upon termination of the Employment, the Company shall have no obligation to make a payment in lieu of notice to Executive and shall have no obligation to make any other payment to Executive except as expressly described in Clauses 2 and 3 of this Agreement.

3.8 Tax Indemnity

3.8.1 In accordance with the parties' understanding of current tax law, the first £30,000 of the Severance Payment shall be paid without any deduction for income tax or National Insurance Contributions. The balance of the Severance Payment will be paid less such deduction of income tax as the Company is obliged by law to withhold. The Company will account to HM Revenue & Customs for employer's National Insurance Contributions on the balance of the Severance Payment.

3.8.2 The Executive shall be entirely responsible for the payment of any further tax, employee's National Insurance Contributions, interest, fines, charges or penalties which may be or become payable in respect of the Severance Payment (the "**Taxes**"). The Executive agrees to promptly indemnify the Company on an after-tax basis in respect of the Taxes. This indemnity does not extend to any fines or interest incurred solely as a result of the Company's negligent failure to make a payment or any delay in so doing.

3.8.3 The Company shall promptly notify the Executive of any demand it receives from HM Revenue & Customs in respect of any Taxes and agrees that it shall not make any payment in respect of the same until the Executive has had a reasonable opportunity (at least 28 days) to dispute the demand. The Company shall give the Executive reasonable access to information which might reasonably be required to dispute any such demand.

3.9 D&O Insurance

3.9.1 For a period of 6 years from the Termination Date, the Company will maintain directors' and officers' insurance for the benefit of the Executive in respect of those liabilities which he may have incurred as a director of the Company or any Group Company on the same terms as are provided to its directors from time to time during such period.

4. WAIVER AND RELEASE OF CLAIMSaiver and Release of Claims

4.1.1 The Executive agrees that the terms of this Agreement are in full and final settlement of all and any claims or rights of action Executive may have against the Company or any Group Company arising out of his employment with the Company or any Group Company or its termination on the Termination Date or from events occurring after this Agreement has been entered into whether under common law, contract, statute including, but not limited to, the Claims, each of which is hereby intimated and waived.

4.1.2 The waiver in clause 4.1.1 does not apply to:

(a) any claims for personal injury other than (a) where Executive is currently aware of any facts or circumstances which do or may give rise to the claim and (b) those which may be brought under any discrimination legislation;

(b) any claims by Executive to enforce this Agreement; and

(c) any claims for any accrued pension rights.

4.1.3 The Executive acknowledges that the conditions relating to settlement agreements under the Acts have been satisfied and that he has received independent legal advice and shall deliver on execution of this Agreement a certificate signed by his independent legal adviser in the form attached hereto as Schedule 1.

4.1.4 The Executive shall as a strict condition of this Agreement within the 7-day period preceding the Termination Date deliver to the Company's CHRO the signed Reaffirmation Waiver and Release of Claims, attached hereto as ***Schedule 2.***

4.1.5 The Executive warrants and represents that as at the date of this Agreement:

(a) he has disclosed to the Adviser all facts, circumstances and information relating to his employment and its termination which the Adviser requires or may reasonably require in order to advise whether he has any claims against the Company, any Group Company, its or their shareholders, officers, employees, ex-employees and pension trustees;

(b) having taken legal advice from the Adviser he has notified the Company in writing of all and any actual or potential claims that he has or may be entitled to make against the Company or any Group Company, its or their shareholders, officers, employees, ex-employees and pension trustees either now or in the future, in respect of his employment and its termination, whether contractual, statutory or otherwise and that these are fully particularised in the definition of Claims;

(c) other than the Claims he has no other further claims or potential claims against the Company or any Group Company or its or their shareholders, officers, employees, ex-employees and pension trustees and he has not already instituted proceedings in relation to any claim or claims against the same;

(d) as at the date of this Agreement he is not aware of any conditions, illness, injury or other circumstances affecting him that may give rise to a personal injury claim against the Company or any Group Company;

(e) he has not committed any act or made any omission which might amount to, and is not aware (and ought not reasonably to be aware) of any circumstances which might constitute, a repudiatory breach of his

Service Agreement entitling the Company to terminate his employment without notice or payment in lieu of notice; and

(f) he has not received either orally or in writing any offer of employment, office or contract for services (whether formal or informal), does not have any expectation of such offer and has not, either orally or in writing accepted or agreed to accept any such offer to take effect after the Termination Date.

For the avoidance of doubt, the warranties set out in this Clause 4.1.5 are a condition to payment of the consideration provided in accordance with Clause 3.

4.1.6 The Executive acknowledges that the Company has relied on the obligation in Clause 4.1.4 and the Warranties in Clause 4.1.5 when entering into this Agreement and the Consideration set out in clause 3 above is conditional upon Executive's compliance with his obligations under this Agreement, including the obligation contained within Clause 4.1.4.

5. MISCELLANEOUS TERMS

5.1 Mutual Non-Disparagement

The Executive agrees not to disparage, demean or defame the Company or its affiliates, their products, services or employees in any way. The Company agrees to instruct those of its officers and employees who are aware of the terms of this Agreement not to disparage, demean or defame Executive in any way.

5.2 Governing Law

This Agreement is governed by and shall be construed and enforced, in all respects, in accordance with English law.

5.3 Entire Agreement

5.3.1 This Agreement and the documents referred to in it constitute the entire agreement and understanding of the parties and supersede and extinguish all previous agreements, promises, assurances, warranties, representations and understandings between the parties, whether written or oral, relating to the subject matter of this Agreement.

5.3.2 Each party acknowledges that in entering into this Agreement it does not rely on, and shall have no remedies in respect of, any statement, representation, assurance or warranty (whether made innocently or negligently) that is not set out in this Agreement.

5.3.3 Each party agrees that it shall have no claim for innocent or negligent misrepresentation or negligent misstatement based on any statement in this Agreement.

5.3.4 Nothing in this Clause shall limit or exclude any liability for fraud.

5.4 Legal and Other Assistance

5.4.1 The Executive agrees that he will, at the request of the Company, provide the Company and/or any Group Company with such assistance as it or they may reasonably require in the conduct of any legal proceedings, investigation or enquiry in respect of which the Company or its advisers believe that the Executive may be of assistance.

5.4.2 If the Executive is required to provide assistance to the Company and/or any Group Company, in accordance with clause 5.4.1 the Company will reimburse the Executive for any reasonable expenses which the Executive may incur and which are evidenced by appropriate receipts or invoices.

5.5 Rights of Third Parties

5.5.1 The Company and the Executive intend that the terms of this Agreement should be enforceable by any Group Company, by virtue of the Contracts (Rights of Third Parties) Act 1999.

5.6 Without Prejudice

5.6.1 This Agreement although marked "without prejudice" will upon signature by all parties be treated as an open document evidencing an agreement binding on the parties.

5.7 Counterparts

5.7.1 This Agreement may be executed in any number of counterparts, each of which, when executed and delivered, shall be an original, and such counterparts or duplicates together shall constitute one and the same instrument.

5.8 Notices

All notices required or permitted to be given under this Agreement shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified; (ii) when sent by confirmed facsimile if sent during normal business hours of the recipient, if not, then on the next business day; or (iii) on delivery by an internationally recognized overnight courier, with written verification of receipt. All communications shall be sent to the address set forth below or at such other address as the Company or Executive may designate by ten (10) days advance written notice to the other party.

In the case of the Company to:

20 Eastbourne Terrace

London, W2 6LG

United Kingdom

Attention: Senior Vice President & General Counsel

Facsimile: +44 20 3325 0696

In the case of Executive to his personal address as provided separately to the Company, and as may be updated from time to time.

SCHEDULE 1 - CERTIFICATE OF INDEPENDENT LEGAL ADVISER

I Simon Malcolm pf Greenwoods GRM LLP whose address is 1 Bedford Row, London WC1R 4BZ confirm that I gave independent legal advice to Thad Huston of Flat 3, 66 New Cavendish Street, London, W1G8UZ, United Kingdom as to the terms and effect of the Agreement to which this certificate is attached in particular as to its effect on his ability to pursue his rights, in particular the Claims specified in clause 4.1.1 before a Court of competent jurisdiction or Employment Tribunal.

I confirm that I am a solicitor of the Senior Courts holding a current practising certificate and that the statutory requirements relating to settlement agreements set out in the Acts (as defined in the Agreement) have been met. I confirm further that there was in force at the time I gave the advice referred to above a policy of insurance covering the risk of a claim by Thad Huston in respect of any loss arising in consequence of that advice.

Signed:

Dated:

SCHEDULE 2 – REAFFIRMATION WAIVER AND RELEASE OF CLAIMS

This Reaffirmation Waiver and Release of Claims ("**Release**") is made on _____by **Thad Huston** ("**Executive**") in connection with the Employee's separation from employment on _____.

NOW THEREFORE, in consideration of the mutual promises described in the Separation and Settlement Agreement dated _____ October 2020 ("the **Separation and Settlement Agreement**"), to which this Release is appended as ***Schedule 2***, Executive agrees as follows.

1. DEFINITIONS

Definitions

In this Release, unless the context otherwise requires:

"**the Acts**" means the Employment Rights Act 1996 section 203(3) and the Equality Act 2010, section 147;

"**Claims"** means the claims that the Executive believes that he has against the Company or any Group Company or against any of its or their respective shareholders, officers, employees or agents, being:

(a) for damages for wrongful dismissal or breach of contract arising out of his employment, or termination of the employment, or otherwise including but not limited to any claim in respect of unpaid salary, bonus, commission, overtime, holiday pay, sick pay, pension contributions, benefits, allowances, re-imbursement of expenses, notice pay or any other termination or severance payment howsoever arising and in respect of stigma;

(b) for unfair dismissal under the Employment Rights Act 1996;

(c) in relation to unauthorized deductions from wages;

(d) for discrimination, harassment or victimisation on the grounds of age, sex, race or nationality or any other unlawful ground, pursuant to the Equality Act 2010;

(e) for breach of contract or any other rights to or in respect of shares or other securities or securities based incentives in the Company or any Group Company;

(f) for unlawful detriment under the Employment Rights Act 1996; and

(g) under the Public Interest Disclosure Act 1998.

"**Group**" means the Company, any presently existing or future holding company or undertaking of the Company and any presently existing or future subsidiaries and subsidiary undertakings of the Company or such holding company or undertaking (and the words "subsidiary" and "holding company" shall have the meanings given to them in section 1159 in the Companies Act 2006);

"**Group Company**" means any company within the Group.

2. WARRANTIES

2.1 The Executive warrants that:

(a) he has not raised any legal proceedings against the Company or any Group Company or against any of its or their respective shareholders, officers, employees or agents; and

(b) other than the Claims, as of the date of this Release, he has no further or outstanding claims or rights of action, being any further or outstanding claims or rights of action, whether under statute or common law (including contractual, tortious or other claims) and whether before an Employment Tribunal, court or otherwise and whether in the UK or any other jurisdiction in the world against the Company or any Group Company or any of its or their respective shareholders, officers, employees or agents including in respect of or arising out of his employment, or the holding of any office with or investment in the Company or any Group Company or the termination of that employment or office (such claims or rights of action referred to as "Further Claims").

2.2 The Executive warrants as a strict condition of the Company's obligation to honour the terms of clause 3 of the Agreement under this Release that there are no circumstances of which he is aware or of which he ought to be aware which could constitute a repudiatory breach by him of his contract of employment which would entitle or have entitled the Company to terminate his employment without notice.

3. SETTLEMENT

3.1 Subject to clause 3.3, the Executive accepts the terms of this Release in full and final settlement of the Claims and all and any Further Claims, whether such claims are known or unknown to the parties and whether or not they are or could be in the contemplation of the parties at the date of this Release, which are waived and released in full. Executive acknowledges that the conditions relating to settlement agreements under the Acts have been satisfied and that he has taken independent legal advice and shall deliver on execution of this Release a confirmation of advice certificate signed by his independent legal adviser in the form attached hereto.

3.2 The Executive undertakes not to institute or pursue any proceedings against the Company or any Group Company or against any of its or their respective shareholders, officers, employees or agents before an Employment Tribunal, court or any other judicial body anywhere in the world in respect of the Claims or for any remedy arising from any Further Claims.

3.3 The waiver in clause 3.1 above does not apply to: (a) any claims for personal injury other than (a) where Executive is currently aware of any facts or circumstances which do or may give rise to the claim and (b) those which may be brought under any discrimination legislation; (b) any claims by Executive to enforce this Agreement; or (c) any claims for any accrued pension rights. In respect of latent personal injuries and/or any latent industrial disease arising out of the course of his employment with the Company and/or the Group that are currently unknown to him, the Executive warrants that he is not aware of having any such personal injuries. These exceptions are the only claims which have not been settled by this Release.

3.4 Subject to the terms of Clause 3.3, if any other claim emerges in law or in fact anywhere in the world based on anything done or omitted to be done during the period of the Executive's employment by the Company which was not previously known or foreseeable by the Executive, then the Executive agrees that there should be no recourse to any remedy for the claim against the Company or any Group Company. The Executive acknowledges and accepts that in agreeing to the severance arrangements set out in Clause 3 of the Separation and Settlement Agreement he has taken into account that he has waived the right to pursue any such claims, whether foreseeable or not previously known, against the Company or any Group Company.

Confirmation of advice for Reaffirmation Waiver and Release of Claims

I _____ whose address is _____ confirm that I gave independent legal advice to Thad Huston of Flat 3, 66 New Cavendish Street, London, W1G8UZ, United Kingdom as to the terms and effect of the above Release to which this certificate is attached in particular as to its effect on his ability to pursue his rights, in particular the Claims and Further Claims specified in clause 3.1 above before a Court of competent jurisdiction or Employment Tribunal.

I confirm that I am a solicitor of the Senior Courts holding a current practising certificate and that the statutory requirements relating to settlement agreements set out in the Acts (as defined in the Agreement) have been met. I confirm further that there was in force at the time I gave the advice referred to above a policy of insurance covering the risk of a claim by Thad Huston in respect of any loss arising in consequence of that advice.

Signed:

Dated:

IN WITNESS of which this Release has been executed and delivered as a deed on the first date written above.

EXECUTED as a Deed
by **THAD HUSTON**

_____

Thad Huston

in the presence of:

Witness's
Signature: _____
Full Name: _____
Address: _____

_____

_____

IN WITNESS of which this Agreement has been executed and delivered as a deed on the first date written above.

EXECUTED as a Deed by _____
DAMIEN McDONALD, Damien McDonald
Chief Executive Officer,
for and on behalf of
LIVANOVA PLC
in the presence of a Witness

_____
Witness

Full Name: _____
Address: _____
_____
_____

EXECUTED as a Deed by
THAD HUSTON _____
in the presence of a Witness THAD HUSTON

_____
Witness

Full Name: _____
Address: _____
_____
_____

Exhibit 10.42

LIVANOVA PLC
2015 INCENTIVE AWARD PLAN

DIRECTOR RESTRICTED STOCK Unit AWARD Grant Notice

LivaNova PLC, a public limited company incorporated under the laws of England and Wales (the "Company"), pursuant to its 2015 Incentive Award Plan, as amended from time to time (the "Plan"), hereby grants to the holder listed below ("Participant") the number of Restricted Stock Units (the "RSUs") set forth below. The RSUs are subject to the terms and conditions set forth in this Restricted Stock Unit Award Grant Notice (the "Grant Notice") and the Restricted Stock Unit Agreement attached hereto as Exhibit A (the "Agreement") and the Plan, which are incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in the Grant Notice and the Agreement.

Participant:	
Grant Date:	
Number of RSUs:	
Vesting Schedule:	The RSUs shall become fully vested on the earliest of (i) the first anniversary of the Grant Date, (ii) the date of a Change in Control or (iii) a Termination of Service (solely to the extent set out in section 2.2(b) of the Agreement).

By clicking the "ACCEPT" button, the Participant and the Company agree to be bound by the terms and conditions of the Sub-Plan, the Agreement, the Foreign Appendix, if applicable, and this Grant Notice all of which the Participant can access through a link from the Grant Notice. The Participant has reviewed the Plan, the Agreement, the Foreign Appendix, if applicable, and this Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to electronically signing the Grant Notice and fully understands all provisions of this Grant Notice and the Agreement. Shares subject to RSUs that become vested will be distributed in accordance with the Agreement (including, without limitation, Section 2.3 of the Agreement) The Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, this Grant Notice, or the Agreement.

Exhibit A
TO DIRECTOR RESTRICTED STOCK UNIT AWARD Grant Notice

DIRECTOR RESTRICTED STOCK UNIT AWARD AGREEMENT

Pursuant to the Grant Notice to which this Agreement is attached, the Company has granted to Participant the number of RSUs set forth in the Grant Notice.

ARTICLE I.

GENERAL

1.2 Defined Terms. Capitalized terms not specifically defined herein shall have the meanings specified in the Plan or the Grant Notice.

1.2 Incorporation of Terms of Plan. The RSUs and the Shares issued to Participant hereunder are subject to the terms and conditions set forth in this Agreement and the Plan, which is incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control.

ARTICLE II.

AWARD OF RESTRICTED STOCK UNITS AND DIVIDEND EQUIVALENTS

2.1 Award of RSUs and Dividend Equivalents.

(a) In consideration of Participant's past and/or continued employment with or service to the Company or a Subsidiary and for other good and valuable consideration, effective as of the grant date set forth in the Grant Notice (the "Grant Date"), the Company has granted to Participant the number of RSUs set forth in the Grant Notice, upon the terms and conditions set forth in the Grant Notice, the Plan and this Agreement, subject to adjustment as provided in Section 13.2 of the Plan. Each RSU represents the right to receive one Share or, at the option of the Company, an amount of cash as set forth in Section 2.3(b), in either case, at the times and subject to the conditions set forth herein. However, unless and until the RSUs have vested, Participant will have no right to the payment of any Shares subject thereto. Prior to the actual delivery of any Shares, the RSUs will represent an unsecured obligation of the Company, payable only from the general assets of the Company.

(b) The Company hereby grants to Participant an Award of Dividend Equivalents with respect to each RSU granted pursuant to the Grant Notice for all ordinary cash dividends which are paid to all or substantially all holders of the outstanding Shares between the Grant Date and the date when the applicable RSU is distributed or paid to Participant or is forfeited or expires. The Dividend Equivalents for each RSU shall be equal to the amount of cash which is paid as a dividend on one Share. All such Dividend Equivalents shall be credited to Participant and be deemed to be reinvested in additional RSUs as of the date of payment of any such dividend based on the Fair Market Value of a Share on such date. Each additional RSU which results from such deemed reinvestment of Dividend Equivalents granted hereunder shall be subject to the same vesting, distribution or payment, adjustment and other provisions which apply to the underlying RSU to which such additional RSU relates.

2.2 Vesting of RSUs and Dividend Equivalents.

(a) Subject to Participant's continued employment with or service to the Company or a Subsidiary on each applicable vesting date and subject to the terms of this Agreement, the RSUs shall vest in such amounts and at such times as are set forth in the Grant Notice. Each additional RSU which results from deemed reinvestments of Dividend Equivalents pursuant to Section 2.1(b) hereof shall vest whenever the underlying RSU to which such additional RSU relates vests.

(b) In the event Participant incurs a Termination of Service, except as may be otherwise provided by the Administrator or as set forth in a written agreement between Participant and the Company, a prorated portion of the RSUs and dividend equivalents shall immediately vest upon such Termination of Service (calculated by multiplying the number of the RSUs and dividend equivalents by a fraction, the numerator of which is the number of days elapsed between the grant date and the date of the Termination of Service and the denominator of which is 365 days; provided, however, if necessary to avoid the imposition of additional taxes and penalties under Section 409A of the Internal Revenue Code, the RSUs shall be settled in Company ordinary shares on the date set forth in the original terms of such award notwithstanding the accelerated vesting set forth above.

(c) In the event of a Change in Control that occurs following the Grant Date, the RSUs, to the extent not otherwise vested immediately prior to such Change in Control, shall become fully vested immediately prior to, but subject to the consummation of, such Change in Control, subject to the Participant's continuous employment with or services to the Company or a Subsidiary through such Change in Control.

2.3 Distribution or Payment of RSUs.

(a) Participant's RSUs shall be distributed in Shares (either in book-entry form or otherwise) or, at the option of the Company, paid in an amount of cash as set forth in Section 2.3(b), in either case, as soon as administratively practicable following the vesting of the applicable RSU pursuant to Section 2.2, and, in any event, within sixty (60) days following such vesting (for the avoidance of doubt, this deadline is intended to comply with the "short-term deferral" exemption from Section 409A of the Code). Notwithstanding the foregoing, the Company may delay a distribution or payment in settlement of RSUs if it reasonably determines that such payment or distribution will violate Federal securities laws or any other Applicable Law, *provided* that such distribution or payment shall be made at the earliest date at which the Company reasonably determines that the making of such distribution or payment will not cause such violation, as required by Treasury Regulation Section 1.409A-2(b)(7)(ii), and *provided further* that no payment or distribution shall be delayed under this Section 2.3(a) if such delay will result in a violation of Section 409A of the Code.

(b) In the event that the Company elects to make payment of Participant's RSUs in cash, the amount of cash payable with respect to each RSU shall be equal to the Fair Market Value of a Share on the day immediately preceding the applicable distribution or payment date set forth in Section 2.3(a). All distributions made in Shares shall be made by the Company in the form of whole Shares, and any fractional share shall be distributed in cash in an amount equal to the value of such fractional share determined based on the Fair Market Value as of the date immediately preceding the date of such distribution.

2.4 Conditions to Issuance of Shares. The Company shall not be required to issue or deliver any certificate or certificates for any Shares or to cause any Shares to be held in book-entry form

prior to the fulfillment of all of the following conditions: (A) the admission of the Shares to listing on all stock exchanges on which such Shares are then listed, (B) the completion of any registration or other qualification of the Shares under any state or federal law or under rulings or regulations of the Securities and Exchange Commission or other governmental regulatory body, which the Administrator shall, in its absolute discretion, deem necessary or advisable, and (C) the obtaining of any approval or other clearance from any state or federal governmental agency that the Administrator shall, in its absolute discretion, determine to be necessary or advisable.

2.5 Tax Withholding. Notwithstanding any other provision of this Agreement:

(a) The Company and its Subsidiaries have the authority to deduct or withhold, or require Participant to remit to the Company or the applicable Subsidiary, an amount sufficient to satisfy any applicable federal, state, local and foreign taxes (including the employee portion of any FICA obligation) required by law to be withheld with respect to any taxable event arising pursuant to this Agreement. The Company and its Subsidiaries may withhold or Participant may make such payment in one or more of the forms specified below:

(i) by cash or check made payable to the Company or the Subsidiary with respect to which the withholding obligation arises;

(ii) by the deduction of such amount from other compensation payable to Participant;

(iii) with respect to any withholding taxes arising in connection with the distribution of the RSUs, by the Company withholding a net number of vested Shares otherwise issuable pursuant to the RSUs having a then current Fair Market Value not exceeding the amount necessary to satisfy the withholding obligation of the Company and its Subsidiaries based on the minimum applicable statutory withholding rates for federal, state, local and foreign income tax and payroll tax purposes or such other rate as does not result in adverse accounting consequences for the Company;

(iv) with respect to any withholding taxes arising in connection with the distribution of the RSUs, with the consent of the Administrator, by tendering to the Company vested Shares having a then current Fair Market Value not exceeding the amount necessary to satisfy the withholding obligation of the Company and its Subsidiaries based on the minimum applicable statutory withholding rates for federal, state, local and foreign income tax and payroll tax purposes or such other rate as does not result in adverse accounting consequences for the Company;

(v) with respect to any withholding taxes arising in connection with the distribution of the RSUs, through the delivery of a notice that Participant has placed a market sell order with a broker acceptable to the Company with respect to Shares then issuable to Participant pursuant to the RSUs, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company or the Subsidiary with respect to which the withholding obligation arises in satisfaction of such withholding taxes; *provided* that payment of such proceeds is then made to the Company or the applicable Subsidiary at such time as may be required by the Administrator, but in any event not later than the settlement of such sale; or

(vi) in any combination of the foregoing.

Unless the Board otherwise determines, the Company shall withhold using the method described in clause (iii) above.

(b) With respect to any withholding taxes arising in connection with the RSUs, in the event Participant fails to provide timely payment of all sums required pursuant to Section 2.5(a), the Company shall have the right and option, but not the obligation, to treat such failure as an election by Participant to satisfy all or any portion of Participant's required payment obligation pursuant to Section 2.5(a)(ii) or Section 2.5(a)(iii) above, or any combination of the foregoing as the Company may determine to be appropriate. The Company shall not be obligated to deliver any certificate representing Shares issuable with respect to the RSUs to, or to cause any such Shares to be held in book-entry form by, Participant or his or her legal representative unless and until Participant or his or her legal representative shall have paid or otherwise satisfied in full the amount of all federal, state, local and foreign taxes applicable with respect to the taxable income of Participant resulting from the vesting or settlement of the RSUs or any other taxable event related to the RSUs.

(c) In the event any tax withholding obligation arising in connection with the RSUs will be satisfied under Section 2.5(a)(iii), then the Company may elect to instruct any brokerage firm determined acceptable to the Company for such purpose to sell on Participant's behalf a whole number of shares from those Shares then issuable to Participant pursuant to the RSUs as the Company determines to be appropriate to generate cash proceeds sufficient to satisfy the tax withholding obligation and to remit the proceeds of such sale to the Company or the Subsidiary with respect to which the withholding obligation arises. Participant's acceptance of this Award constitutes Participant's instruction and authorization to the Company and such brokerage firm to complete the transactions described in this Section 2.5(c), including the transactions described in the previous sentence, as applicable. The Company may refuse to issue any Shares in settlement of the RSUs to Participant until the foregoing tax withholding obligations are satisfied, *provided* that no payment shall be delayed under this Section 2.5(c) if such delay will result in a violation of Section 409A of the Code.

(d) Participant is ultimately liable and responsible for all taxes owed in connection with the RSUs, regardless of any action the Company or any Subsidiary takes with respect to any tax withholding obligations that arise in connection with the RSUs. Neither the Company nor any Subsidiary makes any representation or undertaking regarding the treatment of any tax withholding in connection with the awarding, vesting or payment of the RSUs or the subsequent sale of Shares. The Company and the Subsidiaries do not commit and are under no obligation to structure the RSUs to reduce or eliminate Participant's tax liability.

2.6 Rights as Stockholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Shares deliverable hereunder unless and until certificates representing such Shares (which may be in book-entry form) will have been issued and recorded on the records of the Company or its transfer agents or registrars, and delivered to Participant (including through electronic delivery to a brokerage account). Except as otherwise provided herein, after such issuance, recordation and delivery, Participant will have all the rights of a stockholder of the Company with respect to such Shares, including, without limitation, the right to receipt of dividends and distributions on such Shares.

ARTICLE III.

OTHER PROVISIONS

3.1 Administration. The Administrator shall have the power to interpret the Plan, the Grant Notice and this Agreement and to adopt such rules for the administration, interpretation and application of the Plan, the Grant Notice and this Agreement as are consistent therewith and to interpret,

amend or revoke any such rules. All actions taken and all interpretations and determinations made by the Administrator will be final and binding upon Participant, the Company and all other interested persons. To the extent allowable pursuant to Applicable Law, no member of the Committee or the Board will be personally liable for any action, determination or interpretation made with respect to the Plan, the Grant Notice or this Agreement.

3.2 RSUs Not Transferable. The RSUs may not be sold, pledged, assigned or transferred in any manner other than by will or the laws of descent and distribution, unless and until the Shares underlying the RSUs have been issued, and all restrictions applicable to such Shares have lapsed. No RSUs or any interest or right therein or part thereof shall be liable for the debts, contracts or engagements of Participant or his or her successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy), and any attempted disposition thereof shall be null and void and of no effect, except to the extent that such disposition is permitted by the preceding sentence. Notwithstanding the foregoing, with the consent of the Administrator, the RSUs may be transferred to certain persons or entities related to the Participant, including but not limited to members of Participant's family, charitable institutions or trusts or other entities whose beneficiaries or beneficial owners are members of Participant's family or to such other persons or entities as may be expressly approved by the Administrator, pursuant to any such conditions and procedures the Administrator may require.

3.3 Adjustments. The Administrator may accelerate the vesting of all or a portion of the RSUs in such circumstances as it, in its sole discretion, may determine. Participant acknowledges that the RSUs and the Shares subject to the RSUs are subject to adjustment, modification and termination in certain events as provided in this Agreement and the Plan, including Section 13.2 of the Plan.

3.4 Notices. Any notice to be given under the terms of this Agreement to the Company shall be addressed to the Company in care of the Secretary of the Company at the Company's principal office, and any notice to be given to Participant shall be addressed to Participant at Participant's last address reflected on the Company's records. By a notice given pursuant to this Section 3.4, either party may hereafter designate a different address for notices to be given to that party. Any notice shall be deemed duly given when sent via email or when sent by certified mail (return receipt requested) and deposited (with postage prepaid) in a post office or branch post office regularly maintained by the United States Postal Service.

3.5 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

3.6 Governing Law. The laws of the State of Delaware shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws.

3.7 Conformity to Securities Laws. Participant acknowledges that the Plan, the Grant Notice and this Agreement are intended to conform to the extent necessary with all Applicable Laws, including, without limitation, the provisions of the Securities Act and the Exchange Act, and any and all regulations and rules promulgated thereunder by the Securities and Exchange Commission, and state securities laws and regulations. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the RSUs are granted, only in such a manner as to conform to Applicable Law. To the

extent permitted by Applicable Law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to Applicable Law.

3.8 Amendment, Suspension and Termination. To the extent permitted by the Plan, this Agreement may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Administrator or the Board, *provided* that, except as may otherwise be provided by the Plan, no amendment, modification, suspension or termination of this Agreement shall adversely affect the RSUs in any material way without the prior written consent of Participant.

3.9 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer set forth in Section 3.2 and the Plan, this Agreement shall be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

3.10 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if Participant is subject to Section 16 of the Exchange Act, the Plan, the RSUs (including RSUs which result from the deemed reinvestment of Dividend Equivalents), the Dividend Equivalents, the Grant Notice and this Agreement shall be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3 of the Exchange Act) that are requirements for the application of such exemptive rule. To the extent permitted by Applicable Law, this Agreement shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

3.11 Not a Contract of Employment. Nothing in this Agreement or in the Plan shall confer upon Participant any right to continue to serve as an employee or other service provider of the Company or any Subsidiary or shall interfere with or restrict in any way the rights of the Company and its Subsidiaries, which rights are hereby expressly reserved, to discharge or terminate the services of Participant at any time for any reason whatsoever, with or without cause, except to the extent expressly provided otherwise in a written agreement between the Company or a Subsidiary and Participant. Neither the Plan nor this Agreement afford the Participant any rights to compensation or damages, including for loss of or potential loss that the Participant may suffer as a result of the termination of the Plan, lapse of the RSUs or the termination of the Participant's employment with or service to the Company.

3.12 Entire Agreement. The Plan, the Grant Notice and this Agreement (including any exhibit hereto) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof.

3.13 Section 409A. This Award is not intended to constitute "nonqualified deferred compensation" within the meaning of Section 409A of the Code (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the date hereof, "Section 409A"). However, notwithstanding any other provision of the Plan, the Grant Notice or this Agreement, if at any time the Administrator determines that this Award (or any portion thereof) may be subject to Section 409A, the Administrator shall have the right in its sole discretion (without any obligation to do so or to indemnify Participant or any other person for failure to do so) to adopt such amendments to the Plan, the Grant Notice or this Agreement, or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, as the Administrator determines are

necessary or appropriate for this Award either to be exempt from the application of Section 409A or to comply with the requirements of Section 409A.

3.14 Agreement Severable. In the event that any provision of the Grant Notice or this Agreement is held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of the Grant Notice or this Agreement.

3.15 Limitation on Participant's Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and shall not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. Participant shall have only the rights of a general unsecured creditor of the Company with respect to amounts credited and benefits payable, if any, with respect to the RSUs and Dividend Equivalents.

3.16 Counterparts. The Grant Notice may be executed in one or more counterparts, including by way of any electronic signature, subject to Applicable Law, each of which shall be deemed an original and all of which together shall constitute one instrument.

3.17 Broker-Assisted Sales. In the event of any broker-assisted sale of Shares in connection with the payment of withholding taxes as provided in Section 2.5(a)(iii) or Section 2.5(c): (A) any Shares to be sold through a broker-assisted sale will be sold on the day the tax withholding obligation arises or as soon thereafter as practicable; (B) such Shares may be sold as part of a block trade with other participants in the Plan in which all participants receive an average price; (C) Participant will be responsible for all broker's fees and other costs of sale, and Participant agrees to indemnify and hold the Company harmless from any losses, costs, damages, or expenses relating to any such sale; (D) to the extent the proceeds of such sale exceed the applicable tax withholding obligation, the Company agrees to pay such excess in cash to Participant as soon as reasonably practicable; (E) Participant acknowledges that the Company or its designee is under no obligation to arrange for such sale at any particular price, and that the proceeds of any such sale may not be sufficient to satisfy the applicable tax withholding obligation; and (F) in the event the proceeds of such sale are insufficient to satisfy the applicable tax withholding obligation, Participant agrees to pay immediately upon demand to the Company or its Subsidiary with respect to which the withholding obligation arises an amount in cash sufficient to satisfy any remaining portion of the Company's or the applicable Subsidiary's withholding obligation.

* * * * *

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Exhibit 10.43

PRIVATE AND CONFIDENTIAL

[Name]
LivaNova Plc
20 Eastbourne Terrace
London
W2 6LG

[Date]

Dear [Name],

Letter of appointment

The Board of Directors / Shareholders of LivaNova PLC (the "**Company**") on [Date] appointed / re-elected you as a member of the board of directors (the "Board"). In addition, the Board [appoined / ratified [Position] [Board / Committee].

Your appointment and re-appointment commenced on [Date] and shall continue until the conclusion of the Company's [Year] Annual General Meeting, subject to the earlier termination by the Company:

1) For disqualification for any of the grounds set out in Article 30.1 of the Company's articles of association, as amended from time to time; and/or

2) On the grounds of the commission by you of any serious or repeated breach or non-observance of your obligations to the Company (which includes an obligation not to breach your statutory, fiduciary or common-law duties).

You will be expected to devote such time as is necessary for the proper performance of your duties

By accepting this appointment, you agree that this letter is a contract for services and is not a contract of employment and you confirm that you are not subject to any restrictions which prevent you from holding office as a director.

Your appointment with the Company and any dispute or claim arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims) shall be governed by and construed in accordance with the law of England and you and the Company irrevocably agree that the courts of England shall have exclusive jurisdiction to settle any dispute

or claim that arises out of or in connection with this appointment or its subject matter or formation (including non-contractual disputes or claims).

Please indicate your acceptance of these terms by signing and returning the attached copy of this letter to the Board.

Yours sincerely

_____

For and on behalf of **LIVANOVA PLC**

Name: Damien McDonald
Title: Director and Chief Executive Officer

I confirm and agree to the terms of my appointment as a non-executive director of LivaNova PLC as set out in this letter.

_____

Name:
Date:

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Exhibit 10.44

21st September 2017
Private & Confidential
Alex Shvartsburg
18 Lancaster Gate
London
W2 3LH

Dear Alex

It is with great pleasure to outline below the offer of employment with LivaNova PLC.

Position: Vice President Strategy and Innovation
Start Date: 21st September 2017

The details of this offer and the terms of your contract of employment are further outlined in the accompanying Terms and Conditions of Employment. Please sign and return the enclosed copy, together with the Terms and Conditions of Employment, to confirm your acceptance by 25th September 2017.

We trust that these terms and conditions meet your expectations and sincerely wish you every success in this role.

Susannah Minshall
HR Manager UK&I

I accept the offer of employment as explained above and, in accordance, with the terms set out in the accompanying statement, a copy of which I am returning with this letter.

Signed: _____ Date: _____

Alex Shvartsburg

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STATEMENT OF TERMS AND CONDITIONS OF EMPLOYMENT

This document is a summary of the agreed contractual terms between LivaNova PLC (hereinafter, the "Company") and Alex Shvartsburg (hereinafter, the "Employee"). The document is also a statement of terms and conditions as required by all employees under the provisions of section 1 (1-5) of the Employment Rights Act 1996. The Company has produced a Company Handbook which is important that you read and fully understand.

Full name of employee: Alex Shvartsburg
Employer: LivaNova PLC
Place of work: London
Job title: Vice President Strategy and Innovation
Reporting to: Chief Financial Officer
Contract type: Permanent

1. Probationary period

Your first six months of employment will be a probationary period. The company reserves the right to extend the probationary period at their discretions for up to 9 months.

2. Payment

Your base salary will be £200,000 per annum, subject to normal tax withholdings. This sum will be paid in monthly equal payments by bank transfer, on the 25th day of each month.

Your salary will be subject to annual pay reviews, with any increase in salary being entirely at the discretion of the Company.

3. Company Bonus Scheme

In addition to base salary, a bonus will be paid in accordance with the annual plan, based on performance and achievement of objectives, subject to normal tax withholdings. This plan will be discussed and agreed from time to time and may vary each year according to the priorities and needs of the Business. Your target bonus will be 40% of your base salary. The Company reserves the right to vary any part of the bonus incentive scheme at any time.

4. Long Term Incentive

Upon acceptance of your permanent employment contract we will recommend to the Compensation Committee at the first possible opportunity that an award equivalent in
value to 55% of your base salary is granted to you under the Long Term Incentive Plan. Subject to the Compensation Committee approval, in the following year an award in the

range of 55-85% of your base salary may be granted to you under the Long Term Incentive Plan.

5. Additional Hiring LTI

Upon acceptance of your permanent employment contract we will recommend to the Compensation Committee at the first possible opportunity that as part of the hiring package an additional award of 30% is granted to you under the Long Term Incentive Plan.

6. Car Allowance

A Company car or a car allowance will be provided in line with the Company car policy. You are entitled to select a car, per your designation under the car policy as Director Level or one of equivalent cost to rent per month, should you be interested in choosing this option**.**

Alternatively, there is a car 'cash' allowance of £900 per month, subject to normal tax withholdings, in lieu of a Company vehicle.

7. Hours of Work

Your paid hours of work will be 35 per week, 0900h to 1700h Monday to Friday. However, due to the nature of your position, you are expected to increase your hours/change your working pattern on some occasions in order to meet the needs of the business without payment of over-time.

You should note there may be occasions where your need to work on weekends is necessary to support business related activities. Where this is the case, you will be granted reasonable compensatory rest. The company will strive to give reasonable notice of any changes to your normal working week, so as to minimize any personal inconvenience.

8. Rest Breaks

Full time employees are entitled to 1 x 60 minute lunch break, Monday to Friday inclusive, which is unpaid. This should be implemented with discretion, in line with total daily working hours.

9. Holiday Entitlement/Other Leave

You are entitled to 24 days holiday with the addition of an extra day for every full calendar year worked up to a maximum of 29 days, as eligible to UK employees and should be used in the corresponding holiday year as much as possible.
The time at which holiday can be taken is subject to operational requirement and must be approved and signed off by your manager in advance. As a general rule, three weeks' notice should be given for requests for holidays, but the Company endeavors to adopt a flexible attitude dependent upon individual circumstances.

On leaving the Company, if you have taken more holiday entitlement than you have accrued up to your leave date, then the Company shall be entitled to deduct the equivalent money from your final salary payment. Any holiday owing will be taken either prior to termination of contract or will be given as a payment *in lieu* as authorised by your manager. Likewise, any accrued, but unused holiday entitlement up to your leave date, will be paid to you, subject to normal tax withholdings, as soon as administratively possible.

10. Absence & Sick Pay

The procedures and policies that apply to the notification of sickness absence and the arrangements for pay are detailed in the Company Employee Handbook. It should be noted that full company sick pay is paid at the discretion of management.

11. Medical Insurance & Medical Evidence of Fitness to Work

The Company has private medical insurance for all employees currently provided by Aetna. You will be invited to join this immediately upon the effective date of your commencement under LivaNova PLC.

Employees are required to declare significant medical conditions requiring hospital admission and prolonged medication. The Company reserves the right to require you to undergo medical examination at any time (at the Company's expense) by doctor(s) appointed by the Company for any purpose related to your employment with the Company.

12. Pension/Benefits

You are invited to join the Company's pension scheme and the Company will contribute 12.5% of your monthly gross salary and bonus payments. This does not include other payments such as car allowance. Please note the Company holds in its full discretion the ability to change the pension contribution entitlement.

The particulars of the terms and conditions relating to this and all other Company benefits can be found in the Company Employee Handbook.

Details of the policies concerning compassionate leave, maternity leave and jury service are also listed in the Employee Handbook.

13. Notice Periods/Leaving the Company

With the exception of during any probationary period you will be required to give 3 months' notice in writing of the termination of your contract of employment. The Company will similarly give you 3 months' notice in writing of the termination of your contract of employment for any reason other than gross misconduct, with the exception of during any probationary period.

During the probationary period, the notice period will be one month's notice on either side.

In cases of gross misconduct, a serious breach of your obligations or if you cease to be entitled to work in the UK, no notice will be given.

Should you leave without notice or during your notice period (whether notice is served by you or the Company) without the permission of the Company, the Company reserves the right to deduct a day's pay for each day not worked during the notice period, including deductions from wages, accrued holiday pay, or other monies due to you and/or non payment of wages due to you.

The Company reserves the right in its absolute discretion to terminate your employment by paying you in lieu of notice. The payment shall be your basic salary only at the rate payable when the option is exercised without taking into account any bonus, pension contributions or any benefits in kind and shall be subject to deductions for income tax and National Insurance contributions as appropriate. You will not under any circumstances have any right to payment in lieu unless the Company has exercised its option to pay in lieu by notice to you.

14. Garden Leave

If either you or the Company serves notice on the other to terminate your employment, the Company may require you to take "garden leave" for all or part of the remaining period of employment. If you are required to take garden leave you:

- may not attend your place of work or any other premises of the Company or any associated company;
- may be asked to resign immediately from any offices you hold in the Company or any associated company;
- may not be required to carry out duties during the remaining period of your employment;
- must return to the Company all documents and other materials (including copies) belonging to the Company or associated companies containing confidential information;
- may not without the prior written permission of the Company contact or attempt to contact any client, customer, supplier, agent, professional advisor, broker or banker of the Company or any associated company or any employee of the Company or associated company.

During any period of garden leave you will continue to receive your full salary and benefits and all other contractual provisions will remain in full force. Any accrued but unused holiday will be deemed to be taken during any period of Garden Leave.

15. Collective Agreement

Your contract of employment is not subject to any collective agreements between a Trade Union and the Company.

16. Working Outside the UK

The nature of the role may require frequent visits abroad.

17. Disciplinary & Appeal Rules & Regulations

The disciplinary rules which apply to you can be found in the Company Employee Handbook. They do not form part of your contract of employment. If you are dissatisfied with any disciplinary decision that affects you, you should apply in first instance to your immediate manager or the HR manager, as appropriate. All applications should be made in writing within 7 days of the decision.

18. Grievance Procedure

Full details of the grievance procedure are outlined in the Company Employee Handbook. The grievance procedure does not form part of your contract of employment. If you have a grievance about your employment you should, in the first instance, raise it with your line manager or where this is not appropriate, with the HR manager.

19. Non-competition

During your employment and for a period of 6 months from the termination of employment under this contract of employment you shall neither on your own behalf nor for any other person, company or organisation by way of trade seek to obtain orders for any goods of a type or class with which you have dealt, or which you have sold, on behalf of this Company during the period of 6 months prior to the termination of your employment, nor during the said period of 6 months shall you solicit customers of this Company to place orders for that type or class of goods elsewhere. This restriction shall apply to the geographical area in which you have operated during the period of 6 months prior to the termination of your employment.

20. Nonsolicitation

You undertake that during your employment and for a period of 6 months after the termination of your employment under this contract you will not directly or indirectly solicit or endeavour to entice away from the Company employees who were employed by the Company during the course of your service with the Company, or employ in any capacity or offer employment in any capacity to or enter into or offer to enter into partnership with any person in relation to whom the first part of this clause is applicable.

21. Confidentiality

You shall not, except as authorised by the Company or required by your duties under your employment contract, use for your own benefit or gain or divulge to any persons, firm, company or organisation whatsoever any of the trade secrets or any other confidential information of the Company, or any of its associated companies, including in particular but not limited to information about business plans, maturing new business opportunities, research and development projects, product formulae, processes, plant and equipment inventions, designs, discoveries or know-how, sales, statistics, marketing surveys and plans, database of placements or any information relating to the identity of the placements, cost profit or loss, prices and discount structures, training materials,

Company turnover, the names addresses and contact details of customers and potential customers or suppliers and potential suppliers (whether or not recorded in writing or on computer disk or tape) which the Company or any of its associated companies treats as confidential. This restriction shall cease to apply to any information or knowledge, which may subsequently come into the public domain other than by way of unauthorised disclosure.

All confidential records, documents and other papers, together with any copies or extracts thereof, made or acquired by you in the course of your employment shall be the property of the Company and must be returned to the Company on the termination of your employment or commencement of garden leave if applicable.

22. Variation to Standard & Other Terms & Conditions

The Company reserves the right to make reasonable changes to these and any other agreed terms and conditions of employment. Minor changes of detail (e.g. in procedures) may be made from time to time and will be effected by a general notice to employees. You will be given not less than one month's written notice before significant changes are made.

23. Choice of Law

This agreement and any dispute or claim arising out of or in connection with it shall be governed by and construed in accordance with English law.

All disputes or claims arising out of or relating to this Agreement shall be subject to the exclusive jurisdiction of the English courts to which the parties irrevocably submit.

24. Data Protection

You agree that personal data (other than sensitive personal data) as defined in the Data Protection Act 1998, relating to you and your employment may be processed by the Company to the extent that it is reasonably necessary in connection with your employment or the business of the Company.

A. You agree that the Company may process sensitive personal data relating to you, including medical details and details of gender, race and ethnic origin. Personal data relating to gender, race and ethnic origin will be processed by the Company only for the purpose of monitoring the Company's equal opportunities policy. You agree that the Company may disclose or transfer such sensitive personal data to other persons if it is required or permitted by law to do so for the purpose of monitoring the Company's equal opportunity policy.

B. Your consent to the transfer and disclosure of personal data as set out above shall apply regardless of the country of residence of the person to whom the data is to be transferred. Where the disclosure or transfer is to a person resident outside the European Economic Area, the Company shall take reasonable steps to ensure that your rights and freedom in relation to the processing of the relevant personal data are adequately protected.

C. You agree that the Company and any associated companies to which you provide services may intercept and monitor communications sent via any private telecommunication systems or services of the Company or any such associated Company.

25. Third Party Rights

No person other than you and the Company may enforce any term of this agreement.

Health innovation that matters

Signed on behalf of the Company:

Susannah Minshall
HR Manager UK&I

I have read the above terms and conditions and accept them as being part of my contract.

Signed: _____ Date: _____

Alex Shvartsburg

LivaNova
Health innovation that matters

Exhibit 10.45

Mr. ALEX SHVARTSBURG

January 2019

Dear Alex,

I am pleased to confirm that effective January 1st, 2019, your compensation package will be increased as follows:

Annual Gross Base Salary: GP 235.000,00
Annual target bonus: 40%

I would like to take this opportunity to thank you for your hard work and contribution to our business in 2018 and look forward to carrying on working together in 2019. Your continuous commitment to LivaNova is truly valued.

Kind Regards,

/s/ Thad Huston
Chief Financial Officer

Exhibit 10.46

October 2020

Alex Shvartsburg

Dear Alex,

I am pleased to inform you that effective from the earlier of 31 October 2020 and the date of the next 10Q filing for the Company, you will be covering the role of *ad interim* Chief Financial Officer.

We have opened a search for the replacement of the former incumbent and you will maintain the role till the new Chief Financial Officer will start.

Compensation Package
As a result of this new responsibility, effectively from the same date and till you will hold this *ad interim* role, you will receive a monthly additional cash reward in the amount of **GBP 5,000**.

This additional reward is eligible for pension contributions and it will not be considered to calculate your Short-Term Incentive target.

Equity award
In addition, on December 15, 2020, we will recommend to the Compensation Committee of the Board of Directors a grant of an equity award with a grant-date value equal to **$150,000**. The award consists of 100% Restricted Stock Units.

The calculation of the number of RSUs will be based on December 14 stock price, i.e. the latest available closing price at the grant date. 25% of the RSUs will vest on each of the four anniversaries following this date.

The grant of any of the equity awards under the LivaNova Incentive Plan ("the Plan") as described in this letter is always subject to the discretion of the Compensation Committee, and nothing in this letter shall be taken to fetter the discretion of the Compensation Committee.

Grant and vesting of any of the awards is conditional on your continued employment with the Company or its subsidiaries and vesting will cease upon you ceasing to be employed by the Company. All awards made under the Plan will be subject to the terms of the Plan and the award agreement pursuant to which the award is granted.

Congratulations, and thank you for making LivaNova the great organization that it is.
Kind regards,

Damien McDonald

Exhibit 10.47

LIVANOVA PLC

ROY KHOURY

SEPARATION AND SETTLEMENT AGREEMENT

THIS SEPARATION AND SETTLEMENT AGREEMENT (the "**Agreement**") is made on February 2021

BETWEEN

(1) **LIVANOVA PLC**, a company registered in England with registered number 09451374 and having its registered office at 20 Eastbourne Terrace, W2 6LG London (the "**Company**"); and

(2) **ROY KHOURY**, residing in Finchampstead, Wokingham, Berkshire, United Kingdom (the "**Executive**").

BACKGROUND

The Company has employed the Executive since 6, July 2016 most recently as President International Commercial and SVP Global Strategic Marketing under the terms of a Service Agreement dated 6, July 2016 as varied by the parties prior to the date of this Agreement (the "**Service Agreement**"). In accordance with the Service Agreement both parties are required to give 12 months' notice to terminate the Executive's employment. The Executive and the Company desire to plan for the Executive's separation from the Company.

IT IS AGREED as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement, unless the context otherwise requires:

"**the Acts**" means the Employment Rights Act 1996 section 203(3) and the Equality Act 2010, section 147;

"**Claims"** means the claims that the Executive believes that he has against the Company or any Group Company or against any of its or their respective shareholders, officers, employees or agents, being:

(a) for damages for wrongful dismissal or breach of contract arising out of his employment, or termination of the employment, or otherwise including but not limited to any claim in respect of unpaid salary, bonus, commission, overtime, holiday pay, sick pay, pension contributions, benefits, allowances, re-imbursement of expenses, notice pay or any other termination or severance payment howsoever arising and in respect of stigma;

(b) for unfair dismissal under the Employment Rights Act 1996;

(c) in relation to unauthorized deductions from wages;

(d) for discrimination, harassment or victimisation on the grounds of age, sex, race or nationality or any other unlawful ground, pursuant to the Equality Act 2010;

(e) for breach of contract or any other rights to or in respect of shares or other securities or securities based incentives in the Company or any Group Company;

(f) for unlawful detriment under the Employment Rights Act 1996; and

(g) under the Public Interest Disclosure Act 1998.

"**Effective Date**" means the earlier of 31 October 2020 and the date of the next 10Q filing for the Company;

"**Employment**" means the employment of the Executive under this Agreement or, as the context requires, the duration of that employment;

"**Group**" means the Company, any presently existing or future holding company or undertaking of the Company and any presently existing or future subsidiaries and subsidiary undertakings of the Company or such holding company or undertaking (and the words "subsidiary" and "holding company" shall have the meanings given to them in section 1159 in the Companies Act 2006);

"**Group Company**" means any company within the Group; and

"**Termination Date**" has the meaning given in Clause 2.1.

1.2 Interpretation and Construction

Save to the extent that the context or the express provisions of this Agreement require otherwise, in this Agreement:

(a) words importing the singular shall include the plural and vice versa;

(b) words importing any gender shall include all other genders;

(c) words importing the whole shall be treated as including reference to any part of the whole;

(d) any reference to a Clause, the Schedule or part of the Schedule is to the relevant Clause, Schedule or part of the Schedule of or to this Agreement unless otherwise specified;

(e) reference to this Agreement or to any other document is a reference to this Agreement or to that other document as modified, amended, varied, supplemented, assigned, novated or replaced from time to time;

(f) reference to a provision of law is a reference to that provision as extended, applied, amended, consolidated or re-enacted or as the application thereof is modified from time to time and shall be construed as including reference to any order, instrument, regulation or other subordinate legislation from time to time made under it;

(g) references to a "person" includes any individual, firm, company, corporation, body corporate, government, state or agency of state, trust or foundation, or any association, partnership or unincorporated body (whether or not having separate legal personality) or two or more of the foregoing;

(h) general words shall not be given a restrictive meaning because they are followed by words which are particular examples of the acts, matters or things covered by the general words and "including", "include" and "in particular" shall be construed without limitation; and

(i) the meaning of any words coming after "other" or "otherwise" shall not be constrained by the meaning of any words coming before "other" or "otherwise where a wider construction is possible.

1.3 Headings

The table of contents and the headings in this Agreement are included for convenience only and shall be ignored in construing this Agreement.

2. TERMINATION AND TRANSITION PERIOD/GARDEN LEAVE

2.1 Termination Date

2.1.1 The Executive's employment with the Company shall terminate on the earlier of 31 March 2022 and such other day as is agreed in accordance with Clause 2.2.1 (the "**Termination Date**"), unless terminated earlier in accordance with Clause 17 of the Service Agreement.

2.1.2 On the Effective Date, the Executive will resign from the office of President International Commercial and SVP Global Strategic Marketing of the Company and as an officer and director of any of its Group Companies.

2.1.3 The Executive shall do all such acts and things as the Company may reasonably require to effect the Executive's resignations referred to above and from any other offices with the Company or any of its Group Companies or which the Executive held by reason of employment by the Company.

2.1.4 Between the date of this Agreement and the Effective Date, the Executive agrees to assist with the transition of his current responsibilities to a successor appointed by the Company.

2.2 Garden Leave

2.2.1 The Executive shall spend the notice period required by his Service Agreement (from the Effective Date until the Termination Date) on garden leave (the "**Garden Leave Period**"). The Garden Leave Period may be terminated at the Executive's election at any time after 6 May 2021 by notifying the Company of his intention in writing. During the Garden Leave Period save as otherwise required by the Company the Executive :

(a) shall not carry out any of his normal duties;

(b) shall not attend for work at the Company's premises without the prior written consent of the Board;

(c) shall not contact or deal with (or attempt to contact or deal with) any consultant, client, customer, supplier, agent, distributor, shareholder, adviser or other business contact of the Company or any Group Company except such persons and for such purposes as the Board may approve in writing;

(d) shall not transact any business on behalf of the Company or any Group Company and if the Executive is contacted by any supplier, customer, client or employee of the Company or any Group Company prior to the Termination Date, the Executive shall refer them to Stephanie Bolton ;

(e) shall not have any contact with other employees of the Company or any Group Company (except for purely social purposes) unless specifically authorised by the Board to do so;

(f) shall not have access to the Company's information systems;

(g) shall take all accrued untaken holiday and shall notify the Company in advance of the dates on which he intends to take such holiday; and

(h) the Executive's obligations to act in good faith and in the best interests of the Company and all Group Companies and the Executive's obligations under the Service Agreement shall remain in full force and effect.

2.3 Remuneration During Transition Period/Garden Leave

2.3.1 The Company will pay the Executive his basic salary and benefits under the Service Agreement until the Termination Date (less such sums as the Company is obliged by law to deduct by way of tax and employee's National Insurance), and forward the Executive's P45 in due course

2.3.2 Save as set out in clause 3.1.1, the Executive will not accrue any bonus, commission or share of profit during the Garden Leave Period.

2.3.3 The Company will make the payments in 2.3.1 in the normal course.

2.4 Expenses

The Company will reimburse the Executive for all expenses reasonably and properly incurred and accounted for in connection with the Executive's employment up to the Termination Date provided that the Company receives the appropriate receipts or invoices within 7 days of the Termination Date.

2.5 Restrictions During the Garden Leave Period and After Termination of Employment

2.5.1 The Executive shall adhere to the terms of Clause 14 (Restrictions During Employment) of the Service Agreement until the Termination Date.

2.5.2 During the Employment, including the Garden Leave Period and at any time (without limitation) after the Termination Date, the Executive shall adhere to the terms of Clause 15 (Confidentiality and Company Documents) of the Service Agreement.

2.5.3 The Executive shall comply with Clause 19 (Restrictions after Termination) of the Service Agreement. It is agreed that for the purposes of such restrictions the Restricted Period shall commence on the Effective Date.

2.5.4 The Executive acknowledges and agrees that nothing in this Agreement is intended to or does prevent him from: 1) filing a charge or complaint with any governmental agency or regulatory body (including, but not limited to, the Health and Safety Executive, Equality and Human Rights Commission, or Securities and Exchange Commission); or 2) disclosing information for the purpose of making a protected disclosure within the meaning of Part IVA of the Employment Rights Act 1996 (Protected Disclosures), provided that the disclosure is made in accordance with the provisions of that Act.

3. CONSIDERATION

3.1 Severance

3.1.1 Subject to and conditional upon the Executive's compliance with the terms and warranties of this Agreement the Company shall (without any admission of liability) (provided that the Executive has also returned to the Company a copy of this Agreement signed by him with a completed certificate signed by his independent legal adviser in the form attached hereto as ***Schedule 1***):

(a) within 28 days of the Termination Date or the date on which the Company receives the Reaffirmation of Waiver and Release of Claims and related confirmation of advice certificate in accordance with ***Schedule 2***, if later, pay to the Executive the sum of £150,000 as compensation for the loss of the Executive's employment, including loss of office, and damages for breach of contract, less such sums as the Company is obliged by law to deduct by way of tax and employee's National Insurance (the "**Severance Payment**");

(b) if the Executive elects to terminate the Garden Leave Period at any time prior to 31 March 2022, pay to the Executive his basic salary in lieu of the balance of the Executive's contractual notice period from the end of the Garden Leave Period to 31 March 2022, less such sums as the Company is obliged by law to deduct by way of tax and employee's National Insurance ("the Notice Payment"); and

(c) for fiscal year 2020, no later than 30 April 2021, pay the Executive his annual bonus according to the agreement and approvals of the Short Term Incentive plan by the compensation committee and the Board of the Company, less such sums as the Company is obliged by law to deduct by way of tax and employee's National Insurance (**the "Bonus Payment"**). It is anticipated that the Bonus Payment will be paid at 15% of target bonus (equating to £29,700) based on his leadership objectives, unless it is otherwise collectively determined by the Company's compensation committee that all members of the Executive Leadership Team should receive another amount. Any other components will be calculated consistently with those for other members of the Executive Leadership Team. For the avoidance of doubt the Executive will not be eligible for a bonus for the fiscal year 2021

together the "**Consideration**".

3.2 Equity Awards

The Executive shall not be eligible to receive any further equity awards in the Company. Any outstanding equity awards previously granted to the Executive (the "**Equity Awards**"), will continue to vest, in accordance with their terms during the period through to the Termination Date. All unvested Equity Awards will immediately lapse on the Termination Date pursuant their terms. For the avoidance of doubt, the Termination Date is as defined in clause 2.1.1. above, meaning that if the Executive elects to terminate his employment on a date after 6 May 2021 but before 31 March 2022, any Equity Awards which are unvested on the day his employment ends will immediately lapse.

3.3 Attorney Fees

3.3.1 The Executive warrants that he has before signing this Agreement taken advice from Aman Thakar of Leigh Day, Priory House, 25 St John's Lane, London EC1M 4LB (the "**Adviser**") on the terms and effect of this Agreement and in particular its effect on his ability to pursue a complaint before an Employment Tribunal, the County Court or High Court.

3.3.2 It is a condition of this Agreement that the Adviser provides the certificate annexed to this Agreement at ***Schedule 1***.

3.3.3 The Company shall within 30 days of receipt pay against a properly constituted VAT invoice addressed to the Executive but marked payable by the Company, a sum not exceeding £5,000 plus VAT to the Adviser in respect of legal fees incurred in taking independent legal advice in relation to the termination of your employment, the terms of this Agreement and its negotiation.

3.4 Future Inquiries

The Executive shall direct all inquiries from prospective employers whether written or verbal to Human Resources, who will advise said prospective employers of the Executive's dates of service and positions held.

3.5 Satisfaction of Payment in Lieu of Notice

The Executive agrees that the terms of Clauses 2 and 3 of this Agreement are intended to satisfy, and do in fact satisfy, the Company's obligations under Clauses 3.2 (Duration and Notice) and 3.3 (Payment in lieu of notice) of the Service Agreement. The Executive expressly agrees that, upon termination of the Employment, the Company shall have no obligation to make a payment in lieu of notice to the Executive and shall have no obligation to make any other payment to the Executive except as expressly described in Clauses 2 and 3 of this Agreement.

3.6 Tax Indemnity

3.6.1 In accordance with the parties' understanding of current tax law, the first £30,000 of the Severance Payment shall be paid without any deduction for income tax or National Insurance contributions. The balance of the Severance Payment will be paid less such deduction of income tax as the Company is obliged by law to withhold. The Company will account to HM Revenue & Customs for employer's National Insurance contributions on the balance of the Severance Payment.

3.6.2 The Executive shall be entirely responsible for the payment of any further tax, employee's National Insurance contributions, interest, fines, charges or penalties which may be or become payable in respect of the Severance Payment (the "**Taxes**"). The Executive agrees to promptly indemnify the Company on an after-tax basis in respect of the Taxes. This indemnity does not extend to any fines or interest incurred as a result of the Company's negligent failure to make a payment or any delay in so doing.

3.6.3 The Company shall promptly notify the Executive of any demand it receives from HM Revenue & Customs in respect of any Taxes and agrees that it shall not make any payment in respect of the same until the Executive has had a reasonable opportunity (at least 28 days) to dispute the demand. The Company shall give the Executive reasonable access to information which might reasonably be required to dispute any such demand.

3.7 D&O Insurance

3.7.1 For a period of 6 years from the Termination Date, the Company will maintain directors' and officers' insurance for the benefit of the Executive in respect of those liabilities which he may have incurred as a director of the Company or any Group Company on the same terms as are provided to its directors from time to time during such period.

4. WAIVER AND RELEASE OF CLAIMS

4.1.1 The Executive agrees that the terms of this Agreement are in full and final settlement of all and any claims or rights of action the Executive may have against the Company or any Group Company arising out of his employment with the Company or any Group Company or its termination on the Termination Date or from events occurring after this Agreement has been entered into whether under common law, contract, statute including, but not limited to, the Claims, each of which is hereby intimated and waived.

4.1.2 The waiver in Clause 4.1.1 does not apply to:

(a) any claims for personal injury other than (a) where the Executive is currently aware of any facts or circumstances which do or may give rise to the claim and (b) those which may be brought under any discrimination legislation;

(b) any claims by the Executive to enforce this Agreement; and

(c) any claims for any accrued pension rights.

4.1.3 The Executive acknowledges that the conditions relating to settlement agreements under the Acts have been satisfied and that he has received independent legal advice and shall deliver on execution of this Agreement a certificate signed by the Adviser in the form attached hereto as ***Schedule 1***.

4.1.4 The Executive shall as a strict condition of this Agreement within the 7-day period preceding the Termination Date deliver to the Company's CHRO the signed Reaffirmation Waiver and Release of Claims and related confirmation of advice certificate in accordance with ***Schedule 2.***

4.1.5 The Executive warrants and represents that as at the date of this Agreement:

(a) he has disclosed to the Adviser all facts, circumstances and information relating to his employment and its termination which the Adviser requires or may reasonably require in order to advise whether he has any claims against the Company, any Group Company, its or their shareholders, officers, employees, ex-employees and pension trustees;

(b) having taken legal advice from the Adviser he has notified the Company in writing of all and any actual or potential claims that he has or may be entitled to make against the Company or any Group Company, its or their shareholders, officers, employees, ex-employees and pension trustees either now or in the future, in respect of his employment and its termination, whether contractual, statutory or otherwise and that these are fully particularised in the definition of Claims;

(c) other than the Claims he has no other further claims or potential claims against the Company or any Group Company or its or their shareholders, officers, employees, ex-employees and pension trustees and he has not already instituted proceedings in relation to any claim or claims against the same;

(d) as at the date of this Agreement he is not aware of any conditions, illness, injury or other circumstances affecting him that may give rise to a personal injury claim against the Company or any Group Company;

(e) he has not committed any act or made any omission which might amount to, and is not aware (and ought not reasonably to be aware) of any circumstances which might constitute, a repudiatory breach of his Service Agreement entitling the Company to terminate his employment without notice or payment in lieu of notice; and

(f) he has not received either orally or in writing any offer of employment, office or contract for services (whether formal or informal) and has not, either orally or in writing accepted or agreed to accept any such offer to take effect after the Termination Date.

For the avoidance of doubt, the warranties set out in this Clause 4.1.5 are a condition to payment of the Consideration being provided in accordance with Clause 3.

4.1.6 The Executive acknowledges that the Company has relied on the obligation in Clause 4.1.4 and the Warranties in Clause 4.1.5 when entering into this Agreement and the Consideration set out in Clause 3 above is conditional upon the Executive's compliance with his obligations under this Agreement, including the obligation contained within Clause 4.1.4.

5. MISCELLANEOUS TERMS

5.1 Mutual Non-Disparagement

The Executive agrees not to disparage, demean or defame the Company or its affiliates, their products, services or employees in any way. The Company agrees to instruct those of its officers and employees who are aware of the terms of this Agreement not to disparage, demean or defame the Executive in any way.

5.2 Governing Law and Jurisdiction

This Agreement is governed by and shall be construed and enforced, in all respects, in accordance with English law. Each party irrevocably agrees to submit to the exclusive jurisdiction of the Courts of England and Wales over any claim or matter arising under or in connection with this Agreement.

5.3 Entire Agreement

5.3.1 This Agreement and the documents referred to in it constitute the entire agreement and understanding of the parties and supersede and extinguish all previous agreements, promises, assurances, warranties, representations and understandings between the parties, whether written or oral, relating to the subject matter of this Agreement.

5.3.2 Each party acknowledges that in entering into this Agreement it does not rely on, and shall have no remedies in respect of, any statement, representation, assurance or warranty (whether made innocently or negligently) that is not set out in this Agreement.

5.3.3 Each party agrees that it shall have no claim for innocent or negligent misrepresentation or negligent misstatement based on any statement in this Agreement.

5.3.4 Nothing in this Clause shall limit or exclude any liability for fraud.

5.4 Legal and Other Assistance

5.4.1 The Executive agrees that he will, at the request of the Company, provide the Company and/or any Group Company with such assistance as it or they may reasonably require in the conduct of any legal proceedings, investigation or enquiry in respect of which the Company or its advisers believe that the Executive may be of assistance.

5.4.2 If the Executive is required to provide assistance to the Company and/or any Group Company, in accordance with Clause 5.4.1 the Company will reimburse the Executive for any reasonable expenses which the Executive may incur and which are evidenced by appropriate receipts or invoices.

5.5 Rights of Third Parties

5.5.1 The Company and the Executive intend that the terms of this Agreement should be enforceable by any Group Company, by virtue of the Contracts (Rights of Third Parties) Act 1999.

5.6 Without Prejudice

5.6.1 This Agreement although marked "without prejudice" will upon signature by all parties (provided that the Executive has also returned to the Company a signed Certificate of Independent

Legal Adviser, attached hereto as ***Schedule 1***) be treated as an open document evidencing an agreement binding on the parties.

5.7 Counterparts

5.7.1 This Agreement may be executed in any number of counterparts, each of which, when executed and delivered, shall be an original, and such counterparts or duplicates together shall constitute one and the same instrument.

5.8 Notices

All notices required or permitted to be given under this Agreement shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified;; or (ii) on delivery by an internationally recognized overnight courier, with written verification of receipt. All communications shall be sent to the address set forth below or at such other address as the Company or Executive may designate by ten (10) days advance written notice to the other party.

In the case of the Company to:

20 Eastbourne Terrace

London, W2 6LG

United Kingdom

Attention: Senior Vice President & General Counsel

Facsimile: +44 20 3325 0696

In the case of the Executive to his personal address as provided separately to the Company, and as may be updated from time to time.

SCHEDULE I - CERTIFICATE OF INDEPENDENT LEGAL ADVISER

I Aman Thakar of Leigh Day whose address is Priory House, 25 St John's Lane, London EC1M 4LB confirm that I gave independent legal advice to Roy Khoury of Warfield, Berkshire, United Kingdom as to the terms and effect of the Agreement to which this certificate is attached in particular as to its effect on his ability to pursue his rights, in particular the Claims specified in Clause 4.1.1 before a Court of competent jurisdiction or Employment Tribunal.

I confirm that I am a solicitor of the Senior Courts holding a current practising certificate and that the statutory requirements relating to settlement agreements set out in the Acts (as defined in the Agreement) have been met. I confirm further that there was in force at the time I gave the advice referred to above a policy of insurance covering the risk of a claim by Roy Khoury in respect of any loss arising in consequence of that advice.

Signed:

Dated:

SCHEDULE 2 – REAFFIRMATION WAIVER AND RELEASE OF CLAIMS

This Reaffirmation Waiver and Release of Claims ("**Release**") is made on [date] by **Roy Khoury** (the "**Executive**") in connection with the Executive's separation from employment on [date] 2021.

NOW THEREFORE, in consideration of the mutual promises described in the Separation and Settlement Agreement dated [date] 2021 ("the **Separation and Settlement Agreement**"), to which this Release is appended as ***Schedule 2***, the Executive agrees as follows.

1. DEFINITIONS

Definitions

In this Release, unless the context otherwise requires:

"**the Acts**" means the Employment Rights Act 1996 section 203(3) and the Equality Act 2010, section 147;

"**Claims"** means the claims that the Executive believes that he has against the Company or any Group Company or against any of its or their respective shareholders, officers, employees or agents, being:

(a) for damages for wrongful dismissal or breach of contract arising out of his employment, or termination of the employment, or otherwise including but not limited to any claim in respect of unpaid salary, bonus, commission, overtime, holiday pay, sick pay, pension contributions, benefits, allowances, re-imbursement of expenses, notice pay or any other termination or severance payment howsoever arising and in respect of stigma;

(b) for unfair dismissal under the Employment Rights Act 1996;

(c) in relation to unauthorized deductions from wages;

(d) for discrimination, harassment or victimisation on the grounds of age, sex, race or nationality or any other unlawful ground, pursuant to the Equality Act 2010;

(e) for breach of contract or any other rights to or in respect of shares or other securities or securities based incentives in the Company or any Group Company;

(f) for unlawful detriment under the Employment Rights Act 1996; and

(g) under the Public Interest Disclosure Act 1998.

"**Group**" means the Company, any presently existing or future holding company or undertaking of the Company and any presently existing or future subsidiaries and subsidiary undertakings of the Company or such holding company or undertaking (and

the words “subsidiary” and “holding company” shall have the meanings given to them in section 1159 in the Companies Act 2006);

“**Group Company**” means any company within the Group.

2. WARRANTIES

2.1 The Executive warrants that:

(a) he has not raised any legal proceedings against the Company or any Group Company or against any of its or their respective shareholders, officers, employees or agents; and

(b) other than the Claims, as of the date of this Release, he has no further or outstanding claims or rights of action, being any further or outstanding claims or rights of action, whether under statute or common law (including contractual, tortious or other claims) and whether before an Employment Tribunal, court or otherwise and whether in the United Kingdom or any other jurisdiction in the world against the Company or any Group Company or any of its or their respective shareholders, officers, employees or agents including in respect of or arising out of his employment, or the holding of any office with or investment in the Company or any Group Company or the termination of that employment or office (such claims or rights of action referred to as “**Further Claims**”).

2.2 The Executive warrants as a strict condition of the Company's obligation to honour the terms of Clause 3 of the Agreement under this Release that there are no circumstances of which he is aware or of which he ought to be aware which could constitute a repudiatory breach by him of his contract of employment which would entitle or have entitled the Company to terminate his employment without notice.

3. Settlement

3.1 Subject to Clause 3.3, the Executive accepts the terms of this Release in full and final settlement of the Claims and all and any Further Claims, whether such claims are known or unknown to the parties and whether or not they are or could be in the contemplation of the parties at the date of this Release, which are waived and released in full. The Executive acknowledges that the conditions relating to settlement agreements under the Acts have been satisfied and that he has taken independent legal advice and shall deliver on execution of this Release a confirmation of advice certificate signed by his independent legal adviser in the form attached hereto.

3.2 The Executive undertakes not to institute or pursue any proceedings against the Company or any Group Company or against any of its or their respective shareholders, officers, employees or agents before an Employment Tribunal, court or any other judicial body anywhere in the world in respect of the Claims or for any remedy arising from any Further Claims.

3.3 The waiver in Clause 3.1 above does not apply to: (a) any claims for personal injury other than (i) where the Executive is currently aware of any facts or circumstances which do or may give rise to the claim and (ii) those which may be brought under any discrimination legislation; (b) any claims by the Executive to enforce this Agreement; or (c) any claims for any accrued pension rights. In respect of latent personal injuries and/or any latent industrial disease arising out of the course of his employment with the Company and/or the Group that are currently unknown to him, the Executive warrants that he is not aware of having any such personal injuries. These exceptions are the only claims which have not been settled by this Release.

3.4 Subject to the terms of Clause 3.3, if any other claim emerges in law or in fact anywhere in the world based on anything done or omitted to be done during the period of the Executive’s employment by the Company which was not previously known or foreseeable by the Executive, then the Executive agrees that there should be no recourse to any remedy for the claim against the Company or any Group Company. The Executive acknowledges and accepts that in agreeing to the severance arrangements set out in Clause 3 of the Separation and Settlement Agreement he has taken into account that he has waived the right to pursue any such claims, whether foreseeable or not previously known, against the Company or any Group Company.

Confirmation of advice for Reaffirmation Waiver and Release of Claims

I [name] of [firm] whose address is [address] confirm that I gave independent legal advice to Roy Khoury of Warfield, Berkshire, United Kingdom as to the terms and effect of the above Release to which this certificate is attached in particular as to its effect on his ability to pursue his rights, in particular the Claims and Further Claims specified in Clause 3.1 above before a Court of competent jurisdiction or Employment Tribunal.

I confirm that I am a solicitor of the Senior Courts holding a current practising certificate and that the statutory requirements relating to settlement agreements set out in the Acts (as defined in the Agreement) have been met. I confirm further that there was in force at the time I gave the advice referred to above a policy of insurance covering the risk of a claim by Roy Khoury in respect of any loss arising in consequence of that advice.

Signed:

Dated:

IN WITNESS of which this Release has been executed and delivered as a deed on the first date written above.

EXECUTED as a Deed
by **ROY KHOURY**

_____

Roy Khoury

in the presence of:

Witness's
Signature: _____
Full Name: _____
Address: _____

_____

_____

IN WITNESS of which this Agreement has been executed and delivered as a deed on the first date written above.

EXECUTED as a Deed by _____
DAMIEN McDONALD, Damien McDonald
Chief Executive Officer,
for and on behalf of
LIVANOVA PLC
in the presence of a Witness

_____
Witness

Full Name: _____
Address: _____
_____
_____

EXECUTED as a Deed by
ROY KHOURY _____
in the presence of a Witness ROY KHOURY

_____
Witness

Full Name: _____
Address: _____
_____
_____

Exhibit 10.48

NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY, THE LIEN AND SECURITY INTEREST GRANTED TO THE ADMINISTRATIVE AGENT PURSUANT TO THIS AGREEMENT AND THE EXERCISE OF ANY RIGHT OR REMEDY BY THE ADMINISTRATIVE AGENT HEREUNDER ARE SUBJECT TO THE PROVISIONS OF THE INTERCREDITOR AGREEMENT, DATED AS OF DECEMBER 30, 2020 (AS AMENDED, RESTATED, AMENDED AND RESTATED, SUPPLEMENTED OR OTHERWISE MODIFIED FROM TIME TO TIME, THE "INTERCREDITOR AGREEMENT"), AMONG ACF FINCO I LP, AS ABL AGENT AND ARES CAPITAL CORPORATION AS TERM AGENT, AND CERTAIN OTHER PERSONS PARTY OR THAT MAY BECOME PARTY THERETO FROM TIME TO TIME, AND ACKNOWLEDGED BY CERTAIN LOAN PARTIES. IN THE EVENT OF ANY CONFLICT BETWEEN THE TERMS OF THE INTERCREDITOR AGREEMENT AND THIS AGREEMENT, THE TERMS OF THE INTERCREDITOR AGREEMENT SHALL GOVERN AND CONTROL.

CREDIT AGREEMENT

among

LIVANOVA USA INC.,

as Borrower,

LIVANOVA PLC,
as Holdings,
The Several Lenders

from Time to Time Parties Hereto,
ARES CAPITAL CORPORATION,

as Administrative Agent,
and

ARES CAPITAL CORPORATION,

as Collateral Agent
Dated as of June 10, 2020

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THIS CREDIT AGREEMENT, dated as of June 10, 2020, among LIVANOVA USA INC., a corporation organized under the laws of the State of Delaware (the "Borrower"), LIVANOVA PLC, a company incorporated under the laws of England and Wales (registered number 09451374) ("Holdings"), the financial institutions or entities from time to time parties to this Agreement as "Lenders", ARES CAPITAL CORPORATION ("Ares"), as administrative agent (in such capacity, and together with its successors and assigns in such capacity, the "Administrative Agent"), and Ares, as collateral agent (in such capacity, and together with its successors and assigns in such capacity, the "Collateral Agent").

WHEREAS, the Borrower has requested that the Lenders extend credit on the Closing Date to the Borrower in the form of an initial term loan in the form of a delayed draw facility in the aggregate principal amount of $450,000,000 to be drawn on the Closing Date (the "Initial Term Loan Facility");

WHEREAS, (a) the proceeds of the Initial Term Loan Facility will be used (i) refinance in full the Existing Facilities (as defined herein) and (ii) to pay fees and expenses incurred in connection with the transactions contemplated hereby;

WHEREAS, on or about the Closing Date (as defined herein), the Borrower shall issue senior unsecured notes in a Syndicated Offering (as defined herein) in an aggregate principal amount of not less than $150,000,000 (the "Initial Syndicated Offering");

WHEREAS, the Lenders are willing to make available the Initial Term Loan Facility for such purposes on the terms and subject to the conditions set forth in this Agreement.

NOW THEREFORE, in consideration of the premises and the agreements, provisions and covenants contained herein, the parties hereto agree as follows:

SECTION 1. **DEFINITIONS**

1.1 Defined Terms. As used in this Agreement, the terms listed in this Section 1.1 shall have the respective meanings set forth in this Section 1.1.

"ABR": a fluctuating interest rate per annum in effect from time to time, which rate per annum shall at all times be equal to the highest of (a) the rate of interest published by the Wall Street Journal, from time to time, as the "U.S. Prime Rate," (b) ½ of 1% per annum above the Federal Funds Effective Rate; (c) the LIBOR Rate for an Interest Period of three (3) months plus 1.00%, as adjusted to conform to changes as of the opening of business on the date of any such change of the LIBOR Rate; and (d) the ABR Floor. Changes in the rate of interest on that portion of any Term Loans maintained as ABR Loans will take effect simultaneously with each change in the ABR.

"ABR Floor": 2.00%.

"ABR Loans": Term Loans the rate of interest applicable to which is based upon the ABR.

"Acquired Person": as defined in Section 7.1(i).

"Administrative Agent": as defined in the preamble to this Agreement.

"Administrative Agent Parties": as defined in Section 10.2(c).

"Affected Financial Institution": (a) any EEA Financial Institution or (b) any U.K. Financial Institution.

"Affected Lender": as defined in Section 3.13.

"Affiliate": as to any Person, any other Person that, directly or indirectly, including through one or more intermediaries, is in control of, is controlled by, or is under common control with, such Person; *provided*, that, the Agents and the Lenders shall not be an Affiliate of any Loan Party solely by reason of the provisions of the Loan Documents. For purposes of this definition, "control" of a Person means the possession, direct or indirect, of the power to direct or cause the direction of management or policies of a Person, whether through ownership of securities, by contract or otherwise; *provided*, however, that for purposes of Section 7.8, the term "Affiliate" shall also include (i) any person that directly or indirectly owns more than 10% of any class of Capital Stock of the person specified, (ii) any person that is an officer or director of the person specified or (iii) any person that has, directly or indirectly, the power to direct or cause the direction of the management or policies of a Person, whether though the ability to exercise voting power, by contract or otherwise.

"Agent Related Parties": the Administrative Agent, the Collateral Agent, and any of their respective Affiliates, officers, directors, employees, agents, advisors or representatives.

"Agents": the collective reference to the Administrative Agent and the Collateral Agent.

"Agreed Security Principles": the principles set forth in Annex A.

"Agreement": this Credit Agreement, as amended, restated, amended and restated, supplemented or otherwise modified from time to time.

"Amendment No. 1 Effective Date": December 30, 2020.

"Anti-Money Laundering Laws": any and all laws, rules or regulations relating to money laundering or terrorism financing, including (a) 18 U.S.C. §§ 1956 and 1957; and (b) the Bank Secrecy Act, 31 U.S.C. §§ 5311 et seq., as amended by the PATRIOT Act, and its implementing regulations.

"Anti-Terrorism Laws": Executive Order No. 13224, the Patriot Act, the laws comprising or implementing the Bank Secrecy Act, the laws administered by the United States Treasury Department's Office of Foreign Asset Control (each as from time to time in effect), the Money Laundering Regulations 2007 and the Terrorism Act 2000 (as amended by the Anti-Terrorism, Crime and Security Act 2001, the Terrorism Act 2006 and the Terrorism Act 2000 and Proceeds of Crime Act 2002 (Amendment) Regulations 2007) and all other laws relating to

terrorism, trade sanctions programs and embargoes, import/export licensing, money laundering or bribery, all as amended, supplemented or replaced from time to time.

"Applicable Margin": 6.50% for LIBOR Rate Loans and 5.50% for ABR Loans.

"Approved Fund": with respect to any Lender, any Person (other than a natural person) that is engaged in making, purchasing, holding or otherwise investing in commercial loans, or similar extensions of credit in the ordinary course and is administered or managed by (a) such Lender, (b) an Affiliate of such Lender, or (c) an entity or an Affiliate of an entity that administers or manages such Lender.

"Ares": as defined in the preamble to this Agreement.

"Asset Sale": any Disposition of Property or series of related Dispositions of Property, including, without limitation, any issuance of Capital Stock of any Subsidiary of Holdings to a Person other than to any Group Member (excluding in any case any such Disposition permitted by Section 7.4 other than Section 7.4(r)) that yields gross proceeds to any Group Member (valued at the initial principal amount thereof in the case of non-cash proceeds consisting of notes or other debt securities and valued at fair market value in the case of other non-cash proceeds) in excess of $7,500,000.

"Assignee": as defined in Section 10.6(b).

"Assignment and Assumption": an assignment and assumption entered into by a Lender and an Eligible Assignee and accepted by the Administrative Agent, and, if applicable, the Borrower, substantially in the form of Exhibit A.

"Assignment Effective Date": as defined in Section 10.6(d).

"ASU": as defined in Section 1.2(d).

"Bail-In Action": the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an Affected Financial Institution.

"Bail-In Legislation": (a) with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule and (b) with respect to the United Kingdom, Part I of the United Kingdom Banking Act 2009 (as amended from time to time) and any other law, regulation or rule applicable in the United Kingdom relating to the resolution of unsound or failing banks, investment firms or other financial institutions or their affiliates (other than through liquidation, administration or other Insolvency Proceedings).

"Benchmark Replacement": the sum of (a) the alternate benchmark rate (which may be a SOFR-Based Rate) that has been selected by the Administrative Agent and the Borrower giving due consideration to (i) any selection or recommendation of a replacement rate or the mechanism

for determining such a rate by the Relevant Governmental Body and/or (ii) any evolving or then-prevailing market convention for determining a rate of interest as a replacement to LIBOR for U.S. dollar-denominated syndicated credit facilities and (b) the Benchmark Replacement Adjustment; provided that, if the Benchmark Replacement as so determined would be less than 1.00%, the Benchmark Replacement will be deemed to be 1.00% for the purposes of this Agreement.

"Benchmark Replacement Adjustment": the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) that has been selected by the Administrative Agent and the Borrower giving due consideration to (i) any selection or recommendation of a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of LIBOR with the applicable Unadjusted Benchmark Replacement by the Relevant Governmental Body and/or (ii) any evolving or then-prevailing market convention for determining a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of LIBOR with the applicable Unadjusted Benchmark Replacement for U.S. dollar-denominated syndicated credit facilities at such time; provided that, for the avoidance of doubt, the Benchmark Replacement Adjustment shall not be in the form of a reduction to the Applicable Margin.

"Benchmark Replacement Conforming Changes": with respect to any Benchmark Replacement, any technical, administrative or operational changes (including changes to the definition of "ABR", the definition of "Interest Period," timing and frequency of determining rates and making payments of interest and other administrative matters) that the Administrative Agent reasonably determines (in consultation with the Borrower) are appropriate to reflect the adoption and implementation of such Benchmark Replacement and to permit the administration thereof by the Administrative Agent in a manner substantially consistent with market practice (or, if the Administrative Agent decides that adoption of any portion of such market practice is not administratively feasible or if the Administrative Agent determines that no market practice for the administration of the Benchmark Replacement exists, in such other manner of administration as the Administrative Agent reasonably determines (in consultation with the Borrower) is necessary in connection with the administration of this Agreement and the other Loan Documents).

"Benchmark Replacement Date": the earlier to occur of the following events with respect to LIBOR: (1) in the case of clause (1) or (2) of the definition of "Benchmark Transition Event," the later of (a) the date of the public statement or publication of information referenced therein and (b) the date on which the administrator of LIBOR permanently or indefinitely ceases to provide LIBOR; and (2) in the case of clause (3) of the definition of "Benchmark Transition Event," the date of the public statement or publication of information referenced therein.

"Benchmark Transition Event": the occurrence of one or more of the following events: (1) a public statement or publication of information by or on behalf of the administrator of LIBOR announcing that such administrator has ceased or will cease to provide LIBOR, permanently or indefinitely, if, at the time of such statement or publication, there is no successor administrator that will continue to provide LIBOR; (2) a public statement or publication of

information by the regulatory supervisor for the administrator of LIBOR, the U.S. Federal Reserve System, the Federal Reserve Bank of New York, an insolvency official with jurisdiction over the administrator for LIBOR, a resolution authority with jurisdiction over the administrator for LIBOR or a court or an entity with similar insolvency or resolution authority over the administrator for LIBOR, in each case, which states that the administrator of LIBOR has ceased or will cease to provide LIBOR permanently or indefinitely, if, at the time of such statement or publication, there is no successor administrator that will continue to provide LIBOR; or (3) a public statement or publication of information by the regulatory supervisor for the administrator of LIBOR announcing that LIBOR is no longer representative.

"Benchmark Unavailability Period": if a Benchmark Transition Event and its related Benchmark Replacement Date have occurred with respect to LIBOR and solely to the extent that LIBOR has not been replaced with a Benchmark Replacement, the period (x) beginning at the time that such Benchmark Replacement Date has occurred if, at such time, no Benchmark Replacement has replaced LIBOR for all purposes hereunder in accordance with Section 3.7 and (y) ending at the time that a Benchmark Replacement has replaced LIBOR for all purposes hereunder pursuant to Section 3.7.

"Benefited Lender": as defined in Section 10.7(a).

"Benefit Plan": any of (a) an "employee benefit plan" (as defined in ERISA) that is subject to Title I of ERISA, (b) a "plan" as defined in Section 4975 of the Code or (c) any Person whose assets include (for purposes of ERISA Section 3(42) or otherwise for purposes of Title I of ERISA or Section 4975 of the Code) the assets of any such "employee benefit plan" or "plan".

"Blocked Person": as defined in Section 4.23(c).

"Board": the Board of Governors of the Federal Reserve System of the United States (or any successor).

"Borrower": as defined in the preamble to this Agreement.

"Borrowing Date": any Business Day specified by the Borrower as a date on which the Borrower requests the relevant Lenders to make Loans hereunder.

"Borrowing Notice": as defined in Section 2.2.

"Business Day": a day other than a Saturday, Sunday or other day on which commercial banks in New York City are authorized or required by law to close or which is a day on which the Administrative Agent is otherwise closed for transacting business with the public; *provided*, that with respect to notices and determinations in connection with, and payments of principal and interest on, LIBOR Rate Loans, such day is also a day for trading by and between banks in Dollar deposits in the interbank eurodollar market.

"Capital Lease Obligations": as to any Person, the obligations of such Person to pay rent or other amounts under any lease of (or other arrangement conveying the right to use) real or

personal property, or a combination thereof, which obligations are required to be classified and accounted for as capital leases on a balance sheet of such Person under GAAP and, for the purposes of this Agreement, the amount of such obligations at any time shall be the capitalized amount thereof at such time determined in accordance with GAAP.

"Capital Stock": any and all shares, interests, participations or other equivalents (however designated) of capital stock of a corporation, any and all equivalent ownership interests in a Person (other than a corporation) and any and all warrants, rights or options to purchase any of the foregoing; *provided* that Capital Stock shall not include any debt securities that are convertible into or exchangeable for any of the foregoing Capital Stock.

"Capped Call": the capped call options on ordinary shares of Holdings, to be entered into by the Borrower with certain financial institutions on or about the Closing Date for the purpose of hedging the Borrower's obligations under the Initial Syndicated Offering.

"Cash Equivalents":

(a) Dollars, Euros and Pounds Sterling (and such other currency that is approved by the Administrative Agent) held in the ordinary course of business of the relevant Person;

(b) marketable direct obligations issued by, or unconditionally guaranteed by, the United States Government or issued by any agency thereof and backed by the full faith and credit of the United States, in each case maturing within one (1) year from the date of acquisition;

(c) certificates of deposit, time deposits, eurodollar time deposits or overnight bank deposits having maturities of one (1) year or less from the date of acquisition issued by any commercial bank organized under the laws of the United States or any state thereof having combined capital and surplus of not less than $500,000,000;

(d) commercial paper of an issuer rated at least A-1 by S&P or P-1 by Moody's, or carrying an equivalent rating by a nationally recognized rating agency, if both of the two named rating agencies cease publishing ratings of commercial paper issuers generally, and maturing within one (1) year from the date of acquisition;

(e) repurchase obligations of any commercial bank satisfying the requirements of clause (b) of this definition, having a term of not more than thirty (30) days, with respect to securities issued or fully guaranteed or insured by the United States government;

(f) securities with maturities of one year or less from the date of acquisition issued or fully guaranteed by any state, commonwealth or territory of the United States, by any political subdivision or taxing authority of any such state, commonwealth or territory or by any foreign government, the securities of which state, commonwealth, territory, political subdivision, taxing authority or foreign government (as the case may be) are rated at least A by S&P or A by Moody's;

(g) securities with maturities of one (1) year or less from the date of acquisition backed by standby letters of credit issued by any commercial bank satisfying the requirements of clause (b) of this definition; or

(h) shares of money market mutual or similar funds which invest exclusively in assets satisfying the requirements of clauses (a) through (f) of this definition or money market funds that (i) comply with the criteria set forth in Securities and Exchange Commission Rule 2a-7 under the Investment Company Act of 1940, as amended and (ii) are rated AAA by S&P and Aaa by Moody's.

"Change of Control": an event or series of events by which:

(a) at any time, any "person" or "group" (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act, but excluding any employee benefit plan of such Person or its Subsidiaries and any Person acting in its capacity as trustee, agent or other fiduciary or administrator of any such plan) becomes the "beneficial owner" (as defined in Rules 13d-3 and 13d-5 under the Exchange Act, directly or indirectly, of thirty-five percent (35%) or more of the equity securities of Holdings entitled to vote for members of the board of directors or equivalent governing body of Holdings on a fully-diluted basis;

(b) at any time after the Effective Date, during any period of twenty-four (24) consecutive months, a majority of the members of the board of directors or other equivalent governing body of Holdings cease to be composed of individuals (i) who were members of that board or equivalent governing body on the first day of such period, (ii) whose election or nomination to that board or equivalent governing body was approved by individuals referred to in clause (i) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body or (iii) whose election, nomination or appointment to that board or other equivalent governing body was approved by individuals referred to in clauses (i) and (ii) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body;

(c) [Intentionally Omitted];

(d) Holdings ceases to beneficially own and control one hundred percent (100%) on a fully diluted basis of the economic and voting interest in the Capital Stock of Borrower; or

(e) a "Change of Control", "fundamental change" or other similar concept as defined or included in any Junior Indebtedness Document or the Revolving Credit Agreement (to the extent any Revolving Loans are outstanding) shall occur.

"Closing Date": the date on which all conditions set forth in Section 5.2 of this Agreement have been satisfied or waived by the Administrative Agent.

"Closing Date Loan Parties": each of Holdings, the Borrower, CardiacAssist, Inc., ImThera Medical, Inc. and LIVN US 3, LLC.

"Code": the Internal Revenue Code of 1986, as amended from time to time and the regulations promulgated and rulings issues thereunder.

"Collateral": all property of the Loan Parties, now owned or hereafter acquired, upon which a Lien is purported to be created by any Security Document.

"Collateral Agent": as defined in the preamble to this Agreement.

"Commitment": the Initial Term Loan Commitment of any Lender.

"Commodity Exchange Act": the Commodity Exchange Act (7 U.S.C. § 1 et seq.), as amended from to time, and any successor statute.

"Commonly Controlled Entity": an entity, whether or not incorporated, that at any relevant time would be deemed to be under common control with the Borrower within the meaning of Section 4001 of ERISA or part of a group that includes the Borrower and that would be treated as a single employer under Section 414 of the Code.

"Communications": as defined in Section 10.2(b).

"Compliance Certificate": a certificate duly executed by a Responsible Officer substantially in the form of Exhibit F-2.

"Compounded SOFR": the compounded average of SOFRs for the applicable Corresponding Tenor, with the rate, or methodology for this rate, and the conventions for this rate (which may include compounding in arrears with a lookback and/or suspension period as a mechanism to determine the interest amount payable prior to the end of each Interest Period) being established by the Administrative Agent (1) in accordance with the rate, or methodology for this rate, and conventions for this rate selected or recommended by the Relevant Governmental Body for determining compounded SOFR or (2) if, and to the extent that, the Administrative Agent determines that Compounded SOFR cannot be determined in accordance with the preceding clause (1), then in accordance with the rate, or methodology for this rate, and conventions for this rate that the Administrative Agent determines are substantially consistent with at least five currently outstanding U.S. dollar-denominated syndicated credit facilities at such time (as a result of amendment or as originally executed) that are publicly available for review; provided, further, that if the Administrative Agent decides that any such rate, methodology or convention determined in accordance with clause (1) or clause (2) is not administratively feasible for the Administrative Agent, then Compounded SOFR will be deemed unable to be determined for purposes of the definition of "Benchmark Replacement".

"Connection Income Taxes": Other Connection Taxes that are imposed on or measured by net income (however denominated) or that are franchise Taxes or branch profits Taxes.

"Consolidated EBITDA": for any period, for Holdings, the Borrower and the Restricted Subsidiaries on a consolidated basis, without duplication, an amount equal to Consolidated Net

Income for such period plus (a) the following, in each case, to the extent deducted (and not added back) in calculating such Consolidated Net Income:

(i) provisions for Taxes based on income or profits or capital, plus franchise or similar taxes and foreign withholding taxes;

(ii) interest expense, amortization or write-off of debt discount and debt issuance costs and commissions, discounts and other fees and charges associated with Indebtedness (including the Term Loans) for such period;

(iii) depreciation and amortization expense;

(iv) non-cash stock-based compensation expense for such period;

(v) all extraordinary, unusual or nonrecurring cash expenses and charges for such period; provided that amounts added back pursuant to this clause (v) when aggregated with amounts added back pursuant to clause (xiv) and clause (xvi) below, shall not exceed 25% of Consolidated EBITDA (calculated before giving effect to such adjustments) during such period;

(vi) non-cash purchase accounting adjustments;

(vii) costs and expenses incurred in connection with the transactions consummated in connection with the Transactions;

(viii) any net loss from disposed or discontinued operations;

(ix) all customary costs and expenses incurred or paid in connection with Investments (including Permitted Acquisitions) and with the issuance, prepayment or amendment or refinancing of Indebtedness permitted hereunder or issuance of Capital Stock, in each case whether consummated or not;

(x) (I) expenses and charges paid in connection with the SNIA litigation and (II) expenses and charges incurred or accrued prior to the Effective Date with respect to other litigation disclosed in the public filings made by Holdings prior to the Effective Date, in each case of prongs (I) and (II) including any settlement thereof;

(xi) [Intentionally Omitted];

(xii) other expenses reducing such Consolidated Net Income which do not represent a cash item in such period (but excluding any such charge which requires an accrual of, or a cash reserve for, anticipated cash charges in any future period);

(xiii) the aggregate net loss on the Disposition of property (other than accounts (as defined in the Uniform Commercial Code) and inventory) outside the ordinary course of business;

(xiv) the amount of net cost savings and synergies projected by the Borrower in good faith as a result of actions taken (calculated on a *pro forma* basis as though such cost savings and synergies had been realized on the first day of such period), net of the amount of actual benefits realized during such period from such actions; *provided* that (A) such cost savings and synergies are reasonably identifiable and factually supportable, (B) no cost savings shall be added pursuant to this clause (xiv) to the extent duplicative of any such expenses or changes that are included in clauses (v), (viii), (xii) and (xiii) above and clause (xvi) below with respect to such period, (C) the benefits resulting therefrom are anticipated by the Borrower to be realized within twelve (12) months of such actions having been taken, and (D) amounts added back pursuant to this clause (xiv), when aggregated with amounts added back pursuant to clause (v) above and clause (xvi) below, shall not exceed 25% of Consolidated EBITDA (calculated before giving effect to such adjustments) during such period;

(xv) any expenses or charge for such period to the extent covered by, and actually reimbursed by, the insurer within 180 days with respect to any business interruption insurance or similar insurance of Holdings, the Borrower or any Restricted Subsidiary in respect thereof (to the extent such payments or refunds are included in Consolidated Net Income); and

(xvi) the actual amount of any restructuring charges, integration and facilities opening costs or other business optimization expenses (including cost and expenses relating to business optimization programs and new systems design and implementation costs) and project start-up costs; *provided* that (A) no such restructuring charges, integration or optimization expenses shall be added pursuant to this clause (xvi), to the extent they are duplicative of any such expenses or changes that are included in clauses (v), (viii), (xii), (xiii) and (xiv) above and (B) amounts added back pursuant to this clause (xvi), when aggregated with amounts added back pursuant to clause (v) and clause (xiv) above, shall not exceed 25% of Consolidated EBITDA (calculated before giving effect to such adjustments) during such period;

less (b) the following to the extent added in calculating such Consolidated Net Income:

(A) all interest income for such period,

(B) all Tax benefits for such period to the extent not netted in determining the amount for clause (a)(i) above,

(C) non-cash purchase accounting adjustments, and

(D) (i) the aggregate net gain from the Disposition of property (other than accounts (as defined in the Uniform Commercial Code) and inventory) outside the ordinary course of business, (ii) any net gain from disposed or discontinued operations, (iii) all extraordinary, unusual or nonrecurring gains for such period, and (iv) all non-cash items increasing Consolidated Net Income which do not represent a cash item in such period or any future period (but excluding any such items (x) in respect of which cash was received in a prior period or will be received in a future period or (y) which represent the reversal of any accrual of, or cash reserve for, anticipated cash charges in any prior period).

For the purposes of calculating Consolidated EBITDA for any period of four consecutive fiscal quarters (each, a "Reference Period") pursuant to any determination hereunder, (x) if at any time during such Reference Period any Group Member shall have made any Asset Sale, the Consolidated EBITDA for such Reference Period shall be reduced by an amount equal to the Consolidated EBITDA (if positive) attributable to the property that is the subject of such Asset Sale for such Reference Period or increased by an amount equal to the Consolidated EBITDA (if negative) attributable thereto for such Reference Period, in each case assuming the repayment of Indebtedness in connection therewith occurred as of the first day of such Reference Period and (y) if during such Reference Period any Group Member shall have made a Material Acquisition, Consolidated EBITDA for such Reference Period shall be calculated after giving *pro forma* effect thereto as if such Material Acquisition occurred on the first day of such Reference Period.

As used in this definition only, "Material Acquisition" means any acquisition of property or series of related acquisitions of property that constitutes assets comprising all or substantially all of an operating unit of a business or constitutes all or substantially all of the common stock of a Person.

"Consolidated Funded Debt": at any date, the aggregate principal amount of all Indebtedness of the type described in clauses (a), (b) (to the extent of Earn-Out Obligations and other similar obligations), (c), (e), (f) (to the extent of any unreimbursed drawings), (g) and (h) (to the extent relating to any of the aforementioned items) of the definition of such term of Holdings and its Restricted Subsidiaries at such date, determined on a consolidated basis in accordance with GAAP.

"Consolidated Net Income": for any period, the consolidated net income (or loss) of Holdings, the Borrower and the Restricted Subsidiaries, determined on a consolidated basis in accordance with GAAP; provided, that, (a) the undistributed earnings of any Subsidiary of Holdings that is not a Loan Party shall be excluded to the extent that the declaration or payment of dividends or similar distributions by such Subsidiary is not at the time permitted by the terms of any Contractual Obligation (other than under any Loan Document), its Organizational Documents or Requirement of Law applicable to such Subsidiary; (b) the cumulative effect of a change in accounting principles and changes as a result of the adoption or modification of accounting policies during such period shall be excluded; (c) [Intentionally Omitted]; (d) any after-tax effect of income (loss) from the early extinguishment of (i) Indebtedness, (ii) obligations under any Hedge Agreements or (iii) other derivative instruments, in each case, solely to the extent permitted under this Agreement shall be excluded; (e) [Intentionally Omitted]; (f) [Intentionally Omitted], and (g) the following items shall be excluded, in each case, solely to the extent permitted under this Agreement: (i) any net unrealized gain or loss (after any offset) resulting in such period under any Hedge Agreements (including, for the avoidance of doubt, the Capped Call) and the application of Statement of Financial Accounting Standards No. 133; and (ii) any net unrealized gain or loss (after any offset) resulting in such period from currency translation gains or losses including those (x) related to currency remeasurements of Indebtedness and (y) resulting from Hedge Agreements for currency exchange risk. In addition, to the extent not already included, Consolidated Net Income shall include the amount of proceeds received from business interruption insurance.

"Contractual Obligation": as to any Person, any agreement, instrument or other undertaking to which such Person is a party or by which it or any of its property is bound.

"Core Business Segment": each of Holdings' business segments relating to cardiopulmonary Products, neuromodulation-based Products and advanced circulatory support Products, including, in each case, any Products, Intellectual Property and other assets related thereto.

"Corresponding Tenor": with respect to a Benchmark Replacement, a tenor (including overnight) having approximately the same length (disregarding business day adjustments) as the tenor of the applicable Interest Period with respect to LIBOR.

"Declined Proceeds": as defined in Section 3.2.

"Default": any of the events specified in Section 8, whether or not any requirement for the giving of notice, the lapse of time, or both, has been satisfied.

"Defaulting Lender": at any time, any Lender (a) that has failed for to comply with its obligations under Section 2.1 of this Agreement (a "funding obligation"), (b) that has notified the Administrative Agent or the Borrower, or has stated publicly, that it will not comply with any such funding obligation hereunder, (c) that has failed to confirm in writing to the Administrative Agent, in response to a written request of the Administrative Agent, that it will comply with its funding obligations hereunder, or (d) with respect to which a Lender Insolvency Event has occurred and is continuing; *provided* that (i) the Administrative Agent and the Borrower may declare (A) by joint notice to the Lenders that a Defaulting Lender is no longer a "Defaulting Lender" or (B) that a Lender is not a Defaulting Lender if in the case of both clauses (a) and (b) the Administrative Agent and the Borrower each determines, in its reasonable discretion, that (x) the circumstances that resulted in such Lender becoming a "Defaulting Lender" no longer apply or (y) it is satisfied that such Lender will continue to perform its funding obligations hereunder and (ii) a Lender shall not be a Defaulting Lender solely by virtue of the ownership or acquisition of voting stock or any other equity interest in such Lender or a parent company thereof by a Governmental Authority or an instrumentality thereof unless such ownership or acquisition results in or provides such Lender with immunity from the jurisdiction of the courts within the United States from the enforcement of judgments, writs of attachment on its assets or permits such Lender (or such Governmental Authority) to reject, repudiate, disavow or disaffirm any contracts or agreements made by such Lender. The Administrative Agent will promptly send to all parties hereto a notice when it becomes aware that a Lender is a Defaulting Lender and such determination by the Administrative Agent shall be conclusive and binding absent manifest error.

"Designated Non-Cash Consideration": the fair market value of non-cash consideration received by a Group Member in connection with a Disposition pursuant to Section 7.4(r) that is designated as Designated Non-Cash Consideration pursuant to a certificate of a Responsible Officer of the Borrower, setting forth the basis of such valuation (which amount will be reduced by the fair market value of the portion of the non-cash consideration converted to cash within 180 days following the consummation of the applicable Disposition).

"Disposition": with respect to any Property, any sale, lease, sale and leaseback, Exclusive License, assignment, conveyance, transfer or other disposition thereof. The terms "Dispose" and "Disposed of" shall have correlative meanings.

"Disqualified Capital Stock": any Capital Stock that is not Qualified Capital Stock.

"Dollars" and "$": dollars in lawful currency of the United States.

"Domestic Loan Party": any Loan Party that is a "United States Person," as defined in the Code.

"Domestic Subsidiary": any Subsidiary that is a "United States Person," as defined in the Code, other than a Section 956 Excluded Subsidiary.

"Earn-Out Obligations": those certain unsecured obligations of Holdings or any Subsidiary arising in connection with any acquisition of assets or businesses permitted under Section 7.6 to the seller of such assets or businesses and the payment of which is dependent on the future earnings or performance of such assets or businesses and contained in the agreement relating to such acquisition or in an employment agreement delivered in connection therewith.

"EEA Financial Institution": (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

"EEA Member Country": any of the member states of the European Union, Iceland, Liechtenstein and Norway.

"EEA Resolution Authority": any public administrative authority or any person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

"Early Opt-in Election": the occurrence of: (1) (i) a determination by the Administrative Agent or (ii) a notification by the Required Lenders to the Administrative Agent (with a copy to the Borrower) that the Required Lenders have determined that U.S. dollar-denominated syndicated credit facilities being executed at such time, or that include language similar to that contained in Section 3.7, are being executed or amended, as applicable, to incorporate or adopt a new benchmark interest rate to replace LIBOR, and (2) (i) the election by the Administrative Agent or (ii) the election by the Required Lenders to declare that an "Early Opt-in Election" has occurred and the provision by the Administrative Agent of written notice of such election to the Borrower and the Lenders or by the Required Lenders of written notice of such election to the Administrative Agent (with a copy to the Borrower), as applicable.

"Effective Date": means June 10, 2020.

"Eligible Assignee": any Assignee permitted by and consented to in accordance with Section 10.6(b).

"Eligible Foreign Pledged Subsidiary": LivaNova Nederlands N.V., and any Loan Party incorporated in Canada and the United Kingdom.

"Environment": ambient air, indoor air, surface water, groundwater, drinking water, land surface and subsurface strata, and natural resources such as wetlands, flora and fauna.

"Environmental Claims": any and all administrative, regulatory, adjudicatory or judicial actions, suits, demands, demand letters, claims, liens, fines, penalties, requests for information, inquiries, notices of noncompliance or violation, investigations (other than internal reports prepared by the Loan Parties in the ordinary course of such Person's business) or proceedings relating in any way to any Environmental Law, any Materials of Environmental Concern (including any exposure to any Materials of Environmental Concern), or any permit issued, or any approval given, under any such Environmental Law ("Claims"), including (i) any and all Claims by governmental or regulatory authorities for enforcement, cleanup, removal, response, remedial, investigation, monitoring or other actions or damages pursuant to any Environmental Law and (ii) any and all Claims by any Person seeking damages, contribution, indemnification, cost recovery, compensation or injunctive relief resulting from the presence, Release of, or threat of Release of, Materials of Environmental Concern or arising from alleged injury or threat of injury to human health, public safety or the environment, pursuant to any Environmental Law.

"Environmental Laws": any and all applicable foreign, federal, state, local or municipal laws, rules, orders, regulations, statutes, ordinances, codes, decrees, requirements of any Governmental Authority or other Requirements of Law (including common law) relating to pollution or protection of the Environment, including those relating to use, generation, storage, treatment, transport, Release or threat of Release of Materials of Environmental Concern, or to protection of human or animal health or safety (to the extent relating to exposure to Materials of Environmental Concern), as now or may at any time hereafter be in effect.

"ERISA": the Employee Retirement Income Security Act of 1974, and the regulations promulgated and rulings issued under it, as all may be amended from time to time.

"ERISA Event": any one or more of the following: (a) the failure to make a required contribution to any Single Employer Plan that would result in the imposition of a lien or other encumbrance or the provision of security under Section 430 of the Code or Section 303 or 4068 of ERISA, or the arising of such a lien or encumbrance; there being or arising any "unpaid minimum required contribution" or "accumulated funding deficiency" (as defined or otherwise set forth in Section 4971 of the Code or Part 3 of Subtitle B of Title I of ERISA), whether or not waived; or the filing of any request for or receipt of a minimum funding waiver under Section 412 of the Code with respect to any Single Employer Plan or Multiemployer Plan, or that such filing may be made; or a determination that any Single Employer Plan is, or is expected to be, considered an at-risk plan within the meaning of Section 430 of the Code or Section 303 of ERISA, or that any Multiemployer Plan is, or is expected to be, considered a plan in endangered or critical status within the meaning of Sections 431 and 432 of the Code or Sections 304 and

305 of ERISA; (b) a Reportable Event with respect to any Single Employer Plan; (c) the filing of a notice of intent to terminate any Single Employer Plan, if such termination would require material additional contributions in order to be considered a standard termination within the meaning of Section 4041(b) of ERISA, the filing under Section 4041(c) of ERISA of a notice of intent to terminate any Single Employer Plan or the termination of any Single Employer Plan under Section 4041(c) of ERISA; (d) the institution by the PBGC of proceedings to terminate a Single Employer Plan pursuant to Section 4042 of ERISA, or the occurrence of any event or condition described in Section 4042 of ERISA which would be reasonably be expected to constitutes grounds for the termination of, or the appointment of a trustee to administer, such Single Employer Plan; (e) the complete or partial withdrawal of any Group Member or any Commonly Controlled Entity from a Multiemployer Plan or the insolvency within the meaning of Section 4245 of ERISA of a Multiemployer Plan; (f) engaging in any non-exempt "prohibited transaction" (within the meaning of Section 406 of ERISA or Section 4975 of the Code) involving any Single Employer Plan; (g) the cessation of operations at a facility of any Group Member or Commonly Controlled Entity in the circumstances described in Section 4062(e) of ERISA; (h) the withdrawal by any Group Member or Commonly Controlled Entity from a Multiple Employer Plan during a plan year for which it was a substantial employer, as defined in Section 4001(a)(2) of ERISA; or (i) a Group Member or a Commonly Controlled Entity incurs any liability under Title IV of ERISA with respect to any Single Employer Plan (other than premiums due and not delinquent under Section 4007 of ERISA).

"EU Bail-In Legislation Schedule": the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor person), as in effect from time to time.

"Euro" and the designation "€" shall mean the single currency of the Participating Member States of the European Union.

"Eurocurrency Reserve Requirements": for any day as applied to a LIBOR Rate Loan, the aggregate (without duplication) of the maximum rates (expressed as a decimal fraction) of reserve requirements in effect on such day (including basic, supplemental, marginal and emergency reserves under any regulations of the Board or other Governmental Authority having jurisdiction with respect thereto) dealing with reserve requirements prescribed for eurocurrency funding (currently referred to as "Eurocurrency Liabilities" in Regulation D of the Board) maintained by a member bank of the Federal Reserve System.

"Event of Default": any of the events specified in Section 8.

"Exchange Act": the Securities Exchange Act of 1934, as amended.

"Excluded Assets": as defined in Section 6.10(g)(iii).

"Excluded Indebtedness": all Indebtedness permitted by Section 7.1.

"Excluded Subsidiary": any Subsidiary (1) for which guarantees at any time are prohibited or restricted by Requirements of Law (including financial assistance, fraudulent conveyance, preference, capitalization or any other Requirements of Law or regulations) (or

contractually prohibited on the Closing Date (in the case of existing Subsidiaries) or on the date of acquisition or formation thereof (in the case of acquired or formed Subsidiaries), so long as such prohibition is not created in contemplation of such transaction) from guaranteeing the Obligations, or if guaranteeing the Obligations would require governmental (including regulatory) consent, non-disapproval, approval, filing, license or authorization (unless such consent, approval, license or authorization has been received), (2) not-for-profit Subsidiaries, captive insurance companies and special purpose entities, (3) that is not a Wholly Owned Subsidiary, (4) any Subsidiary where the cost of providing a guarantee, taken as a whole, outweighs the benefit to the Lenders, as determined in the reasonable discretion of the Administrative Agent and Borrower, (5) [intentionally omitted], (6) any special purpose entities (including receivables subsidiaries), (7) any Unrestricted Subsidiary, (8) Immaterial Subsidiaries, (9) any Subsidiary organized under the laws of any jurisdiction other than United States, England and Wales, Canada or Italy, (10) any Section 956 Excluded Subsidiary, (11) any subsidiary that is or, upon providing a guarantee, would become or be required to be registered as an investment company under the Investment Company Act of 1940, and (12) any subsidiary which would not be required to provide a guarantee pursuant to the Agreed Security Principles.

"Excluded Swap Obligation": with respect to any Guarantor, any Swap Obligation if, and to the extent that, all or a portion of the Guarantee of such Guarantor, or the grant by such Guarantor of a security interest to secure, as applicable, such Swap Obligation (or any Guarantee thereof) is or becomes illegal under the Commodity Exchange Act or any rule, regulation or order of the Commodity Futures Trading Commission (or the application or official interpretation of any thereof) by virtue of such Guarantor's failure for any reason to constitute an "eligible contract participant" as defined in the Commodity Exchange Act and the regulations thereunder at the time the Guarantee of such Guarantor, or the grant of such security interest, as applicable, becomes effective with respect to such Swap Obligation. If a Swap Obligation arises under a master agreement governing more than one swap, such exclusion shall apply only to the portion of such Swap Obligation that is attributable to swaps for which such Guarantee or security interest is or becomes illegal.

"Excluded Taxes": any of the following Taxes imposed on or with respect to a Recipient or required to be withheld or deducted from a payment to a Recipient, (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes and branch profits Taxes, in each case, (i) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its applicable lending office in the jurisdiction imposing such Tax (or any political subdivision thereof), or (ii) that are Other Connection Taxes, (b) in the case of a Lender, U.S. federal withholding Taxes imposed on amounts payable to or for the account of such Lender with respect to an applicable interest in a Loan or Commitment pursuant to a law in effect on the date on which (i) such Lender acquires such interest in the Loan or Commitment (other than pursuant to an assignment request by the Borrower under Section 3.12) or (ii) such Lender changes its lending office, except in each case to the extent that, pursuant to Section 3.10, amounts with respect to such Taxes were payable either to such Lender's assignor immediately before such Lender became a party hereto or to such Lender immediately before it changed its lending office; (c) Taxes attributable to such Recipient's

failure to comply with Section 3.10(f) and (d) any withholding Tax that is imposed pursuant to FATCA.

"Exclusive License": any license by any Person of its owned Intellectual Property which provides the applicable licensee exclusive rights to exploit such Intellectual Property.

"Extension": as defined in Section 3.16.

"Extension Loan": as defined in Section 3.16.

"Extension Offer": as defined in Section 3.16.

"Existing Facilities": (i) the facility agreement with Bank of America Merrill Lynch International DAC, Barclays Bank PLC, BNP Paribas (London Branch) and Intesa Sanpaolo S.P.A, dated as of March 29, 2019, (ii) the facility agreement with Banca Nazionale del Lavoro S.p.A., dated as of July 25, 2019, (iii) the 2017 European Investment Bank loan, dated as of June 29, 2017, and (iv) the 2014 European Investment Bank loan dated as of May 6, 2014.

"Existing Intercompany Notes": (a) intercompany promissory notes originally issued on October 16, 2015 for a principal amount of, respectively, $850,000,000 and $150,000,000, assumed by the Borrower, as debtor, and held by LivaNova Hungary Limited Liability Company, as creditor, and (b) the intercompany promissory note originally issued on December 21, 2015 by Holdings, as debtor, and LIVN UK HoldCo Limited, as creditor, having a principal amount outstanding of $85,239,113, including in each case any amendment, modification or Permitted Refinancing thereof.

"FATCA": Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future Treasury regulations or other official administrative guidance or interpretations thereof, any agreements entered into pursuant to Section 1471(b)(1) of the Code and any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement, treaty or convention among Governmental Authorities and implementing such Sections of the Code.

"FCPA": the Foreign Corrupt Practices Act of 1977, as amended from time to time, and the rules and regulations thereunder.

"FDA": the United States Food and Drug Administration and any successor thereto.

"Federal Funds Effective Rate": for any day, the rate per annum equal to the weighted average of the rates on overnight Federal Funds transactions with members of the Federal Reserve System arranged by Federal Funds brokers on such day, as published by the Federal Reserve Bank of New York on the Business Day next succeeding such day; *provided* that if no such rate is so published on such next succeeding Business Day, the Federal Funds Rate for such day shall be the average rate quoted to the Administrative Agent on such day on such transactions as determined by the Administrative Agent in a commercially reasonable manner.

"Federal Reserve Bank of New York's Website": the website of the Federal Reserve Bank of New York at http://www.newyorkfed.org, or any successor source.

"Fee Letter": the Fee Letter dated as of the Effective Date, by and between the Borrower, Holdings and the Administrative Agent, as amended, restated, supplemented or otherwise modified from time to time.

"FEMA": the Federal Emergency Management Agency, a component of the U.S. Department of Homeland Security that administers the National Flood Insurance Program.

"Flood Insurance Laws": collectively, (i) the National Flood Insurance Act of 1968 as now or hereafter in effect or any successor statute thereto, (ii) the Flood Disaster Protection Act of 1973 as now or hereafter in effect or any successor statue thereto, (iii) the National Flood Insurance Reform Act of 1994 as now or hereafter in effect or any successor statute thereto and (iv) the Flood Insurance Reform Act of 2004 as now or hereafter in effect or any successor statute thereto.

"Foreign Lender": any Lender that is not a "United States person" within the meaning of Section 7701(a)(30) of the Code.

"Foreign Pledge Agreement": a pledge or charge agreement with respect to any Collateral that constitutes Capital Stock of a Foreign Subsidiary, in form and substance reasonably satisfactory to the Administrative Agent; *provided* that no pledge or charge agreement shall be provided with respect to the Capital Stock of a Subsidiary of the Borrower that is a Section 956 Excluded Subsidiary except for a pledge of no more than 65% of the voting Capital Stock of such Section 956 Excluded Subsidiary.

"Foreign Security Document": as defined in Section 4.19.

"Foreign Subsidiary": any Subsidiary of Holdings that is not a Domestic Subsidiary.

"Funded Debt": as to any Person, without duplication, (a) all Indebtedness of the type described in clauses (a), (b) (to the extent of Earn-Out Obligations and other similar obligations), (c), (e), (f) (to the extent of any unreimbursed drawings thereunder) and (h) and (b) Indebtedness of the type described in clause (g) of the definition of such term of such Person that matures more than one (1) year from the date of its creation or matures within one (1) year from such date but is renewable or extendible, at the option of such Person, to a date more than one (1) year from such date or arises under a revolving credit or similar agreement that obligates the lender or lenders to extend credit during a period of more than one (1) year from such date, including all current maturities and current sinking fund payments in respect of such Indebtedness whether or not required to be paid within one year from the date of its creation and, in the case of the Borrower, Indebtedness in respect of the Term Loans.

"Funding Office": the office of the Administrative Agent specified in Section 10.2 or such other office as may be specified from time to time by the Administrative Agent as its funding office by written notice to the Borrower and the Lenders.

"GAAP": generally accepted accounting principles in the United States as in effect from time to time subject to Section 1.2(e).

"Governmental Authority": any nation or government, any state or other political subdivision thereof, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative functions of or pertaining to government (including any supranational bodies such as the European Union or the European Central Bank) and any securities exchange.

"Governmental Authorization": with respect to any Person, all laws, rules, regulations, authorizations, consents, decrees, permits (including Regulatory Required Permits), licenses, waivers, privileges, approvals, registrations, listings, certificates, clearances, concessions, grants, franchises, variances or permissions from and filings with, any Governmental Authorities, in each case whether or not having the force of law and applicable to or binding upon such Person or any of its property or to which such Person or any of its property is subject, and any supplements or amendments with respect to the foregoing.

"Group Members": the collective reference to Holdings, the Borrower and the Restricted Subsidiaries.

"Guarantee and Collateral Agreement": the Guarantee and Collateral Agreement dated as of the Closing Date executed and delivered by the Borrower and each other Loan Party that is a party thereto substantially in the form of Exhibit J hereto.

"Guarantee Obligation": as to any Person (the "guaranteeing person"), any direct or indirect obligation, whether contingent or not, of (a) the guaranteeing person or (b) another Person (including any bank under any letter of credit) to induce the creation of which the guaranteeing person has issued a reimbursement, counterindemnity or similar obligation, in either case guaranteeing or in effect guaranteeing any Indebtedness, leases, dividends or other obligations (the "primary obligations") of any other third Person (the "primary obligor") in any manner, whether directly or indirectly, including any obligation of the guaranteeing person, whether or not contingent, (i) to purchase any such primary obligation or any property constituting direct or indirect security therefor, (ii) to advance or supply funds (1) for the purchase or payment of any such primary obligation or (2) to maintain working capital or equity capital of the primary obligor or otherwise to maintain the net worth or solvency of the primary obligor, (iii) to purchase property, securities or services primarily for the purpose of assuring the owner of any such primary obligation of the ability of the primary obligor to make payment of such primary obligation or (iv) otherwise to assure or hold harmless the owner of any such primary obligation against loss in respect thereof; *provided*, however, that the term Guarantee Obligation shall not include endorsements of instruments for deposit or collection in the ordinary course of business. The amount of any Guarantee Obligation of any guaranteeing person shall be deemed to be the lower of (a) an amount equal to the stated or determinable amount of the primary obligation in respect of which such Guarantee Obligation is made and (b) the maximum amount for which such guaranteeing person may be liable pursuant to the terms of the instrument embodying such Guarantee Obligation, unless such primary obligation and the maximum amount for which such guaranteeing person may be liable are not stated or determinable, in which case

the amount of such Guarantee Obligation shall be such guaranteeing person's maximum reasonably anticipated liability in respect thereof as determined by the Borrower in good faith.

"Guarantors": collectively, the Secured Guarantors and the Unsecured Guarantor.

"Health Care Laws": all Requirements of Law relating to the procurement, development, provision, clinical and non-clinical evaluation or investigation, product approval or clearance, manufacture, production, analysis, distribution, dispensing, importation, exportation, use, handling, quality, reimbursement, sale, labeling, advertising, promotion, or post-market requirements of any Product (including, without limitation, any component of, or accessory to, such Product) subject to regulation under the Federal Food, Drug, and Cosmetic Act or otherwise regulated by the FDA and similar state or foreign laws, Medicare, Medicaid, and all laws and regulations pursuant to which Regulatory Required Permits are issued, in each case, as the same may be amended from time to time.

"Hedge Agreements": any agreement with respect to any cap, swap, forward, future or derivative transaction or option or similar agreement involving, or settled by reference to, one or more rates, currencies, commodities, equity or debt instruments or securities, or economic, financial or pricing indices or measures of economic, financial or pricing risk or value or any similar transaction or any combination of these transactions; *provided* that no phantom stock or similar plan providing for payments only on account of services provided by current or former directors, officers, employees or consultants of the Borrower or the Subsidiaries shall be a Hedge Agreement.

"Holdings": as defined in the preamble to this Agreement.

"HV Purchase Agreement": the share and asset purchase agreement entered into by and between Holdings and Mitral HoldCo S.à r.l. on December 2, 2020, relating to the Disposition by Holdings and other Group Members of the heart valve-business segment.

"Immaterial Subsidiary": any Subsidiary, now existing or hereafter acquired or formed and each successor thereto, (a) which accounts for not more than the lesser of 5% of (i) the consolidated gross revenues (after intercompany eliminations) of Holdings, the Borrower and the Restricted Subsidiaries and (ii) the consolidated assets (after intercompany eliminations) of Holdings, the Borrower and the Restricted Subsidiaries, in each case, as of the last day of the most recently completed fiscal quarter as reflected on the financial statements for such quarter, and (b) if the Subsidiaries that constitute Immaterial Subsidiaries pursuant to clause (a) above that are organized in the United States, Canada or the United Kingdom and are not otherwise Excluded Subsidiaries account for, in the aggregate, more than the lesser of (i) 10% of such consolidated gross revenues (after intercompany eliminations) and (ii) 10% of the consolidated assets (after intercompany eliminations), each as described in clause (a) above, then the Borrower shall designate one or more such Subsidiary to be excluded from the definition of "Immaterial Subsidiary" as may be necessary to eliminate such excess, *provided*, that (i) LivaNova IP Limited shall not be deemed an Immaterial Subsidiary and (ii) no Subsidiary owning any Permits, Intellectual Property, Products or other assets, in each case that are necessary to the operations of Holdings and its Restricted Subsidiaries (taken as a whole) in the

good faith opinion of Holdings shall not be deemed an Immaterial Subsidiary without the express written consent of the Administrative Agent.

"Indebtedness": of any Person at any date, without duplication, (a) all indebtedness of such Person for borrowed money, (b) all obligations of such Person for the deferred purchase price of property or services (including Earn-Out Obligations but excluding current trade payables and payroll liabilities incurred in the ordinary course of such Person's business), (c) all obligations of such Person evidenced by notes, bonds, loan agreements, debentures or other similar instruments, (d) all indebtedness created or arising under any conditional sale or other title retention agreement with respect to property acquired by such Person (even though the rights and remedies of the seller or lender under such agreement in the event of default are limited to repossession or sale of such property), (e) all Capital Lease Obligations of such Person, (f) all obligations of such Person, contingent or otherwise, as an account party or applicant under or in respect of acceptances, letters of credit, surety bonds or similar arrangements, (g) the liquidation value of all Disqualified Capital Stock of such Person, (h) all Guarantee Obligations of such Person in respect of obligations of the kind referred to in clauses (a) through (g) above, (i) all obligations of the kind referred to in clauses (a) through (h) above secured by (or for which the holder of such obligation has an existing right, contingent or otherwise, to be secured by) any Lien on property (including accounts and contract rights) owned by such Person, whether or not such Person has assumed or become liable for the payment of such obligation, and (j) for the purposes of Sections 7.1 and 8(e) only, all obligations of such Person in respect of Hedge Agreements. The Indebtedness of any Person shall include the Indebtedness of any other entity (including any partnership in which such Person is a general partner) to the extent such Person is liable therefor as a result of such Person's ownership interest in or other relationship with such entity, except to the extent the terms of such Indebtedness expressly provide that such Person is not liable therefor. For purposes of clause (j) above (including as such clause applies to Section 8(e)), the principal amount of Indebtedness in respect of Hedge Agreements shall equal the amount that would be payable (giving effect to netting) at such time if such Hedge Agreement were terminated. For the avoidance of doubt Indebtedness does not include compensation and benefits paid, to be paid, provided or to be provided, in the ordinary course of business and not yet overdue.

"Indemnified Liabilities": as defined in Section 10.5(b).

"Indemnified Taxes": (a) Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of any Loan Party under any Loan Document and, (b) to the extent not otherwise described in subsection (a), Other Taxes.

"Indemnitee": as defined in Section 10.5(b).

"Insolvency Proceeding": any proceeding commenced by or against any Person under any provision of any state or federal bankruptcy or insolvency law, assignments for the benefit of creditors, formal or informal moratoria, compositions, extensions generally with creditors, or proceedings seeking reorganization, arrangement, or other similar relief.

"Initial Term Loan Commitment": the amount set forth opposite such Lender's name on Schedule 1.1 as such Lender's "Initial Term Loan Commitment" as the same shall be permanently reduced to $0 after to the funding of the Term Loans on the Closing Date.

"Initial Term Loan Commitment Expiration Date": June 17, 2020.

"Initial Term Loan Facility": as defined in the recitals to this Agreement.

"Initial Term Loan Lender"; each Lender that held an Initial Term Loan Commitment.

"Initial Term Loan": as defined in Section 2.1.

"Initial Term Loan Percentage": as to any Initial Term Loan Lender, the percentage which such Initial Term Loan Lender's Initial Term Loan Commitment then constitutes of the aggregate Initial Term Loan Commitments.

"Insolvency": with respect to any Multiemployer Plan, the condition that such Plan is insolvent within the meaning of Section 4245 of ERISA.

"Insolvent": pertaining to a condition of Insolvency.

"Intellectual Property": collectively, all United States and foreign (a) patents, patent applications, certificates of inventions, industrial designs, together with any and all inventions described and claimed therein, and reissues, divisions, continuations, extensions and continuations-in-part thereof and amendments thereto; (b) trademarks, service marks, certification marks, trade names, slogans, logos, trade dress, Internet Domain Names, and other source identifiers, whether statutory or common law, whether registered or unregistered, and whether established or registered in the United States or any other country or any political subdivision thereof, together with any and all registrations and applications for any of the foregoing, goodwill connected with the use thereof and symbolized thereby, and extensions and renewals thereof and amendments thereto; (c) copyrights (whether statutory or common law, and whether published or unpublished), copyrightable subject matter, and all mask works (as such term is defined in 17 U.S.C. Section 901, *et seq*.), together with any and all registrations and applications therefor, and renewals and extensions thereof and amendments thereto; (d) rights in computer programs (whether in source code, object code, or other form), algorithms, databases, compilations and data, technology supporting the foregoing, and all documentation, including user manuals and training materials, related to any of the foregoing ("Software"); (e) trade secrets and proprietary or confidential information, data and databases, know-how and proprietary processes, designs, inventions, and any other similar intangible rights, to the extent not covered by the foregoing, whether statutory or common law, whether registered or unregistered; (f) income, fees, royalties, damages and payments now and hereafter due and/or payable under or with respect to any of the foregoing, including, without limitation, damages, claims and payments for past, present or future infringements, misappropriations or other violations thereof; (g) rights and remedies to sue for past, present and future infringements, misappropriations and other violations of any of the foregoing; and (h) rights, priorities, and privileges corresponding to any of the foregoing.

"Intellectual Property Security Agreements": the Copyright Security Agreements, Patent Security Agreements and Trademark Security Agreements, each as defined in the Guarantee and Collateral Agreement.

"Intercreditor Agreement": that certain Intercreditor Agreement, dated as the Amendment No. 1 Effective Date between Administrative Agent and Revolving Loan Agent, and acknowledged by the Loan Parties, as amended, restated, supplemented or otherwise modified from time to time, in accordance with its terms.

"Intercompany Note": the Intercompany Note to be executed and delivered by each Subsidiary of Holdings that is not a Loan Party, substantially in the form attached hereto as Exhibit H.

"Intercompany Subordination Agreement": the Intercompany Subordination Agreement among the Loan Parties, the other Group Members party thereto, and the Agents, substantially in the form of Exhibit K hereto.

"Interest Payment Date": (a) as to any ABR Loan, the last day of each March, June, September and December to occur while such Loan is outstanding and the final maturity date of such Loan, (b) as to any LIBOR Rate Loan having an Interest Period of three (3) months or less, the last day of such Interest Period, and (c) as to any LIBOR Rate Loan having an Interest Period longer than three (3) months, each day that is three (3) months, or a whole multiple thereof, after the first day of such Interest Period and the last day of such Interest Period.

"Interest Period": as to any LIBOR Rate Loan, (a) initially, the period commencing on the borrowing or conversion date, as the case may be, with respect to such LIBOR Rate Loan and ending one, two, three or six months thereafter, as selected by the Borrower in its notice of borrowing or notice of conversion, as the case may be, given with respect thereto; and (b) thereafter, each period commencing on the last day of the next preceding Interest Period applicable to such LIBOR Rate Loan and ending one, two, three or six month thereafter, as selected by the Borrower by irrevocable notice to the Administrative Agent no later than 12:00 Noon, New York City time, on the date that is three (3) Business Days prior to the last day of the then current Interest Period with respect thereto; *provided*, *that*, all of the foregoing provisions relating to Interest Periods are subject to the following:

(i) if any Interest Period would otherwise end on a day that is not a Business Day, such Interest Period shall be extended to the next succeeding Business Day unless the result of such extension would be to carry such Interest Period into another calendar month in which event such Interest Period shall end on the immediately preceding Business Day;

(ii) the Borrower may not select an Interest Period that would extend beyond the Term Loan Maturity Date; and

(iii) any Interest Period that begins on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the calendar month at the end of such Interest Period) shall end on the last Business Day of a calendar month.

"Internet Domain Names": all Internet domain names and associated URL addresses.

"Investments": as defined in Section 7.6.

"IRS": the United States Internal Revenue Service.

"Junior Indebtedness Documentation": any documentation governing any Junior Indebtedness.

"Junior Indebtedness": (a) any Syndicated Offering and (b) any Indebtedness of any Person so long as (i) such Indebtedness shall not require any amortization prior to the date that is 91 days following the Term Loan Maturity Date; (ii) the weighted average maturity of such Indebtedness shall occur after the date that is 91 days following the Term Loan Maturity Date; (iii) the mandatory prepayment provisions, affirmative and negative covenants and financial covenants shall be no more restrictive, taken as a whole, than the provisions set forth in the Loan Documents, as determined in good faith and certified in writing to the Administrative Agent by a Responsible Officer of the Borrower; (iv) such Indebtedness is unsecured; (v) such Indebtedness shall be Subordinated Indebtedness; and (vi) if such Indebtedness is incurred by a Subsidiary that is not a Loan Party or Pledged Company, (x) such Subsidiary shall have also provided a guarantee of the Obligations substantially on the terms set forth in the Guarantee and Collateral Agreement, and (y) to the extent that such Indebtedness is guaranteed by a Loan Party, such guarantee shall be subordinated to the guarantee of the Obligations on terms at least as favorable to the Lenders as those contained in the subordination of such Indebtedness.

"Lender Insolvency Event": (a) a Lender or its Parent Company is adjudicated by a Governmental Authority to be insolvent, or admits in writing its inability to pay its debts as they become due, or makes a general assignment for the benefit of its creditors, or (b) such Lender or its Parent Company is the subject of a bankruptcy, insolvency, reorganization, liquidation or similar proceeding, or such Lender becomes the subject of a Bail-In Action, or a receiver, trustee, conservator, intervenor or sequestrator or the like has been appointed for such Lender or its Parent Company, or such Lender or its Parent Company has indicating its consent to or acquiescence in any such proceeding or appointment.

"Lenders": each Term Lender.

"LIBOR": with respect to each day during each Interest Period pertaining to a LIBOR Rate Loan, the rate per annum offered for deposits of Dollars for the applicable Interest Period that appears on Bloomberg Professional Service Page BBAM1 as of approximately 11:00 A.M., London, England time, two (2) Business Days prior to the first day of such Interest Period for a three (3) month term; multiplied by (ii) the Statutory Reserve Rate. If for any reason the rate referred to herein is not available, for any such interest period, such rate will be a comparable successor or alternative interbank rate for deposits in Dollars that it, at such time, broadly accepted by the loan market in lieu of the Eurodollar Rate and is reasonably acceptable to the Administrative Agent and the Borrower; provided that, to the extent a successor or alternative index rate cannot be agreed upon within five (5) Business Days after the Eurodollar Rate becomes unavailable, all Loans hereunder will be deemed to be ABR Loans (and shall bear

interest accordingly) for purposes of the definition of "Applicable Margin" and Section 3.5, until such time as an alternative rate can be agreed upon.

"LIBOR Floor": 1.00%.

"LIBOR Rate": with respect to each day during each Interest Period pertaining to a LIBOR Rate Loan, the rate per annum equal to the greater of (a) the LIBOR Floor and (b) for each Interest Period following the initial Interest Period, the rate per annum determined by the Administrative Agent (rounded upward to the nearest 1/100th of 1%) by dividing (i) LIBOR for such Interest Period by (ii) 1.00 - Eurocurrency Reserve Requirements. The LIBOR Rate shall be adjusted on and as of the effective date of any change in the Eurocurrency Reserve Requirements.

"LIBOR Rate Loans": loans the rate of interest applicable to which is based upon the LIBOR Rate.

"LIBOR Tranche": the collective reference to LIBOR Rate Loans under a particular loan facility the then current Interest Periods with respect to all of which begin on the same date and end on the same later date (whether or not such Loans shall originally have been made on the same day).

"Lien": means, with respect to any property or asset, (a) any mortgage, deed of trust, lien (statutory or otherwise), pledge, hypothecation, encumbrance, charge or security interest in, on, of or with respect to such property or asset, (b) any right, title or interest of any Person (including any vendor or lessor) under any conditional sale agreement, capital lease or title retention agreement (or any capital or financing lease having substantially the same economic effect as any of the foregoing) relating to such property or asset and (c) in the case of securities (debt or equity), any purchase option, call, put or similar right of any Person with respect to such securities.

"Loan Documents": this Agreement, the Security Documents, the Fee Letter, the Intercompany Subordination Agreement, the Intercreditor Agreement and any Notes issued by the Borrower hereunder, any intercreditor or subordination agreements in favor of the Administrative Agent with respect to this Agreement, and any other agreement entered into now, or in the future, by any Loan Party, on the one hand, and the Administrative Agent or Lender, on the other hand, in connection with this Agreement, and designated in writing as a "Loan Document" by the parties thereto.

"Loan Party": each of Holdings, the Borrower and the Secured Guarantors.

"Make-Whole Premium" with respect to any prepayment of the Term Loans at any time on or prior to the second anniversary of the Closing Date, the excess of (a) the sum of the present value of (i) one hundred two percent (102%) of the outstanding principal amount of the Term Loans being prepaid as of such date of prepayment, plus (ii) all required interest payments due on the Term Loans being prepaid from the date of prepayment through and including the second anniversary of the Closing Date, which such present value shall be computed using a discount

rate equal to the Treasury Rate as of the relevant prepayment date (subject to a zero floor) plus fifty (50) basis points over (b) the principal amount of the Term Loans being prepaid; *provided*, that in no event shall the Make-Whole Premium be less than zero.

"Margin Stock": as defined in Regulation U of the Board as from time to time in effect and any successor to all or a portion thereof.

"Material Adverse Effect": (a) a material adverse effect upon, the business, assets, properties, liabilities (actual or contingent), operations, condition (financial or otherwise), or results of operations of Holdings and its Subsidiaries, taken as a whole; (b) a material adverse effect upon the legality, validity, binding effect or enforceability against any Loan Party of any Loan Document to which it is a party; (c) the Secured Parties' ability to enforce their rights or remedies hereunder or under any of the other Loan Documents, or (d) the ability of Holdings and its Subsidiaries, taken as a whole, to perform their payment obligations under the Loan Documents to which they are parties in accordance with their terms.

"Material Indebtedness": of any Person at any date, Indebtedness the outstanding principal amount of which exceeds in the aggregate $25,000,000.

"Materials of Environmental Concern": any gasoline or petroleum (including crude oil or any fraction thereof) or petroleum products, per- and polyfluoroalkyl substances and toxic mold or any substances, materials, wastes, pollutants or contaminants in any form regulated under or for which liability can be imposed under any Environmental Law, including asbestos and asbestos-containing materials, polychlorinated biphenyls, radon gas, radiation, and electromagnetic or radio frequency emissions.

"Maximum Rate": as defined in Section 3.5(e).

"Moody's": Moody's Investors Service, Inc.

"Mortgaged Properties": the real properties as to which the Collateral Agent for the benefit of the Secured Parties is granted a Lien pursuant to the Mortgages pursuant to Section 6.10.

"Mortgages": any mortgages and deeds of trust or any other documents creating and evidencing Liens on Mortgaged Properties made by any Loan Party in favor of, or for the benefit of, the Collateral Agent for the benefit of the Secured Parties, which shall be in a form reasonably satisfactory to the Administrative Agent and the Collateral Agent.

"Multiemployer Plan": a Plan that is a "multiemployer" plan as defined in Section 4001(a)(3) of ERISA.

"Multiple Employer Plan": a single employer plan, as defined in Section 4001(a)(15) of ERISA, that (a) is maintained for employees of any Group Member or any Commonly Controlled Entity and at least one person other than a Group Member or a Commonly Controlled Entity or (b) was so maintained and in respect of which any Group Member or a Commonly

Controlled Entity could have liability under Section 4064 or 4069 of ERISA in the event such plan has been or were to be terminated.

"Net Cash Proceeds":

(a) in connection with any Asset Sale or any Recovery Event, the proceeds thereof in the form of cash and Cash Equivalents (including any such proceeds received by way of deferred payment of principal pursuant to a note or installment receivable or held in escrow or purchase price adjustment receivable or by the Disposition of any non-cash consideration received in connection therewith or otherwise, but only as and when received and net of costs, amounts and taxes set forth below), net of:

(i) attorneys' fees, accountants' fees, investment banking fees and other professional and transactional fees actually incurred in connection therewith and directly related thereto;

(ii) amounts required to be applied to the repayment of Indebtedness secured by a Lien expressly permitted hereunder on any asset that is the subject of such Asset Sale or Recovery Event (other than any Lien pursuant to a Security Document);

(iii) [Intentionally Omitted];

(iv) Taxes actually paid or reasonably estimated (in good faith) to be payable within the next twelve (12) months as a result thereof (after taking into account any available Tax credits or deductions and any Tax sharing arrangements) *provided*, that if, after the expiration of the twelve (12) month period, the amount of estimated or assessed Taxes, if any, exceeded the Taxes actually paid in cash in respect of proceeds from such Asset Sale, the aggregate amount of such excess shall constitute Net Cash Proceeds under Section 3.2 and, subject to Section 3.2(b), be immediately applied to the prepayment of the Obligations in accordance with Section 3.2(d);

(v) amounts provided as a reserve in accordance with GAAP against any liabilities associated with the assets disposed of in an Asset Sale (including, without limitation, pension and other post-employment benefit liabilities and liabilities related to environmental matters or against any indemnification obligations associated with such Asset Sale); *provided* that such amounts shall be considered Net Cash Proceeds upon release of such reserve; and

(b) [Intentionally Omitted]; and

(c) in connection with any issuance or sale of Capital Stock, any capital contribution or any incurrence of Indebtedness, the cash proceeds received from such issuance, contribution or incurrence, net of attorneys' fees, investment banking fees, accountants' fees, underwriting discounts and commissions and other customary fees and expenses actually incurred in connection therewith and directly related thereto.

"Net Revenue": for any period, (a) the gross revenues during such period of Holdings, the Borrower and the Restricted Subsidiaries, less (b)(i) discounts, refunds, rebates, charge backs, retroactive price adjustments and any other allowances which effectively reduce net selling price

and (ii) any other similar and customary deductions used by Holdings, the Borrower or any Restricted Subsidiary in determining net revenues, all, in respect of (a) and (b), as determined in accordance with GAAP and in the ordinary course of business (and not, for the avoidance of doubt, revenues from extraordinary, nonrecurring, unusual or non-ordinary course events).

"Non-Consenting Lenders": as defined in Section 10.1.

"Non-Defaulting Lender": at any time, a Lender that is not a Defaulting Lender.

"Non-U.S. Pension Plan": any plan, fund or other similar program established, contributed to (regardless of whether through direct contributions or through employee withholding) or maintained outside the United States by a Group Member primarily for the benefit of employees of Group Members residing outside the United States, which plan, fund or other similar program provides for, or results in, retirement income of such employees or a deferral of income from such employees in contemplation of retirement or payments to be made upon termination of employment, and is not subject to ERISA or the Code.

"Notes": the collective reference to any promissory note evidencing Loans.

"Obligations": the unpaid principal of and interest on (including interest accruing after the maturity of the Term Loans and interest accruing after the filing of any petition in bankruptcy, or the commencement of any Insolvency Proceeding, reorganization or like proceeding, relating to the Borrower, whether or not a claim for post-filing or post-petition interest is allowed in such proceeding and any Prepayment Premium and/or Make-Whole Premium) the Term Loans, premiums and all other obligations and liabilities of the Loan Parties to any Agent or to any Lender (or, in the case of Specified Hedge Agreements, any Qualified Counterparty), whether direct or indirect, absolute or contingent, due or to become due, or now existing or hereafter incurred, which may arise under, out of, or in connection with, this Agreement, any other Loan Document, any Specified Hedge Agreement or any other document made, delivered or given in connection herewith or therewith, whether on account of principal, interest, reimbursement obligations, fees, indemnities, costs, expenses (including all fees, charges and disbursements of counsel to any Agent or to any Lender that are required to be paid by the Borrower pursuant hereto) or otherwise; *provided* that, notwithstanding anything to the contrary contained herein or in the other Loan Documents, the Obligations shall exclude any Excluded Swap Obligations of any Guarantor.

"OFAC": as defined in Section 4.23(a).

"Offer": as defined in Section 10.6(b).

"Offer Loans": as defined in Section 10.6(b).

"Organizational Documents": as to any Person, the Certificate of Incorporation, Certificate of Formation, By-Laws, Limited Liability Company Agreement, Memorandum and Articles of Association, Partnership Agreement or other similar organizational or governing documents of such Person.

"Other Connection Taxes": with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Tax (other than connections arising from such Recipient having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan or Loan Document).

"Other Taxes": any and all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made hereunder or from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, this Agreement or any other Loan Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment (other than an assignment made pursuant to Section 3.13).

"Parent Company": with respect to a Lender, the bank holding company (as defined in Board Regulation Y), if any, of such Lender, and/or any Person owning, beneficially or of record, directly or indirectly, a majority of the shares of such Lender.

"Participant": as defined in Section 10.6(e).

"Participant Register": as defined in Section 10.6(e).

"Participating Member States": means any member state of the European Union that has Euro as its lawful currency in accordance with legislation of the European Union relating to the Economic and Monetary Union.

"Patriot Act": the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001).

"PBGC": the Pension Benefit Guaranty Corporation established pursuant to Section 4002 of ERISA (or any successor entity performing similar functions).

"Pensions Act 2004": the Pensions Act 2004 under the laws of England and Wales.

"Pensions Regulator": the body corporate called the Pensions Regulator established under Part 1 of the Pensions Act 2004.

"Pension Schemes Act 1993": the Pension Schemes Act 1993 under the laws of England and Wales.

"Permit": with respect to any Person, any permit, approval, clearance, authorization, enrollment, license, registration, certificate, concession, grant, franchise, variance or permission from, any Governmental Authority, in each case, whether or not having the force of law and applicable to or binding upon such Person or any of its property or Products or to which such Person or any of its property or Products is subject.

"Perfection Certificate": a perfection certificate in the form of Exhibit I or any other form approved by the Collateral Agent, as the same may be supplemented from time to time.

"Permitted Acquisition": any acquisition, whether by purchase, merger or otherwise, of all or substantially all of the assets of, all or a majority of the Capital Stock of, or a business line or unit or a division of, any Person; *provided*:

(a) immediately prior to, and after giving effect thereto, no Default or Event of Default shall have occurred and be continuing or would result therefrom;

(b) all transactions in connection therewith shall be consummated, in all material respects, in accordance with all applicable laws and in conformity with all applicable Governmental Authorizations;

(c) in the case of the acquisition of Capital Stock, such Capital Stock shall become subject to a security interest in favor of the Collateral Agent for the benefit of the Secured Parties and the issuer of such Capital Stock shall become a Loan Party, in each case, in accordance with Section 6.10 and 6.11;

(d) the Total Leverage Ratio, calculated on a *pro forma* basis after giving effect to such acquisition as if such acquisition had occurred on the first day of the most recent period of four (4) consecutive fiscal quarters of the Borrower for which financial statements are available shall be less than 6.00:1.00;

(e) Holdings shall have delivered to the Administrative Agent at least five (5) Business Days prior to such proposed acquisition, a Compliance Certificate evidencing compliance with clause (d) above and compliance with clause (f) and (g) below, together with all relevant financial information with respect to such acquired assets, including, in the event the Consolidated EBITDA (calculated on a pro forma basis) of the assets and property subject to such acquisition is greater than 25% of the Consolidated EBITDA (calculated on a pro forma basis) of Holdings, appropriate revisions to the Projections to the extent provided pursuant to Section 6.2(b), appropriate revisions to such Projections after giving effect to such proposed acquisition (such revised projections or Projections to be accompanied by a certificate of a Responsible Officer of the Borrower stating that such revised projections or Projections are based on estimates, information and assumptions set forth therein and otherwise believed by such Responsible Officer of the Borrower to be reasonable at such time (it being recognized that such revised projections or Projections relate to future events and are not to be viewed as fact and that actual results during the period covered thereby may differ from such revised projections or Projections by a material amount));

(f) the total consideration paid or payable for Permitted Acquisitions shall not exceed $500,000,000 in the aggregate; *provided*, that the total consideration paid or payable for Permitted Acquisitions of Persons that do not become Loan Parties (or of assets by non-Loan Parties) shall not exceed $100,000,000 in the aggregate; and

(g) any Person or assets or division as acquired in accordance herewith shall be in substantially the same business or lines of business in which Holdings and/or its Subsidiaries are engaged, or are permitted to be engaged, as provided in Section 7.14, as of the time of such acquisition.

"Permitted Refinancing": as to any Indebtedness, the incurrence of other Indebtedness to refinance, extend, renew, defease, restructure, replace or refund (collectively, "refinance") such existing Indebtedness; *provided* that, in the case of such other Indebtedness, the following conditions are satisfied: (a) the weighted average life to maturity of such refinancing Indebtedness shall be greater than or equal to the weighted average life to maturity of the Indebtedness being refinanced; (b) the principal amount of such refinancing Indebtedness shall be less than or equal to the principal amount (including any accreted or capitalized amount) then outstanding of the Indebtedness being refinanced, plus any required premiums and other amounts paid, and fees and expenses incurred, in connection with such modification, refinancing, refunding, renewal or extension and by any amount equal to any existing commitments unutilized thereunder; (c) the respective obligor or obligors shall be the same on the refinancing Indebtedness as on the Indebtedness being refinanced; (d) the security, if any, for the refinancing Indebtedness shall be substantially the same as that for the Indebtedness being refinanced (except to the extent that less security is granted to holders of refinancing Indebtedness); and (e) to the extent that the Indebtedness being refinanced was subordinated to the Obligations, the refinancing Indebtedness is subordinated to the Obligations on terms that are at least as favorable, taken as a whole, as the Indebtedness being refinanced (as determined in good faith and certified in writing to the Administrative Agent by a Responsible Officer of the Borrower) and the holders of such refinancing Indebtedness have entered into any subordination or intercreditor agreements reasonably requested by the Administrative Agent evidencing such subordination.

"Person": an individual, partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture, Governmental Authority or other entity of whatever nature.

"Plan": at a particular time, any employee benefit plan that is covered by ERISA and in respect of which any Group Member or a Commonly Controlled Entity is (or, if such plan were terminated at such time, would under Section 4069 of ERISA be deemed to be) an "employer" as defined in Section 3(5) of ERISA, and each such plan subject to the provisions of Title IV of ERISA or Section 412 of the Code or Section 302 of ERISA for the five-year period immediately following the latest date on which any Group Member or any Commonly Controlled Entity maintained, contributed to or had an obligation to contribute to (or is deemed under Section 4069 of ERISA to have maintained or contributed to or to have had an obligation to contribute to, or otherwise to have liability with respect to) such plan.

"Platform": as defined in Section 6.1.

"Pledged Company": any Subsidiary of Holdings the Capital Stock of which is pledged to the Collateral Agent pursuant to any Security Document.

"Pledged Equity Interests": as defined in the Guarantee and Collateral Agreement.

"Portfolio Interest Exemption": as defined in Section 3.10.

"Pound Sterling": the lawful currency of the United Kingdom.

"Prepayment Premium": as defined in Section 3.2(g).

"Products": any item or any service that is researched or developed, created, designed, tested, packaged, labeled, made available, distributed, manufactured, labeled, managed, performed, or otherwise used, offered, marketed, sold, or handled by or on behalf of the Loan Parties or any of their Subsidiaries, whether marketed or in development.

"Pro Forma Financial Statements": as defined in Section 4.1(a).

"Projections": as defined in Section 6.2(b).

"Properties": as defined in Section 4.17(a).

"Property": any right or interest in or to property of any kind whatsoever, whether real, personal or mixed and whether tangible or intangible, including, without limitation, Capital Stock.

"PSC Register": a PSC register within the meaning of section 790C(10) of the U.K. Companies Act 2006.

"PSC Registrable Person": a "registrable person" or "registrable relevant legal entity" within the meaning of section 790C(4) and (8) of the U.K. Companies Act 2006.

"PTE": a prohibited transaction class exemption issued by the United States Department of Labor, as any such exemption may be amended from time to time.

"Qualified Capital Stock": any Capital Stock (other than warrants, rights or options referenced in the definition thereof) that either (a) does not have a maturity and is not mandatorily redeemable, or (b) by its terms (or by the terms of any employee stock option, incentive stock or other equity-based plan or arrangement under which it is issued or by the terms of any security into which it is convertible or for which it is exchangeable (or from which it was converted or exchanged)), or upon the happening of any event, (x) matures (excluding any maturity as the result of an optional redemption by the issuer thereof) or is mandatorily redeemable (excluding any mandatory redemption resulting from an asset sale or change in control so long as no payments in respect thereof are due or owing, or otherwise required to be made, until all Obligations have been paid in full in cash), pursuant to a sinking fund obligation or otherwise, or is redeemable at the option of the holder thereof, in whole or in part, or requires the payment of any cash dividend or any other scheduled payment constituting a return of capital, in each case, at any time on or after the one hundred eighty-first day following the Term Loan Maturity Date, or (y) is convertible into or exchangeable (unless at the sole option of the issuer thereof) for (or has been converted or exchanged from) (i) debt securities or (ii) any

Capital Stock referred to in clauses (a) or (b)(x) above, in each case, at any time on or after the one hundred eighty-first day following the Term Loan Maturity Date.

"Qualified Counterparty": with respect to any Hedge Agreement, any counterparty thereto that is, or that at the time such Hedge Agreement was entered into, was, (i) a Lender or an Affiliate of a Lender, (ii) an Agent or an Affiliate of an Agent or (iii) any Person approved by the Administrative Agent (such approval not to be unreasonably withheld or delayed); *provided* that, in the event a counterparty to a Hedge Agreement at the time such Hedge Agreement was entered into was a Qualified Counterparty, such counterparty shall constitute a Qualified Counterparty hereunder and under the other Loan Documents.

"Real Property": with respect to any Person, all right, title and interest of such Person (including, without limitation, any leasehold estate) in and to a parcel of real property owned, leased or operated by such Person together with, in each case, all improvements and appurtenant fixtures, equipment, personal property, easements and other property and rights incidental to the ownership, lease or operation thereof.

"Recall": (i) the physical removal of a product from its point of use to some other location for repair, modification, adjustment, relabeling, destruction or inspection; or (ii) the repair, modification, adjustment, relabeling, or destruction of a device to prevent a serious injury or death without its physical removal from its point of use to some other location.

"Recipient": (a) the Administrative Agent or (b) any Lender, as applicable.

"Recovery Event": any settlement of or payment in excess of $7,500,000 in respect of any property or casualty insurance claim or any condemnation proceeding relating to any asset of any Group Member.

"Regulatory Required Permit": any and all licenses, clearances, exemptions, approvals, registrations, listings, and permits issued by or filed with the FDA or any other applicable health-care regulatory Governmental Authority, including, without limitation, any 510(k) premarket clearance, grant of a de novo request, premarket approval application ("PMA"), or investigational device exemption ("IDE"), or the foreign equivalent to any of the foregoing necessary for the design, testing, manufacture, processing, assembly, packaging, labeling, marketing, distribution, commercialization, import, export, or sale of any Product by any applicable Group Member (or Group Members) as such activities are being conducted by such Group Member (or Group Members) and its (or their) Subsidiaries with respect to such Product; and any device listings and device establishment registrations under 21 C.F.R. Part 807.

"Register": as defined in Section 10.6(d).

"Regulation S-X": Regulation S-X promulgated under the Securities Act.

"Regulation T": Regulation T of the Board as in effect from time to time.

"Regulation U": Regulation U of the Board as in effect from time to time.

"Regulation X": Regulation X of the Board as in effect from time to time.

"Reinvestment Deferred Amount": with respect to any Reinvestment Event, the aggregate Net Cash Proceeds received by any Group Member in connection therewith that are not applied to prepay the Term Loans pursuant to Section 3.2(b) as a result of a Reinvestment Event.

"Reinvestment Event": any Asset Sale or Recovery Event in respect of which any Loan Party or other Restricted Subsidiary intends and expects to reinvest all or a specified portion of the Net Cash Proceeds (and provides written notice to the Administrative Agent of such intent within thirty (30) days of such Loan Party's or Restricted Subsidiary's receipt of such Net Cash Proceeds) of an Asset Sale or Recovery Event in assets of a kind then usable in its business (including by making Permitted Acquisitions); *provided* that Net Cash Proceeds may not be invested or reinvested in any Unrestricted Subsidiary; *provided further* that concurrently with the delivery of any financial statements pursuant to Section 6.1(a), to the extent not previously disclosed and delivered to the Administrative Agent and the Collateral Agent, the Borrower shall deliver a written notice executed by a Responsible Officer certifying as to the relevant portion of the Net Cash Proceeds from any Asset Sale or Recovery Event subject to a Reinvestment Event occurring during such fiscal year.

"Reinvestment Prepayment Amount": with respect to any Reinvestment Event, the Reinvestment Deferred Amount relating thereto less any amount reinvested prior to the relevant Reinvestment Prepayment Date in assets of a kind then usable in the Loan Party's or Restricted Subsidiary's businesses (including by making Permitted Acquisitions).

"Reinvestment Prepayment Date": with respect to any Reinvestment Event, the earlier of (a) the date occurring twelve (12) months (or if such Loan Party or other Restricted Subsidiary has entered into a legally binding commitment in writing to reinvest such Reinvestment Deferred Amount during such twelve (12) month period, eighteen (18) months) after such Reinvestment Event and (b) the date on which the Borrower shall have determined not to, or shall have otherwise ceased to, reinvest the relevant Reinvestment Deferred Amount in accordance with this Agreement.

"Rejection Notice": as defined in Section 3.2(h).

"Related Indemnified Person": of an indemnified person means (a) any controlling person or controlled affiliate of such indemnified person, (b) the respective directors, officers, or employees of such indemnified person or any of its controlling persons or controlled affiliates and (c) the respective agents of such indemnified person or any of its controlling persons or controlled affiliates, in the case of this clause (c), acting at the instructions of such indemnified person, controlling person or such controlled affiliate; *provided* that each reference to a controlled affiliate or controlling person in this sentence pertains to a controlled affiliate or controlling person involved in the negotiation or syndication of this Agreement and the Term Loans.

"Related Party Register": as defined in Section 10.6(d).

"Release": any release, spill, emission, discharge, deposit, disposal, leaking, pumping, pouring, dumping, migrating, escaping, emptying, injection, or leaching into the Environment, or into or from any building or facility.

"Relevant Governmental Body" means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York or any successor thereto.

"Reportable Event": any of the events set forth in Section 4043(c) of ERISA, other than those events as to which the thirty (30) day notice period is waived pursuant to PBGC Reg. § 4043.

"Required Lenders": at any time, the holders of more than 50% of the sum of (a) the aggregate unpaid principal amount of the Term Loans then outstanding and (b) the Total Term Commitments then in effect.

"Requirement of Law": as to any Person, any law, treaty, rule or regulation or determination of an arbitrator or a court or other Governmental Authority, in each case applicable to or binding upon such Person or any of its property or to which such Person or any of its property is subject, including, in each case, any applicable Health Care Laws.

"Resolution Authority" shall means an EEA Resolution Authority or, with respect to any U.K. Financial Institution, a U.K. Resolution Authority.

"Responsible Officer": in respect of the Borrower, the chief executive officer, president, chief financial officer, treasurer or assistant treasurer of the Borrower (unless otherwise specified), but in any event, with respect to financial matters, the chief financial officer, treasurer or assistant treasurer of the Borrower and, in respect of Holdings, a director of Holdings or an individual appointed as an attorney or delegate of a director of Holdings (unless otherwise specified).

"Restricted Payments": as defined in Section 7.5.

"Restricted Subsidiary": any Subsidiary of Holdings that is not an Unrestricted Subsidiary.

"Revolving Loan Agent" shall mean ACF FINCO I LP, or any successor "Administrative Agent" as such term is defined in the Revolving Credit Agreement in accordance with the terms of the Intercreditor Agreement.

"Revolving Credit Agreement" shall mean that certain Credit Agreement dated as of the Amendment No. 1 Effective Date among the Borrower, ACF FINCO I LP, as administrative agent, the lenders from time to time party thereto, and the other parties thereto, as such agreement may be amended, restated, supplemented or otherwise modified from time to time in accordance with the Intercreditor Agreement.

"Revolving Loan Indebtedness" shall mean Indebtedness under the Revolving Loan Documents.

"Revolving Loan Lenders" shall mean "Lenders" as such term is defined in the Revolving Credit Agreement.

"Revolving Loan Documents" shall mean the Revolving Credit Agreement and all agreements, documents and instruments at any time executed and/or delivered by any Loan Party (as defined under the Revolving Credit Agreement) with, to or in favor of the Revolving Loan Agent, the Revolving Loan Lenders, or any of them, in connection therewith or related thereto, and designated in writing as a "Loan Document" by the parties thereto, as all of the foregoing now exist or may hereafter be amended, restated, supplemented or otherwise modified from time to time in accordance with the Intercreditor Agreement.

"S&P": Standard & Poor's Ratings Services.

"SEC": the Securities and Exchange Commission, any successor thereto and any analogous Governmental Authority.

"Section 956 Excluded Subsidiaries": (1) (i) any non-US subsidiary of the Borrower that is a "controlled foreign corporation" within the meaning of Section 957 of the Code and (ii) any subsidiary (including a disregarded entity for U.S. federal income tax purposes) of the Borrower substantially all of whose assets are direct or indirect interests in the equity or equity and debt of one or more "controlled foreign corporations" within the meaning of Section 957 of the Code (each, a "Foreign Holdco") and (2) any subsidiary of Borrower, whose provision of a guarantee would reasonably result in an investment in "United States property" by a controlled foreign corporation within the meaning of sections 956 and 957 of the Code (or any similar law or regulation in any applicable jurisdiction) or otherwise result in material adverse tax consequences to the Borrower and/or its Affiliates, as reasonably determined by the Borrower.

"Secured Guarantor": each of Holdings and each Subsidiary of Holdings (other than the Borrower) that guarantees and secures the Obligations pursuant to a Loan Document or pursuant to Section 6.10.

"Secured Leverage Ratio": at any date, the ratio of (a) Consolidated Funded Debt secured by a Lien on all or any portion of the Collateral or any other assets of any of the Group Members as of such date to (b) Consolidated EBITDA for the period of four consecutive fiscal quarters ended on such date.

"Secured Parties": the collective reference to the Lenders, the Agents and the Qualified Counterparties, and each of their successors and assigns.

"Securities Act": the Securities Act of 1933, as amended.

"Security Documents": the collective reference to the Guarantee and Collateral Agreement, the U.K. Security Documents, the Mortgages, the Intellectual Property Security

Agreements and all other security documents hereafter delivered to the Administrative Agent or the Collateral Agent granting a Lien on any property of any Person to secure the Obligations of any Loan Party under any Loan Document or any Specified Hedge Agreement.

"Single Employer Plan": any Plan that is covered by Title IV of ERISA, but that is not a Multiemployer Plan.

"SOFR" with respect to any Business Day means a rate per annum equal to the secured overnight financing rate published for such Business Day by the Federal Reserve Bank of New York, as the administrator of the benchmark (or a successor administrator) on the Federal Reserve Bank of New York's Website on the immediately succeeding Business Day.

"SOFR-Based Rate" means SOFR, Compounded SOFR or Term SOFR.

"Software": as defined in the definition of Intellectual Property.

"Solvency Certificate": a solvency certificate dated as of the Closing Date, substantially in the form of Exhibit N.

"Solvent": as to any Person at any time, that (a) the fair value of the property of such Person is greater than the total amount of liabilities, including contingent liabilities, of such Person; (b) the present fair salable value of the assets of such Person is greater than the amount that will be required to pay the probable liability of such Person on the sum of its debts and other liabilities, including contingent liabilities; (c) such Person has not, does not intend to, and does not believe (nor should it reasonably believe) that it will, incur debts or liabilities beyond such Person's ability to pay such debts and liabilities as they become due (whether at maturity or otherwise); (d) such Person does not have unreasonably small capital with which to conduct the businesses in which it is engaged as such businesses are now conducted and are proposed to be conducted following the Closing Date; and (e) it is not unable to pay its debts as they fall due. For purposes of this definition, the amount of any contingent liability at any time shall be computed as the amount that, in light of all of the facts and circumstances existing at such time, represents the amount that can reasonably be expected to become an actual or matured liability (irrespective of whether such contingent liabilities meet the criteria for accrual under Statement of Financial Accounting Standard No. 5).

"Special Flood Hazard Area": an area that FEMA's current flood maps indicate has at least a one percent (1%) chance of a flood equal to or exceeding the base flood elevation (a 100-year flood) in any given year.

"specified currency": as defined in Section 10.17.

"Specified Hedge Agreement": any Hedge Agreement (a) entered into by any Loan Party and any Qualified Counterparty, as counterparty and (b) that has been designated by such Qualified Counterparty and the Borrower as a Specified Hedge Agreement pursuant to the Guarantee and Collateral Agreement, and is reasonably satisfactory to the Administrative Agent; provided that a Hedge Agreement permitted under Section 7.1(f) shall be satisfactory.

"Statutory Reserve Rate" for any day as applied to any LIBOR Loan, a fraction (expressed as a decimal), the numerator of which is the number one and the denominator of which is the number one minus the aggregate of the maximum reserve percentages that are in effect on that day (including any marginal, special, emergency or supplemental reserves), expressed as a decimal, as prescribed by the Board and to which the Administrative Agent is subject, for Eurocurrency funding (currently referred to as "Eurocurrency Liabilities" in Regulation D). Such reserve percentages shall include those imposed pursuant to such Regulation D. LIBOR Loans shall be deemed to constitute Eurocurrency funding and to be subject to such reserve requirements without benefit of or credit for proration, exemptions or offsets that may be available from time to time to any Lender under such Regulation D or any comparable regulation. The Statutory Reserve Rate shall be adjusted automatically on and as of the effective date of any change in any reserve percentage.

"Stock Certificates": Collateral consisting of certificates representing Capital Stock of any Subsidiary of Holdings for which a security interest can be perfected by delivering such certificates.

"Subordinated Indebtedness": any unsecured Junior Indebtedness of any Loan Party (x) the payment of principal and interest of which and other obligations of the such Loan Party in respect thereof are subordinated to the prior payment in full of the Obligations on terms and conditions reasonably satisfactory to the Administrative Agent and (y) except with respect to any Syndicated Offering, which is subject to a subordination agreement that is reasonably satisfactory to Administrative Agent.

"Subsidiary": as to any Person, a corporation, partnership, limited liability company or other entity of which shares of stock or other ownership interests having ordinary voting power (other than stock or such other ownership interests having such power only by reason of the happening of a contingency) to elect a majority of the board of directors or other managers of such corporation, partnership or other entity are at the time owned, or the management of which is otherwise controlled, directly or indirectly through one or more intermediaries, or both, by such Person. Unless otherwise qualified, all references to a "Subsidiary" or to "Subsidiaries" in this Agreement shall refer to a Subsidiary or Subsidiaries of Holdings.

"Survey": a survey of any Mortgaged Property (and all improvements thereon) which is (a) (i) prepared by a surveyor or engineer licensed to perform surveys in the jurisdiction where such Mortgaged Property is located, (ii) dated (or redated) not earlier than six months prior to the date of delivery thereof unless there shall have occurred within six months prior to such date of delivery any exterior construction on the site of such Mortgaged Property or any easement, right of way or other interest in the Mortgaged Property has been granted or become effective through operation of law or otherwise with respect to such Mortgaged Property which, in either case, can be depicted on a survey, in which events, as applicable, such survey shall be dated (or redated) after the completion of such construction or if such construction shall not have been completed as of such date of delivery, not earlier than 20 days prior to such date of delivery, or after the grant or effectiveness of any such easement, right of way or other interest in the Mortgaged Property, *provided* that the Borrower shall have a reasonable amount of time to deliver such

redated survey, (iii) certified by the surveyor (in a manner reasonably acceptable to the Administrative Agent) to the Administrative Agent, the Collateral Agent and the Title Company, (iv) complying in all respects with the minimum detail requirements of the American Land Title Association as such requirements are in effect on the date of preparation of such survey and (v) sufficient for the Title Company to remove all standard survey exceptions from the title insurance policy (or commitment) relating to such Mortgaged Property and issue customary endorsements or (b) otherwise acceptable to the Collateral Agent.

"Swap Obligations": with respect to any Loan Party any obligation to pay or perform under any agreement, contract or transaction that constitutes a "swap" within the meaning of Section 1a(47) of the Commodity Exchange Act.

"Syndicated Offering": any broadly syndicated high-yield notes, exchangeable or convertible indebtedness issued by Holdings, the Borrower or any other Loan Party that complies with each of the Syndicated Offering Conditions; ***provided*** that, in any event, the Initial Syndicated Offering described in the draft offering memorandum delivered to the Administrative Agent prior to the Effective Date shall constitute a Syndicated Offering for all purposes.

"Syndicated Offering Conditions": for a Syndicated Offering, each of the following conditions must be satisfied: (i) such Syndicated Offering shall have no other obligors, other than Holdings, the Borrower or any other Loan Party, (ii) such Syndicated Offering shall not mature, amortize or be mandatorily redeemable (other than solely for Qualified Capital Stock or at the option of the issuer), pursuant to a sinking fund obligation or otherwise (except as a result of a Change of Control or asset sale event so long as any rights of the holders thereof upon the occurrence of a Change of Control or similar event or asset sale event shall be subject to the prior repayment in full of the Loans and all other Obligations that are accrued and payable and the termination of the Commitments) earlier than the date that is ninety-one (91) days after the Term Loan Maturity Date, (iii) such Syndicated Offering shall be unsecured and (iv) the rate of any interest payable in cash thereon does not exceed 4.5% per annum (or such other cash interest rate as approved by the Administrative Agent).

"Taxes": any present or future taxes, levies, imposts, duties, charges, fees, deductions or withholdings imposed by any Governmental Authority, and any interest, penalties or additions to tax imposed with respect thereto.

"Tax Status Certificate": as defined in Section 3.10.

"Term Commitments": the Initial Term Loan Commitments.

"Term Facilities": the Initial Term Loan Facility.

"Term Lender": each Initial Term Loan Lender.

"Term Loans": the Initial Term Loan.

"Term Loan Maturity Date": June 30, 2025.

"Term Percentage": the Initial Term Loan Percentage.

"Term SOFR": for the then-applicable Corresponding Tenor, the forward-looking term rate based on SOFR that has been selected or recommended by the Relevant Governmental Body.

"Title Company": any title insurance company as shall be retained by Borrower and reasonably acceptable to the Administrative Agent.

"Total Leverage Ratio": at any date, the ratio of (a) Consolidated Funded Debt of the Group Members as of such date to (b) Consolidated EBITDA for the period of four consecutive fiscal quarters ended on such date.

"Total Term Commitments": at any time, the aggregate amount of the Term Commitments then in effect. The original aggregate amount of the Total Term Commitments on the Effective Date was $450,000,000.

"Trading Day": a day on which (i) trading in the ordinary shares (or other security for which a closing sale price must be determined) generally occurs on the NASDAQ Global Market or, if the ordinary shares (or such other security) are not then listed on the NASDAQ Global Market, on the principal other U.S. national or regional securities exchange on which the ordinary shares (or such other security) are then listed or, if the ordinary shares (or such other security) are not then listed on a U.S. national or regional securities exchange, on the principal other market on which the ordinary shares (or such other security) are then traded, and (ii) a last reported sale price for the ordinary shares (or closing sale price for such other security) is available on such securities exchange or market. If the ordinary shares (or such other security) are not so listed or traded, "Trading Day" means a "Business Day.".

"Tranche": each of the Term Loans and any "extended tranche" as set forth in Section 3.16.

"Transaction": collectively, (a) the refinancing of the Existing Facilities, (b) the borrowing of the Term Loans on the Closing Date; (c) the other transactions contemplated by the Loan Documents(d) the consummation of the Initial Syndicated Offering and (e) the entering into the Capped Call.

"Transferee": any Assignee or Participant.

"Treasury Rate": as of any prepayment date, shall mean the yield to maturity at the time of computation of United States Treasury Securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15 (519), which has become publicly available at least (2) two Business Days prior such prepayment (or, if such Statistical Release is no longer published, any publicly available source or similar market data) most nearly equal to the period from such prepayment date to the second anniversary of the Closing Date; provided, however, that in the period from such prepayment date to the second anniversary of the Closing Date, the Treasury Rate shall be obtained by linear interpolation (calculated to the

nearest one twelfth of a year) from the weekly average yields of United States Treasury Securities for which such yields are given.

"Type": as to any Term Loan, its nature as an ABR Loan or a LIBOR Rate Loan.

"UCC Filing Collateral": Collateral consisting solely of assets for which a security interest can be perfected by filing a Uniform Commercial Code financing statement.

"U.K. Companies Act 2006": the Companies Act 2006 as in force in England and Wales from time to time.

"U.K. Loan Party": each Loan Party incorporated under the laws of England and Wales.

"U.K. Financial Institution": any BRRD Undertaking (as such term is defined under the PRA Rulebook (as amended form time to time) promulgated by the United Kingdom Prudential Regulation Authority) or any person falling within IFPRU 11.6 of the FCA Handbook (as amended from time to time) promulgated by the United Kingdom Financial Conduct Authority, which includes certain credit institutions and investment firms, and certain affiliates of such credit institutions or investment firms.

"U.K. Floating Charge": an English law all assets floating charge security agreement, in the form attached as Exhibit L hereto.

"U.K. Resolution Authority": the Bank of England or any other public administrative authority having responsibility for the resolution of any U.K. Financial Institution.

"U.K. Security Documents": collectively, the U.K. Floating Charge, each U.K. Share Charge, and all other charges, instruments, documents and agreements delivered by the U.K. Loan Parties and by any other Loan Party that owns Capital Stock of a U.K. Loan Party, in each case pursuant to this Agreement or any other Security Document in order to grant to Collateral Agent a Lien on any real, personal or mixed property of such U.K. Loan Party or its Capital Stock as security for the Obligations, in each case in form and substance reasonably satisfactory to the Collateral Agent and as amended, restated, joined, supplemented or otherwise modified from time to time.

"U.K. Share Charge": each charge over the shares in a U.K. Loan Party other than Holdings, in form and substance reasonably satisfactory to the Collateral Agent, made by a Loan Party in favor of the Collateral Agent.

"U.S. GAAP": generally accepted accounting principles in effect from time to time in the United States.

"Unasserted Contingent Obligations": as defined in the Guarantee and Collateral Agreement.

"Unadjusted Benchmark Replacement": the Benchmark Replacement excluding the Benchmark Replacement Adjustment.

"Uniform Commercial Code": the Uniform Commercial Code as from time to time in effect in the State of New York.

"United Kingdom": the United Kingdom of Great Britain and Northern Ireland.

"United States": the United States of America.

"Unrestricted Subsidiary": any Subsidiary of Holdings designated by the board of directors of Holdings as an Unrestricted Subsidiary pursuant to Section 6.16, in each case, until such Person ceases to be Unrestricted Subsidiary in accordance with Section 6.16 or ceases to be a Subsidiary, which accounts, at the time of designation, for not more than the lesser of 5% of (i) the consolidated gross revenues (after intercompany eliminations) of Holdings and its Subsidiaries and (ii) the consolidated assets (after intercompany eliminations) of Holdings and its Subsidiaries, in each case, as of the last day of the most recently completed fiscal quarter as reflected on the financial statements for such quarter, *provided* that such designation may not be made if the Subsidiaries that would constitute Unrestricted Subsidiaries at the time and after giving effect to such designation, were to account for, in the aggregate, more than the lesser of (i) 10% of such consolidated gross revenues (after intercompany eliminations) and (ii) 10% of the consolidated assets (after intercompany eliminations); notwithstanding anything to the contrary herein, no Subsidiary owning any Permits, Intellectual Property, Products or other assets, in each case that are necessary to the operations of Holdings and its Subsidiaries (taken as a whole) in the good faith opinion of Holdings may not be designated as Unrestricted Subsidiary without the express written consent of the Administrative Agent.

"Unsecured Guarantor": each Subsidiary of Holdings that guarantees the Obligations pursuant to an unsecured guarantee, including in accordance with Section 6.10(g)(ii).

"Voluntary Prepayment": a prepayment of the Term Loans.

"Weighted Average Life to Maturity": when applied to any Indebtedness at any date, the number of years obtained by dividing: (a) the sum of the products obtained by multiplying (i) the amount of each then remaining installment, sinking fund, serial maturity or other required payments of principal, including payment at final maturity, in respect thereof, by (ii) the number of years (calculated to the nearest one-twelfth) that will elapse between such date and the making of such payment; by (b) the then outstanding principal amount of such Indebtedness.

"Wholly Owned Subsidiary": as to any Person, any other Person, all of the Capital Stock of which (other than directors' qualifying shares required by law) is owned by such Person directly and/or through other Wholly Owned Subsidiaries.

"Write-Down and Conversion Powers": (a) with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule and (b) with respect to the United Kingdom, any powers of the applicable Resolution Authority under the Bail-In Legislation to cancel, reduce, modify or change the form of a liability of any U.K.

Financial Institution or any contract or instrument under which that liability arises, to convert all or part of that liability into shares, securities or obligations of that person or any other person, to provide that any such contract or instrument is to have effect as if a right had been exercised under it or to suspend any obligation in respect of that liability or any of the powers under that Bail-In Legislation that are related to or ancillary to any of those powers.

1.2 Other Definitional Provisions.

(a) Unless otherwise specified therein, all terms defined in this Agreement shall have the defined meanings when used in the other Loan Documents or any certificate or other document made or delivered pursuant hereto or thereto.

(b) As used herein and in the other Loan Documents, and any certificate or other document made or delivered pursuant hereto or thereto, (i) accounting terms relating to any Group Member not defined in Section 1.1 and accounting terms partly defined in Section 1.1, to the extent not defined, shall have the respective meanings given to them under GAAP, (ii) the words "include," "includes" and "including" shall be deemed to be followed by the phrase "without limitation," (iii) the word "incur" shall be construed to mean incur, create, issue, assume, become liable in respect of or suffer to exist (and the words "incurred" and "incurrence" shall have correlative meanings), (iv) the words "asset" and "property" shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, Capital Stock, securities, revenues, accounts, leasehold interests and contract rights, (v) references to agreements or other Contractual Obligations shall, unless otherwise specified, be deemed to refer to such agreements or Contractual Obligations as amended, supplemented, restated or otherwise modified from time to time (subject to any applicable restrictions hereunder), (vi) any reference to any law or regulation herein shall, unless otherwise specified, refer to such law or regulation as amended, modified or supplemented from time to time and (vii) any references herein to any Person shall be construed to include such Person's successors and assigns.

(c) The words "hereof," "herein" and "hereunder" and words of similar import when used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement, and Section, Schedule and Exhibit references are to this Agreement unless otherwise specified.

(d) The meanings given to terms defined herein shall be equally applicable to both the singular and plural forms of such terms.

(e) Except as otherwise expressly provided herein, all terms of an accounting or financial nature shall be construed in accordance with GAAP in effect as of the Closing Date; *provided* that, if either the Borrower notifies the Administrative Agent that the Borrower requests an amendment to any provision hereof to eliminate the effect of any change occurring after the Closing Date in GAAP or in the application thereof on the operation of such provision (or if the Administrative Agent notifies the Borrower that the Required Lenders request an amendment to any provision hereof for such purpose), regardless of whether any such notice is given before or after such change in GAAP or in the application thereof, then the Administrative Agent, the

Borrower and the Lenders shall negotiate in good faith to amend such provision to preserve the original intent in light of the change in GAAP; *provided* that such provision shall be interpreted on the basis of GAAP as in effect and applied immediately before such change shall have become effective until such notice shall have been withdrawn or such provision amended in accordance herewith. Notwithstanding any other provision contained herein, all obligations that are or would have been treated as operating leases for purposes of GAAP prior to the issuance by the Financial Accounting Standards Board on February 25, 2016 of an Accounting Standards Update (the "ASU") shall continue to be accounted for as operating leases for all purposes under the Loan Documents (whether or not such operating lease obligations were in effect on such date) notwithstanding the fact that such obligations are required in accordance with the ASU (on a prospective or retroactive basis or otherwise) to be treated as capitalized lease obligations in the financial statements delivered or to be delivered pursuant to the Loan Documents, in each case for purposes of this Agreement notwithstanding any change in GAAP after the Closing Date.

(f) When the payment of any obligation or the performance of any covenant, duty or obligation is stated to be due or performance required on a day which is not a Business Day, the date of such payment or performance shall extend to the immediately succeeding Business Day and such extension of time shall be reflected in computing interest or fees, as the case may be; *provided* that, with respect to any payment of interest on or principal of LIBOR Rate Loans, if such extension would cause any such payment to be made in the next succeeding calendar month, such payment shall be made on the immediately preceding Business Day.

(a) The term "documents" includes any and all instruments, documents, agreements, certificates, notices, reports, financial statements and other writings, however evidenced, whether in physical or electronic form.

(g) Section headings herein and in the other Loan Documents are included for convenience of reference only and shall not affect the interpretation of this Agreement or any other Loan Document.

(h) Article, Section, Exhibit and Schedule references are to the Loan Document in which such reference appears.

1.3 Rounding. Any financial ratios required to be maintained or complied with by the Borrower pursuant to this Agreement (or required to be satisfied in order for a specific action to be permitted under this Agreement) shall be calculated by dividing the appropriate component by the other component, carrying the result to one place more than the number of places by which such ratio is expressed herein and rounding the result up or down to the nearest number (with a rounding-up if there is no nearest number).

1.4 Corporate Terminology. Any reference to officers, shareholders, stock, shares, directors, boards of directors, corporate authority, articles of incorporation, bylaws or any other such references to matters relating to a corporation made herein or in any other Loan Document with respect to a Person that is not a corporation shall mean and be references to the comparable terms used with respect to such Person.

1.5 Uniform Commercial Code Definitions. When used in this Agreement, the following terms have the same definitions as provided in Article 9 of the Uniform Commercial Code, but for convenience in this Agreement the first letter of all such terms shall be capitalized: "Accession," "Account," "Account Debtor," "Authenticate" (and all derivations thereof), "Certificate Of Title", "Chattel Paper," "Commercial Tort Claim," "Deposit Account," "Document," "Equipment," "General Intangible," "Goods," "Health-Care-Insurance Receivable," "Instrument," "Inventory," "Investment Property," "Letter-Of-Credit Right," "Obligor," "Proceeds" (as specifically defined in Section 9-102(64) of the UCC), "Record," "Secondary Obligor," "Secured Party," "Software" and "Supporting Obligation."

1.6 Divisions; Series. For all purposes under the Loan Documents, if, in connection with any division or plan of division with respect to a limited liability company under Delaware law (or any comparable event under a different jurisdiction's laws) or an allocation of assets to a series of a limited liability company under Delaware law (or any comparable event under a different jurisdiction's laws), (a) any asset, right, obligation or liability of any Person becomes the asset, right, obligation or liability of a different Person, then such transaction shall constitute a "transfer" (as used in the definition of "Disposition" contained herein) from the original Person to the subsequent Person, and (b) any new Person comes into existence, such new Person shall be deemed to have been organized by the holders of its Capital Stock on the first date of its existence.

SECTION 2. **AMOUNT AND TERMS OF TERM COMMITMENTS**

2.1 Term Commitments. Subject to the terms and conditions hereof, each Lender having an Initial Term Loan Commitment, severally agrees to make a term loan or loans (collectively, the "Initial Term Loan") to the Borrower. The Term Loans may from time to time be LIBOR Rate Loans or ABR Loans, as determined by the Borrower and notified to the Administrative Agent in accordance with Sections 2.2 and 3.3; *provided*, that all such Term Loans made by each of the Lenders pursuant to the same Borrowing Date shall, unless otherwise specifically provided herein, consist entirely of Term Loans of the same Type and (ii) may be repaid or prepaid in accordance with the provisions hereof, but once repaid or prepaid may not be reborrowed. The Initial Term Loan Commitment shall terminate at 5:00 (New York time) on the Initial Term Loan Commitment Expiration Date.

2.2 Procedure for Term Loan Borrowing. The Borrower shall give the Administrative Agent irrevocable notice in the form annexed hereto as Exhibit B (the "Borrowing Notice") (which notice must be received by the Administrative Agent prior to 12:00 Noon, New York City time, at least two (2) Business Days prior to the anticipated Closing Date) requesting that the applicable Lenders make the Term Loans on the Closing Date and specifying the amount to be borrowed, which shall be the full amount of the Initial Term Loan Commitments. Upon receipt of such notice the Administrative Agent shall promptly notify each applicable Lender thereof. On the Closing Date, each Lender shall make available to the Administrative Agent at the Funding Office an amount in immediately available funds in Dollars equal to the applicable Term Loan or Term Loans to be made by such Lender reasonably promptly following the later of (i) 9:00 AM, New York City time and (ii) 30 minutes following

satisfaction or waiver of the conditions set forth in Section 5.2. Promptly following receipt of such funds, the Administrative Agent shall make the proceeds of such Term Loan or Term Loans available to the Borrower, on such Borrowing Date by wire transfer in immediately available funds to a bank account designated in writing by the Borrower to the Administrative Agent. Unless the Administrative Agent shall have been notified by any Lender prior to the date of any Term Loan borrowing that such Lender does not intend to make available to the Administrative Agent its portion of the Term Loans to be made on such date, the Administrative Agent may assume that such Lender has made such amount available to the Administrative Agent on such Borrowing Date, and the Administrative Agent, in reliance upon such assumption, may (in its sole discretion and without any obligation to do so) make available to the Borrower a corresponding amount. If such corresponding amount is not in fact made available to the Administrative Agent by such Lender and the Administrative Agent has made available the same to the Borrower, the Administrative Agent shall be entitled to recover such corresponding amount from such Lender. If such Lender does not pay such corresponding amount forthwith upon the Administrative Agent's demand therefor, the Administrative Agent shall promptly notify the Borrower and the Borrower shall promptly pay such corresponding amount to the Administrative Agent. The Administrative Agent shall also be entitled to recover from such Lender or the Borrower, as the case may be, interest on such corresponding amount in respect of each day from the date such corresponding amount was made available by the Administrative Agent to the Borrower, to the date such corresponding amount is recovered by the Administrative Agent, at a rate per annum equal to (i) if paid by such Lender, the Federal Funds Effective Rate or (ii) if paid by the Borrower, the then-applicable rate of interest, calculated in accordance with Section 3.6, applicable to ABR Loans. If the Borrower and such Lender shall pay interest to the Administrative Agent for the same (or a portion of the same) period, the Administrative Agent shall promptly remit to the Borrower the amount of such interest paid by the Borrower for such period.

(c) Nothing in this Section 2.2 shall be deemed to relieve any Lender from its obligation to fulfill its commitments hereunder or to prejudice any rights that the Borrower may have against any Lender as a result of any default by such Lender hereunder (it being understood, however, that no Lender shall be responsible for the failure of any other Lender to fulfill its commitments hereunder).

(d) **Pro Rata Borrowings**. Borrowing of the Initial Term Loans funded on the Closing Date under this Agreement shall be made by each Lender with an Initial Term Loan Commitment on the basis of its then-applicable Initial Term Loan Commitment. It is understood that no Lender shall be responsible for any default by any other Lender in its obligation to make Loans hereunder and that each Lender shall be obligated to make the Loans provided to be made by it hereunder, regardless of the failure of any other Lender to fulfill its commitments hereunder.

2.3 Repayment of Term Loans. Borrower agrees to pay to the Administrative Agent, for the benefit of the Lenders, on the Term Loan Maturity Date, the aggregate amount of all outstanding Term Loans and all other Obligations.

2.4 [Intentionally Omitted].

2.5 Fees. The Borrower shall pay to the Agents such fees as shall have been separately agreed upon in writing in the amounts and at times specified, including all fees specified in the Fee Letter. Such fees shall be fully earned when paid and shall not be refundable for any reason whatsoever (except as expressly agreed between the Borrower and the applicable Agent).

SECTION 3. **GENERAL PROVISIONS APPLICABLE TO LOANS**

3.1 Optional Prepayments. The Borrower may at any time and from time to time prepay the Term Loans, in whole or in part, without premium or penalty (other than as set forth in Section 3.2(g) below), upon irrevocable notice delivered to the Administrative Agent no later than 12:00 Noon, New York City time, three (3) Business Days prior thereto, in the case of LIBOR Rate Loans, and no later than 12:00 Noon, New York City time, one (1) Business Day prior thereto, in the case of ABR Loans, which notice shall specify the date and amount of prepayment, whether the prepayment is of LIBOR Rate Loans or ABR Loans and the Tranche of Term Loans to which the prepayment applies; *provided*, that if a LIBOR Rate Loan is prepaid on any day other than the last day of the Interest Period applicable thereto, the Borrower shall also pay any amounts owing pursuant to Section 3.11. With respect to each prepayment of Term Loans pursuant to this Section 3.1, the Borrower may designate the Types of Loans that are to be prepaid and the specific Borrowing(s) pursuant to which made; *provided*, that the Borrower pays any amounts, if any, required to be paid pursuant to Section 3.11 with respect to prepayments of LIBOR Rate Loans made on any date other than the last day of the applicable Interest Period. In the absence of a designation by the Borrower as described in the preceding sentence, the Administrative Agent shall, subject to the above, make such designation in its reasonable discretion with a view, but no obligation, to minimize breakage costs owing under Section 3.11. Each such prepayment shall be accompanied by all accrued interest on the Loans so prepaid, through the date of such prepayment. Upon receipt of any such notice the Administrative Agent shall promptly notify each relevant Lender thereof. If any such notice is given, the amount specified in such notice shall be due and payable on the date specified therein, together with accrued interest to such date on the amount prepaid. Partial prepayments of LIBOR Rate Loans shall be in an aggregate principal amount of $500,000 or integral multiples of $100,000 in excess thereof. Partial prepayments of ABR Loans shall be in an aggregate principal amount of $500,000 or integral multiples of $100,000 in excess thereof. Notwithstanding the foregoing, a notice of prepayment delivered by Borrower in accordance with this Section 3.1 may expressly state that such notice is conditioned upon the effectiveness of new credit facilities or other sources of refinancing and which effectiveness will result in the immediate payment in full in cash of all Obligations, in which case such notice may be revoked by the Borrower (by written notice to the Administrative Agent on or prior to the time on which the Term Loans would have been repaid in accordance with such notice of prepayment) if such condition is not satisfied or not reasonably likely to be satisfied and the Borrower shall pay any amounts due under Section 3.9, if any, in connection with any such revocation. Each prepayment in respect of any Term Loans pursuant to this Section 3.1 shall be applied ratably to the Term Loans.

3.2 Mandatory Prepayments; Prepayment Premium.

(a) If any Indebtedness shall be incurred or issued by any Group Member after the Effective Date (other than Excluded Indebtedness), concurrently with such incurrence, an amount equal to 100% of the Net Cash Proceeds thereof shall be applied on the date of such incurrence or issuance toward the prepayment of the Term Loans as set forth in Section 3.2(e). Nothing in this Section 3.2(a) shall be construed to permit or waive any Default or Event of Default arising from any incurrence of Indebtedness not permitted under the terms of this Agreement.

(b) If on any date any Group Member shall receive Net Cash Proceeds from any Asset Sale or Recovery Event then, other than with respect to any Net Cash Proceeds (x) subject to a Reinvestment Event or (y) required to be applied to the prepayment of the Revolving Loan Indebtedness under the terms of the Revolving Loan Documents, such Net Cash Proceeds, within three (3) Business Days of the expiration of the term applicable to the relevant Group Member to notify the Administrative Agent of its intent to reinvest all or a specified portion of such Net Cash Proceeds), shall be applied on such date toward the prepayment of the Term Loans as set forth in Section 3.2(e); *provided*, that, (i) notwithstanding the foregoing, on each Reinvestment Prepayment Date, an amount equal to the Reinvestment Prepayment Amount with respect to the relevant Reinvestment Event shall be applied toward the prepayment of the Term Loans as set forth in Section 3.2(e), and (ii) prepayments under this Section 3.2(b) shall not be required to be made to the extent and for so long as the Holdings reasonably determines that any required repatriation of funds from the relevant Group Member in order to effect such prepayments would have a material adverse tax or cost consequence, contravene any Requirement of Law or give rise to a risk of liability for the directors of the relevant Group Member.

(c) Substantially concurrently with any Change of Control, Borrower shall prepay the Term Loans in full, to be applied as set forth in Section 3.2(e).

(d) Immediately upon any acceleration of any Loans pursuant to Section 8, Borrower shall repay all the Loans and other Obligations, unless only a portion of all the Loans and other Obligations is so accelerated (in which case the portion so accelerated shall be so repaid).

(e) Amounts to be applied in connection with prepayments made pursuant to this Section 3.2 shall be applied to the prepayment of the Term Loans in accordance with Section 3.8 and shall be accompanied by accrued interest to date of such prepayment on the principal amount prepaid and the Prepayment Premium or Make-Whole Premium, as applicable. The application of any prepayment pursuant to this Section 3.2 shall be made, first, to ABR Loans, together with any accrued and unpaid interest thereon, second, to LIBOR Rate Loans, together with any accrued and unpaid interest thereon, and third, to the prepayment of any other outstanding Obligations.

(f) The Total Term Commitments of the Term Facility (and the Term Commitments of each Lender) shall terminate in their entirety upon the funding thereof on the Closing Date.

(g) Prepayment Premium. Each prepayment under Section 3.1 or 3.2 (x) made on or prior to the second anniversary of the Closing Date shall be made subject to payment of the Make-Whole Premium and (y) made after the second anniversary of the Closing Date shall be subject to payment of the applicable Prepayment Premium set forth below (the "Prepayment Premium") (which shall be calculated as the percentage set forth below multiplied by the amount being prepaid):

Time Period	Prepayment Premi
After the second anniversary, but on or prior to the third anniversary of the Closing Date	2.0%
After the third anniversary, but on or prior to the fourth anniversary of the Closing Date	1.0%
On or after the fourth anniversary of the Closing Date	0.0%

(h) Notwithstanding the foregoing, each Lender may reject all or a portion of its Pro Rata Share of any mandatory prepayment (such declined amounts, the "Declined Proceeds") of any class of Term Loans required to be made pursuant to clause (b) of this Section 3.2 by providing written notice (each, a "Rejection Notice") to the Administrative Agent and the Borrower no later than 12:00 p.m. one (1) Business Day after the date of such Lender's receipt of notice from the Administrative Agent regarding such prepayment (subject to extension by Administrative Agent in its sole discretion). Each Rejection Notice from a Lender shall specify the principal amount of the mandatory prepayment of Term Loans to be rejected by such Lender. If a Lender fails to deliver a Rejection Notice to Administrative Agent within the time frame specified above or such Rejection Notice fails to specify the principal amount of the Term Loans to be rejected, any such failure will be deemed an acceptance of the total amount of such mandatory prepayment of such Term Loans. Any Declined Proceeds may be retained by the Borrower.

3.3 Conversion and Continuation Options.

(a) The Borrower may elect from time to time to convert LIBOR Rate Loans to ABR Loans by giving the Administrative Agent prior irrevocable notice of such election no later than 12:00 Noon, New York City time, three (3) Business Days preceding the proposed conversion date; *provided* that any such conversion of LIBOR Rate Loans may only be made on the last day of an Interest Period with respect thereto. The Borrower may elect from time to time to convert ABR Loans to LIBOR Rate Loans by giving the Administrative Agent prior irrevocable notice of such election no later than 12:00 Noon, New York City time, on the third Business Day preceding the proposed conversion date (which notice shall specify the length of the initial Interest Period therefor); *provided* that no ABR Loan may be converted into a LIBOR Rate Loan when any Event of Default has occurred and is continuing and the Administrative Agent has determined in its sole discretion not to permit such conversions. Upon receipt of any such notice the Administrative Agent shall promptly notify each relevant Lender thereof.

(b) Any LIBOR Rate Loan may be continued as such upon the expiration of the then current Interest Period with respect thereto by the Borrower giving irrevocable notice to the

Administrative Agent, in accordance with the applicable provisions of the term Interest Period set forth in Section 1.1, of the length of the next Interest Period to be applicable to such Loans; *provided* that no LIBOR Rate Loan may be continued as such when any Event of Default has occurred and is continuing and the Administrative Agent has determined in its sole discretion not to permit such continuations; and *provided*, further, that if the Borrower shall fail to give any required notice as described above in this paragraph or if such continuation is not permitted pursuant to the preceding proviso such Loans shall be automatically converted to ABR Loans on the last day of such then expiring Interest Period. Upon receipt of any such notice the Administrative Agent shall promptly notify each relevant Lender thereof.

3.4 Limitations on LIBOR Tranches. Notwithstanding anything to the contrary in this Agreement, all borrowings, conversions and continuations of LIBOR Rate Loans hereunder and all selections of Interest Periods hereunder shall be in such amounts and be made pursuant to such elections so that, (a) after giving effect thereto, the aggregate principal amount of the LIBOR Rate Loans comprising each LIBOR Tranche shall be equal to $500,000 or integral multiples of $100,000 in excess thereof and (b) no more than one (1) LIBOR Tranche shall be outstanding at any one time.

3.5 Interest Rates and Payment Dates.

(a) Each LIBOR Rate Loan shall bear interest for each day during each Interest Period with respect thereto at a rate per annum equal to the LIBOR Rate determined for such day plus the Applicable Margin.

(b) Each ABR Loan shall bear interest at a rate per annum equal to the ABR plus the Applicable Margin.

(c) From and after the occurrence and during the continuation of an Event of Default, upon notice by the Administrative Agent or the Required Lenders to the Borrower (or automatically upon an Event of Default under Sections 8(a) or 8(f)), the Borrower shall pay interest on the principal amount of all Loans and all other due and unpaid Obligations at a rate per annum equal to (i) in the case of Term Loans, the rate that would otherwise be applicable thereto pursuant to the foregoing provisions of this Section plus 2.00%, and (ii) in the case of any such other amounts, the non-default rate then applicable to ABR Loans plus 2.00%.

(d) Interest shall be payable in arrears on each Interest Payment Date; *provided* that interest accruing pursuant to paragraph (c) of this Section shall be payable in cash from time to time on demand.

(e) Notwithstanding anything to the contrary contained in any Loan Document, the interest paid or agreed to be paid under the Loan Documents shall not exceed the maximum rate of non-usurious interest permitted by applicable law (the "Maximum Rate"). If any Agent or any Lender shall receive interest in an amount that exceeds the Maximum Rate, the excess interest shall be applied to the principal of the Term Loans or, if it exceeds such unpaid principal, refunded to the Borrower. In determining whether the interest contracted for, charged, or received by an Agent or a Lender exceeds the Maximum Rate, such Person may, to the extent

permitted by applicable law, (i) characterize any payment that is not principal as an expense, fee, or premium rather than interest, (ii) exclude voluntary prepayments and the effects thereof, and (iii) amortize, prorate, allocate, and spread in equal or unequal parts the total amount of interest throughout the contemplated term of the Obligations hereunder.

3.6 Computation of Interest and Fees.

(a) Interest and fees payable pursuant hereto shall be calculated on the basis of a 360-day year for the actual days elapsed, except that, with respect to ABR Loans the rate of interest on which is calculated on the basis of clause (a) or (b) of the definition of ABR, the interest thereon shall be calculated on the basis of a 365- (or 366-, as the case may be) day year for the actual days elapsed. The Administrative Agent shall as soon as practicable notify the Borrower and the relevant Lenders of each determination of a LIBOR Rate. Any change in the interest rate on a Loan resulting from a change in the ABR or the Eurocurrency Reserve Requirements shall become effective as of the opening of business on the day on which such change becomes effective. The Administrative Agent shall as soon as practicable notify the Borrower and the relevant Lenders of the effective date and the amount of each such change in interest rate.

(b) Each determination of an interest rate by the Administrative Agent pursuant to any provision of this Agreement shall be conclusive and binding on the Borrower and the Lenders in the absence of manifest error. The Administrative Agent shall, at the request of the Borrower, promptly deliver to the Borrower a statement showing the quotations used by the Administrative Agent in determining any interest rate pursuant to Section 3.6(a).

3.7 Benchmark Replacement.

(a) Benchmark Replacement. Notwithstanding anything to the contrary herein or in any other Loan Document, upon the occurrence of a Benchmark Transition Event or an Early Opt-in Election, as applicable, the Administrative Agent and the Borrower shall amend this Agreement to replace LIBOR with a Benchmark Replacement. Any such amendment with respect to a Benchmark Transition Event will become effective at 5:00 p.m. on the fifth (5th) Business Day after the Administrative Agent has posted such proposed amendment to all Lenders and the Borrower so long as the Administrative Agent has not received, by such time, written notice of objection to such amendment from Lenders comprising the Required Lenders; provided that, with respect to any proposed amendment containing any SOFR-Based Rate, the Lenders shall be entitled to object only to the Benchmark Replacement Adjustment contained therein. Any such amendment with respect to an Early Opt-in Election will become effective on the date that Lenders comprising the Required Lenders have delivered to the Administrative Agent written notice that such Required Lenders accept such amendment.

(b) Benchmark Replacement Conforming Changes. In connection with the implementation of a Benchmark Replacement, the Administrative Agent will have the right to make Benchmark Replacement Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing

such Benchmark Replacement Conforming Changes will become effective upon written notice to the Borrower without any further action or consent of any other party to this Agreement.

(c) Notices; Standards for Decisions and Determinations. The Administrative Agent will promptly notify the Borrower and the Lenders of (i) any occurrence of a Benchmark Transition Event or an Early Opt-in Election, as applicable, and its related Benchmark Replacement Date, (ii) the implementation of any Benchmark Replacement, (iii) the effectiveness of any Benchmark Replacement Conforming Changes and (iv) the commencement or conclusion of any Benchmark Unavailability Period. Any determination, decision or election that may be made by the Administrative Agent or the Lenders pursuant to this Section 3.7, including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action, will be conclusive and binding absent manifest error and may be made in its or their sole discretion and without consent from any other party hereto, except, in each case, as expressly required pursuant to this Section 3.7.

(d) Benchmark Unavailability Period. Upon the Borrower's receipt of notice of the commencement of a Benchmark Unavailability Period, the Borrower may revoke any request for a LIBOR Borrowing of, conversion to or continuation of LIBOR Rate Loans to be made, converted or continued during any Benchmark Unavailability Period and, failing that, the Borrower will be deemed to have converted any such request into a request for a Borrowing of or conversion to ABR Loans. During any Benchmark Unavailability Period, the component of ABR based upon LIBOR will not be used in any determination of ABR.

3.8 Pro Rata Treatment; Application of Payments; Payments.

(a) Each borrowing by the Borrower from the Lenders hereunder, each payment by the Borrower on account of any commitment fee and any reduction of the Commitments of the Lenders shall be made pro rata according to the respective Term Percentages of the relevant Lenders.

(b) Except for optional prepayments pursuant to Section 3.1 and prepayments pursuant to Section 10.6(b)(v), each payment (including each prepayment) on account of principal of and interest on the Term Loans shall be made pro rata according to the respective outstanding principal amounts of each Tranche of the Term Loans then held by the Lenders. Optional prepayments pursuant to Section 3.1 shall be applied ratably to the outstanding principal amount of the Tranche of Term Loans specified by the Borrower in the applicable notice of prepayment. Amounts repaid or prepaid on account of the Term Loans may not be reborrowed.

(c) All payments (including prepayments) to be made by the Borrower hereunder, whether on account of principal, interest, fees or otherwise, shall be made without setoff or counterclaim and shall be made prior to 12:00 Noon, New York City time, on the due date thereof to the Administrative Agent, for the account of the Lenders, at the Funding Office, in Dollars and in immediately available funds. The Administrative Agent shall distribute such payments to the Lenders promptly upon receipt in like funds as received. If any payment

hereunder (other than payments on the LIBOR Rate Loans) becomes due and payable on a day other than a Business Day, such payment shall be extended to the next succeeding Business Day. If any payment on a LIBOR Rate Loan becomes due and payable on a day other than a Business Day, the maturity thereof shall be extended to the next succeeding Business Day unless the result of such extension would be to extend such payment into another calendar month, in which event such payment shall be made on the immediately preceding Business Day. In the case of any extension of any payment of principal pursuant to the preceding two sentences, interest thereon shall be payable at the then applicable rate during such extension.

(d) Unless the Administrative Agent shall have been notified in writing by the Borrower prior to the date of any payment due to be made by the Borrower hereunder that the Borrower will not make such payment to the Administrative Agent, the Administrative Agent may assume that the Borrower is making such payment, and the Administrative Agent may (but shall not be required to), in reliance upon such assumption, make available to the Lenders their respective pro rata shares of a corresponding amount. If such payment is not made to the Administrative Agent by the Borrower within three (3) Business Days after such due date, the Administrative Agent shall be entitled to recover, on demand, from each Lender to which any amount which was made available pursuant to the preceding sentence, such amount with interest thereon at the rate per annum equal to the daily average Federal Funds Effective Rate. Nothing herein shall be deemed to limit the rights of the Administrative Agent or any Lender against the Borrower.

(e) Notwithstanding anything to the contrary contained herein, the provisions of this Section 3.8 shall be subject to the express provisions of this Agreement which require or permit differing payments to be made to Non-Defaulting Lenders as opposed to Defaulting Lenders.

3.9 Requirements of Law.

(a) If the adoption of, taking effect of or any change in any Requirement of Law or in the administration, interpretation or application thereof or compliance by any Lender with any request, guideline or directive (whether or not having the force of law) from any central bank or other Governmental Authority made subsequent to the Closing Date (and, for purposes of this Agreement, the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, guidelines or directives in connection therewith are deemed to have gone into effect and adopted subsequent to the Effective Date):

(i) shall subject any Recipient to any Tax (other than (A) Indemnified Taxes, (B) Taxes described in clauses (b) through (d) of the definition of Excluded Taxes and (C) Connection Income Taxes, on its loans, loan principal, letters of credit, commitments, or other obligations, or its deposits, reserves, other liabilities or capital attributable thereto;

(ii) shall impose, modify or hold applicable any reserve, special deposit, compulsory loan or similar requirement against assets held by, deposits or other liabilities in or for the account of, advances, loans or other extensions of credit by, or any other acquisition of funds by, any office of such Lender that is not otherwise included in the determination of the LIBOR Rate hereunder; or

(iii) shall impose on such Lender or the London interbank market any other condition, cost or expense affecting this Agreement or LIBOR Rate Loans made by such Lender;

and the result of any of the foregoing is to increase the cost to such Lender of making, converting into, continuing or maintaining LIBOR Rate Loans or, with respect to Taxes under clause (i) above, any Term Loan, or to reduce any amount receivable hereunder in respect thereof (whether of principal, interest or any other amount), then, in any such case, the Borrower shall promptly pay such Lender, upon its demand, any additional amounts necessary to compensate such Lender for such increased cost or reduced amount receivable. If any Lender becomes entitled to claim any additional amounts pursuant to this paragraph, it shall notify the Borrower (with a copy to the Administrative Agent) of the event by reason of which it has become so entitled and setting forth in reasonable detail such increased costs.

(b) If any Lender shall have determined that the adoption of, taking effect of or any change in any Requirement of Law regarding capital adequacy or in the interpretation or application thereof or compliance by such Lender or any corporation controlling such Lender with any request or directive regarding capital adequacy (whether or not having the force of law) from any Governmental Authority made subsequent to the Closing Date (and, for purposes of this Agreement, the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, guidelines or directives in connection therewith are deemed to have gone into effect and adopted subsequent to the Closing Date) shall have the effect of reducing the rate of return on such Lender's or such corporation's capital as a consequence of its obligations hereunder to a level below that which such Lender or such corporation could have achieved but for such adoption, change or compliance (taking into consideration such Lender's or such corporation's policies with respect to capital adequacy), then from time to time, after submission by such Lender to the Borrower (with a copy to the Administrative Agent) of a written request therefor setting forth in reasonable detail the charge and the calculation of such reduced rate of return, the Borrower shall pay to such Lender such additional amount or amounts as will compensate such Lender or such corporation for such reduction.

(c) A certificate as to any additional amounts payable pursuant to this Section submitted by any Lender to the Borrower (with a copy to the Administrative Agent) shall be conclusive in the absence of manifest error. Failure or delay on the part of any Lender to demand compensation pursuant to this Section shall not constitute a waiver of such Lender's right to demand such compensation; *provided* that the Borrower shall not be required to compensate a Lender pursuant to this Section for any amounts incurred more than one hundred and eighty (180) days prior to the date that such Lender notifies the Borrower of such Lender's intention to claim compensation therefor; *provided* that, if the circumstances giving rise to such claim have a retroactive effect, then such one hundred and eighty (180) day period shall be extended to include the period of such retroactive effect. The obligations of the Borrower pursuant to this Section shall survive the termination of this Agreement and the payment of the Term Loans and all other amounts payable hereunder. The Borrower shall pay the Lender the amount shown as due on any certificate referred to above within ten (10) days after receipt thereof.

3.10 Taxes.

(a) Defined Terms. For purposes of this Section, the term "applicable law" includes FATCA.

(b) Payments Free of Taxes. Any and all payments by or on account of any obligation of any Loan Party hereunder or under any other Loan Document shall be made without deduction or withholding for any Taxes, *provided* that if any applicable withholding agent shall be required (as determined in the good faith discretion of the applicable withholding agent) by applicable law to deduct or withhold any Taxes from such payments, then (i) the applicable withholding agent shall be entitled to make such deductions or withholdings (ii) the applicable withholding agent shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with applicable law, and (iii) if such Tax is an Indemnified Tax, the sum payable by the applicable Loan Party shall be increased as necessary so that after such deductions or withholdings have been made (including deductions and withholdings applicable to additional sums payable under this Section 3.10(a)) the applicable Recipient, receives an amount equal to the sum it would have received had no such deductions or withholdings been made.

(c) Payment of Other Taxes by the Borrower. The Borrower shall timely pay to the relevant Governmental Authority in accordance with applicable law, or at the option of the Administrative Agent timely reimburse it for the payment of, any Other Taxes..

(d) Indemnification by the Borrower. Without duplication of Section 3.10(a), the Borrower shall indemnify each Recipient, within 10 Business Days after written demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed on or attributable to amounts payable under this Section 3.10(d)) payable or paid by such Recipient, and reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate setting forth the amount of such payment or liability (together with a copy of any applicable documents from the IRS or other Governmental Authority that asserts such claim) delivered to the Borrower by a Lender (with a copy to the relevant Agent), or by an Agent on its own behalf or on behalf of a Lender, shall be conclusive absent manifest error.

(e) Evidence of Payments. As soon as practicable after any payment of Taxes by any Loan Party to a Governmental Authority pursuant to this Section, the Borrower shall deliver to the Agent the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment or other evidence of such payment reasonably satisfactory to the Agent.

(f) Status of Lenders. (i) Each Lender that is entitled to an exemption from or reduction of withholding Tax with respect to payments made under any Loan Document shall deliver to the Borrower and to the Administrative Agent, whenever reasonably requested by the Borrower or the Administrative Agent, such properly completed and executed documentation reasonably requested by the Borrower or the Administrative Agent as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender, if

reasonably requested by the Borrower or the Administrative Agent, shall deliver such other documentation prescribed by applicable law or reasonably requested by the Borrower or the Administrative Agent as will enable the Borrower or the Administrative Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation (other than such documentation set forth in paragraphs (f)(ii)(A), (f)(ii)(B) and (g) of this Section 3.10) shall not be required if in the Lender's reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender.

(ii) Without limiting the generality of the foregoing,

(A) any Lender that is a "United States person" within the meaning of Section 7701(a)(30) of the Code shall deliver to the Borrower and the Administrative Agent on or about the date on which such Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), executed copies of IRS Form W-9 certifying that such Lender is exempt from U.S. federal backup withholding tax;

(B) each Foreign Lender that is entitled under the Code or any applicable treaty to an exemption from or reduction of U.S. federal withholding tax with respect to any payments hereunder or under any other Loan Document, to the extent it is legally entitled to do so, shall deliver to the Borrower and the Administrative Agent (in such number of signed originals as shall be requested by the recipient) on or about the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the request of the Borrower or the Administrative Agent), duly completed and executed copies of whichever of the following is applicable:

(i) in the case of a Foreign Lender claiming the benefits of an income tax treaty to which the United States is a party, (x) with respect to payments of interest under any Loan Document, an executed IRS Form W-8BEN or W-8BEN-E establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "interest" article of such tax treaty and (y) with respect to any other applicable payments under any Loan Document, IRS Form W-8BEN or W-8BEN-E establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "business profits" or "other income" article of such tax treaty;

(ii) an executed IRS Form W-8ECI claiming that specified payments (as applicable) under this Agreement or any other Loan Documents (as applicable) constitute income that is effectively connected with such Foreign Lender's conduct of a trade or business in the United States;

(iii) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Sections 881(c) or 871(h) of the Code (the "Portfolio Interest Exemption"), (x) a certificate, substantially in the form of Exhibit D-1, D-2, D-3 or D-4, as applicable (a "Tax Status Certificate"), to the effect that such Foreign Lender is not (A) a "bank"

within the meaning of Section 881(c)(3)(A) of the Code, (B) a "10 percent shareholder" of the Borrower, within the meaning of Section 881(c)(3)(B) of the Code or (C) a "controlled foreign corporation" related to the Borrower as described in Section 881(c)(3)(C) of the Code, and that no interest to be received is effectively connected with a U.S. trade or business and (y) IRS Form W-8BEN (or any successor thereto);

(iv) to the extent a Foreign Lender is not the beneficial owner, an executed IRS Form W-8IMY (or any successor thereto), accompanied by IRS Form W-8ECI, IRS Form W-8BEN, IRS Form W-8BEN-E, a U.S. Tax Compliance Certificate substantially in the form of Exhibit D-3 or Exhibit D-4, IRS Form W-9, and/or other certification documents from each beneficial owner, as applicable; provided that if the Foreign Lender is a partnership and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio interest exemption, such Foreign Lender may provide a U.S. Tax Compliance Certificate substantially in the form of Exhibit D-4 on behalf of each such direct and indirect partner;

(C) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or about the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), executed copies of any other form prescribed by applicable law as a basis for claiming exemption from or a reduction in U.S. federal withholding Tax, duly completed, together with such supplementary documentation as may be prescribed by applicable law to permit the Borrower or the Administrative Agent to determine the withholding or deduction required to be made.

Each Lender agrees that if any form or certification it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify the Borrower and the Administrative Agent in writing of its legal inability to do so.

(g) FATCA. If a payment made to a Lender under any Loan Document would be subject to U.S. federal withholding Tax imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Lender shall deliver to the Borrower and the Administrative Agent, at the time or times prescribed by applicable law and otherwise at such times reasonably requested by the Borrower or the Administrative Agent, such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Borrower or the Administrative Agent as may be necessary for the Borrower and the Administrative Agent to comply with their obligations under FATCA and to determine that such Lender has complied with such Lender's obligations under FATCA or to determine the amount, if any, to deduct and withhold from such payment. Solely for purposes of this paragraph (g), "FATCA" shall include any amendments made to FATCA after the date of this Agreement.

(h) If any party determines, in its good faith discretion, that it has received a refund (whether received in cash or applied as an offset against Taxes due) of any Taxes as to which it

has been indemnified pursuant to this Section (including by the payment of additional amounts pursuant to this Section), , it shall promptly pay to the indemnifying party an amount equal to such refund (but only to the extent of indemnity payments made under this Section 3.10 with respect to the Taxes giving rise to such refund), net of all out-of-pocket expenses (including any Taxes), of such indemnified party and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund). Such indemnifying party, upon the request of such indemnified party, shall repay to such indemnified party the amount paid over pursuant to this paragraph (h) (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) in the event that such indemnified party is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this paragraph (h), in no event will the indemnified party be required to pay any amount to an indemnifying party pursuant to this paragraph (h) the payment of which would place the indemnified party in a less favorable net after-Tax position than the indemnified party would have been in if the Tax subject to indemnification and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid. This paragraph shall not be construed to require any indemnified party to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to the indemnifying party or any other Person.

(i) Each party's obligations under this Section shall survive the resignation or replacement of the Administrative Agent or any assignment of rights by, or the replacement of, a Lender, the termination of this Agreement and the payment, satisfaction or discharge of all obligations under any Loan Document

3.11 Indemnity. The Borrower agrees to indemnify each Lender and to hold each Lender harmless from any loss, cost or expense that such Lender may sustain or incur as a consequence of (a) default by the Borrower in making a borrowing of, conversion into or continuation of LIBOR Rate Loans after the Borrower has given a notice requesting the same in accordance with the provisions of this Agreement, (b) default by the Borrower in making any prepayment of or conversion from LIBOR Rate Loans after the Borrower has given a notice thereof in accordance with the provisions of this Agreement, (c) the making of a prepayment of, or a conversion from, LIBOR Rate Loans on a day that is not the last day of an Interest Period with respect thereto or (d) any other default by the Borrower in the repayment of such LIBOR Rate Loans when and as required pursuant to the terms of this Agreement. A certificate setting forth in reasonable detail the basis for requesting such amount actually incurred as to any amounts payable pursuant to this Section submitted to the Borrower by any Lender shall be conclusive in the absence of manifest error. This covenant shall survive the termination of this Agreement and the payment of the Term Loans and all other amounts payable hereunder.

3.12 Change of Lending Office. Each Lender agrees that, upon the occurrence of any event giving rise to the operation of Section 3.9 or 3.10(a), (b) or (c) with respect to such Lender, it will, if requested by the Borrower, use reasonable efforts (subject to overall policy considerations of such Lender) to designate another lending office for any Term Loans affected by such event with the object of avoiding or reducing the consequences of such event; *provided*, that such designation is made on terms that, in the sole judgment of such Lender, cause such

Lender and its lending office(s) to suffer no economic, legal or regulatory disadvantage or any unreimbursed costs or expenses; and *provided*, further, that nothing in this Section shall affect or postpone any of the obligations of the Borrower or the rights of any Lender pursuant to Section 3.9 or 3.10(a), (b) or (c). The Borrower hereby agrees to pay all reasonable, documented out-of-pocket costs and expenses incurred by any Lender in connection with any such designation.

3.13 Replacement of Lenders. The Borrower shall be permitted to replace any Lender that (a) requests reimbursement for amounts owing pursuant to Section 3.9 or 3.10(a) (such Lender, an "Affected Lender"), (b) is a Non-Consenting Lender or (c) is a Defaulting Lender, with a replacement financial institution or other entity; *provided* that (i) such replacement does not conflict with any Requirement of Law, (ii) in the case of an Affected Lender, prior to any such replacement, such Lender shall have taken no action under Section 3.12 that have actually eliminated the continued need for payment of amounts owing pursuant to Section 3.9 or 3.10(a), (iii) the replacement financial institution or entity shall purchase, at par, all Loans and other amounts owing to such replaced Lender on or prior to the date of replacement, (iv) the Borrower shall be liable to such replaced Lender under Section 3.11 if any LIBOR Rate Loan owing to such replaced Lender shall be purchased other than on the last day of the Interest Period relating thereto, (v) the replacement financial institution or entity shall be an Eligible Assignee, (vi) the replaced Lender shall be obligated to make such replacement in accordance with the provisions of Section 10.6 (*provided* that, except in the case of clause (c) hereof, the Borrower shall be obligated to pay the registration and processing fee referred to therein), (vii) until such time as such replacement shall be consummated, the Borrower shall pay all additional amounts (if any) required pursuant to Section 3.9 or 3.10(a), as the case may be, (viii) in the case of any such replacement resulting from claim of compensation under Section 3.9 or payments required to be made pursuant to Section 3.10(a), such replacement will result in a reduction or elimination of such compensation or payments thereafter, (ix) any such replacement shall not be deemed to be a waiver of any rights that the Borrower, the Administrative Agent or any other Lender shall have against the replaced Lender, and (x) in the case of a Non-Consenting Lender, (A) the replacement financial institution or entity shall consent at the time of such assignment to each matter in respect of which the replaced Lender was a Non-Consenting Lender and (B) to the extent applicable, the Borrower shall pay any amounts due to such Non-Consenting Lender pursuant to Section 3.2(e).

3.14 Evidence of Debt.

(a) Each Lender shall maintain in accordance with its usual practice an account or accounts evidencing Indebtedness of the Borrower to such Lender resulting from each Term Loan of such Lender from time to time, including the amounts of principal and interest payable and paid to such Lender from time to time under this Agreement.

(b) The Administrative Agent, on behalf of the Borrower (or, in the case of an assignment not required to be recorded in the Register in accordance with the provisions of Section 10.6(d), the assigning Lender, acting solely for this purpose as a non-fiduciary agent of the Borrower), shall maintain the Register (or, in the case of an assignment not required to be

recorded in the Register in accordance with the provisions of Section 10.6(d), a Related Party Register), in each case pursuant to Section 10.6(d), and a subaccount therein for each Lender, in which shall be recorded (i) the amount of each Term Loan made hereunder and any Note evidencing such Term Loan, the Type of such Term Loan and each Interest Period applicable thereto, (ii) the amount of any principal or interest due and payable or to become due and payable from the Borrower to each Lender hereunder and (iii) both the amount of any sum received by the Administrative Agent (or, in the case of an assignment not required to be recorded in the Register in accordance with the provisions of Section 10.6(d), the assigning Lender) hereunder from the Borrower and each Lender's share thereof.

(c) The entries made in the Register and the accounts of each Lender maintained pursuant to Section 3.14(a) shall, to the extent permitted by applicable law, be prima facie evidence of the existence and amounts of the obligations of the Borrower therein recorded (absent manifest error); *provided*, however, that the failure of any Lender or the Administrative Agent to maintain the Register or any such account, or any error therein, shall not in any manner affect the obligation of the Borrower to repay (with applicable interest) the Term Loans made to the Borrower by such Lender in accordance with the terms of this Agreement.

(d) The Borrower agrees that, upon the request to the Administrative Agent by any Lender, the Borrower will execute and deliver to such Lender a promissory note of the Borrower evidencing any Term Loans, of such Lender, substantially in the form of Exhibit E, with appropriate insertions as to date and principal amount.

3.15 Illegality. Notwithstanding any other provision herein, if the adoption of or any change in any Requirement of Law or in the interpretation or application thereof shall make it unlawful for any Lender to make or maintain LIBOR Rate Loans as contemplated by this Agreement, (a) the commitment of such Lender hereunder to make LIBOR Rate Loans, continue LIBOR Rate Loans as such and convert ABR Loans to LIBOR Rate Loans shall forthwith be canceled and (b) such Lender's Term Loans then outstanding as LIBOR Rate Loans, if any, shall be converted automatically to ABR Loans on the respective last days of the then current Interest Periods with respect to such Loans or within such earlier period as required by law. If any such conversion of a LIBOR Rate Loan occurs on a day which is not the last day of the then current Interest Period with respect thereto, the Borrower shall pay to such Lender such amounts, if any, as may be required pursuant to Section 3.11.

3.16 Extension Offers.

(a) Notwithstanding anything to the contrary in this Agreement, pursuant to one or more offers (each, an "Extension Offer") made from time to time by the Borrower to all Lenders holding the applicable Tranche of Term Loans, on a pro rata basis (based on the aggregate outstanding principal amount of such Tranche of Term Loans) and on the same terms to each such Lender, the Borrower may from time to time extend the maturity date and availability period of such Tranche of Term Loans, and otherwise modify the terms of such Tranche of Term Loans, pursuant to the terms of the relevant Extension Offer (including, without limitation, by increasing the interest rate or fees payable in respect of such Tranche of Term Loans (and related outstandings) (each, an "Extension", and each Tranche of Term Loans so extended being an

"extended tranche"; any Extension Loans shall constitute a separate Tranche of Term Loans from the other Tranches of Term Loans so long as the following terms are satisfied: (i) no Default or Event of Default shall have occurred and be continuing at the time the offering document in respect of an Extension Offer is delivered to the Lenders and no Event of Default shall exist immediately after the effectiveness of any Extension Loan, (ii) except as to interest rates, fees, final maturity date and premium, which shall, subject to immediately succeeding clauses (iii), (iv) and (v), be determined by the Borrower and set forth in the relevant Extension Offer), the Tranche of Term Loans of any Lender extended pursuant to any Extension ("Extension Loans") shall have the same terms (save for any terms that apply solely after the latest maturity date of the Term Loans hereunder prior to giving effect to such Extension) as the Tranche of Term Loans subject to such Extension Offer, (iii) the final maturity date of any Extension Loans shall be no earlier than the then latest maturity date of Term Loans hereunder, (iv) the Weighted Average to Life Maturity of the Extension Loans shall be no shorter than the remaining Weighted Average Life to Maturity of Tranche of Term Loans extended thereby; (v) the amortization schedule applicable to the Extension Loans pursuant to Section 2.4 for the periods prior to the maturity date of the Term Loans hereunder shall not be increased, (vi) any Extension Loans may participate on a pro rata basis or a less than pro rata basis (but not greater than a pro rata basis) in any voluntary or mandatory repayments or prepayments hereunder, in each case as specified in the respective Extension Offer, (vii) if the aggregate principal amount of Term Loans (calculated on the face amount thereof), in respect of which Lenders shall have accepted the relevant Extension Offer shall exceed the maximum aggregate principal amount of Term Loans offered to be extended by the Borrower pursuant to such Extension Offer, then the Term Loans of such Lenders shall be extended ratably up to such maximum amount based on the respective principal amounts (but not to exceed actual holdings of record) with respect to which such Lenders have accepted such Extension Offer, (viii) all documentation in respect of such Extension shall be consistent with the foregoing, and (ix) any applicable Minimum Extension Condition shall be satisfied unless waived by the Borrower. For the avoidance of doubt, no Lender shall be required to participate in any Extension.

(b) With respect to all Extensions consummated by the Borrower pursuant to this Section 3.16, the Extension Offer shall specify the Tranche of Term Loans as to which the Extension Offer applies and a minimum amount of Term Loans to be tendered (which shall not be less than $10,000,000) as a condition to the consummation of such Extension Offer (a "Minimum Extension Condition"). The Administrative Agent and the Lenders hereby consent to the Extensions and the other transactions contemplated by this Section 3.16 (including, for the avoidance of doubt, payment of any interest, fees or premium in respect of any Extension Loans on such terms as may be set forth in the relevant Extension Offer) and hereby waive the requirements of any provision of this Agreement or any other Loan Document that may otherwise prohibit any such Extension or any other transaction contemplated by this Section 3.16.

(c) No consent of any Lender or the Administrative Agent shall be required to effectuate any Extension, other than the consent of each Lender agreeing to such Extension with respect to one or more of its Term Loans (or a portion thereof). The Lenders hereby irrevocably authorize the Administrative Agent and the Collateral Agent to enter into amendments to this

Agreement and the other Loan Documents with the Borrower as may be necessary in order to establish new tranches or sub-tranches in respect of the Term Loan so extended and such technical amendments as may be necessary or appropriate in the reasonable opinion of the Administrative Agent and the Borrowers in connection with the establishment of such new tranches or sub-tranches, in each case on terms consistent with this Section 3.16.

(d) In connection with any Extension, the Borrower shall provide the Administrative Agent at least five (5) Business Days' (or such shorter period as may be agreed by the Administrative Agent) prior written notice thereof, and shall agree to such procedures, if any, as may be established by, or acceptable to, the Administrative Agent, in each case acting reasonably to accomplish the purposes of this Section 3.16.

(e) The conversion of any Term Loans hereunder into Extension Loans in accordance with this Section 3.16 shall not constitute a voluntary or mandatory payment or prepayment for purposes of this Agreement.

SECTION 4. **REPRESENTATIONS AND WARRANTIES**

To induce the Agents and the Lenders to enter into this Agreement and to make the Term Loans, each Loan Party hereby represents and warrants on the Closing Date that:

4.1 Financial Condition.

(a) The audited consolidated balance sheets and related statements of income and cash flows of Holdings and its Subsidiaries as of and for the fiscal year ended December 31, 2019, reported on by and accompanied by an unqualified auditors' report, presents fairly in all material respects the consolidated financial condition of Holdings as at such date, and the consolidated results of its operations and its cash flows for such fiscal years.

(b) The unaudited condensed consolidated balance sheets and related statements of operations and comprehensive income (loss) and cash flows of Holdings and its Subsidiaries as of and for the three months ended March 31, 2020, presents fairly in all material respects the consolidated financial condition of Holdings as at such date, and the consolidated results of its operations and its cash flows for such three month period.

4.2 No Change. Since December 31, 2019, other than as disclosed (x) to the Administrative Agent in the financial projections received by the Administrative Agent or (y) or publicly disclosed, in each case, prior to the Effective Date, there has been no circumstance, development or event, and no fact is known to the Group Members that has had or could reasonably be expected to result in a Material Adverse Effect.

4.3 Corporate Existence. Except as permitted under Section 7.3, each Group Member (a) is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization, to the extent such concept is recognized in its jurisdiction of incorporation, (b) has the organizational power and authority and the legal right, to own and operate its property, to lease the property it operates as lessee and to conduct the business in

which it is currently engaged, (c) is duly qualified as a foreign entity and in good standing under the laws of each jurisdiction where its ownership, lease or operation of property or the conduct of its business requires such qualification, and (d) is in compliance with the terms of its Organizational Documents, except in case of clauses (b) and (c), to the extent that the failure to do so could not reasonably be expected to have a Material Adverse Effect.

4.4 Power; Authorization; Enforceable Obligations. Each Loan Party has the organizational power and authority, and the legal right, to make, deliver and perform the Loan Documents to which it is a party and, in the case of the Borrower, to obtain extensions of credit hereunder. Each Loan Party has taken all necessary organizational and other action to authorize the execution, delivery and performance of the Loan Documents to which it is a party and, in the case of the Borrower, to authorize the extensions of credit on the terms and conditions of this Agreement. No consent or authorization of, filing with, notice to or other act by or in respect of, any Governmental Authority or any other Person is required in connection with the transactions contemplated by the Loan Documents or with the execution, delivery, performance, validity or enforceability of this Agreement or any of the Loan Documents, except the filings referred to in Section 4.19 which filings have been, or will be, obtained or made and are in full force and effect on or before the Closing Date, and all applicable waiting periods shall have expired, in each case without any action being taken by any Governmental Authority that would restrain, prevent or otherwise impose adverse conditions on the transactions contemplated by the Loan Documents, other than any such consent, authorizations, filings and notices the absence of which could not reasonably be expected to have a Material Adverse Effect. Each Loan Document has been duly executed and delivered on behalf of each Loan Party party thereto. This Agreement constitutes, and each other Loan Document upon execution will constitute, a legal, valid and binding obligation of each Loan Party party thereto, enforceable against each such Loan Party in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the enforcement of creditors' rights generally and by general principles of equity (whether enforcement is sought by proceedings in equity or at law).

4.5 No Legal Bar. The execution, delivery and performance of this Agreement and the other Loan Documents, the borrowings hereunder and the use of the proceeds thereof (a) will not violate (i) the Organizational Documents of any Loan Party, (ii) any Requirement of Law (including any Health Care Laws) or Governmental Authorization, (iii) any Contractual Obligation of any Group Member, including, but not limited to, under the Revolving Credit Agreement and (b) will not result in, or require, the creation or imposition of any Lien on any Group Member's respective properties or revenues pursuant to its Organizational Documents, any Requirement of Law or any such Contractual Obligation (other than the Liens created by the Security Documents and the Liens permitted under Sections 7.2(f) and (o)), except for any violation set forth (x) in clause (a)(iii) or (b), which could not reasonably be expected to have a Material Adverse Effect or (y) in all other cases (other than with respect to clause (a)(i), which would be immaterial.

4.6 Litigation and Adverse Proceedings. No litigation, investigation or proceeding of or before any arbitrator or Governmental Authority is pending or, to the knowledge of

Holdings or the Borrower, threatened in writing by or against any Group Member or against any of their respective properties or revenues (a) with respect to any of the Loan Documents, which would in any respect impair the enforceability of the Loan Documents, taken as a whole or (b) that could reasonably be expected to have a Material Adverse Effect.

4.7 [Intentionally Omitted].

4.8 Ownership of Property; Liens.

(a) Each Group Member has good and marketable title in fee simple (or local law equivalent) to all of its owned real property, a valid leasehold interest in all its leased real property (subject to any disclosures in any certificate or report on title delivered to the Collateral Agent), good and marketable title), and good title to, or a valid leasehold interest in, license to, or right to use, all its other tangible Property material to its business, in all material respects, and no such Property is subject to any Lien except as permitted by Section 7.2, except, in each case, where the failure to have such title or other interest could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(b) Schedule 4.8 contains a true and complete list of each interest in real property having a value (together with improvements thereof) of at least $10,000,000 owned by any Domestic Subsidiary as of the date thereof and describe the type of interest therein held by any Domestic Subsidiary.

4.9 Intellectual Property. The Group Members own, are licensed or otherwise have the valid right to use, all of the material Intellectual Property that is reasonably necessary for the operation of their respective businesses as currently conducted. All material Intellectual Property owned or purported be owned by one or more of the Group Members is owned free and clear of all Liens other than as permitted by Section 7.2, Section 7.4 or the Security Documents. Except as could not reasonably be expected to have a Material Adverse Effect, to the knowledge of any Loan Party: (a) the conduct of, and the use of Intellectual Property in, the business of the Group Members as currently conducted (including the Products, and any other products and services of the Group Members), has not infringed, misappropriated, or otherwise violated, and does not infringe, misappropriate, or otherwise violate the Intellectual Property rights of any other Person; (b) there is no such outstanding written claim asserted (including in the form of offers or invitations to obtain a license), or pending before any Governmental Authority, or threatened against any Group Member; (c) no Person is infringing, misappropriating, or otherwise violating any Intellectual Property of any Group Member, and there has been no such claim asserted or threatened against any third party by any Group Member or any Loan Party or any other Person; (d) each Group Member has taken, all formal or procedural actions (including payment of fees) required to prosecute and maintain Intellectual Property owned or purported to be owned by it; (e) each Group Member has taken, and shall take all actions reasonably necessary to protect and maintain the confidentiality of its Trade Secrets and its rights therein; and (f) each Group Member has complied with all applicable laws relating to privacy, data protection, and the collection and use of personal information collected, used, or held for use by such Group Member. No holding, decision or judgment has been rendered by any Governmental Authority with respect to Intellectual Property owned by any Group Member which limits, cancels or

questions the validity of, or any Group Member's rights in, any such Intellectual Property, other than with respect to applications for registrations of Intellectual Property or as would not reasonably be expected to have, either individually or in the aggregate, a Material Adverse Effect. The patents listed in (a) Schedule 4.9(a) are granted and subsisting and (b) Schedule 4.9(b) are, to the knowledge of the Borrower, granted and subsisting.

4.10 Taxes. Each Loan Party has filed or caused to be filed all federal, state and other Tax returns that are required to be filed, and has paid all federal, state and other taxes, assessments, fees and other governmental charges levied or imposed upon them or their properties, income or assets otherwise due and payable (other than (a) any Taxes that are not yet due or the amount or validity of which is currently being contested in good faith by appropriate proceedings and with respect to which reserves in accordance with GAAP have been provided on its books or (b) to the extent that the failure to do so could not reasonably be expected to have a Material Adverse Effect).

4.11 Federal Reserve Regulations. No Group Member is engaged principally, or as one of its important activities, in the business of extending credit for the purpose of buying or carrying Margin Stock. No part of the proceeds of any extension of credit under this Agreement will be used for any purpose that violates or would be inconsistent with the provisions of Regulation T, U or X of the Board. If requested by any Lender or the Administrative Agent, the Borrower will furnish to the Administrative Agent and each Lender a statement to the foregoing effect in conformity with the requirements of FR Form G-3 or FR Form U 1, as applicable, referred to in Regulation U.

4.12 Labor Matters. Except as, in the aggregate, could not reasonably be expected to have a Material Adverse Effect: (a) there are no strikes or other labor disputes against any Group Member pending or, to the knowledge of Holdings or the Borrower, threatened; (b) hours worked by and payment made to employees of each Group Member have not been in violation of the Fair Labor Standards Act, as amended, or any other applicable Requirement of Law dealing with such matters; and (c) all payments due from any Group Member on account of employee health and welfare insurance or other similar employee taxes have been paid or accrued as a liability on the books of the relevant Group Member.

4.13 ERISA.

(a) No ERISA Event has occurred or is reasonably expected to occur with respect to any Single Employer Plan, and each Plan is in compliance in form and operation with its terms and the applicable provisions of ERISA and the Code, except where such ERISA Event or non-compliance could not reasonably be expected to have a Material Adverse Effect. Except as would not reasonably be expected to have a Material Adverse Effect, each Plan (and each related trust, if any) which is intended to be qualified under Section 401(a) of the Code has received a favorable determination letter from the IRS to the effect that it meets the requirements of Sections 401(a) and 501(a) of the Code or is comprised of a master or prototype plan that has received a favorable opinion letter from the IRS, and, nothing has occurred since the date of such determination that would adversely affect such determination (or, in the case of a Plan with no

determination, nothing has occurred that would materially adversely affect the issuance of a favorable determination letter or otherwise materially adversely affect such qualification).

(b) Except as would not reasonably be expected to have a Material Adverse Effect, no (1) termination of a Single Employer Plan has occurred or is reasonably expected to occur, and no Lien against Holdings, the Borrower or any Commonly Controlled Entity in favor of the PBGC or a Single Employer Plan or a Multiemployer Plan has arisen during the past five years or is likely to arise; (2) Single Employer Plan has applied for or received an extension of any amortization period, within the meaning of Section 412 of the Code or Section 303 or 304 of ERISA; (3) Group Member nor any Commonly Controlled Entity has ceased operations at a facility so as to become subject to the provisions of Section 4068(a) of ERISA, withdrawn as a substantial employer so as to become subject to the provisions of Section 4063 of ERISA or ceased making contributions to any Plan subject to Section 4064(a) of ERISA to which it made contributions; or (4) Group Member nor any Commonly Controlled Entity has any material liability under Section 4069 or 4212(c) of ERISA.

(c) Except as would not reasonably be expected to result in a Material Adverse Effect, the present value of all accrued benefits under each Single Employer Plan (based on those assumptions used to fund such Plans) did not, as of the last annual valuation date prior to the date on which this representation is made or deemed made, exceed the value of the assets of such Plan allocable to such accrued benefits.

(d) No Group Member nor any Commonly Controlled Entity would become subject to any material liability under ERISA if the Group Member or any such Commonly Controlled Entity were to withdraw completely from all Multiemployer Plans as of the valuation date most closely preceding the date on which this representation is made or deemed made.

(e) There are no actions, suits or claims pending against or involving a Plan (other than routine claims for benefits) or, to the knowledge of any Group Member or any Commonly Controlled Entity, threatened, which would reasonably be expected to be asserted successfully against any Plan and, if so asserted successfully, would reasonably be expected either singly or in the aggregate to have a Material Adverse Effect.

(f) Each Non-U.S. Pension Plans has been established, operated, administered and maintained in compliance with its terms and with the requirements of any and all laws, regulations and orders applicable thereto except for such failures to comply, in the aggregate for all such failures, that could not reasonably be expected to have a Material Adverse Effect. All premiums, contributions, and any other amounts required by applicable Non-U.S. Pension Plan documents or applicable laws have been paid or accrued as required, except for premiums, contributions and amounts that, in the aggregate for all such obligations, could not reasonably be expected to have a Material Adverse Effect. No Group Member has incurred any obligation in connection with the termination of, or withdrawal from, any Non-U.S. Pension Plan except for obligations that, in the aggregate, could not reasonably be expected to have a Material Adverse Effect. Except as would not be expected to result in a Material Adverse Effect, the present value of all accrued benefits under each Non-U.S. Pension Plan(based on those assumptions used to fund such Plans) did not, as of the last annual valuation date prior to the date on which this

representation is made or deemed made, exceed the value of the assets of such Plan allocable to such accrued benefits by more a material amount.

(g) No Group Member is a Benefit Plan, and no Group Member will use "plan assets" (within the meaning of 29 CFR Section 2510.3-101, as modified by Section 3(42) of ERISA, or otherwise) of one or more Benefit Plans in connection with the transactions contemplated hereby, the Loan Documents or otherwise.

4.14 Investment Company Act; Other Regulations. No Loan Party is or is required to be registered as an "investment company," or a company "controlled" by an "investment company," within the meaning of the Investment Company Act of 1940, as amended. No Loan Party is subject to regulation under any Requirement of Law (other than Regulation X of the Board, as amended) that limits its ability to incur Indebtedness.

4.15 Capital Stock and Ownership Interests of Subsidiaries. Schedule 4.15 sets forth the name and jurisdiction of formation or incorporation of each Group Member and, as to each such Group Member other than Holdings, states the beneficial and record owners thereof and the percentage of each class of Capital Stock owned by any Loan Party. Except as listed on Schedule 4.15, as of the Closing Date, no Group Member owns any interests in any joint venture, partnership or similar arrangements with any Person.

4.16 Use of Proceeds. The proceeds of the Term Loans shall be used to (i) refinance, in full, the Existing Facilities and (ii) pay fees and expenses incurred in connection with the Transactions as incurred as of and paid on the Closing Date.

4.17 Environmental Matters. Except as, individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect:

(a) the facilities and properties owned, leased, occupied or operated by any Group Member (the "Properties") do not contain any Materials of Environmental Concern in amounts or concentrations or under circumstances that constitute or constituted a violation of, or could reasonably be expected to give rise to liability under, any Environmental Law;

(b) no Group Member has received any written claim, demand, notice of violation, or of actual or potential liability with respect to any Environmental Laws with regard to any of the Properties or relating to any Group Member, nor does the Borrower have knowledge or reason to believe that any such claim, demand or notice will be received or is being threatened;

(c) Materials of Environmental Concern have not been transported or disposed of from the Properties by any Group Member or, to the Borrower's knowledge, by any other person in violation of, or in a manner or to a location that could reasonably be expected to give rise to liability under, any Environmental Law, nor have any Materials of Environmental Concern been generated, treated, stored or disposed of by any Group Member or, to the Borrower's knowledge, by any other person at, on or under any of the Properties in violation of, or in a manner that could reasonably be expected to give rise to liability under, any applicable Environmental Law;

(d) no judicial proceeding or governmental or administrative action is pending or, to the knowledge of the Borrower, threatened, under any Environmental Law to which any Group Member is or, to the Borrower's knowledge, will be named as a party, nor are there any consent decrees or other decrees, consent orders, administrative orders or other orders, or other administrative or judicial requirements outstanding under any Environmental Law with respect to the Properties or relating to any Group Member;

(e) there has been no Release or threat of Release of Materials of Environmental Concern and no person has been exposed to Materials of Environmental Concern by any Group Member or, to the Borrower's knowledge, by any other person at, on, under or from the Properties, or arising from or related to the operations of any Group Member in connection with the Properties or otherwise, in violation of or in amounts or in a manner that could reasonably be expected to give rise to liability under Environmental Laws;

(f) each Group Member, the Properties and all operations at the Properties are in compliance, and, to the Borrower's knowledge, have in the last three (3) years been in compliance, with all applicable Environmental Laws; and

(g) no Group Member has agreed to indemnify or has assumed any liability of any other Person under Environmental Laws, nor is any Group Member paying for or conducting, in whole or in part, any response or other corrective action to address any Materials of Environmental Concern at any location pursuant to any Environmental Law.

4.18 Accuracy of Information, etc. No written statement contained in any document, certificate or statement furnished by any Loan Party at any time to the Administrative Agent or the Lenders, or any of them, for use in connection with the transactions contemplated by this Agreement or the other Loan Documents, when taken as a whole, contained as of the date such statement, information, document or certificate was furnished, any untrue statement of a material fact or omitted to state a material fact necessary to make the statements contained herein or therein not misleading in the light of the circumstances under which such statements were made after giving effect to any supplements thereto; *provided*, however, that with respect to projections and other *pro forma* financial information, the Borrower represents only that the same were prepared in good faith and are based upon assumptions believed by management of the Borrower to be reasonable at the time made, it being recognized by the Lenders that such financial information as it relates to future events is not to be viewed as fact, is by its nature inherently uncertain and that actual results during the period or periods covered by such financial information may differ from the projected results set forth therein by a material amount; it being understood that for purposes of this Section 4.18 such information shall not include information of a general economic or industry-specific nature contained in the materials referenced above.

4.19 Security Documents. The Guarantee and Collateral Agreement and each other Security Document is, or upon execution (or in the case of Commercial Tort Claims, upon completion and delivery of a pledge supplement with respect thereto as provided in Section 5.15 of the Guarantee and Collateral Agreement) will be, effective to create in favor of the Collateral Agent, for the benefit of the Secured Parties, a valid security interest in the Collateral described therein (to the extent a security interest can be created therein under the Uniform Commercial

Code, where applicable, or in the case of a Foreign Security Document, subject to any customary reservations and qualifications contained in customary legal opinions rendered under the laws of the applicable jurisdiction). In the case of the Pledged Equity Interests described in the Guarantee and Collateral Agreement and each Foreign Pledge Agreement, when stock or interest certificates representing such Pledged Equity Interests (along with properly completed stock or interest powers and, where applicable, stock transfer forms, in each case, endorsing the Pledged Equity Interest and executed by the owner of such shares or interests) are delivered to the Collateral Agent or such other actions specified in each Foreign Pledge Agreement are taken, and in the case of the other Collateral described in the Guarantee and Collateral Agreement or any other Security Document (other than deposit accounts), when financing statements and other filings specified on Schedule 4.19 in appropriate form are filed in the offices specified on Schedule 4.19, the Collateral Agent, for the benefit of the Secured Parties, shall, under New York law, or in the case of the U.K. Security Documents or other Security Document, which is governed by a law other than New York law (each a "Foreign Security Document"), under such other law, have a fully perfected Lien on, and security interest in, all right, title and interest of the Loan Parties in such Collateral to the extent (x) (in the case of New York law) perfection can be obtained by filing a Uniform Commercial Code financing statement or (y) (in the case of a Foreign Security Document) subject to any customary reservations and qualifications contained in customary legal opinions rendered under the laws of the applicable jurisdiction, perfection can be obtained by the appropriate filing under such other applicable law, as security for the Obligations, in each case prior and superior in right to any other Person (except Liens permitted by Section 7.2) subject in the case of the Intellectual Property that is the subject of any application or registration in the United States Patent and Trademark Office or the United States Copyright Office (other than intent-to-use trademark applications filed pursuant to Section 1(b) of the Lanham Act, 15 U.S.C. § 1051 (the "Lanham Act"), prior to the filing and acceptance of a "Statement of Use" and issuance of a "Certificate of Registration" pursuant to Section 1(d) of the Lanham Act or an accepted filing of an "Amendment to Allege Use" whereby such intent-to-use trademark application is converted to a "use in commerce" application pursuant to Section 1(c) of the Lanham Act with respect thereto or any Trademark issued as a result of such application under applicable law), to the recordation of Intellectual Property Security Agreements in the United States Patent and Trademark Office and/or United States Copyright Office, as appropriate.

4.20 Solvency. Holdings and its Subsidiaries (on a consolidated basis), after giving effect to the incurrence of all Indebtedness and obligations being incurred in connection herewith and therewith, will be and will continue to be Solvent.

4.21 [Reserved].

4.22 Compliance with Law.

(a) Each Loan Party is and has been, in compliance with, and are not under investigation with respect to, and, to each Loan Party's knowledge, have not been threatened to be charged with an action concerning, or given notice of any violation of, any Requirement of Law (including Health Care Laws) or any Governmental Authorizations, except for failures to

comply or with respect to violations that have not had and would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(b) There is no judgment, decree, injunction, rule or order of any arbitrator or Governmental Authority outstanding against any Loan Party, or to any Loan Party's knowledge that has had or would reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(c) Each Loan Party has in full force and effect, all certificates, permits, licenses, franchises, approvals, NDAs, INDs, concessions, qualifications, registrations, certifications and similar Governmental Authorizations from any Governmental Authority that are necessary for the Loan Party to own, lease or operate their properties and assets, and to carry on their businesses as currently conducted, except where the failure to have such Governmental Authorizations has not had and would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

4.23 Anti-Terrorism Laws.

(a) None of the Loan Parties nor, to the knowledge of the Borrower, any director, officer, agent, employee or Affiliate of Holdings, the Borrower or any Subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC"); and the Borrower will not directly or indirectly use the proceeds of the Term Loans or otherwise make available such proceeds to any Person, for the purpose of financing the activities of any Person currently subject to any U.S. sanctions administered by OFAC.

(b) No Loan Party, or, to the knowledge of any Loan Party, any of its Subsidiaries, is in violation of any Anti-Terrorism Law or engages in or conspires to engage in any transaction that evades or avoids, or has the purpose of evading or avoiding, or attempts to violate, any of the prohibitions set forth in any Anti-Terrorism Law.

(c) None of the Loan Parties, nor, to the knowledge of the Loan Parties, any Subsidiaries of any Loan Party or their respective agents acting or benefiting in any capacity in connection with the Term Loans or other transactions hereunder, is any of the following (each a "Blocked Person"):

(i) a Person that is listed in the annex to, or is otherwise subject to the provisions of, Executive Order No. 13224;

(ii) a Person owned or Controlled by, or acting for or on behalf of, any Person that is listed in the annex to, or is otherwise subject to the provisions of, Executive Order No. 13224;

(iii) a Person with which any Lender is prohibited from dealing or otherwise engaging in any transaction by any Anti-Terrorism Law;

(iv) a Person that commits, threatens or conspires to commit or supports "terrorism" as defined in Executive Order No. 13224;

(v) a Person that is named as a "specially designated national" on the most current list published by the United States Treasury Department's Office of Foreign Asset Control at its official website or any replacement website or other replacement official publication of such list;

(vi) a Person who is affiliated or associated with a person listed above; or

(vii) a Person with whom dealings are restricted or prohibited under the Consolidated List of Financial Sanctions Targets maintained by Her Majesty's Treasury or any other the consolidated list of persons, groups and entities subject to financial sanctions maintained by the European Union, and any similar list, each as amended, supplemented or substituted from time to time.

(d) No Loan Party, or to the knowledge of any Loan Party, any of its agents acting in any capacity in connection with the Term Loans or other transactions hereunder (i) conducts any business or engages in making or receiving any contribution of funds, goods or services to or for the benefit of any Blocked Person or (ii) deals in, or otherwise engages in any transaction relating to, any property or interests in property blocked pursuant to Executive Order No. 13224.

(e) To the extent applicable, each of Holdings, the Borrower and each Subsidiary is in compliance, in all material respects, with (a) the Trading with the Enemy Act, as amended, and each of the foreign assets control regulations of the United States Treasury Department (31 CFR, Subtitle B, Chapter V, as amended) and any other enabling legislation or executive order relating thereto, and (b) the Patriot Act. No part of the proceeds of the Term Loans will be used, directly or indirectly, for any payments to any governmental official or employee, political party, official of a political party, candidate for political office, or anyone else acting in an official capacity, in order to obtain, retain or direct business or obtain any improper advantage, in violation of the United States Foreign Corrupt Practices Act of 1977, as amended ("FCPA").

4.24 Insurance. Schedule 4.24 sets forth a true, complete and correct description of all material property and general liability insurance maintained by or on behalf of each Group Member as of the Closing Date. As of such date, such insurance is in full force and effect, except as it would not be reasonably expected to have a Material Adverse Effect. The insurance maintained by or on behalf of each Group Member is in such amount (with no greater risk retention) and against such risks as is customarily maintained by companies of established repute engaged in the same or similar businesses operating in the same or similar locations and with insurance companies which are not Affiliates of any Group Member.

4.25 Choice of Law. Subject to any customary reservations or qualifications contained in customary legal opinions delivered by counsel in the applicable jurisdiction, in the case of a Loan Party incorporated or organized outside of the United States, the choice of governing law of each Loan Document will be recognized and enforced in its jurisdiction of incorporation and any judgment obtained in relation to a Loan Document in the jurisdiction of

the governing law of that document will be recognized and enforced in its jurisdiction of incorporation.

4.26 Regulatory Matters.

(a) (i) Each Group Member has, and it and its Products are in conformance in all material respects with, all Regulatory Required Permits required to conduct its respective businesses as now conducted; (ii) to the knowledge of Holdings and the Borrower, neither the FDA nor other Governmental Authority has provided notice of or is considering limiting, suspending, revoking or terminating such Regulatory Required Permits; (iii) the Group Members have fulfilled and performed, in all material respects, their obligations under each material Regulatory Required Permit, and, to the knowledge of each Group Member, no event has occurred or condition or state of facts exists which would constitute a breach or default, or would cause revocation, limitation, suspension, or termination of any such Regulatory Required Permit, except (x) with respect to Core Business Segments, in each of cases (i), (ii) and (iii) to the extent such Regulatory Required Permit are not material to the business of the Group Members, and (y) other than with respect to Core Business Segments, in each of cases (i), (ii) and (iii), to the extent it would not reasonably be expect to have a Material Adverse Effect.

(b) All Products that are subject to Health Care Laws, to the knowledge of each Group Member, have been and are being researched, designed, developed, tested, investigated, manufactured, prepared, assembled, packaged, tested, labeled, distributed, sold and marketed in compliance in all material respects with applicable Health Care Laws or any other Applicable Law, including, without limitation, the Applicable Laws related to clinical and non-clinical testing, product approval or clearance, current good manufacturing practices, labeling, advertising and promotion, record-keeping, establishment registration and listing, and medical device and other post-market reporting, and all other importation and distribution requirements, except as it would not be reasonably expected to have a Material Adverse Effect.

(c) Except as it would not be reasonably expected to have a Material Adverse Effect or as it has been publicly disclosed, (i) with respect to any Product, the Group Members have received all Regulatory Required Permits required in connection with the design, testing, manufacture, processing, assembly, packaging, labeling, marketing, distribution, commercialization, import, export, or sale of such Product as currently being conducted by or on behalf of such Group Member; and (ii) no Group Member has been restrained in its ability to manufacture, process, distribute, supply, import, export, market, or sell any of its Products.

(d) As of the Closing Date, no Group Member is undergoing any inspection related to Regulatory Required Permits, except as set forth on Schedule 4.26.

(e) To the knowledge of each Group Member, no Group Member nor any of their respective officers, directors or employees has (A) made any untrue statement of material fact, fraudulent statement, or material omission to the FDA or any other Governmental Authority or in any documents or records required to be maintained under the Applicable Laws; (B) failed to disclose a material fact required to be disclosed to the FDA or any other Governmental Authority; or (C) committed an act, made a statement, or failed to make a statement that would

reasonably be expected to provide the basis for the FDA or any other Governmental Authority to invoke its policy respecting "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities," as set forth in 56 Fed. Reg. 46191 (September 10, 1991); or (D) been investigated by FDA or any other Governmental Authority, including but not limited to the Office of the Inspector General for the Department of Health and Human Services, or the Department of Justice, for data or healthcare program fraud. To the knowledge of each Group Member, no Group Member, nor any of their respective officers, directors, employees, or, to their knowledge, contractors, have made or offered any payment, gratuity, or other thing of value that is prohibited by any Applicable Law to personnel of the FDA or any other Governmental Authority.

(f) None of the Products related to the Core Business Segments have been subject to a Recall, nor is any such action currently under consideration by any Group Member or, to the knowledge of the Group Members, any manufacturer or supplier of a Product, except as this would not be reasonably expected to have a Material Adverse Effect.

(g) There are no civil, criminal, or administrative actions, suits, demands, claims, hearings, notices of violation, investigations, proceedings, demand letters, or other communications relating to any alleged hazard or alleged defect in design, manufacture, materials, or workmanship, including, without limitation, any failure to warn or alleged breach of express or implied warranty or representation, relating to any Product provided by any Group Member, or alleging that any such Products are otherwise unsafe or ineffective for their intended use, that are presently pending or threatened in writing, other than as it would not reasonably be expected to have a Material Adverse Effect.

4.27 [Reserved].

4.28 U.K. Pensions. No Loan Party is or has at any time been an employer (for the purposes of sections 38 to 51 of the Pensions Act 2004) of an occupational pension scheme which is not a money purchase scheme (both terms as defined in the Pension Schemes Act 1993); and neither Holdings nor any of its Subsidiaries is or has at any time in the last six (6) years been "connected" with or is or has at any time in the last two (2) years been an "associate" of (as those terms are used in sections 38 and 43 of the Pensions Act 2004) such an employer.

4.29 Intercompany Indebtedness. Schedule 4.29 lists all Indebtedness for borrowed money in excess of $5,000,000 owing by any Loan Party to a non-Loan Party.

SECTION 5. **CONDITIONS PRECEDENT**

5.1 Conditions Precedent to the Effective Date. The following conditions precedent must be satisfied or waived on or before the Effective Date; provided, that the execution and delivery of this Agreement by all parties thereto shall be conclusive evidence of the satisfaction or waiver of all such conditions:

(h) Loan Documents. The Administrative Agent shall have received the following documents, duly executed by an Authorized Officer of each Closing Date Loan Party:

(i) this Agreement; and

(ii) the Fee Letter.

(i) Collateral.

(i) The Administrative Agent shall have received the results of a search of the Uniform Commercial Code filings (or equivalent filings), in addition to tax Lien, judgment Lien, bankruptcy and litigation searches made with respect to each Closing Date Loan Party that is a Domestic Loan Party, together with copies of the financing statements and other filings (or similar documents) disclosed by such searches, and accompanied by evidence reasonably satisfactory to the Administrative Agent that the Liens indicated in any such financing statement and other filings (or similar document) are permitted Liens under Section 7.2 or have been released or will be released substantially simultaneously with the initial Credit Extensions hereunder).

(j) Officer's Certificates. The Administrative Agent shall have received a certificate for each Closing Date Loan Party, dated the Effective Date, duly executed and delivered by such Loan Party's General Counsel, secretary, other duly authorized officer, sole shareholder, managing member or general partner, as applicable, as to:

(i) resolutions of each such Person's board of managers/directors (or other managing body, in the case of a Person that is not a corporation) or shareholder(s) then in full force and effect authorizing, to the extent relevant, the transactions contemplated by the Loan Documents applicable to such Person and the execution, delivery and performance of each Loan Document, in each case, to be executed by such Person;

(ii) the incumbency and signatures of its certain of its Responsible Officers (in the case of the Borrower) and any other of its officers, managing member or general partner, as applicable, authorized to act with respect to each Loan Document to be executed by such Person;

(iii) each such Person's Organizational Documents, as amended, modified or supplemented as of Effective Date, with the certificate or articles of incorporation or formation or other applicable organization document;

(iv) certificates of good standing (or local jurisdiction equivalent, to the extent available) with respect to each Closing Date Loan Party from its relevant jurisdiction of incorporation or formation, each dated within a recent date prior to the Effective Date, such certificates to be issued by the appropriate officer or official body of the jurisdiction of organization of such Loan Party, which certificate shall indicate (if applicable) that such Loan Party is in good standing in such jurisdiction.

(k) U.K. Director's Certificate and Attachments. The Administrative Agent shall have received an executed certificate from a director of each U.K. Loan Party that is a Closing Date Loan Party, together with all applicable attachments, certifying as to the following:

(i) Organizational Documents. Attached thereto is a copy of each Organizational Document of such Loan Party (including, without limitation, the Certificate of Incorporation and the Memorandum and Articles of Association) executed and delivered by each party thereto.

(ii) Signature and Incumbency. Set forth therein are the signature and incumbency of the officers or other authorized representatives of such Loan Party authorized to execute the Loan Documents to which it is a party as of the Closing Date.

(iii) Resolutions. Attached thereto are copies of resolutions of the shareholders and the board of directors (or similar governing body) of such Loan Party approving and authorizing the execution, delivery and performance of this Agreement, the Loan Documents to which it is a party or by which it or its assets may be bound as of the Closing Date and the transactions contemplated hereby and thereby, as applicable, in each case, certified as of the Closing Date as being in full force and effect without modification or amendment.

(iv) PSC Register and Certifications. Attached thereto is a certified copy of the PSC Register of each such Loan Party whose share capital is subject to security created under any U.K. Security Document.

(l) Financial Information. The Administrative Agent shall have received or the Borrower shall have made available to the Administrative Agent through the materials filed with the SEC) the following documents and reports (each in form and substance reasonably satisfactory to the Administrative Agent) the forecasted financial projections of the Loan Parties (including Liquidity calculations) for the fiscal years 2020-2022 as of the Closing Date along with a pro forma balance sheet of Holdings and its Restricted Subsidiaries as of April 30, 2020 after giving effect to the Transactions.

(m) Legal and Collateral Due Diligence. The Administrative Agent shall have completed its legal and collateral due diligence, including a satisfactory review of regulatory due diligence and a satisfactory review of the terms of the Initial Syndicated Offering.

(n) Material Adverse Effect. There has been no Material Adverse Effect, since December 31, 2019 (other than any change or event expressly disclosed to the Administrative Agent on or before May 25, 2020).

5.2 Conditions Precedent to Initial Credit Extension. The making of the initial Credit Extension is subject to the satisfaction (or waiver) of the following conditions precedent:

(a) Loan Documents. The Administrative Agent shall have received the following documents, duly executed by an authorized officer or authorized representative of each Closing Date Loan Party, to the extent applicable:

(i) the Guarantee and Collateral Agreement;

(ii) the Intellectual Property Security Agreements;

(iii) each Note requested by any Lender on or prior to the Effective Date;

(iv) Borrowing Notice;

(v) [reserved];

(vi) Intercompany Note;

(vii) UK Security Documents; and

(viii) the Perfection Certificate.

(b) Collateral.

(i) To the extent required under the Security Documents, all Capital Stock of each Subsidiary (other than Excluded Subsidiaries) held by each Closing Date Loan Party that is a Domestic Loan Party shall have been pledged to the Collateral Agent.

(ii) For all Indebtedness for borrowed money owed to any of the Closing Date Loan Parties that is a Domestic Loan Party in excess of $5,000,000 that is evidenced by one or more promissory notes, such promissory notes shall have been pledged pursuant to the Guarantee and Collateral Agreement, and the Collateral Agent shall have received all such promissory notes, together with instruments of transfer with respect thereto endorsed in blank.

(iii) The Collateral Agent shall have received, in form and substance reasonably satisfactory to the Administrative Agent, the appropriate Uniform Commercial Code financing statements for filing in such office or offices as may be necessary to perfect the Collateral Agent's Liens in and to the UCC Filing Collateral granted under the Guarantee and Collateral Agreement.

(c) Other Documents and Certificates. The Administrative Agent shall have received a certificate of an Authorized Officer of the Borrower, certifying the satisfaction of , all conditions in Sections 5.3(a) and (b) substantially in the form of Exhibit M hereto.

(d) Financial Information. The Administrative Agent shall have received a detailed sources and uses statement which reflects (A) the sources of all funds to be used by the Loan Parties to consummate the Transactions and to pay all transaction expenses incurred in connection therewith (including the fees, costs and expenses due and payable pursuant to the Fee Letter, Sections 2.5 and 10.5) and (B) all uses of such funds, which sources and uses shall be attached as an exhibit to the Borrowing Notice delivered pursuant to Section 5.2(a).

(e) Legal Opinions. The Administrative Agent shall have received (i) executed customary legal opinions of outside counsel to the Borrower and the other Closing Date Loan Parties that are Domestic Subsidiaries, (ii) executed legal opinion of Morgan, Lewis & Bockius UK LLP, legal advisers to the Administrative Agent, in respect of the enforceability of the U.K. Security Documents and (iii) executed legal opinion of Cleary Gottlieb Steen & Hamilton LLP, legal advisers to the Closing Date U.K. Loan Parties, in respect of the due authorization, capacity, power and authority of the Closing Date U.K. Loan Parties to enter into the Loan Documents, which opinions shall be addressed to the Administrative Agent and the Lenders.

(f) Solvency Certificate. The Administrative Agent shall have received a Solvency Certificate.

(g) Insurance. The Administrative Agent shall have received a certificate of insurance, in each case, as to the insurance required by Section 6.5, in form and substance reasonably satisfactory to Administrative Agent.

(h) Repayment of Existing Facilities. Arrangements reasonably satisfactory to the Administrative Agent shall have been made for the repayment by the Loan Parties and each of their respective Restricted Subsidiaries of the Existing Facilities in full substantially simultaneously with the funding of the Term Loans in accordance with the funds flow memorandum attached to the Borrowing Notice.

(i) Fees and Expenses. Each of the Administrative Agent and each Lender shall have received, for its own respective account, (i) all fees and expenses due and payable to such Person under the Fee Letter and (ii) the reasonable fees, costs and expenses due and payable to such Person pursuant Sections 2.5 and 10.5 (including the reasonable and documented fees, disbursements and other charges of counsel) for which invoices have been presented at least one (1) Business Day prior to the Closing Date.

(j) Patriot Act Compliance. The Administrative Agent shall have received, at least five (5) Business Days prior to the Closing Date, all documentation and other information required by banking regulatory authorities under applicable "know your customer" and Anti-Money Laundering Laws, rules and regulations, and any required Patriot Act compliance, required by the Administrative Agent at least three Business Days prior to the Effective Date.

(k) Initial Syndicated Offering. Evidence reasonably satisfactory to the Administrative Agent of Holding's consummation of the Initial Syndicated Offering .

5.3 Conditions to all Credit Extensions. The agreement of each Lender to make any credit extension is subject to the satisfaction of the following conditions precedent:

(a) Representations and Warranties. Each of the representations and warranties made by any Loan Party in or pursuant to the Loan Documents shall be true and correct in all material respects (or in all respects where qualified by materiality or Material Adverse Effect) on and as of such date as if made on and as of such date (except to the extent made as of a specific date, in which case such representation and warranty shall be true and correct in all material respects (or in all respects where qualified by materiality or Material Adverse Effect) on and as of such specific date).

(b) No Default. No Default or Event of Default shall have occurred and be continuing on such date or after giving effect to the extensions of credit requested to be made on such date.

(c) Notices. The Borrower shall have delivered to the Administrative Agent, the Borrowing Notice or application, as the case may be, for such extension of credit in accordance with this Agreement.

SECTION 6. **AFFIRMATIVE COVENANTS**

Each Loan Party hereby agrees that, so long as the Commitments remain in effect, or any Term Loan or other amount is owing to any Lender or Agent hereunder (other than Unasserted Contingent Obligations), Holdings shall and shall cause each of its Restricted Subsidiaries to:

6.1 Financial Statements. Furnish to the Administrative Agent or for prompt further distribution to each Lender:

(a) as soon as available, but in any event within ninety (90) days after the end of each fiscal year of Holdings, a copy of the audited consolidated balance sheet of Holdings and its consolidated Subsidiaries as at the end of such year and the related audited consolidated statements of income or operations, members' equity and cash flows for such year, setting forth in each case in comparative form (in both Dollar and percentage terms) the figures for the previous year and when such Projections has been delivered pursuant to Section 6.2(b), a comparison (both in Dollar and percentage terms) to projections for such year in the then-current Projections, such audited consolidated balance sheet reported on without a "going concern" or like qualification or exception, or qualification arising out of the scope of the audit, by Pricewaterhouse Coopers LLP or other independent certified public accountants of nationally recognized standing;

(b) as soon as available, but in any event on the date forty-five (45) days after the end of each quarterly period of each fiscal year of Holdings, (i) the unaudited consolidated balance sheet of Holdings and its consolidated Subsidiaries as at the end of such quarter, the related unaudited consolidated statements of income or operations, for such quarter and cash flows for the portion of the fiscal year through the end of such quarter, setting forth in each case in comparative form (in both Dollar and percentage terms) the figures for the corresponding fiscal quarter in, and year-to-date portion of, the immediately preceding fiscal year of Holdings and when such Projections has been delivered pursuant to Section 6.2(b), a comparison (both in Dollar and percentage terms) to projections for such quarter in the then-current Projections, in each case, certified by a Responsible Officer of Holdings as fairly presenting in all material respects the financial condition, results of operation, members' equity and cash flows of Holdings in accordance with GAAP (subject to normal year-end audit adjustments and the absence of footnotes) and (ii) a narrative report and management's discussion and analysis, in customary form, of the financial condition and results of operations for such fiscal quarter and the then elapsed portion of the fiscal year, as compared to the comparable periods in the previous fiscal year, and (iii) information and calculations on the amount of Investments made utilizing Section 7.6(g) and 7.6(s);

(c) as soon as available and in any event within thirty (30) days after the end of each month, a statement showing the available cash balance and income of Holdings and its consolidated Subsidiaries as at the end of such month, the related unaudited consolidated

statements of income or operations, for such month, setting forth in each case in comparative form (in both Dollar and percentage terms) the figures for the corresponding month in, and year-to-date portion of, the immediately preceding fiscal year of Holdings, in each case, certified by a Responsible Officer of Holdings as fairly presenting in all material respects the financial condition, results of operation, members' equity and cash flows of Holdings in accordance with GAAP (subject to normal year-end audit adjustments and the absence of footnotes); and

(d) in the event Holdings is no longer subject to the periodic reporting requirements of the Exchange Act, at such time as reasonably determined by the Administrative Agent, after the financial statements of Holdings and its consolidated Subsidiaries are required to be delivered pursuant to Sections 6.1(a) and 6.1(b), Holdings and the Borrower shall participate in a conference call to discuss results of operations of Holdings and its consolidated Subsidiaries with the Lenders.

All such financial statements shall be in accordance with GAAP applied consistently throughout the periods reflected therein and other than as disclosed therein with prior periods.

Documents required to be delivered pursuant to Section 6.1(a), (b) or (c) or Section 6.2(b) or Section 6.2(c) (to the extent any such documents are included in materials otherwise filed with the SEC) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date (i) on which the Borrower posts such documents, or provides a link thereto on the Borrower's website on the Internet; or (ii) on which such documents are posted on the Borrower's behalf on an Internet or intranet website, if any, to which each Lender and the Administrative Agent have access (whether a commercial, third-party website or whether sponsored by the Administrative Agent) (the "Platform"); *provided* that, (x) to the extent the Administrative Agent or any Lender so requests, the Borrower shall deliver paper copies of such documents to the Administrative Agent or such Lender until a written request to cease delivering paper copies is given by the Administrative Agent or such Lender and (y) the Borrower shall notify the Administrative Agent (by facsimile or electronic mail) of the posting of any such documents. The Administrative Agent shall have no obligation to request the delivery or to maintain copies of the documents referred to herein, and in any event shall have no responsibility to monitor compliance by the Borrower with any such request for delivery, and each Lender shall be solely responsible for requesting delivery to it or maintaining its copies of such documents.

6.2 Certificates; Other Information. Furnish to the Administrative Agent and the Collateral Agent (as applicable) (or, in the case of clause (e), to the relevant Lender):

(a) (x) concurrently with the delivery of any financial statements pursuant to Section 6.1(a) and (b), (i) a certificate of a Responsible Officer of the Borrower stating that such Responsible Officer has obtained no knowledge of any Default or Event of Default except as specified in such certificate, and (ii) a Compliance Certificate containing all information and calculations necessary for determining compliance by each Group Member with Section 7.15, as of the last day of the fiscal quarter or fiscal year of Holdings, to the extent applicable, (y) concurrently with the delivery of any financial statements pursuant to Section 6.1(c), to the extent not previously disclosed and delivered to the Administrative Agent and the Collateral Agent, (i) a listing of any patent, trademark or copyright which is the subject of a United States

registration or application (including Intellectual Property included in the Collateral which was theretofore unregistered and becomes the subject of a United States registration or application) acquired by any Loan Party since the date of the most recent list delivered pursuant to this clause (y), and promptly deliver to the Administrative Agent and the Collateral Agent an Intellectual Property Security Agreement suitable for recordation in the United States Patent and Trademark Office or the United States Copyright Office, (ii) to the extent applicable, a written notice to the Administrative Agent pursuant to the last proviso of the definition of "Reinvestment Event" and (iii) a listing of any new Regulatory Required Permit received by any Group Member that represents the first entry into market for a new Product in Japan, Brazil, Saudi Arabia or China, or an original PMA in the United States, and (z) (i) the related consolidating financial statements reflecting the adjustments necessary to eliminate the accounts of Unrestricted Subsidiaries (if any) from such consolidated financial statements and (ii) a list identifying each Subsidiary of Holdings as a Restricted Subsidiary or an Unrestricted Subsidiary as of the date of delivery of such financial statements or confirming that there is no change in such information since the later of the Closing Date and the date of the last such list;

(b) as soon as available, and in any event no later than ninety (90) days after the end of each fiscal year of Holdings, projections for the following fiscal year shown on a quarterly basis (including consolidated statements of projected cash flow and projected income and a description of the underlying assumptions applicable thereto) (collectively, the "Projections"), which Projections shall in each case be accompanied by a certificate of a Responsible Officer of Holdings stating that such Projections are based on estimates, information and assumption believed by such Responsible Officer to be reasonable at the time prepared, it being understood that actual results may vary from such projections and that such variations may be material; provided that to the extent Holdings files annual guidance with the SEC in a form consistent with past practice, the filing of such annual guidance shall be deemed to satisfy the requirement to provide Projections pursuant to this clause (b);

(c) promptly after the same are sent, copies of all financial statements, reports and material notices that the Borrower sends to the holders of any class of its Junior Indebtedness, Syndicated Offerings or other public equity securities and, promptly after the same are filed, copies of all annual, regular or periodic and special reports and registration statements which the Loan Parties may file or be required to file with the SEC and not otherwise required to be delivered to the Administrative Agent pursuant hereto, and, promptly, and in any event within seven (7) Business Days, after receipt thereof by Holdings or any Subsidiary thereof, copies of each written notice or other correspondence received from the SEC or comparable agency in any applicable foreign jurisdiction concerning any investigation or potential investigation or other inquiry by such agency regarding the financial or other operational results of Holdings or any Subsidiary thereof and copies of any exchange notice received from any holder of the Initial Syndicated Offering;

(d) promptly, after any request by the Administrative Agent, any final "management" letter submitted by such accountants to the board of directors of Holdings or the Borrower in connection with their annual audit; and

(e) promptly, such additional financial and other information regarding the business, financial or corporate affairs of Holdings or any of its Restricted Subsidiaries as the Administrative Agent (for itself or on behalf of any Lender) may from time to time reasonably request, including, without limitation, other information with respect to the Patriot Act; *provided*, that (other than with respect to the Patriot Act or where waiver of such privilege will not be adverse to the Borrower in the good faith opinion of the Borrower's counsel) if the disclosure of any requested information would compromise any attorney-client privilege, that has not been or will not be waived, the Borrower shall make available redacted versions of requested documents or portions of documents that are the subject of such attorney-client privilege or, if unable to do so consistent with the preservation of such attorney-client privilege, shall endeavor in good faith otherwise to disclose information responsive to the Administrative Agent's requests in a manner that will protect such attorney-client privilege.

(f) promptly, and in no event later than three (3) Business Days after an Authorized Officer becomes aware thereof, notify and provide copies to the Administrative Agent of any notice and related correspondence that (i) the FDA or any other similar Governmental Authority is limiting, suspending or revoking any material Regulatory Required Permit, changing the Product Approval, manufacturing process or facilities, distribution pathway or parameters, or label or labeling of the Products of the Loan Parties or their respective Subsidiaries, to the extent this could reasonably expected to have a Material Adverse Effect, or considering any of the foregoing; (ii) any Loan Party or any of its Subsidiaries becoming subject to any administrative or regulatory enforcement action, including FDA application integrity review, Form FDA 483 observation or other inspection-related or audit documents, warning letter, untitled letter, notice of violation letter, penalty, fine, sanction or reprimand, or other notice, response or commitment made to or with the FDA or any comparable Governmental Authority, or (iii) to the extent this could reasonably be expected to have a Material Adverse Effect, (1) any Product of any Loan Party or any of its Subsidiaries being seized, withdrawn, recalled (voluntarily or otherwise), detained, or subject to a suspension of manufacturing, or (2) the commencement of any proceedings in the United States or any other jurisdiction seeking the withdrawal, recall (voluntary or otherwise), suspension, import detention, or seizure of any Product are pending or threatened in writing against the Loan Parties or their respective Subsidiaries; and (3) any voluntary withdrawal or recall of any Product by any Loan Party or any of its Subsidiaries.

6.3 Payment of Taxes. Pay all federal, state and other material Taxes, before they become delinquent, except where the amount or validity thereof is currently being contested in good faith by appropriate proceedings and reserves in accordance with GAAP with respect thereto have been provided on the books of the relevant Group Member.

6.4 Maintenance of Existence; Compliance.

(a) (i) Preserve, renew and keep in full force and effect its organizational existence except as permitted hereunder and (ii) take all reasonable action to maintain all rights, privileges and franchises necessary or desirable in the normal conduct of its business, including, without limitation, all necessary Governmental Authorizations, except, in each case, as otherwise

permitted by Section 7.3 and except, in the case of clause (ii) above, to the extent that failure to do so could not reasonably be expected to have a Material Adverse Effect; and

(b) comply with all Contractual Obligations, Organizational Documents and Requirements of Law (including, without limitation, and as applicable, Health Care Laws, FDA regulations, ERISA, OFAC, FCPA and the Code) except to the extent that failure to comply therewith could not, in the aggregate, reasonably be expected to have a Material Adverse Effect.

6.5 Maintenance of Property; Insurance. (a) Except as permitted by Section 7.4, keep all material Property useful and necessary in its business in good working order and condition, ordinary wear and tear and obsolescence excepted, except if failure to do so could not reasonably be expected to have a Material Adverse Effect, (b) maintain, with reputable non-Affiliate insurance companies, insurance in such amounts and against such risks as are customarily maintained by similarly situated companies engaged in the same or similar business operating in the same or similar locations. Within 30 days after the Closing Date, the umbrella liability insurance and property insurance of the Loan Parties shall (i) name the Administrative Agent, on behalf of Secured Parties as an additional insured thereunder as its interests may appear and (ii) in the case of each casualty insurance policy, contain a loss payable clause or endorsement, reasonably satisfactory in form and substance to the Administrative Agent, that names Collateral Agent, on behalf of Lenders as the loss payee thereunder and provide for at least thirty days' prior written notice to Collateral Agent of any cancellation of such policy and (c) if any portion of any Mortgaged Property is at any time located in an area identified by the Federal Emergency Management Agency (or any successor agency) as a Special Flood Hazard Area with respect to which flood insurance has been made available under the National Flood Insurance Act of 1968 (as now or hereafter in effect or successor act thereto), then the Borrower shall, or shall cause each Loan Party to (i) maintain, or cause to be maintained, with a reputable non-Affiliate insurer, flood insurance in an amount and otherwise sufficient to comply with all applicable rules and regulations promulgated pursuant to the Flood Insurance Laws and (ii) deliver to the Administrative Agent evidence of such compliance in form and substance reasonably acceptable to the Administrative Agent.

6.6 Inspection of Property; Books and Records; Discussions. (a) Keep proper books of records and account in which full, true and correct in all material respects entries in conformity with GAAP and all Requirements of Law shall be made of all material dealings and transactions in relation to its business and activities and (b) subject to the Borrower's, Holdings' and each Restricted Subsidiary's internal policies for the protection and preservation of Intellectual Property or other non-financial proprietary information, permit representatives of the Administrative Agent who may be accompanied by any Lender to visit and inspect any of its properties and examine and make abstracts from any of its books and records at any reasonable time during normal business hours and upon reasonable advance notice to the Borrower and to discuss the business, operations, properties and financial and other condition of the Group Members with the officers of the Group Members and with their independent certified public accountants (*provided* that Holdings or its Subsidiaries may, at their option, have one or more employees or representatives present at any discussion with such accountants); *provided* that unless an Event of Default has occurred or is continuing, only one (1) such visit in any calendar

year shall be at the Borrower's expense and *provided*, further, that if the disclosure of any requested information would compromise any attorney-client privilege (other than where waiver of such privilege will not be adverse to the Borrower in the good faith opinion of the Borrower's counsel), that has not been or will not be waived or waiver thereof will be materially adverse to the Borrower, the Borrower shall make available redacted versions of requested documents or portions of documents that are the subject of such attorney-client privilege or, if unable to do so consistent with the preservation of such attorney-client privilege, shall endeavor in good faith otherwise to disclose information responsive to the Administrative Agent's requests in a manner that will protect such attorney-client privilege.

6.7 Notices. As soon as possible and in any event within five (5) Business Days after a Responsible Officer of Holdings or any of its Subsidiaries obtains knowledge thereof, give notice to the Administrative Agent of:

(a) the occurrence of any Default or Event of Default, which notice shall specify the nature thereof, the period of existence thereof and what action the applicable Loan Party proposes to take with respect thereto;

(b) any (i) default or event of default under any Contractual Obligation of any Group Member, including under the Initial Syndicated Offering or other Junior Indebtedness, in each case that could reasonably be expected to have a Material Adverse Effect, (ii) litigation, investigation or proceeding that may exist at any time between any Group Member and any Governmental Authority, which could reasonably be expected to have a Material Adverse Effect, (iii) material amendment of the Initial Syndicated Offering's documentation or other Junior Indebtedness Documentation or (iv) any notices delivered in accordance with Section 6.7 of the Revolving Credit Agreement (only to the extent a notice in respect of the same matter has not been already delivered to the Administrative Agent pursuant to this Section 6.7) or material amendment to the Revolving Credit Agreement;

(c) any litigation, enforcement action or proceeding affecting any Group Member (i) which could reasonably be expected to have a Material Adverse Effect, (ii) which relates to any Loan Document;

(d) as soon as possible and in any event within thirty (30) days after a Responsible Officer of the Borrower or any Controlled Group Member knows or has reason to know that any (i) ERISA Event or substantially similar events with respect to pension schemes maintained in the United Kingdom or Canada; (ii) material increase in the excess of the present value of all accrued benefits under each Single Employer Plan (based on those assumptions used to fund such Plans) over the value of the assets of such Plan allocable to such accrued benefits since the date the representations hereunder are given or deemed given, or from any prior notice, as applicable or (iii) material increase since the date the representations hereunder are given or deemed given, or from any prior notice, as applicable, in potential withdrawal liability under Section 4201 of ERISA, if the Group Members and the Commonly Controlled Entities were to withdraw completely from any and all Multiemployer Plans, in each case, has occurred and would reasonably be expected to have a Material Adverse Effect;

(e) as soon as possible and in any event within thirty (30) days after a Responsible Officer of the Borrower or any Controlled Group Member knows of has reason to know that (i) any violation of any Environmental Law which could reasonably be expected to result in a Material Adverse Effect, (ii) any proceeding against or investigation under any Environmental Law, including a written request for information or a written notice of violation or potential environmental liability from any Governmental Authority or any other person, which could reasonably be expected to result in a Material Adverse Effect, (iii) the occurrence or discovery of a Release or threat of a Release or exposure to Materials of Environmental Concern at, on, in, under, to or from any Property in excess of reportable or allowable standards or levels under any Environmental Law, or under circumstances, or in a manner or amount which could reasonably be expected to result in a Material Adverse Effect or (iv) any pending or threatened Environmental Claim which could reasonably be expected to result in a Material Adverse Effect. and

(f) any development or event that has had or could reasonably be expected to have a Material Adverse Effect.

Each notice pursuant to this Section 6.7 shall be accompanied by a statement of a Responsible Officer setting forth details of the occurrence referred to therein and stating what action the Borrower or the relevant Subsidiary proposes to take with respect thereto.

6.8 Environmental Laws. Comply with, and use commercially reasonable efforts to ensure compliance in all material respects by all tenants and subtenants, if any, with, all applicable Environmental Laws, and obtain and comply with and maintain, and use commercially reasonable efforts to ensure that all tenants and subtenants obtain and comply in all material respects with and maintain, any and all licenses, approvals, notifications, registrations or permits required by applicable Environmental Laws, except, in each case, to the extent the failure to do so could not reasonably be expected to have a Material Adverse Effect.

(a) Conduct and complete all investigations, studies, sampling and testing, and all remedial, removal and other actions required under Environmental Laws to address Materials of Environmental Concern, and promptly comply with all lawful orders and directives of all Governmental Authorities regarding Environmental Laws or Materials of Environmental Concern, except to the extent the failure to do so could not reasonably be expected to have a Material Adverse Effect.

(b) Provide the Administrative Agent with copies of any material demand, request for information, notice, submittal, documentation or correspondence (excluding, in any case, documentation subject to privilege claims) received or provided by or on behalf of any Loan Party from or to any Governmental Authority or other person under any Environmental Law to the extent the same could reasonably be expected to result in a Material Adverse Effect. Such notice, submittal or documentation shall be provided to the Administrative Agent promptly and, in any event, within thirty (30) Business Days after such material is provided to any Governmental Authority or third party.

6.9 [Intentionally Omitted].

6.10 Post-Closing; Additional Collateral, etc.

(a) With respect to any property acquired after the Effective Date by any Loan Party incorporated in the United States or Canada as to which the Collateral Agent, for the benefit of the Secured Parties, does not have a perfected Lien (other than (x) any property described in paragraph (b), (c), (d) or (g) below and (y) property that is not required to become subject to Liens in favor of the Collateral Agent pursuant to the Loan Documents) the Borrower shall ensure that the relevant Loan Parties will (i) execute and deliver to the Collateral Agent such amendments to the applicable Security Document, Perfection Certificate or such other documents as the Collateral Agent deems necessary or advisable to grant to the Collateral Agent, for the benefit of the Secured Parties, a security interest in such property, (ii) take all actions necessary or advisable to grant to the Collateral Agent, for the benefit of the Secured Parties, a perfected (subject to any Lien that is permitted under Section 7.2) security interest with the priority contemplated by the Intercreditor Agreement in such property, including, the filing of Uniform Commercial Code financing statements in such jurisdictions as may be required by the applicable Security Document or by law and, in the case of patents, trademarks and copyrights subject to a United States registration or application, as promptly as practicable, the delivery for filing of an Intellectual Property Security Agreement suitable for recordation in the United States Patent and Trademark Office or the United States Copyright Office as may be required by the applicable Security Document, and (iii) if reasonably requested by the Collateral Agent, deliver to the Collateral Agent legal opinions relating to the matters described above, which opinions shall be customary in form and substance and from counsel reasonably satisfactory to the Collateral Agent.

(b) With respect to any fee interest in any real property having a value (together with improvements thereof) of at least $10,000,000 owned or acquired on or after the Closing Date by any Domestic Loan Party (other than any such real property subject to a Lien expressly permitted by Section 7.2(g)), within 90 days, or as such later date the Administrative Agent may agree, (i) execute and deliver a first priority Mortgage subject to Liens permitted under clause (i) and (n) of Section 7.2 hereof, in favor of the Collateral Agent, for the benefit of the Secured Parties, covering such real property, (ii) provide the Secured Parties with (x) a policy of title insurance (or marked up title insurance commitment having the effect of a policy of title insurance) covering such real property in an amount at least equal to the purchase price of such real property (or such other amount as shall be reasonably acceptable to the Collateral Agent, *provided* that in jurisdictions that impose mortgage recording taxes, the Security Documents shall not secure indebtedness in an amount exceeding 105% of the fair market value of the Mortgaged Property, as reasonably determined in good faith by the Loan Parties and reasonably acceptable to Collateral Agent), as well as a Survey thereof (except that a new Survey will not be required except to the extent necessary to delete the so called “survey exceptions” in any such policy of title insurance) and (y) any consents or estoppels deemed necessary in the reasonable opinion of the Collateral Agent to obtain such Mortgage, each of the foregoing in form and substance reasonably satisfactory to the Administrative Agent, (iii) deliver to the Collateral Agent legal opinions relating to, among other things, the enforceability, due authorization, execution and delivery of the applicable Mortgage, which opinions shall be in customary form and substance and from counsel reasonably satisfactory to the Collateral Agent and (iv) for real property

located in the United States deliver to the Administrative Agent a "Life-of-Loan" Federal Emergency Standard Flood Hazard Determination (together with a notice about special flood hazard area status and flood disaster assistance duly executed by the Borrower and each Loan Party relating thereto), and if such Mortgaged Property is located in a special flood hazard area, evidence of flood insurance confirming that such insurance has been obtained, which certificate shall be in a form and substance reasonably satisfactory to the Administrative Agent, and any and all other documents as the Collateral Agent may reasonably request, in each case, in form and substance reasonably satisfactory to the Collateral Agent.

(c) [Intentionally Omitted].

(d) Subject to the Agreed Security Principles, with respect to any new Eligible Foreign Pledged Subsidiary that is a Wholly Owned Subsidiary (other than an Immaterial Subsidiary or an Unrestricted Subsidiary or otherwise an Excluded Subsidiary) created or acquired after the Closing Date (including any such Subsidiary that ceases to be either an Immaterial Subsidiary or an Unrestricted Subsidiary, but other than any Foreign Subsidiary excluded pursuant to Section 6.10(g)(i)) by any Loan Party (other than by any Loan Party that is a Foreign Subsidiary), within seventy-five (75) days of such formation or acquisition, (or, in each case, such later date as the Administrative Agent may agree), (A) execute and deliver to the Collateral Agent such Security Documents as the Collateral Agent deems necessary or reasonably advisable to grant to the Collateral Agent, for the benefit of the Secured Parties, a perfected first priority (subject to any Lien that is permitted under Section 7.2) security interest in the Capital Stock of such new Subsidiary that is owned by any such Loan Party (*provided* that in no event shall more than 65% of the total outstanding voting Capital Stock of any such new Subsidiary that is a Section 956 Excluded Subsidiary be required to be so pledged), (B) to the extent issued, deliver to the Collateral Agent the certificates representing such Capital Stock, together with undated stock powers, in blank, executed and delivered by a duly authorized officer of the relevant Loan Party, as the case may be, and take such other action as may be necessary to perfect the Collateral Agent's security interest therein, and (C) if reasonably requested by the Collateral Agent, deliver to the Collateral Agent legal opinions relating to the matters described above, which opinions shall be in customary form and substance and from counsel reasonably satisfactory to the Collateral Agent.

(e) Post-Closing Requirements. Subject to the Agreed Security Principles, the Loan Parties shall (i) deliver to the Agents each item set forth on Schedule 6.10 and (ii) perform each action set forth in Schedule 6.10, each within the time periods set forth opposite each such item or action on such Schedule or such later date as shall be acceptable to Administrative Agent in its sole discretion.

(f) [Intentionally Omitted].

(g) Notwithstanding anything to the contrary in this Section 6.10:

(i) no Excluded Subsidiary shall be required to become a Guarantor, *provided* that the Borrower shall have the option to designate as Guarantor any Subsidiary of Holdings that is

an Excluded Subsidiary under clauses (3), (8) or, with the Administrative Agent's reasonable consent, (9), in each case, of the definition thereof;

(ii) any Restricted Subsidiary organized in Italy shall never qualify as an Eligible Foreign Pledged Subsidiary (but may be required to enter into an unsecured Guarantee of the Obligations, to the extent otherwise required by the Loan Documents);

(iii) without prejudice to the Agreed Security Principles for entities organized outside the United States or Canada, none of the following assets or property shall be required to be included in the Collateral (collectively, the "Excluded Assets"): (i) any assets to the extent that and for as long as such grant of a security interest is prohibited by, or would cause the invalidation, impairment, lapse, forfeiture, dedication to the public, or abandonment of such property under, any applicable law, rule or regulation except to the extent that such law, rule or regulation is ineffective under applicable law or principles of equity or would be ineffective under Sections 9-406, 9-407, 9-408 or 9-409 of the Uniform Commercial Code to prevent the attachment of the security interest granted hereunder, (ii) any assets to the extent that and for as long as such grant of a security interest requires consent pursuant to any applicable law, rule or regulation that has not been obtained, except to the extent that such law, rule or regulation is ineffective under applicable law or principles of equity or would be ineffective under Sections 9-406, 9-407, 9-408 or 9-409 of the Uniform Commercial Code to prevent the attachment of the security interest granted hereunder, (iii) any assets (including leases, licenses, permits or other agreements) subject to any third party arrangement (including purchase money security interests and capitalized leases) to the extent that a grant of a security interest therein would violate or invalidate such arrangement, or create a right of termination in favor of any other party thereto (other than Holdings or any of its Subsidiaries), except to the extent that any such violation, invalidation or termination is ineffective under applicable law or principles of equity or would be ineffective under Sections 9-406, 9-407, 9-408 or 9-409 of the Uniform Commercial Code to prevent the attachment of the security interest granted hereunder, (iv) Margin Stock, (v) any intent-to-use trademark applications filed pursuant to Section 1(b) of the Lanham Act, 15 U.S.C. § 1051 (the "Lanham Act"), prior to the filing and acceptance of a "Statement of Use" and issuance of a "Certificate of Registration" pursuant to Section 1(d) of the Lanham Act or an accepted filing of an "Amendment to Allege Use" whereby such intent-to-use trademark application is converted to a "use in commerce" application pursuant to Section 1(c) of the Lanham Act with respect thereto or any Trademark issued as a result of such application under applicable law, (vi) Capital Stock (A) that constitutes Excluded Equity Interests (as defined in the Guarantee and Collateral Agreement), (B) of any Person that is not a Wholly Owned Subsidiary, or (C) of Unrestricted Subsidiaries or in any Person (other than Wholly Owned Subsidiaries) to the extent not permitted by the terms of such person's organizational or joint venture documents, other than as a result of provisions entered into or created in contemplation of this clause (vi) until such time as such Unrestricted Subsidiary becomes a Restricted Subsidiary in accordance with this Agreement), (vii) assets of the Borrower or its subsidiaries the pledge of which would result in an investment in "United States property" (within the meaning of Section 956 of the Code (or any similar law or regulation in any applicable jurisdiction)) or would otherwise result in a material adverse tax consequence to Holdings, the Borrower, its Restricted Subsidiaries and/or its Affiliates as reasonably determined by Holdings, (viii) those

assets as to which the Administrative Agent and the Borrower reasonably agree in writing that the cost, burden, difficulty or consequence of obtaining such a security interest or perfection thereof outweighs the benefit to the Secured Parties of the security to be afforded thereby, other than proceeds and receivables thereof, the assignment of which is expressly deemed effective under applicable law notwithstanding such prohibition, and (ix) any Excluded Deposit Accounts (as defined in the Guarantee and Collateral Agreement);

(iv) no actions shall be required to be taken to perfect any security interests in any Intellectual Property owned by any Loan Party governed by or arising or existing under the laws of any jurisdiction other than the United States; and

(v) any requirement contained herein with respect to any entity organized outside of the United States and Canada shall in all respects be subject to the Agreed Security Principles.

6.11 Further Assurances. Subject to the Agreed Security Principles for the entities organized outside of the United States and Canada, from time to time execute and deliver, or cause to be executed and delivered, such additional instruments, certificates or documents, and take all such actions, as the Administrative Agent or the Collateral Agent may reasonably request for the purposes of implementing or effectuating the provisions of this Agreement and the other Loan Documents, or of more fully perfecting or renewing the rights of the Administrative Agent, the Collateral Agent and the Secured Parties with respect to the Collateral (or with respect to any additions thereto or replacements or proceeds thereof or with respect to any other property or assets hereafter acquired by any Loan Party which may be deemed to be part of the Collateral) pursuant hereto or thereto. Subject to the Agreed Security Principles for the entities organized outside of the United States or Canada, upon the reasonable exercise by the Administrative Agent, the Collateral Agent or any Secured Party of any power, right, privilege or remedy pursuant to this Agreement or the other Loan Documents which requires any consent, approval, recording qualification or authorization of any Governmental Authority, the Borrower will execute and deliver, or will cause the execution and delivery of, all applications, certifications, instruments and other documents and papers that the Administrative Agent, the Collateral Agent or such Secured Party reasonably may be required to obtain from any Loan Party for such governmental consent, approval, recording, qualification or authorization.

6.12 [Intentionally Omitted].

6.13 Use of Proceeds. The Borrower shall use the proceeds of the Term Loans, solely as set forth in Section 4.16.

6.14 [Intentionally Omitted].

6.15 Intellectual Property. Each Loan Party shall (and Holdings shall procure that each Group Member will): (a) take reasonable efforts to preserve and maintain the subsistence and validity of the Intellectual Property owned by such Loan Party that is necessary to the business of the relevant Group Member; (b) take reasonable steps to prevent and defend against any infringement of such Intellectual Property, including, without limitation, settling such litigation when in such Group Member’s good faith belief it is reasonable to do so; (c) make

registrations and pay all registration fees and taxes necessary, as applicable, to maintain such Intellectual Property in full force and effect and record its interest in such Intellectual Property; and (d) not use or permit such Intellectual Property to be used in a way which may affect the existence or value of such Intellectual Property or imperil the right of any Group Member to use such property, in each case with respect to (a) through (d) above (except with respect to Intellectual Property that is material to any Core Business Segment), except as could not reasonably be expected to have a Material Adverse Effect. Each Group Member shall (i) maintain all licenses for third party Intellectual Property (including commercial Software) licensed to such Group Member and (ii) not violate any such licenses and not cause any such license to cease to be legal, valid, binding, enforceable and in full force and effect following the Closing Date, except for licenses that expire or are terminated in accordance with their terms and in the ordinary course of business (other than a termination resulting from a default or breach by the applicable Group Member), in each of (i) and (ii), except as could not reasonably be expected to have a Material Adverse Effect.

6.16 Designation of Subsidiaries. The board of directors of Holdings may at any time designate any Restricted Subsidiary as an Unrestricted Subsidiary or any Unrestricted Subsidiary as a Restricted Subsidiary; *provided* that (i) immediately before and after such designation, no Default shall have occurred and be continuing, (ii) the Secured Leverage Ratio is less than or equal to 4.50:1.00 (and, as a condition precedent to the effectiveness of any such designation, Holdings shall deliver to the Administrative Agent a certificate setting forth in reasonable detail the *pro forma* calculations demonstrating satisfaction of such test), (iii) no Subsidiary may be designated as an Unrestricted Subsidiary if, after such designation, it would be a "Restricted Subsidiary" for the purpose of any Junior Indebtedness, (iv) any Subsidiary to be designated as an Unrestricted Subsidiary does not (directly, or indirectly through its Subsidiaries) own any Equity Interests or Indebtedness of, or own or hold any Lien on any property of, Holdings or any of its Restricted Subsidiaries and (v) no Subsidiary may be designated as an Unrestricted Subsidiary if such Subsidiary holds any Governmental Authorizations, Intellectual Property or the rights to develop, produce and distribute any Product or owns any Product. The designation of any Subsidiary as an Unrestricted Subsidiary shall constitute an Investment by Holdings therein at the date of designation in an amount equal to the fair market value of the assets of such Subsidiary (less the amount of the Indebtedness of such Subsidiary on the date of such designation) that is allocated to the ownership interest of the relevant Group Member in such Subsidiary. The designation of any Unrestricted Subsidiary as a Restricted Subsidiary shall constitute the incurrence, at the time of designation, of Indebtedness or Liens in such Subsidiary (equal to the amounts then owed by such Subsidiary) and a return on any Investment by Holdings in Unrestricted Subsidiaries pursuant to the preceding sentence in an amount equal to the fair market value of the assets of such Subsidiary (less the amount of the Indebtedness of such Subsidiary on the date of such re-designation) that is allocated to the ownership interest of the relevant Group Member in such Subsidiary. An Unrestricted Subsidiary that has subsequently been designated as a Restricted Subsidiary may not be redesignated as an Unrestricted Subsidiary.

6.17 [Intentionally Omitted].

6.18 U.K. PSC Register.

Each U.K. Loan Party shall:

(a) maintain its PSC Register in accordance with the requirements of section 790B of the U.K. Companies Act 2006 and will provide a copy of the same to the Administrative Agent upon request;

(b) notify the Administrative Agent of its intention to issue, or its receipt of any warning notice or restrictions notice under Schedule 1B of the U.K. Companies Act 2006 in respect of its shares and provide a copy of such warning notice or restrictions notice to the Administrative Agent in each case before it issues or promptly following receipt of such notice; and

(c) not do anything or permit anything to be done, which could result in any other person becoming a PSC Registrable Person in respect of its shares or require that U.K. Loan Party to issue a notice under sections 790D or 790E or a warning or restrictions notice under schedule 1B of the U.K. Companies Act 2006.

SECTION 7. **NEGATIVE COVENANTS**

Each Loan Party hereby agrees that, as from the Closing Date and so long as any Term Loan or other amount is outstanding and owing to any Lender or Agent hereunder (other than Unasserted Contingent Obligations), Holdings shall not, and shall not permit any of its Restricted Subsidiaries to:

7.1 Indebtedness. Create, issue, incur, assume, become liable in respect of or suffer to exist any Indebtedness, except:

(a) Indebtedness of any Loan Party pursuant to any Loan Document;

(b) (i) Indebtedness of any Loan Party owed to any other Loan Party; (ii) unsecured Indebtedness of any Loan Party owed to any Group Member that is not a Loan Party; (iii) Indebtedness of any Group Member that is not a Loan Party owed to any other Group Member that is not a Loan Party; and (iv) subject to Section 7.6(g), Indebtedness of any Group Member that is not a Loan Party owed to a Loan Party; *provided*, that in the case of any such Indebtedness of a Loan Party owed to a Group Member that is not a Loan Party in an amount in excess of $5,000,000, subject to the Agreed Security Principles, such Indebtedness shall be subject to the Intercompany Subordination Agreement within 60 days of (x) the Closing Date, with respect to Indebtedness existing on the Effective Date, or (y) the date on which such Indebtedness is incurred, in case of Indebtedness incurred after the Effective Date;

(c) Guarantee Obligations incurred by (i) any Group Member that is a Loan Party of obligations of any other Loan Party and, subject to Section 7.6(g), of any Group Member that is not a Loan Party and (ii) any Group Member that is not a Loan Party of obligations of any Loan Party or any other Group Member;

(d) Indebtedness outstanding on the Closing Date and listed on Schedule 7.1 and any Permitted Refinancing thereof;

(e) Indebtedness (including, without limitation, Capital Lease Obligation) of the Borrower or any Subsidiary secured by Liens permitted by Section 7.2(g) in an aggregate principal amount not to exceed $25,000,000 at any one time outstanding and any Permitted Refinancing thereof;

(f) Indebtedness in respect of Hedge Agreements designed to hedge against interest rates, foreign exchange rates or commodities pricing risks and not for speculative purposes and Guarantee Obligations thereof (including, for the avoidance of doubt, the Capped Call);

(g) Indebtedness of the Borrower or any Subsidiary in respect of performance, bid, surety, indemnity, appeal bonds, completion guarantees and other obligations of like nature and guarantees and/or obligations as an account party in respect of the face amount of letters of credit in respect thereof, in each case securing obligations not constituting Indebtedness for borrowed money (including worker's compensation claims, environmental remediation and other environmental matters and obligations in connection with insurance or similar requirements) provided in the ordinary course of business;

(h) Indebtedness arising from the endorsement of instruments in the ordinary course of business;

(i) Indebtedness of Foreign Subsidiaries that are not Loan Parties in an aggregate principal amount not to exceed $25,000,000;

(j) Revolving Loan Indebtedness, subject to the terms of Intercreditor Agreement and in an aggregate principal amount not to exceed $60,000,000;

(k) Indebtedness arising from the honoring by a bank or other financial institution of a check, draft or similar instrument inadvertently (except in the case of daylight overdrafts) drawn against insufficient funds in the ordinary course of business; *provided*, however, that such Indebtedness is extinguished within ten (10) Business Days of incurrence;

(l) Indebtedness of Holdings or any Subsidiary that may be deemed to exist in connection with agreements providing for indemnification, purchase price adjustments and similar obligations in connection with acquisitions or sales of assets and/or businesses;

(m) [Intentionally Omitted];

(n) Indebtedness arising from judgments or decrees not constituting an Event of Default under Section 8(h);

(o) Guarantee Obligations incurred by any Loan Party in respect of Indebtedness otherwise permitted by this Section 7.1;

(p) other Indebtedness of the Group Members in an aggregate principal amount (for all Group Members) not in excess of $25,000,000 at any time outstanding;

(q) [Intentionally Omitted];

(r) [Intentionally Omitted];

(s) Indebtedness consisting of obligations of the Borrower, Holdings or any Subsidiary under deferred compensation or other similar arrangements incurred by such Person in connection with any Permitted Acquisitions or any other Investment permitted hereunder;

(t) Indebtedness consisting of (i) the financing of insurance premiums in respect of unearned premiums payable on insurance policies maintained by the Group Members or (ii) take or pay obligations contained in supply arrangements, in each case, in the ordinary course of business;

(u) [Intentionally Omitted.]

(v) unsecured Guarantee Obligations incurred in the ordinary course of business (and consistent with past practice) in respect of obligations to suppliers, customers, franchisees, lessors and licensees;

(w) [Intentionally Omitted]; and

(x) Junior Indebtedness (including, for the avoidance of doubt, in respect of the Initial Syndicated Offering) in an aggregate principal amount not in excess of the lesser of (i) $400,000,000 and (ii) an amount such that the Total Leverage Ratio (calculated on a *pro forma* basis after giving effect to such incurrence), does not exceed 6.00:1.00.

The accrual of interest, the accretion of accreted value and the payment of interest in the form of additional Indebtedness shall not be deemed to be an incurrence of Indebtedness for purposes of this Section 7.1.

7.2 Liens. Create, incur, assume or suffer to exist any Lien upon any of its property, whether now owned or hereafter acquired, except for:

(a) Liens for Taxes, assessments, charges or other governmental levies not yet delinquent for a period of more than thirty (30) days or that are being contested in good faith by appropriate proceedings; *provided* that adequate reserves with respect thereto are maintained on the books of the Group Members, as the case may be, in conformity with GAAP;

(b) Liens imposed by law, including, carriers', warehousemen's, mechanics', materialmen's, repairmen's or other like Liens arising in the ordinary course of business that are not overdue for a period of more than sixty (60) days (or, if more than sixty (60) days overdue, no action has been taken to enforce such Lien) or are being contested in good faith and by appropriate proceedings for which appropriate reserves have been established in accordance with GAAP;

(c) (i) pledges or deposits in connection with workers' compensation, unemployment insurance and other social security legislation, or letters of credit or guarantees issued in respect thereof, and (ii) pledges and deposits in the ordinary course of business securing liability for reimbursement or indemnification obligations of (including obligations in respect of letters of credit or bank guarantees for the benefit of) insurance carriers providing property, casualty or liability insurance to the Borrower, Holdings or any Restricted Subsidiary;

(d) pledges or deposits to secure the performance of bids, government contracts and trade contracts (other than for borrowed money), leases, statutory obligations, surety, stay, customs and appeal bonds, performance bonds and other obligations of a like nature (including those to secure health, safety and environmental obligations) incurred in the ordinary course of business or letters of credit or guarantees issued in respect thereof;

(e) easements, rights-of-way, restrictions (including zoning restrictions), encroachments, protrusions and other similar encumbrances and minor title defects affecting real property that, in the aggregate, do not materially interfere with the ordinary conduct of the business of the Borrower, Holdings and the Restricted Subsidiaries, taken as a whole, and any exception on the title policies issued in connection with the Mortgaged Property;

(f) Liens in existence on the Closing Date listed on Schedule 7.2 and any renewals or extensions of any of the foregoing; *provided* that no such Lien is spread to cover any additional property after the Closing Date;

(g) Liens securing permitted Indebtedness of Holdings, the Borrower or any Restricted Subsidiary incurred to finance the acquisition, construction, improvement or repair of fixed or capital assets and any Permitted Refinancings thereof; provided that (i) such Liens shall be created substantially simultaneously (or within 270 days of) with the acquisition, construction, improvement or repair of such fixed or capital assets, (ii) such Liens do not at any time encumber any property other than the property financed by such Indebtedness and additions, accessions and the proceeds of sale thereof and (iii) the amount of Indebtedness secured thereby is not increased;

(h) Liens created pursuant to the Security Documents or any other Loan Document;

(i) Liens approved by Collateral Agent appearing on Schedule B to the policies of title insurance being issued in connection with the Mortgages;

(j) any interest or title of a lessor or licensee under any lease or license entered into by Holdings, the Borrower or any Restricted Subsidiary in the ordinary course of its business and covering only the assets so leased or licensed;

(k) licenses or sub-licenses granted with respect to Intellectual Property (other than exclusive licenses of Intellectual Property relating to a Core Business Segment), leases or subleases granted to third parties in the ordinary course of business which, individually or in the aggregate, do not materially interfere with the ordinary conduct of the business of the Loan Parties or any of their Subsidiaries;

(l) Liens securing judgments not constituting an Event of Default under Section 8(h) or securing appeal or other surety bonds related to such judgments;

(m) the filing of Uniform Commercial Code financing statements solely as a precautionary measure in connection with operating leases and consignment arrangements;

(n) Liens securing Revolving Loan Indebtedness to the extent permitted by Section 7.1(j), to the extent such Liens are subject to the Intercreditor Agreement;

(o) Liens (i) of a collecting bank arising under Section 4-210 of the Uniform Commercial Code on the items in the course of collection and (ii) in favor of a banking or other financial institution arising as a matter of law or contract encumbering deposits or other funds or assets maintained with a financial institution (including the right of set off) and that are within the general parameters customary in the banking industry, including, without limitation, customary liens for customary fees and expenses relating to the operation and maintenance of such deposits;

(p) Liens in favor of customs and revenue authorities arising as a matter of law and in the ordinary course of business to secure payment of customs duties in connection with the importation of goods;

(q) statutory and common law landlords' liens under leases to which the Borrower or any of the Restricted Subsidiaries is a party;

(r) Liens on assets of Foreign Subsidiaries (other than Loan Parties) securing indebtedness of such Foreign Subsidiaries to the extent the Indebtedness secured thereby is permitted under Section 7.1;

(s) Liens not otherwise permitted by this Section so long as the aggregate outstanding principal amount of the obligations secured thereby do not exceed $ 10,000,000 at any one time;

(t) Liens on cash advances in favor of the seller of any property to be acquired in an Investment permitted pursuant to Section 7.6(i) to be applied against the purchase price for such Investment and not to exceed 10% of the aggregate purchase price with respect thereto when combined with any cash earnest money deposits permitted under clause (x) below;

(u) Liens arising out of conditional sale, title retention, consignment or similar arrangements for sale of goods entered into by the Borrower, Holdings or any Restricted Subsidiary in the ordinary course of business in accordance with past practices of the Borrower, Holdings or such Restricted Subsidiary;

(v) Liens deemed to exist in connection with Investments in repurchase agreements under Section 7.6 and reasonable customary initial deposits and margin deposits and similar Liens attaching to commodity trading accounts or other brokerage accounts maintained in the ordinary course of business and not for speculative purposes;

(w) Liens that are contractual rights of set-off (i) relating to the establishment of depository relations with banks or other financial institutions not given in connection with the issuance of Indebtedness, (ii) relating to pooled deposit or sweep accounts of the Borrower, Holdings or any Restricted Subsidiary to permit satisfaction of overdraft or similar obligations incurred in the ordinary course of business of the Borrower, Holdings or any Restricted Subsidiary or (iii) relating to purchase orders and other agreements entered into with customers of the Borrower, Holdings or any Restricted Subsidiary in the ordinary course of business;

(x) Liens solely on any cash earnest money deposits made by the Borrower, Holdings or any Subsidiary in connection with any letter of intent or purchase agreement permitted hereunder and not to exceed 10% of the aggregate purchase price with respect thereto when combined with any liens and/or cash advances permitted under clause (t) above;

(y) [Intentionally Omitted];

(z) ground leases in respect of real property on which facilities owned or leased by the Borrower, Holdings or any Restricted Subsidiary are located;

(aa) Liens in respect of unearned premiums on insurance policies and the proceeds thereof securing the financing of the premiums with respect thereto;

(bb) Liens on specific items of inventory or other goods and the proceeds thereof securing such Person's obligations in respect of documentary letters of credit or banker's acceptances issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or goods; and

(cc) Liens constituting Dispositions permitted by Section 7.4.

7.3 Fundamental Changes. Enter into any merger, consolidation or amalgamation, or liquidate, wind up or dissolve itself (or suffer any liquidation or dissolution), or Dispose of, all or substantially all of its property or business, except that:

(a) any Restricted Subsidiary may be merged, consolidated or be amalgamated (i) with or into the Borrower (*provided* that the Borrower shall be the continuing or surviving corporation), (ii) with or into any other Restricted Subsidiary (*provided* that if only one party to such transaction is a Secured Guarantor, the Secured Guarantor shall be the continuing or surviving corporation) or (iii) subject to Section 7.6(g), with or into any other Group Member; *provided*, that in the case of clauses (ii) and (iii) any Domestic Loan Party which holds any material assets, including Intellectual Property, that relates to any Core Business Segment may only merge, consolidate or be amalgamated with any other Domestic Loan Party;

(b) any Group Member may Dispose of all or substantially all of its assets (upon voluntary liquidation or otherwise) to any Loan Party or, subject to Section 7.6(g) (to the extent applicable), any other Group Member; *provided*, that, notwithstanding the foregoing, a Domestic Loan Party which holds any material assets, including Intellectual Property, that relates to any

Core Business Segment may only Dispose of all or substantially all of its assets (upon voluntary liquidation or otherwise) to a Domestic Loan Party;

(c) any Restricted Subsidiary that is not a Loan Party may (i) merge or consolidate with or into any Restricted Subsidiary that is not a Loan Party or (ii) dispose of all or substantially all of its assets (including any Disposition that is in the nature of a voluntary liquidation) to (x) another Restricted Subsidiary that is not a Loan Party or (y) to a Loan Party;

(d) the Borrower, and any Restricted Subsidiary may enter into any merger, consolidation or similar transaction with another Person to effect a transaction permitted under Section 7.6 and under this Agreement; *provided* that either (i) the Borrower or any Secured Guarantor is the surviving entity or (ii) if the transaction does not involve the Borrower, the surviving entity (if other than any Secured Guarantor) assumes all the obligations of such Secured Guarantor under the Loan Documents pursuant to agreements reasonably satisfactory to the Administrative Agent and the Collateral Agent; and

(e) transactions permitted under Section 7.4 shall be permitted.

7.4 Disposition of Property. Dispose of any of its property, including any Intellectual Property, whether now owned or hereafter acquired, or, in the case of the Borrower or any Restricted Subsidiary, issue or sell any shares of such Restricted Subsidiary's Capital Stock to any Person, except:

(a) Dispositions of obsolete, damaged, uneconomic or worn out machinery, parts, property or equipment, or property or equipment no longer used or useful, in the conduct of its business, whether now owned or hereafter acquired;

(b) the sale of inventory in the ordinary course of business;

(c) Dispositions permitted by Sections 7.3(a), (b) and (c);

(d) so long as no change of control shall occur therefrom, the sale or issuance of any Group Member's Capital Stock to any other Group Member (except that a Loan Party or Pledged Company may issue Capital Stock only to another Loan Party);

(e) (i) any Group Member may Dispose of any of its assets to a Loan Party or, subject to Section 7.6(g) (to the extent applicable), any other Group Member; *provided*, with (x) respect to any Disposition by a non-Loan Party to a Loan Party, the purchase price with respect thereto shall not be greater than the fair market value of the Disposed assets or Capital Stock and (y) respect to any Disposition by a Loan Party to a non-Loan Party, the purchase price with respect thereto shall not be less than the fair market value of the Disposed assets or Capital Stock; *provided further*, that, notwithstanding the foregoing, a Domestic Loan Party may only Dispose of assets, including Intellectual Property, related to any Core Business Segment to another Domestic Loan Party, (ii) any Group Member that is not a Loan Party may Dispose of any assets, or issue or sell Capital Stock, to any other Group Member that is not a Loan Party and (iii) any

Pledged Company that is not a Loan Party may Dispose of any assets, or issue or sell Capital Stock, to any other Pledged Company that is not a Loan Party;

(f) Dispositions of cash or Cash Equivalents in transactions not otherwise prohibited by this Agreement;

(g) licenses or sub-licenses granted by Group Members with respect to Intellectual Property (other than exclusive licenses of Intellectual Property relating to a Core Business Segment), or leases or subleases, granted to third parties in the ordinary course of business which, individually or in the aggregate, do not materially interfere with the ordinary conduct of the business of the Group Members;

(h) the issuance or sale of shares of any Subsidiary's Capital Stock to qualified directors if required by applicable law;

(i) Dispositions or exchanges of equipment or real property to the extent that (i) such property is exchanged for credit against the purchase price of similar replacement property or (ii) the proceeds of such Disposition are reasonably promptly applied to the purchase price of such replacement property;

(j) Dispositions of leases entered into in the ordinary course of business, to the extent that they do not materially interfere with the business of the Borrower, Holdings and any Restricted Subsidiary, taken as a whole;

(k) the abandonment (including by ceasing to enforce, allowing the lapse, discontinuing the use or maintenance of or putting into the public domain) or other Disposition of Intellectual Property that is, in the reasonable judgment of the Borrower, not material to the conduct of the business of the Borrower, Holdings or the Restricted Subsidiaries, taken as a whole;

(l) the Disposition of Property which constitutes a Recovery Event;

(m) Dispositions consisting of the sale, transfer, assignment or other Disposition of accounts receivable in connection with the collection, compromise or settlement thereof in the ordinary course of business and not as part of a financing transaction;

(n) Dispositions constituting Restricted Payments permitted by Sections 7.5, Investments permitted by Section 7.6 and Liens permitted by Section 7.2;

(o) leases, subleases, licenses or sublicenses with respect to real or personal property (other than Intellectual Property), in each case in the ordinary course of business and which do not materially interfere with the business of the Borrower, Holdings and any Subsidiary, taken as a whole, including leases of unimproved real property encumbered by a Mortgage, on which real property the lessee may make improvements;

(p) so long as the proceeds thereof are applied pursuant to Section 3.2, Dispositions of Investments in joint ventures to the extent required by, or made pursuant to, customary buy/

sell arrangements between the joint venture parties set forth in the joint venture arrangements and similar binding arrangements;

(q) any issuance or sale of Capital Stock in, or Indebtedness or other securities of an Immaterial Subsidiary or Unrestricted Subsidiary;

(r) as long as no Default is continuing or would result therefrom, any Disposition of property of any Group Member (other than any Core Business Segment or any assets or Intellectual Property included in any Core Business Segment), or issuance or sale of Capital Stock by, the Borrower or any Restricted Subsidiary; *provided* that with respect to any Disposition made pursuant to this clause (r), such Disposition shall be valued at fair market value and such Group Member shall receive not less than 75% of such consideration in the form of cash or Cash Equivalents; *provided further* that (i) any liabilities (as shown on the most recent balance sheet of Holdings provided hereunder or in the footnotes thereto) of such Group Member, other than liabilities that are by their terms subordinated in right of payment to the Obligations, that are assumed by the transferee with respect to the applicable Disposition and for which such Group Member shall have been validly released by all applicable creditors in writing, shall be deemed to be cash or Cash Equivalents, (ii) any securities received by such Group Member from such transferee that are convertible by such Group Member into cash or Cash Equivalents within 180 days following the closing of the applicable Disposition, shall be deemed to be cash or Cash Equivalents and (iii) any Designated Non-Cash Consideration received by such Group Member in respect of such Disposition having an aggregate fair market value, taken together with all other Designated Non-Cash Consideration received pursuant to this clause (r) that is at that time outstanding, not in excess of $35,000,000 at the time of the receipt of such Designated Non-Cash Consideration, with the fair market value of each item of Designated Non-Cash Consideration being measured at the time received and without giving effect to subsequent changes in value, shall be deemed to be cash or Cash Equivalents; and

(s) Dispositions of Property related to compensation paid or to be paid, or benefits provided or to be provided, in the ordinary course of business.

7.5 Restricted Payments. Declare or pay any dividend (other than dividends payable solely in common stock of the Person making such dividend) on, or make any payment on account of, or set apart assets for a sinking or other analogous fund for, the purchase, redemption, defeasance, retirement or other acquisition of, any Capital Stock of any Group Member, in each case, whether now or hereafter outstanding, or make any other distribution in respect thereof, either directly or indirectly, whether in cash or property or in obligations of Holdings or any Subsidiary (collectively, "Restricted Payments"), except that:

(a) any Restricted Subsidiary may make Restricted Payments to Holdings or any Restricted Subsidiary that owns a direct equity interest in such Subsidiary (and, in the case of a Restricted Payment by a Restricted Subsidiary that is not a Wholly Owned Subsidiary, such Subsidiary may make Restricted Payments to each owner of Capital Stock or other equity interests of such Subsidiary on a pro rata basis based on their relative ownership interests)

(b) Holdings, the Borrower and each Restricted Subsidiary may declare and make dividend payments or other distributions payable solely in the common stock or other common equity interests of such Person;

(c) so long as no Default or Event of Default has occurred and is continuing or would result therefrom, Holdings may purchase, redeem or otherwise acquire shares of its common stock or other common equity interests or warrants or options to acquire any such shares, in each case, to the extent consideration therefor consists solely of the proceeds received from the substantially concurrent issue of new shares of its common stock or other common equity interests;

(d) Holdings, the Borrower and each Restricted Subsidiary may make payments related to compensation paid or to be paid, or benefits provided or to be provided, in the ordinary course of business;

(e) Holdings may pay any dividend or distribution or the consummation of any redemption within sixty (60) days after the date of declaration of the dividend or distribution or giving of the redemption notice, as the case may be, if, at the date of declaration or notice, the dividend, distribution or redemption payment would have complied with the provisions of this Agreement;

(f) Holdings, the Borrower and the Restricted Subsidiaries may make any payments in connection with the consummation of the Transactions (including, for the avoidance of doubt, any Restricted Payments made or that may be deemed to be made under the terms of the Initial Syndicated Offering or the Capped Call); and

(g) Holdings, the Borrower and the Restricted Subsidiaries may repurchase, redeem or otherwise acquire shares of Holdings' Capital Stock in an aggregate amount such that the cash consideration for all acquisitions made pursuant to this clause (g) shall be from and shall not exceed the aggregate amount of cash proceeds received by Holdings, the Borrower and the Restricted Subsidiaries from the exercise of employee stock options.

7.6 Investments. Make any advance, loan, extension of credit (by way of guaranty or otherwise) or capital contribution to, or purchase any Capital Stock, bonds, notes, debentures or other debt securities of, or any assets constituting a business line or unit of, or a division of any Person (all of the foregoing, "Investments"), except:

(a) extensions of trade credit in the ordinary course of business;

(b) Investments in Cash Equivalents;

(c) any Guarantee Obligation permitted by Section 7.1;

(d) loans and advances to officers, directors and employees of any Group Member in the ordinary course of business (including for travel, entertainment, relocation and similar

expenses) in an aggregate amount for all Group Members not to exceed $2,000,000 at any time outstanding;

(e) [Intentionally Deleted];

(f) intercompany Investments by (i) any Group Member in any Loan Party; *provided* that, subject to the Agreed Security Principles any such intercompany Investments to the extent such Investment is a loan or advance owed by a Loan Party to a Group Member that is not a Loan Party in an amount in excess of $5,000,000, subject to the Agreed Security Principles, is, within 60 days of the Closing Date, subject to the Intercompany Subordination Agreement, and (ii) any Group Member that is not a Loan Party to any other Group Member that is not a Loan Party;

(g) intercompany Investments by any Loan Party in another Group Member (including a Person that becomes a Group Member as a result of such Investments) that, after giving effect to such Investment, is not a Loan Party (including, without limitation, Guarantee Obligations with respect to obligations of any such Group Member, loans made to any such Group Member and Investments resulting from mergers with or sales of assets to any such Group Member), so long as (x) the aggregate amount of such Investments (valued at fair market value) in any trailing 12-month period does not exceed $30,000,000, and (y) no Event of Default has occurred and is continuing; *provided*, that, on any date, the amount of such Investments in the form of intercompany accounts or other credits repayable on demand shall be deemed to be the net amount of (i) all such Investments made by Loan Parties into Group Members that are not Loan Parties, less (ii) all such Investments made by Group Members that are not Loan Parties into Loan Parties; and *provided* further that payments on intercompany accounts (including those listed in Schedule 4.29) shall be deemed Investments in the amount of such payments for the purposes of this Section 7.6(g);

(h) Investments in the ordinary course of business consisting of endorsements for collection or deposit or lease, utility and other similar deposits and deposits with suppliers in the ordinary course of business;

(i) Investments in connection with Permitted Acquisitions;

(j) Investments consisting of Hedge Agreements permitted by Section 7.1 (including, for the avoidance of doubt, the Capped Call);

(k) Investments (i) existing on the Effective Date or (ii) to be made pursuant to legally binding written contracts in existence on the Effective Date or contemplated on the Effective Date, in each case of this clause (ii) as set forth on Schedule 7.6, and in each case of clauses (i) and (ii) above any modification, replacement, renewal, reinvestment or extension thereof; provided that the amount of any such Investment is not increased at the time of such extension or renewal;

(l) Investments consisting of extensions of credit in the nature of accounts receivable or notes receivable arising from the grant of trade credit in the ordinary course of business, and

Investments received in satisfaction or partial satisfaction thereof from financially troubled account debtors or other Persons to the extent reasonably necessary in order to prevent or limit loss or in connection with the bankruptcy or reorganization of suppliers or customers and in settlement of delinquent obligations of, and other disputes with, suppliers or customers arising in the ordinary course of business;

(m) Investments received as consideration in connection with Dispositions permitted under Section 7.4;

(n) advances of payroll payments to employees in the ordinary course of business;

(o) Investments to the extent that payment for such Investments is made solely with Capital Stock of Holdings (or by any direct or indirect parent thereof);

(p) Investments held by a Person that becomes a Restricted Subsidiary after the Closing Date or of a Person merged into the Borrower or merged or consolidated with a Restricted Subsidiary in accordance with Section 7.3 after the Closing Date to the extent that such Investments were not made in contemplation of or in connection with such acquisition, merger or consolidation and were in existence on the date of such acquisition, merger or consolidation;

(q) Guarantee Obligations by a direct or indirect parent entity of a Group Member of leases (other than Capital Lease Obligations) or of other obligations that do not constitute Indebtedness, in each case entered into in the ordinary course of business of such Group Members;

(r) Investments consisting of purchases of services in the ordinary course of business and consistent with past practices;

(s) other Investments by Group Members in an aggregate amount since the Closing Date not to exceed $50,000,000; and

(t) Investments made by any Restricted Subsidiary that is not a Loan Party to the extent such Investments are financed with the proceeds received by such Restricted Subsidiary from an Investment made pursuant to this Section 7.6.

The amount of any Investment, other than a Guarantee Obligation, shall be (i) the amount actually invested, as determined at the time of each such Investment, without adjustment for subsequent increases or decreases in the value of such Investment, minus (ii) the amount of dividends or distributions actually received in connection with such Investment and any return of capital and any payment of principal received in respect of such Investment that in each case is received in cash or cash equivalents (not in excess of the amount of Investments originally made).

7.7 Certain Payments and Modifications of Certain Debt Instruments.

(a) (i) Make any optional or voluntary payment, prepayment, repurchase or redemption of or otherwise optionally or voluntarily defease any Indebtedness incurred pursuant to Section 7.1(x) (including, for the avoidance of doubt, the Initial Syndicated Offering) except for (x) the refinancing thereof with the Net Cash Proceeds of any Permitted Refinancing of any of the foregoing or any Indebtedness (other than Indebtedness that is owed to the Borrower or any Restricted Subsidiary), and (y) the conversion of any Junior Indebtedness to Capital Stock (including any cash settlement of the conversion option in connection with such conversion); or (ii) amend, modify, waive or otherwise change, or consent or agree to any amendment, modification, waiver or other change to, any of the terms of (x) any Junior Indebtedness Document (other than any amendment that is not materially adverse to the Lenders, including any amendment, modification, waiver or other change that would extend the maturity or reduce the amount of any payment of principal thereof or reduce the rate or extend any date for payment of interest) or (y) the Revolving Credit Agreement, unless to the extent prohibited by the Intercreditor Agreement.

(b) (i) Amend, modify, waive or otherwise change, or consent or agree to any amendment, modification, waiver or other change to, any of the terms of any Organizational Document of any Loan Party or any Pledged Company in any manner materially adverse to the Lenders and (ii) in the case of a Loan Party, modify any name, jurisdiction of organization, organizational identification number or federal identification number unless at least five (5) Business Days prior written notice shall be given to the Administrative Agent (or such shorter period of time reasonably agreed to by the Administrative Agent).

(c) Make any payment in cash under or for the account of any of the Existing Intercompany Notes, unless, within five (5) Business Days after any such payment is made, the amount of the relevant payment is made available to a Loan Party by way of a transaction permitted under this Agreement.

7.8 Transactions with Affiliates. Enter into any transaction of any kind with any Affiliate of the Borrower, whether or not in the ordinary course of business, other than on fair and reasonable terms substantially as favorable to Holdings, the Borrower or such Restricted Subsidiary as would be obtainable by Holdings, the Borrower or such Restricted Subsidiary at the time in a comparable arm's length transaction with a Person other than an Affiliate, except:

(a) transactions between or among Group Members (*provided* that transactions between (x) any Loan Party, on one hand, and (y) a Group Member that is not a Loan Party, on one other hand on one other hand, in each case shall be on commercially reasonable terms, shall be limited to transactions not otherwise prohibited by this Agreement;

(b) transactions related to compensation paid or to be paid, or benefits provided or to be provided, in the ordinary course of business;

(c) any Restricted Payment permitted by Section 7.5; and

(d) the Transactions.

7.9 [Intentionally Omitted].

7.10 [Intentionally Omitted].

7.11 Changes in Fiscal Periods; Accounting Changes.

(a) Permit any change in the fiscal year of Holdings.

(b) Change independent accountants other than to any nationally recognized firm or such other firm reasonably acceptable to the Administrative Agent.

7.12 Negative Pledge Clauses. Enter into or suffer to exist or become effective any agreement that prohibits, limits or imposes any condition upon the ability of any Loan Party to create, incur, assume or suffer to exist any Lien upon any of its property or revenues, whether now owned or hereafter acquired for the benefit of the Lenders with respect to the Obligations other than (a) this Agreement and the other Loan Documents, (b) any agreements governing any purchase money Liens or Capital Lease Obligations otherwise permitted hereby (in which case, any prohibition or limitation shall only be effective against the assets financed thereby), (c) any restrictions with respect to a Restricted Subsidiary imposed pursuant to an agreement that has been entered into in connection with the Disposition of all or substantially all of the Capital Stock or assets of such Subsidiary, (d) customary provisions in leases, licenses and other contracts restricting the assignment thereof, (e) any other agreement that does not restrict in any manner (directly or indirectly) Liens created pursuant to the Loan Documents or any Collateral securing the Obligations and does not require the direct or indirect granting of any Lien securing any Indebtedness or other obligation by virtue of the granting of Liens on or pledge of Property of any Loan Party to secure the Obligations and (f) any prohibition or limitation that (i) exists pursuant to applicable Requirements of Law, (ii) consists of customary restrictions and conditions contained in any agreement relating to any Liens permitted under Section 7.2, transaction permitted under Section 7.3 or the sale of any property permitted under Section 7.4, (iii) restricts subletting or assignment of leasehold interests contained in any lease governing a leasehold interest of a Group Member, (iv) exists in any agreement in effect at the time such Subsidiary becomes a Restricted Subsidiary, so long as such agreement was not entered into in contemplation of such Person becoming a Subsidiary, (v) exists in any instrument governing Indebtedness assumed in connection with any Permitted Acquisition, which encumbrance or restriction is not applicable to any Person, or the Properties or assets of any Person, other than the Person or the Properties or assets of the Person so acquired, (vi) exists on the Closing Date and are listed on Schedule 7.12, (vii) are customary provisions in joint venture agreements and other similar agreements applicable to joint ventures to the extent permitted under this Agreement, (viii) exists or is imposed pursuant to the Revolving Loan Documents or (ix) is imposed by any amendments or refinancings that are otherwise permitted by the Loan Documents or the contracts, instruments or obligations referred to in this Section 7.12; *provided* that such amendments and refinancings are no more materially restrictive with respect to such prohibitions and limitations than those in effect prior to such amendment or refinancing (as determined in good faith and certified in writing to the Administrative Agent by a Responsible Officer of the Borrower).

7.13 Clauses Restricting Subsidiary Distributions. Enter into or suffer to exist or become effective any consensual encumbrance or restriction on the ability of any Restricted Subsidiary of the Borrower that is not a Loan Party to (a) make Restricted Payments in respect of any Capital Stock of such Restricted Subsidiary held by, or pay any Indebtedness owed to, the Borrower or any other Restricted Subsidiary of the Borrower, (b) make loans or advances to, or other Investments in, the Borrower or any other Restricted Subsidiary of the Borrower or (c) transfer any of its assets to the Borrower or any other Restricted Subsidiary of the Borrower, except for such encumbrances or restrictions existing under or by reason of:

(i) any restrictions existing under the Loan Documents;

(ii) any restrictions with respect to a Restricted Subsidiary imposed pursuant to an agreement that has been entered into in connection with the Disposition of all or substantially all of the Capital Stock or assets of such Restricted Subsidiary;

(iii) any restrictions under the Revolving Loan Documents;

(iv) any agreements governing any purchase money Liens or Capital Lease Obligations otherwise permitted hereby (in which case, any prohibition or limitation shall only be effective against the assets financed thereby);

(v) restrictions and conditions existing on the Closing Date identified on Schedule 7.13 (but not to any amendment or modification expanding the scope or duration of any such restriction or condition);

(vi) restrictions or conditions imposed by any agreement relating to Liens permitted by this Agreement but solely to the extent that such restrictions or conditions apply only to the property or assets subject to such permitted Lien;

(vii) customary provisions in leases, licenses and other contracts entered into in the ordinary course of business restricting the assignment thereof;

(viii) customary restrictions in joint venture agreements and other similar agreements applicable to joint ventures permitted hereunder and applicable solely to such joint venture;

(ix) any agreement of a Foreign Subsidiary governing Indebtedness permitted to be incurred or permitted to exist under Section 7.1;

(x) any agreement or arrangement already binding on a Person when it becomes a Restricted Subsidiary so long as such agreement or arrangement was not created in anticipation of such acquisition;

(xi) Requirements of Law;

(xii) customary restrictions and conditions contained in any agreement relating to any transaction permitted under Section 7.3 or the sale of any property permitted under Section 7.4 pending the consummation of such transaction or sale;

(xiii) any instrument governing Indebtedness assumed in connection with any Permitted Acquisition, which encumbrance or restriction is not applicable to any Person, or the Properties or assets of any Person, other than the Person or the Properties or assets of the Person so acquired; or

(xiv) any encumbrances or restrictions imposed by any amendments or refinancings that are otherwise permitted by the Loan Documents or the contracts, instruments or obligations referred to in this Section 7.13; *provided* that such amendments or refinancings are no more materially restrictive with respect to such encumbrances and restrictions than those in effect prior to such amendment or refinancing (as determined in good faith and certified in writing to the Administrative Agent by a Responsible Officer of the Borrower).

7.14 Lines of Business. Enter into any business, either directly or through any Restricted Subsidiary, except for those businesses in which Holdings and its Subsidiaries are engaged on the date of this Agreement (after giving effect to the Transaction) or that are reasonably related, incidental, ancillary or complementary thereto.

7.15 Financial Performance Covenant. The Loan Parties will note permit:

(l) Minimum Net Revenue. Net Revenue on a consolidated basis to be less than $700,000,000 for each trailing twelve (12) month period (the "Net Revenue Covenant Level"), to be tested quarterly commencing with the fiscal quarter ending June 30, 2020, *provided*, that, to the extent an Asset Sale occurs and the Net Cash Proceeds of such Disposition are used to prepay the Term Loans in accordance with Section 3.2, then the minimum Net Revenue Covenant Level shall be reduced by an amount equal to the lesser of (x) the proportionate decrease in the outstanding amount of Term Loans as a result of such prepayment and (y) the proportionate decrease in Net Revenue as a result of such Asset Sale for the twelve (12) month period ended as of last fiscal quarter for which such Net Revenue was calculated immediately prior to the consummation of such Asset Sale; provided, that, notwithstanding the foregoing, in no event shall Net Revenue Covenant Level be reduced to less than $550,000,000; and

(m) Secured Leverage Ratio. The Secured Leverage Ratio, as of the last day of each fiscal quarter set forth in the chart below to be greater than the ratio set forth below opposite such measurement date:

Test Period	Total Secured Leverage Ratio
4 Quarters ending June 30, 2020 through each fiscal quarter thereafter until (and including) the fiscal quarter ending June 30, 2021	5.625:1.00
4 Quarters ending September 30, 2021 and ending each fiscal quarter thereafter	4.50:1.00

SECTION 8. **EVENTS OF DEFAULT**

8.1 Events of Default. If any of the following events shall occur and be continuing:

(a) the Borrower shall fail to pay any principal of any Term Loan when due in accordance with the terms hereof; or the Borrower shall fail to pay any interest on any Term Loan, or any other amount payable hereunder or under any other Loan Document, within five (5) Business Days after any such interest or other amount becomes due in accordance with the terms hereof; or

(b) any representation or warranty made or deemed made by any Loan Party herein or in any other Loan Document or that is contained in any certificate, document or financial or other statement furnished by it at any time under or in connection with this Agreement or any such other Loan Document shall prove to have been untrue in any material respect on or as of the date made or deemed made; or

(c) any Loan Party shall default in the observance or performance of (i) any agreement contained in Section 6.4(a) (with respect to Holdings and the Borrower only), Section 6.7(a), Section 6.10(e) or Section 7 of this Agreement or (ii) Section 6.1 or Section 6.2, and such default shall continue unremedied for a period of ten (10) Business Days after the earlier of (i) receipt by the Borrower of written notice thereof from the Administrative Agent or (ii) actual knowledge of Borrower or Holdings; or

(d) any Loan Party shall default in the observance or performance of any other agreement contained in this Agreement or any other Loan Document (other than as provided in paragraphs (a) through (c) of this Section 8), and such default shall continue unremedied for a period of thirty (30) days after the earlier of (i) receipt by the Borrower of written notice thereof from the Administrative Agent or (ii) actual knowledge of Borrower or Holdings; or

(e) any Group Member (i) defaults in making any payment when due in respect of any Material Indebtedness (including the Revolving Loan Indebtedness and any Guarantee Obligation or Hedge Agreement that constitutes Material Indebtedness, but excluding the Term Loans); or (ii) defaults in the observance or performance of any other agreement or condition relating to any such Material Indebtedness, including, but not limited to, the Revolving Loan Indebtedness, or contained in any instrument or agreement evidencing, securing or relating thereto, or any other event shall occur or condition exist, the effect of which default or other event or condition is to cause, or to permit the holder or beneficiary of such Material Indebtedness (or a trustee or agent on behalf of such holder or beneficiary) to cause, with the giving of notice if required, such Material Indebtedness to become due prior to its stated maturity or to become subject to a mandatory offer to purchase by the obligor thereunder; *provided* that such failure is unremedied and is not waived by the holders of such Indebtedness; *provided further* that this clause (e)(ii) shall not apply to (x) secured Indebtedness that becomes due as a result of the voluntary sale or transfer of the property or assets securing such Indebtedness, if such sale or transfer is permitted hereunder and under the documents providing for such Indebtedness or (y) the holders of the Indebtedness under the Initial Syndicated Offering exchanging or being entitled to exchange such Indebtedness in accordance with its terms; or

(f) other than a U.K. Group Member (i) any Group Member (other than an Immaterial Subsidiary) shall commence any case, proceeding or other action (A) under any existing or future law of any jurisdiction, domestic or foreign, relating to bankruptcy, insolvency,

examinership or relief of debtors (a "Bankruptcy Law"), seeking to have an order for relief entered with respect to it, or seeking to adjudicate it a bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, examinership, winding-up, liquidation, dissolution, composition or other relief with respect to it or its debts, or (B) seeking appointment of a receiver, trustee, custodian, conservator, liquidator, examiner or other similar official for it or for all or any substantial part of its assets under a Bankruptcy Law, or any Group Member (other than an Immaterial Subsidiary) shall make a general assignment, composition, compromise, or arrangement with or for the benefit of its creditors; or (ii) there shall be commenced against any Group Member (other than an Immaterial Subsidiary) any case, proceeding or other action of a nature referred to in clause (i) above that (A) results in the entry of an order for relief or any such adjudication or appointment or other relief with respect to it or its debts or (B) remains undismissed, undischarged or unbonded for a period of sixty (60) days; or (iii) there shall be commenced any case, proceeding or other action seeking issuance of a warrant of attachment, execution, distress, distraint or similar process against all or any substantial part of the assets of the Group Members, taken as a whole, that results in the entry of an order for any such relief that shall not have been vacated, discharged, or stayed or bonded pending appeal within sixty (60) days from the entry thereof; or (iv) any Group Member (other than an Immaterial Subsidiary) shall take any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any of the acts set forth in clause (i), (ii), or (iii) above; or (v) any Group Member (other than an Immaterial Subsidiary) shall generally not, or shall be unable to, or shall under applicable law be deemed to be unable to, or shall admit in writing its inability to, pay its debts as they become due; or

(g) in respect of a U.K. Group Member (i) such U.K Group Member (1) is unable or admits inability to pay its debts as they fall due or is deemed to, or is declared to, be unable to pay its debt under applicable law (in each case, other than solely as a result of its balance sheet liabilities exceeding its balance sheet assets except where the same would result in or require the taking of any corporate action, legal proceedings, insolvency filing, cessation of trading and/or any other procedure or steps referred to in this Section 8.1(g)(ii) below); or (2) suspends or threatens to suspend making payments on any of its debts or (3) by reason of actual or anticipated financial difficulties, commences negotiations with one or more of its creditors (excluding any Lenders, the Agents or any other secured party in their capacity as such) with a view to rescheduling any of its indebtedness; or (4) a moratorium is declared in respect of any indebtedness of any U.K. Group Member; provided, that if a moratorium occurs, the ending of the moratorium will not remedy any Event of Default caused by that moratorium; (ii) any corporate action, legal proceedings or other procedure or formal step is taken in relation to (1) the suspension of payments, a moratorium of any indebtedness, winding-up, dissolution, administration of any U.K. Group Member or (2) reorganization (by way of voluntary arrangement, scheme of arrangement or otherwise) of any U.K. Group Member; or (3) a composition, compromise, assignment or arrangement with any creditor (other than any Lenders, the Agents or any other Secured Party in their capacity as such) of any U.K. Group Member; (iii) the appointment of a liquidator, receiver, administrative receiver, administrator, compulsory manager or other similar officer in respect of any U.K. Group Member or any of its respective assets, or any analogous procedure or step is taken in any jurisdiction (provided, that this Section 8.1(g)(ii) and (iii) shall not apply to (1) any winding-up petition that is frivolous or

vexatious and which, if capable of remedy, is discharged, stayed or dismissed within 30 days of commencement or, if earlier, the date on which it is advertised (or such other period as agreed between the Borrower, Holdings and the Administrative Agent); or (2) (in the case of an application to appoint an administrator or commence proceedings) any proceedings which Agent is satisfied will be withdrawn before it is heard or will be unsuccessful); or (iv) an expropriation, attachment, sequestration, distress or execution or analogous process in any jurisdiction affects any asset or assets of a U.K. Group Member, provided that the affected assets (or the affected portion of any such assets, as the case may be) has a value in excess of $25,000,000 and the expropriation, attachment, sequestration, distress, execution or other analogous process is not discharged within 30 days of commencement;

(h) (i) one or more ERISA Events shall have occurred, (ii) the present value of all accrued benefits under each Single Employer Plan (determined on a plan termination basis in accordance with actuarial assumptions at such time consistent with those prescribed by the PBGC for purposes of Section 4044 of ERISA) exceed the value of the assets of such Plan allocable to such accrued benefits; (iii) there is or arises any potential withdrawal liability under Section 4201 of ERISA, if the Group Members and the Controlled Group Entities were to withdraw completely from any and all Multiemployer Plans; and in each case in clauses (i) through (iii) above, such event or condition, together with all other such events or conditions, if any, could reasonably be expected to have a Material Adverse Effect; or

(i) one or more judgments or decrees shall be entered against any Group Member and the same shall not have been vacated, discharged, stayed or bonded pending appeal within 30 days from the entry thereof and any such judgments or decrees is for the payment of money, individually or in the aggregate (not paid or fully covered by insurance as to which the relevant insurance company has acknowledged coverage), of $25,000,000 or more or is for injunctive relief which could reasonably be expected to have a Material Adverse Effect; or

(j) any Security Documents relating to material assets of the Group Members, taken as a whole, shall cease, for any reason, to be in full force and effect, or any Loan Party or any Subsidiary of any Loan Party shall so assert, or any Lien created by any of the Security Documents relating to material assets of the Group Members, taken as a whole, shall cease to be enforceable and of the same effect and priority purported to be created thereby (other than because of any action by the Collateral Agent); or any Loan Party or any Subsidiary of any Loan Party shall so assert; or

(k) the guarantee contained in Section 2 of the Guarantee and Collateral Agreement shall cease, for any reason, to be in full force and effect or any Loan Party or any Subsidiary of any Loan Party shall so assert; or

(l) the ordinary shares of Holdings cease to be listed or quoted on The NASDAQ Global Market (or any of their respective successors) unless they are substantially simultaneously relisted on another nationally recognized stock exchange; or

(m) (i) any of the Obligations of the Loan Parties under the Loan Documents for any reason shall cease to be "senior debt," "senior indebtedness," "designated senior debt,"

"guarantor senior debt" or "senior secured financing" (or any comparable term) under, and as defined in, any Junior Indebtedness Documentation evidencing Material Indebtedness, (ii) the subordination provisions set forth in any Junior Indebtedness Documentation evidencing Material Indebtedness shall, in whole or in part, cease to be effective or cease to be legally valid, binding and enforceable against the holders of such Junior Indebtedness, if applicable or (iii) any Loan Party, any Subsidiary of any Loan Party shall assert any of the foregoing;

(n) in the case of any Syndicated Offering, holders of such Junior Indebtedness shall have submitted one or more exchange notices (or similar type of notice) in accordance with the terms thereof requiring an exchange of Indebtedness for cash in an aggregate principal amount in excess of $25,000,000 (the "Exchange Threshold"), *provided*, that no Event of Default shall occur under this clause (n) to the extent the Borrower or Holdings has received proceeds of Junior Indebtedness (to the extent permitted in accordance with this Agreement) in an amount greater than or equal to the Exchange Threshold no later than forty (40) Trading Days of submission of such exchange notices; or

(o) one or more final and non-appealable judgments or decrees shall be entered against any Group Member or any Group Member shall enter into any settlement, in each case, to the extent that (x) any such judgments, settlements or decrees is for the payment of money, individually or in the aggregate, in excess of $250,000,000, *provided*, that no Event of Default shall occur under this clause (o)(x) to the extent that, prior to any payment (including any settlement) in respect of any such judgments, settlements or decrees (and in any event within six (6) months after the date that such judgments, settlements or decrees are entered or entered into in the case of any settlement), such Group Member has received proceeds of Qualified Capital Stock or Junior Indebtedness (to the extent permitted in accordance with this Agreement) in an amount greater than the amount of such judgments, settlements or decrees that is in excess of $250,000,000 or (y) Group Members pay, in the aggregate, $50,000,000 or more in respect of such judgments, settlements or decrees in any 12-month period (including in connection with any payment plan or settlement thereof), other than to the extent such payments are made with proceeds of Qualified Capital Stock or Junior Indebtedness (to the extent permitted in accordance with this Agreement);

then, and in any such event, (A) if such event is an Event of Default specified in paragraph (f) above with respect to the Borrower, automatically the Commitments shall immediately terminate and the Term Loans hereunder (with accrued interest thereon) and all other amounts owing under this Agreement and the other Loan Documents shall immediately become due and payable, and (B) if such event is any other Event of Default, either or both of the following actions may be taken: with the consent of the Required Lenders, the Administrative Agent may, or upon the request of the Required Lenders, the Administrative Agent shall, by notice to the Borrower, declare the Term Loans hereunder (with accrued interest thereon) and all other amounts owing under this Agreement and the other Loan Documents to be due and payable forthwith, whereupon the same shall immediately become due and payable. Except as expressly provided above in this Section 8, presentment, demand, protest and all other notices of any kind are hereby expressly waived by the Borrower. Notwithstanding anything to the contrary

contained herein or in the other Loan Documents, no amounts received from any Guarantor shall be applied to any Excluded Swap Obligations of such Guarantor.

SECTION 9. **THE AGENTS**

9.1 Appointment.

(a) Each Lender (and, if applicable, each other Secured Party) hereby irrevocably designates and appoints each Agent as the agent of such Lender (and, if applicable, each other Secured Party) under this Agreement and the other Loan Documents, and each such Lender (and, if applicable, each other Secured Party) irrevocably authorizes such Agent, in such capacity, to take such action on its behalf under the provisions of this Agreement and the other Loan Documents and to exercise such powers and perform such duties as are expressly delegated to such Agent by the terms of this Agreement and the other Loan Documents, together with such other powers as are reasonably incidental thereto. Notwithstanding any provision to the contrary elsewhere in this Agreement, no Agent shall have any duties or responsibilities, except those expressly set forth herein, or any fiduciary relationship with any Lender or other Secured Party, and no implied covenants, functions, responsibilities, duties, obligations or liabilities shall be read into this Agreement or any other Loan Document or otherwise exist against any Agent.

(b) Each of the Secured Parties hereby irrevocable designates and appoints Ares Capital Corporation as collateral agent of such Secured Party under this Agreement and the other Loan Documents, and each such Secured Party irrevocably authorizes the Collateral Agent, in such capacity, to take such action on its behalf as are necessary or advisable with respect to the Collateral under this Agreement or any of the other Loan Documents, together with such powers as are reasonably incidental thereto. The Collateral Agent hereby accepts such appointment. The Collateral Agent declares that it holds the Collateral under any U.K. Security Document on trust for the Secured Parties.

9.2 Delegation of Duties. Each Agent may execute any of its duties under this Agreement and the other Loan Documents by or through agents or attorneys-in-fact and shall be entitled to advice of counsel concerning all matters pertaining to such duties. No Agent shall be responsible for the negligence or misconduct of any agents or attorneys-in-fact selected by it with reasonable care.

9.3 Exculpatory Provisions. Neither any Agent nor any of their respective officers, directors, members, partners, employees, agents, attorneys-in-fact or Affiliates shall be (i) liable for any action lawfully taken or omitted to be taken by it or such Person under or in connection with this Agreement or any other Loan Document (except to the extent that any of the foregoing are found by a final and nonappealable decision of a court of competent jurisdiction to have resulted from its or such Person’s own gross negligence or willful misconduct) or (ii) responsible in any manner to any of the Lenders or any other Secured Party for any recitals, statements, representations or warranties made by any Loan Party or any officer thereof contained in this Agreement or any other Loan Document or any Specified Hedge Agreement or in any certificate, report, statement or other document referred to or provided for in, or received by the Agents under or in connection with, this Agreement or any other Loan Document or any Specified

Hedge Agreement or for the value, validity, effectiveness, genuineness, enforceability or sufficiency of this Agreement or any other Loan Document or any Specified Hedge Agreement or for any failure of any Loan Party a party thereto to perform its obligations hereunder or thereunder. The Agents shall not be under any obligation to any Lender to ascertain or to inquire as to the observance or performance of any of the agreements contained in, or conditions of, this Agreement or any other Loan Document or any Specified Hedge Agreement, or to inspect the properties, books or records of any Loan Party.

9.4 Reliance by Agents. Each Agent shall be entitled to rely, and shall be fully protected in relying, upon any instrument, writing, resolution, notice, consent, certificate, affidavit, letter, telecopy, telex or teletype message, statement, order or other document or conversation believed by it to be genuine and correct and to have been signed, sent or made by the proper Person or Persons and upon advice and statements of legal counsel (including counsel to any Loan Party), independent accountants and other experts selected by such Agent. The Administrative Agent shall deem and treat the Lender specified in the Register with respect to any amount owing hereunder as the owner thereof for all purposes unless a written notice of assignment, negotiation or transfer thereof shall have been filed with the Administrative Agent. Each Agent shall be fully justified in failing or refusing to take any action under this Agreement or any other Loan Document unless it shall first receive such advice or concurrence of the Required Lenders (or, if so specified by this Agreement, all Lenders) as it deems appropriate or it shall first be indemnified to its satisfaction by the Lenders against any and all liability and expense that may be incurred by it by reason of taking or continuing to take any such action. The Agents shall in all cases be fully protected in acting, or in refraining from acting, under this Agreement and the other Loan Documents in accordance with a request of the Required Lenders (or, if so specified by this Agreement, all Lenders), and such request and any action taken or failure to act pursuant thereto shall be binding upon all the Lenders and all future holders of the Term Loans and all other Secured Parties.

9.5 Notice of Default. No Agent shall be deemed to have knowledge or notice of the occurrence of any Default or Event of Default hereunder unless such Agent has received notice from a Lender or the Borrower referring to this Agreement, describing such Default or Event of Default and stating that such notice is a "notice of default." In the event that the Administrative Agent receives such a notice, the Administrative Agent shall give notice thereof to the Lenders. The Administrative Agent shall take such action with respect to such Default or Event of Default as shall be reasonably directed by the Required Lenders (or, if so specified by this Agreement, all Lenders or any other instructing group of Lenders specified by this Agreement); *provided* that unless and until the Administrative Agent shall have received such directions, the Administrative Agent may (but shall not be obligated to) take such action, or refrain from taking such action, with respect to such Default or Event of Default as it shall deem advisable in the best interests of the Secured Parties.

9.6 Non-Reliance on Agents and Other Lenders. Each Lender (and, if applicable, each other Secured Party) expressly acknowledges that neither the Agents nor any of their respective officers, directors, employees, agents, attorneys-in-fact or affiliates have made any representations or warranties to it and that no act by any Agent hereafter taken, including any

review of the affairs of a Loan Party or any affiliate of a Loan Party, shall be deemed to constitute any representation or warranty by any Agent to any Lender or any other Secured Party. Each Lender (and, if applicable, each other Secured Party) represents to the Agents that it has, independently and without reliance upon any Agent or any other Lender or any other Secured Party, and based on such documents and information as it has deemed appropriate, made its own appraisal of and investigation into the business, operations, property, financial and other condition and creditworthiness of the Loan Parties and their affiliates and made its own decision to make its Loans hereunder and enter into this Agreement or any Specified Hedge Agreement. Each Lender (and, if applicable, each other Secured Party) also represents that it will, independently and without reliance upon any Agent or any other Lender or any other Secured Party, and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit analysis, appraisals and decisions in taking or not taking action under this Agreement and the other Loan Documents or any Specified Hedge Agreement, and to make such investigation as it deems necessary to inform itself as to the business, operations, property, financial and other condition and creditworthiness of the Loan Parties and their affiliates. Except for notices, reports and other documents expressly required to be furnished to the Lenders by the Administrative Agent hereunder, the Administrative Agent shall not have any duty or responsibility to provide any Lender or any other Secured Party with any credit or other information concerning the business, operations, property, condition (financial or otherwise), prospects or creditworthiness of any Loan Party or any Affiliate of a Loan Party that may come into the possession of the Administrative Agent or any of its officers, directors, employees, agents, attorneys-in-fact or Affiliates.

9.7 Indemnification. To the extent that the Borrower for any reason fails to indefeasibly pay any amount required under Section 10.5 to be paid by it to any Agent Related Party (or any sub-agent thereof), each Lender severally agrees to pay to such Agent Related Party (or any such sub-agent thereof) such Lender's Term Percentage (determined as of the time that the applicable unreimbursed expense or indemnity payment is sought) of such unpaid amount; *provided* that (a) the unreimbursed expense or indemnified loss, claim, damage, liability or related expense, as the case may be, was incurred by or asserted against any Agent Related Party (or any such sub-agent thereof) and (b) no Lender shall be liable for the payment of any portion of such unreimbursed expense or indemnified loss, claim, damage, liability or related expense that is found by a final and nonappealable decision of a court of competent jurisdiction to have resulted from such Agent's gross negligence or willful misconduct. The agreements in this Section shall survive the payment of the Term Loans and all other amounts payable hereunder.

9.8 Agent in Its Individual Capacity. Each Agent and its affiliates may make loans to, accept deposits from and generally engage in any kind of business with any Loan Party as though such Agent were not an Agent. With respect to its Loans made or renewed by it, each Agent shall have the same rights and powers under this Agreement and the other Loan Documents as any Lender and may exercise the same as though it were not an Agent, and the terms "Lender," "Lenders," "Secured Party" and "Secured Parties" shall include each Agent in its individual capacity.

9.9 Successor Administrative Agent.

(a) The Administrative Agent and the Collateral Agent may resign as Administrative Agent and Collateral Agent, respectively, upon ten (10) days' notice to the Lenders and the Borrower. If the Administrative Agent or Collateral Agent, as applicable, shall resign as Administrative Agent or Collateral Agent, as applicable, under this Agreement and the other Loan Documents, then the Required Lenders shall appoint from among the Lenders a successor agent for the Lenders, which successor agent shall (unless an Event of Default shall have occurred and be continuing) be subject to approval by the Borrower (which approval shall not be unreasonably withheld or delayed), whereupon such successor agent shall succeed to the rights, powers and duties of the Administrative Agent or Collateral Agent, as applicable, and the term "Administrative Agent" or "Collateral Agent," as applicable, shall mean such successor agent effective upon such appointment and approval, and the former Administrative Agent's or Collateral Agent's, as applicable, rights, powers and duties as Administrative Agent or Collateral Agent, as applicable, shall be terminated, without any other or further act or deed on the part of such former Administrative Agent or Collateral Agent, as applicable, or any of the parties to this Agreement or any holders of the Term Loans. If no successor agent has accepted appointment as Administrative Agent or Collateral Agent, as applicable, by the date that is ten (10) days following a retiring Administrative Agent's or Collateral Agent's, as applicable, notice of resignation, the retiring Administrative Agent's or Collateral Agent's, as applicable, resignation shall nevertheless thereupon become effective and the Lenders shall assume and perform all of the duties of the Administrative Agent or Collateral Agent, as applicable, hereunder until such time, if any, as the Required Lenders appoint a successor agent as provided for above. After any retiring Administrative Agent's or Collateral Agent's, as applicable, resignation as Administrative Agent or retiring Collateral Agent's resignation as Collateral Agent, as applicable, the provisions of this Section 9 shall inure to its benefit as to any actions taken or omitted to be taken by it while it was Administrative Agent or Collateral Agent, as applicable, under this Agreement and the other Loan Documents.

(b) Anything herein to the contrary notwithstanding, if at any time the Required Lenders determine that the Person serving as Administrative Agent is a Defaulting Lender, the Required Lenders (determined after giving effect to the final paragraph of Section 10.1) may by notice to the Borrower and such Person remove such Person as Administrative Agent and, in consultation with the Borrower, appoint a replacement Administrative Agent hereunder. Such removal will, to the fullest extent permitted by applicable law, be effective on the earlier of (i) the date a replacement Administrative Agent is appointed and (ii) the date ten (10) Business Days after the giving of such notice by the Required Lenders (regardless of whether a replacement Administrative Agent has been appointed).

9.10 Agents Generally. Except as expressly set forth herein, the Agents shall not have any duties or responsibilities hereunder in its capacity as such.

9.11 Lender Action. Each Lender agrees that it shall not take or institute any actions or proceedings, judicial or otherwise, for any right or remedy against any Loan Party or any other obligor under any of the Loan Documents, the Specified Hedge Agreements, or institute any

actions or proceeds, or otherwise commence any remedial procedures, with respect to any Collateral or any other property of any such Loan Party, without the prior written consent of the Administrative Agent; *provided* that the foregoing shall not prohibit any Lender from filing proofs of claim during the pendency of a proceeding relative to any Loan Party under any bankruptcy or other debtor relief law.

9.12 Withholding Tax. Each Lender shall severally indemnify the Administrative Agent, within 10 days after demand therefor, for (i) any Indemnified Taxes attributable to such Lender (but only to the extent that the Borrower has not already indemnified the Administrative Agent for such Indemnified Taxes and without limiting the obligation of the Borrower to do so), (ii) any Taxes attributable to such Lender's failure to comply with the provisions of Section 9.04(d) relating to the maintenance of a Participant Register and (iii) any Excluded Taxes attributable to such Lender, in each case, that are payable or paid by the Administrative Agent in connection with any Loan Document, and any reasonable expenses arising therefrom or with respect thereto, whether or not such Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to any Lender by the Agent shall be conclusive absent manifest error. Each Lender hereby authorizes the Agent to set off and apply any and all amounts at any time owing to such Lender under this Agreement or any other Loan Document against any amount due to the Agent under this Section 9.12. The agreements in this Section 9.12 shall survive the resignation and/or replacement of the Agent, any assignment of rights by, or the replacement of, a Lender, the termination of the Term Loans and the repayment, satisfaction or discharge of all obligations under this Agreement.

9.13 Administrative Agent May File Proof of Claims. In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to any Loan Party, the Administrative Agent shall be entitled and empowered, by intervention in such proceeding or otherwise:

(a) to file and prove a claim for the whole amount of the principal and interest owing and unpaid in respect of the Loans and all other Secured Obligations that are owing and unpaid and to file such other documents as may be necessary or advisable in order to have the claims of the Secured Parties and the Administrative Agent (including any claim for the compensation, expenses, disbursements and advances of the Secured Parties and their respective agents and counsel and all other amounts due the Secured Parties under the Loan Documents) allowed in such judicial proceeding; and

(b) to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same; and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Secured Party to make such payments to the Administrative Agent and, in the event that the Administrative Agent shall consent to the making of such payments directly to the Secured Parties, to pay to the Administrative Agent any amount due for the compensation, expenses, disbursements and advances of the Agents and their respective agents and counsel, and any other amounts due the Administrative Agent under the Loan Documents.

9.14 Lender Representations.

(a) Each Lender (x) represents and warrants, as of the date such Person became a Lender party hereto, to, and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of, the Administrative Agent and their respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Borrower, that at least one of the following is and will be true:

(i) such Lender is not using "plan assets" (within the meaning of 29 CFR § 2510.3-101, as modified by Section 3(42) of ERISA) of one or more Benefit Plans in connection with the Term Loans,

(ii) the transaction exemption set forth in one or more PTEs, such as PTE 84-14 (a class exemption for certain transactions determined by independent qualified professional asset managers), PTE 95-60 (a class exemption for certain transactions involving insurance company general accounts), PTE 90-1 (a class exemption for certain transactions involving insurance company pooled separate accounts), PTE 91-38 (a class exemption for certain transactions involving bank collective investment funds) or PTE 96-23 (a class exemption for certain transactions determined by in-house asset managers), is applicable with respect to such Lender's entrance into, participation in, administration of and performance of the Term Loans and this Agreement,

(iii) (A) such Lender is an investment fund managed by a "Qualified Professional Asset Manager" (within the meaning of Part VI of PTE 84-14), (B) such Qualified Professional Asset Manager made the investment decision on behalf of such Lender to enter into, participate in, administer and perform the Term Loans and this Agreement, (C) the entrance into, participation in, administration of and performance of the Term Loans and this Agreement satisfies the requirements of sub-sections (b) through (g) of Part I of PTE 84-14 and (D) to the best knowledge of such Lender, the requirements of subsection (a) of Part I of PTE 84-14 are satisfied with respect to such Lender's entrance into, participation in, administration of and performance of the Term Loans and this Agreement, or

(iv) such other representation, warranty and covenant as may be agreed in writing between the Administrative Agent, in its sole discretion, and such Lender.

(b) In addition, unless sub-clause (i) in the immediately preceding clause (a) is true with respect to a Lender or such Lender has not provided another representation, warranty and covenant as provided in sub-clause (iv) in the immediately preceding clause (a), such Lender further (x) represents and warrants, as of the date such Person became a Lender party hereto, to, and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of, the Administrative Agent and their respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Borrower, that:

(i) none of the Administrative Agent or any of their respective Affiliates is a fiduciary with respect to the assets of such Lender (including in connection with the reservation

or exercise of any rights by the Administrative Agent under this Agreement, any Loan Document or any documents related to hereto or thereto),

(ii) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Term Loans and this Agreement is independent (within the meaning of 29 CFR § 2510.3-21) and is a bank, an insurance carrier, an investment adviser, a broker-dealer or other person that holds, or has under management or control, total assets of at least $50,000,000, in each case as described in 29 CFR § 2510.3-21(c)(1)(i)(A)-(E),

(iii) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Term Loans and this Agreement is capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies,

(iv) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Term Loans and this Agreement is a fiduciary under ERISA or Code, or both, with respect to the Term Loans and this Agreement and is responsible for exercising independent judgment in evaluating the transactions hereunder, and

(v) no fee or other compensation is being paid directly to the Administrative Agent or any their respective Affiliates for investment advice (as opposed to other services) in connection with the Term Loans or this Agreement.

(c) The Administrative Agent hereby informs the Lenders that each such Person is not undertaking to provide impartial investment advice, or to give advice in a fiduciary capacity, in connection with the transactions contemplated hereby, and that such Person has a financial interest in the transactions contemplated hereby in that such Person or an Affiliate thereof (i) may receive interest or other payments with respect to the Term Loans and this Agreement, (ii) may recognize a gain if it extended the Term Loans for an amount less than the amount being paid for an interest in the Term Loans by such Lender or (iii) may receive fees or other payments in connection with the transactions contemplated hereby, the Loan Documents or otherwise, including structuring fees, commitment fees, arrangement fees, facility fees, upfront fees, underwriting fees, ticking fees, agency fees, administrative agent or collateral agent fees, utilization fees, minimum usage fees, letter of credit fees, fronting fees, deal-away or alternate transaction fees, amendment fees, processing fees, term out premiums, banker’s acceptance fees, breakage or other early termination fees or fees similar to the foregoing.

SECTION 10. **MISCELLANEOUS**

10.1 Amendments and Waivers. Neither this Agreement, any other Loan Document, nor any terms hereof or thereof may be amended, supplemented or modified except in accordance with the provisions of this Section 10.1. The Required Lenders and each Loan Party party to the relevant Loan Document may, or, with the written consent of the Required Lenders, the Administrative Agent and each Loan Party party to the relevant Loan Document may, from

time to time, (a) enter into written amendments, supplements or modifications hereto and to the other Loan Documents for the purpose of adding any provisions to this Agreement or the other Loan Documents or changing in any manner the rights of the Lenders or of the Loan Parties hereunder or thereunder or (b) waive, on such terms and conditions as the Required Lenders or the Administrative Agent, as the case may be, may specify in such instrument, any of the requirements of this Agreement or the other Loan Documents or any Default or Event of Default and its consequences; *provided*, however, that no such waiver and no such amendment, supplement or modification shall:

(i) forgive the principal amount or extend the final scheduled date of maturity of any Term Loan, extend the scheduled date of any amortization payment in respect of any Term Loan, reduce the stated rate of any interest or forgive or reduce any interest or fee payable hereunder (except (x) in connection with the waiver of applicability of any post-default increase in interest rates, which waiver shall be effective with the consent of the holders of more than 50% of the aggregate unpaid principal amount of the affected Tranche of Term Loans then outstanding and (y) that any amendment or modification of financial covenants or defined terms used in the financial covenants in this Agreement shall not constitute a reduction in the rate of interest or fees for purposes of this clause (i)) or extend the scheduled date of any payment thereof, or increase the amount or extend the expiration date of any Lender's Commitment, in each case without the written consent of each Lender directly affected thereby; *provided* that neither any amendment, modification or waiver of a mandatory prepayment required hereunder, nor any amendment of Section 3.2 or any related definitions including Asset Sale or Recovery Event, shall constitute a reduction of the amount of, or an extension of the scheduled date of, any principal installment of any Term Loan or Note or other amendment, modification or supplement to which this clause (i) is applicable;

(ii) eliminate or reduce the voting rights of any Lender under this Section 10.1 without the written consent of such Lender;

(iii) reduce any percentage specified in the definition of Required Lenders, consent to the assignment or transfer by the Borrower of any of its rights and obligations under this Agreement and the other Loan Documents, release all or substantially all of the Collateral or release Holdings or all or substantially all of the Secured Guarantors from their obligations under the Guarantee and Collateral Agreement, in each case without the written consent of all Lenders;

(iv) amend, modify or waive any provision of Section 3.8(a) or Section 10.7(a) of this Agreement or Section 6.5 of the Guarantee and Collateral Agreement, in each case without the written consent of all Lenders;

(v) amend, modify or waive any provision of Section 9 without the written consent of each Agent adversely affected thereby;

(vi) amend, modify or waive any provision of Section 9.6 to further restrict any Lender's ability to assign or otherwise transfer its obligations hereunder without the written consent of all Lenders adversely affected thereby; and

(vii) amend, modify or waive (A) any provision of any Loan Document so as to alter the ratable sharing of payments required thereby or (B) the definition of "Qualified Counterparty," "Specified Hedge Agreement," or "Obligations," in each case in a manner adverse to any Qualified Counterparty with Obligations then outstanding without the written consent of any such Qualified Counterparty.

Any such waiver and any such amendment, supplement or modification shall apply equally to each of the Lenders and shall be binding upon the Loan Parties, the Lenders, the Agents and all future holders of the Term Loans.

In the case of any waiver, the Loan Parties, the Lenders and the Agents shall be restored to their former position and rights hereunder and under the other Loan Documents, and any Default or Event of Default waived shall be deemed to be cured and not continuing; but no such waiver shall extend to any subsequent or other Default or Event of Default, or impair any right consequent thereon.

If, in connection with any proposed amendment, modification, waiver or termination requiring the consent of all Lenders, the consent of the Required Lenders is obtained, but the consent of other Lenders whose consent is required is not obtained (any such Lender whose consent is not obtained being referred to as a "Non-Consenting Lender"), then, so long as the Administrative Agent is not a Non-Consenting Lender, the Administrative Agent or a Person reasonably acceptable to the Administrative Agent shall have the right but not the obligation to purchase at par from such Non-Consenting Lenders, and such Non-Consenting Lenders agree that they shall, upon the Administrative Agent's request, sell and assign to the Administrative Agent or such Person, all of the Term Loans of such Non-Consenting Lenders for an amount equal to the principal balance of all such Term Loans held by such Non-Consenting Lenders and all accrued interest and fees with respect thereto through the date of sale, such purchase and sale to be consummated pursuant to an executed Assignment and Assumption. In addition to the foregoing, the Borrower may replace any Non-Consenting Lender pursuant to Section 3.13.

Notwithstanding the foregoing, this Agreement and the other Loan Documents may be amended (or amended and restated), modified or supplemented with the written consent of the Administrative Agent and the Borrower to cure any ambiguity, omission, defect or inconsistency, so long as such amendment, modification or supplement does not adversely affect the rights of any Lender.

Anything herein to the contrary notwithstanding, during such period as a Lender is a Defaulting Lender, to the fullest extent permitted by applicable law, such Lender will not be entitled to vote in respect of amendments and waivers hereunder and the Commitment and the outstanding Loans or other extensions of credit of such Lender hereunder will not be taken into account in determining whether the Required Lenders or all of the Lenders, as required, have approved any such amendment or waiver (and the definition of "Required Lenders" will automatically be deemed modified accordingly for the duration of such period); *provided* that, subject to the limitations set forth in the first paragraph of this Section 10.1, any such amendment or waiver that would increase or extend the term of the Commitment of such Defaulting Lender, extend the date fixed for the payment of principal or interest owing to such Defaulting Lender

hereunder, reduce the principal amount of any obligation owing to such Defaulting Lender, reduce the amount of or the rate or amount of interest on any amount owing to such Defaulting Lender or of any fee payable to such Defaulting Lender hereunder, or alter the terms of this proviso, will require the consent of such Defaulting Lender.

10.2 Notices.

(a) All notices and other communications provided for hereunder shall be either (x) in writing (including telecopy or e-mail communication) and mailed, telecopied or delivered or (y) as and to the extent set forth in Section 10.2(b) as follows:

(i) if to the Borrower, at its address at 100 Cyberonics Blvd, Houston, TX, 77058, United States, Attention Chief Financial Officer, with a copy to General Counsel, 20 Eastbourne Terrace London, W2 6LG United Kingdom;

(ii) if to the Collateral Agent or the Administrative Agent, at its address at 2000 Avenue of the Stars, 12th Floor, Los Angeles. CA 90067, Attention: Doug Dieter and a copy to Katherine G. Weinstein, Esq., Morgan, Lewis & Bockius LLP, 101 Park Avenue, New York, NY 10178; or, as to any party, at such other address as shall be designated by such party in a written notice to the other parties;

provided, however, that materials and information described in Section 10.2(b) shall be delivered to the Administrative Agent in accordance with the provisions thereof or as otherwise specified to the Borrower by the Administrative Agent. Notices and other communications sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given or made upon the earlier of (i) actual receipt by the relevant party hereto, (ii) if delivered by hand or courier, when signed for by or on behalf of the relevant party hereto, and (iii) four days after having been mailed; notices and other communications sent by telecopier shall be deemed to have been given when sent (except that notices and communications to any Agent pursuant to Sections 2 and 9 shall not be effective until received by such Agent). Delivery by telecopier of an executed counterpart of a signature page to any amendment or waiver of any provision of this Agreement or the Notes or of any Exhibit hereto to be executed and delivered hereunder shall be effective as delivery of an original executed counterpart thereof.

(b) The Borrower hereby agrees that it will provide to the Administrative Agent all information, documents and other materials that it is obligated to furnish to the Administrative Agent pursuant to the Loan Documents, including, without limitation, all notices, requests, financial statements, financial and other reports, certificates and other information materials, but excluding any such communication that (i) relates to a request for a new, or a conversion of an existing, borrowing or other extension of credit (including any election of an interest rate or interest period relating thereto), (ii) relates to the payment of any principal or other amount due under this Agreement prior to the scheduled date therefor, (iii) provides notice of any default or event of default under this Agreement or (iv) is required to be delivered to satisfy any condition precedent to the effectiveness of this Agreement and/or any borrowing or other extension of credit hereunder (all such non-excluded communications being referred to herein collectively as "Communications"), by transmitting the Communications in an electronic/soft medium in a

format acceptable to the Administrative Agent to an electronic address specified by the Administrative Agent to the Borrower. In addition, the Borrower agrees to continue to provide the Communications to the Agents in the manner specified in the Loan Documents but only to the extent requested by the Administrative Agent.

(c) THE PLATFORM IS PROVIDED "AS IS" AND "AS AVAILABLE". THE ADMINISTRATIVE AGENT PARTIES (AS DEFINED BELOW) DO NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE COMMUNICATIONS, OR THE ADEQUACY OF THE PLATFORM AND EXPRESSLY DISCLAIM LIABILITY FOR ERRORS OR OMISSIONS IN THE COMMUNICATIONS, EXCEPT TO THE EXTENT THE LIABILITY OF SUCH PERSON IS FOUND IN A FINAL, NON-APPEALABLE JUDGMENT BY A COURT OF COMPETENT JURISDICTION TO HAVE RESULTED FROM SUCH PERSON'S GROSS NEGLIGENCE OR WILLFUL MISCONDUCT. NO WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR STATUTORY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OF THIRD PARTY RIGHTS OR FREEDOM FROM VIRUSES OR OTHER CODE DEFECTS, IS MADE BY THE ADMINISTRATIVE AGENT PARTIES IN CONNECTION WITH THE COMMUNICATIONS OR THE PLATFORM. IN NO EVENT SHALL THE ADMINISTRATIVE AGENT OR ANY OF ITS AFFILIATES OR ANY OF THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, ADVISORS OR REPRESENTATIVES (COLLECTIVELY, "ADMINISTRATIVE AGENT PARTIES") HAVE ANY LIABILITY TO THE BORROWER, ANY LENDER PARTY OR ANY OTHER PERSON OR ENTITY FOR DAMAGES OF ANY KIND, INCLUDING, WITHOUT LIMITATION, DIRECT OR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES OR EXPENSES (WHETHER IN TORT, CONTRACT OR OTHERWISE) ARISING OUT OF THE BORROWER'S OR THE ADMINISTRATIVE AGENT'S TRANSMISSION OF COMMUNICATIONS THROUGH THE INTERNET.

The Administrative Agent agrees that the receipt of the Communications by the Administrative Agent at its e-mail address set forth above shall constitute effective delivery of the Communications to the Administrative Agent for purposes of the Loan Documents. Each Lender agrees that notice to it (as provided in the next sentence) specifying that the Communications have been posted to the Platform shall constitute effective delivery of the Communications to such Lender for purposes of the Loan Documents. Each Lender agrees (i) to notify the Administrative Agent in writing (including by electronic communication) from time to time of such Lender's e-mail address to which the foregoing notice may be sent by electronic transmission and (ii) that the foregoing notice may be sent to such e-mail address. Nothing herein shall prejudice the right of the Administrative Agent or any Lender to give any notice or other communication pursuant to any Loan Document in any other manner specified in such Loan Document.

10.3 No Waiver; Cumulative Remedies. No failure to exercise and no delay in exercising, on the part of any Agent or any Lender, any right, remedy, power or privilege hereunder or under the other Loan Documents shall operate as a waiver thereof; nor shall any

single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege. The rights, remedies, powers and privileges herein provided are cumulative and not exclusive of any rights, remedies, powers and privileges provided by law.

10.4 Survival of Representations and Warranties. All representations and warranties made hereunder, in the other Loan Documents and in any document, certificate or statement delivered pursuant hereto or in connection herewith shall survive the execution and delivery of this Agreement and the making of the Term Loans and other extensions of credit hereunder and shall continue in full force and effect as long as any Term Loan or any other Obligation hereunder shall remain unpaid or unsatisfied and so long as the Commitments of any Lender have not been terminated.

10.5 Payment of Expenses; Indemnity.

(a) The Borrower agrees (i) to pay or reimburse each Agent for all its reasonable and documented out-of-pocket costs and expenses incurred in connection with the development, preparation, negotiation, execution and delivery, and any amendment, waiver, supplement or modification to, this Agreement and the other documents prepared in connection herewith or therewith, any security arrangements in connection therewith and any other documents prepared in connection herewith or therewith, and the consummation and administration of the transactions contemplated hereby and thereby, including the reasonable invoiced fees and disbursements of counsel (including local counsel in any relevant jurisdiction) to such parties and filing and recording fees and expenses, with statements with respect to the foregoing to be submitted to the Borrower prior to the Closing Date (in the case of amounts to be paid on the Closing Date) and from time to time thereafter and (ii) to pay or reimburse each Lender and Agent for all its documented costs and expenses incurred in connection with the enforcement or preservation of any rights under this Agreement, the other Loan Documents and any such other documents, including the reasonable and invoiced fees and disbursements of counsel to such parties and any documented costs and expenses incurred during any workout or restructuring.

(b) The Borrower agrees (i) to pay, indemnify, and hold each Lender and each Agent harmless from, any and all recording and filing fees, if any, that may be payable or determined to be payable in connection with the execution and delivery of, or consummation or administration of any of the transactions contemplated by, or any amendment, supplement or modification of, or any waiver or consent under or in respect of, this Agreement, the other Loan Documents and any such other documents, and (ii) to pay, indemnify, and hold each Lender and Agent and the Joint Bookrunners and their respective affiliates (including, without limitation, controlling persons) and each member, partner, director, officer, employee, advisor, agent, affiliate, successor, partner, member, representative and assign of each of the forgoing (each, an "Indemnitee") harmless from and against any and all other liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements of any kind or nature whatsoever with respect to the execution, delivery, enforcement, performance and administration of this Agreement, the other Loan Documents (regardless of whether any Loan Party is or is not a party to any such actions or suits) and any such other documents, including any of the foregoing

relating to the use of proceeds of the Term Loans, or violation of, noncompliance with or liability under, any Environmental Law relating to the presence, Release or threat of Releases of or exposure to any Materials of Environmental concern relating to any Group Member or any of the Properties, and the reasonable fees and expenses of legal counsel in connection with claims, actions or proceedings by any Indemnitee against any Loan Party under any Loan Document (all the foregoing in this clause (ii), collectively, the "Indemnified Liabilities"); provided, that the Borrower shall not have any obligation hereunder to any Indemnitee with respect to Indemnified Liabilities to the extent such Indemnified Liabilities are found by a final and nonappealable decision of a court of competent jurisdiction to have resulted from the bad faith, gross negligence or willful misconduct of such Indemnitee or its Related Indemnified Persons. Without limiting the foregoing, and to the extent permitted by applicable law, the Borrower agrees not to assert and to cause its Subsidiaries not to assert, and hereby waives and agrees to cause its Subsidiaries to waive, all rights for contribution or any other rights of recovery with respect to all claims, demands, penalties, fines, liabilities, settlements, damages, costs and expenses of whatever kind or nature, under or related to Environmental Laws, that any of them might have by statute or otherwise against any Indemnitee except to the extent found by a final and nonappealable decision of a court of competent jurisdiction to have resulted from the bad faith, gross negligence or willful misconduct of such Indemnitee or its Related Indemnified Persons. Statements payable by the Borrower pursuant to this Section 10.5 shall be submitted to the Chief Financial Officer, at the address of the Borrower set forth in Section 10.2, or to such other Person or address as may be hereafter designated by the Borrower in a written notice to the Administrative Agent. The agreements in this Section 10.5 shall survive repayment of the Term Loans and all other amounts payable hereunder. Section 10.5 shall not apply with respect to Taxes other than any Taxes that represent losses, claims, damages, etc. arising from any non-Tax claim.

(c) To the fullest extent permitted by applicable law, neither the Borrower nor any Indemnitee shall assert, and each of the Borrower and each Indemnitee does hereby waive, any claim against any party hereto, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement, any other Loan Document or any agreement or instrument contemplated hereby, the transactions contemplated hereby or thereby, any Term Loan or the use of the proceeds thereof; *provided* that the foregoing shall not limit the indemnification obligations of the Borrower under clause (b) above to the extent they arise from claims of third parties against an Indemnitee for such special, indirect, consequential or punitive damages. No Indemnitee shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed by it through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Loan Documents or the transactions contemplated hereby or thereby.

(d) The Borrower shall not, without the prior written consent of the Indemnitee, settle, compromise, consent to the entry of any judgment in or otherwise seek to terminate any proceeding in respect of which indemnification may be sought hereunder (whether or not any Indemnitee is a party thereto) unless such settlement, compromise, consent or termination (i) includes an unconditional release of each Indemnitee from all liability arising out of such

proceeding and (ii) does not include a statement as to, or an admission of, fault, culpability, or a failure to act by or on behalf of such Indemnitee.

(e) The Borrower will not be liable under this Agreement for any amount paid by an Indemnitee to settle any claims or actions if the settlement is entered into without the Borrower's consent, which consent may not be withheld or delayed unless such settlement is unreasonable in light of such claims or actions against, and defenses available to, such Indemnitee; provided that this Section 10.5(e) shall not apply to those settlements where the Borrower was offered the ability to assume the defense of the action that directly and specifically related to the subject matter of such settlement and elected not to assume such defense.

(f) All amounts due under this Section shall be payable not later than ten (10) days after demand therefor.

10.6 Successors and Assigns; Participations and Assignments.

(a) The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby, except that (i) the Borrower may not assign or otherwise transfer any of its rights or obligations hereunder without the prior written consent of the Administrative Agent and each Lender (and any attempted assignment or transfer by the Borrower without such consent shall be null and void) and (ii) no Lender may assign or otherwise transfer its rights or obligations hereunder except (x) to an assignee in accordance with the provisions of paragraph (b) of this Section, (y) by way of participation in accordance with the provisions of paragraph (e) of this Section or (z) by way of pledge or assignment of a security interest subject to the restrictions of paragraph (g) of this Section (and any other attempted assignment or transfer by any party hereto shall be null and void). Nothing in this Agreement, express or implied, shall be construed to confer upon any Person (other than the parties hereto, their respective successors as assigns permitted hereby, Participants to the extent provided in paragraph (e) of this Section 10.6 and, to the extent expressly contemplated hereby, the Affiliates of each of the Administrative Agent and the Lenders) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) Any Lender may assign to one or more assignees (each, an "Assignee") all or a portion of its rights and obligations under this Agreement (including all or a portion of its Commitments and the Term Loans at the time owing to it); *provided* that any such assignment shall be subject to the following conditions:

(i) except in the case of an assignment to a Lender, an Affiliate of a Lender or an Approved Fund, the amount of the Commitments or Loans of the assigning Lender subject to each such assignment (determined as of the date the Assignment and Assumption with respect to such assignment is delivered to the Administrative Agent or, if "Trade Date" is specified in the Assignment and Assumption, as of the Trade Date) shall not be less than $1,000,000 unless each of the Borrower and the Administrative Agent otherwise consent (such consent not to be unreasonably withheld or delayed); *provided* that no such consent of the Borrower shall be required if an Event of Default has occurred and is continuing;

(ii) each partial assignment shall be made as an assignment of a proportionate part of all the assigning Lender's rights and obligations under this Agreement with respect to the Term Loan or the Commitment assigned, except that this clause (ii) shall not prohibit any Lender from assigning all or a portion of its rights and obligations among separate tranches of Loans (if any) on a non-pro rata basis;

(iii) no consent shall be required for any assignment except to the extent required by paragraph (b)(i) of this Section and, in addition, the consent of:

(A) the Borrower (such consent not to be unreasonably withheld or delayed) shall be required unless (x) an Event of Default has occurred and is continuing at the time of such assignment, (y) such assignment is to a Lender, an Affiliate of a Lender or an Approved Fund; *provided* that the Borrower shall be deemed to have consented to any such assignment unless it shall object thereto by written notice to the Administrative Agent within ten (10) Business Days after having received a draft of the relevant Assignment and Assumption or (z) such assignment is made prior to the date that is 90 days after the Effective Date; and

(B) the Administrative Agent (such consent not to be unreasonably withheld or delayed) shall be required for assignments in respect of each of the Term Facilities if such assignment is to an Assignee that is not a Lender, an Affiliate of a Lender or an Approved Fund;

(iv) the parties to each assignment shall execute and deliver to the Administrative Agent an Assignment and Assumption, together with a processing and recordation fee of $3,500 (it being understood that payment of only one processing fee shall be required in connection with simultaneous assignments to two or more Approved Funds); *provided* that the Administrative Agent may, in its sole discretion, elect to waive such processing and recordation fee in the case of any assignment; and the Assignee, if it shall not be a Lender, shall deliver to the Administrative Agent an administrative questionnaire.

(v) no assignment shall be permitted to be made to Holdings or any of its Subsidiaries or Affiliates other than on the following basis:

(A) no Default or Event of Default has occurred or is continuing at the time of such assignment or would result from such assignment;

(B) Holdings, the Borrower or any of their respective Subsidiaries may make one or more offers (each, an "Offer") to repurchase all or any portion of any Tranche of Term Loans (such Term Loans, the "Offer Loans"); *provided* that, (1) Holdings, the Borrower or such Subsidiary delivers a notice of such Offer to the Administrative Agent and all Lenders no later than noon (New York City time) at least five (5) Business Days in advance of a proposed consummation date of such Offer indicating (w) the last date on which such Offer may be accepted, (x) the maximum dollar amount of such Offer, (y) the repurchase price per dollar of principal amount of such Offer Loans at which Holdings, the Borrower or such Subsidiary is willing to repurchase such Offer Loans and (z) the instructions, consistent with this Section 10.6(b)(v) with respect to the Offer, that a Lender must follow in order to have its Offer Loans repurchased; (2) Holdings, the Borrower or such Subsidiary shall hold such Offer open

for a minimum period of two (2) Business Days; (3) a Lender who elects to participate in the Offer may choose to sell all or part of such Lender's Offer Loans; (4) such Offer shall be made to the Lenders holding the Offer Loans on a pro rata basis in accordance with the respective principal amount then due and owing to the Lenders; *provided* that, if any Lender elects not to participate in the Offer, either in whole or in part, the amount of such Lender's Offer Loans not being tendered shall be excluded in calculating the pro rata amount applicable to the balance of such Offer Loans; and (5) such Offer shall be conducted pursuant to such procedures the Administrative Agent may establish in consultation with the Borrower (which shall be consistent with this clause (B)) and that a Lender must follow in order to have its Offer Loans repurchased;

(C) with respect to all repurchases made by Holdings, the Borrower or their respective Subsidiaries, such repurchases shall be deemed to be voluntary prepayments pursuant to Section 3.1 in an amount equal to the aggregate principal amount of such Term Loans;

(D) following repurchase by Holdings, the Borrower or any of their respective Subsidiaries, (1) all principal and accrued and unpaid interest on the Term Loans so repurchased shall be deemed to have been paid for all purposes and no longer outstanding (and may not be resold by Holdings, the Borrower or such Subsidiary), for all purposes of this Agreement and all other Loan Documents and (2) Holdings, the Borrower or any of their respective Subsidiaries, as the case may be, will promptly advise the Administrative Agent of the total amount of Offer Loans that were repurchased from each Lender who elected to participate in the Offer; and

(E) any Term Loans purchased by or assigned to Holdings, the Borrower or any of their respective Subsidiaries shall be automatically, immediately and permanently cancelled upon the effectiveness of such assignment and will thereafter no longer be outstanding for any purpose hereunder; and

(vi) no assignment shall be permitted to be made to a natural person.

Except as otherwise provided in clause (v) above, subject to acceptance and recording thereof pursuant to paragraph (d) below, from and after the effective date specified in each Assignment and Assumption the Eligible Assignee thereunder shall be a party hereto and, to the extent of the interest assigned by such Assignment and Assumption, have the rights and obligations of a Lender under this Agreement, and the assigning Lender thereunder shall, to the extent of the interest assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption covering all of the assigning Lender's rights and obligations under this Agreement, such Lender shall cease to be a party hereto but shall continue to be entitled to the benefits of Sections 3.9, 3.10, 3.11 and 10.5; *provided*, with respect to such Section 3.10, that such Lender continues to comply with the requirements of Sections 3.10 and 3.10(e). Any assignment or transfer by a Lender of rights or obligations under this Agreement that does not comply with this Section 10.6 shall be treated for purposes of this Agreement as a sale by such Lender of a participation in such rights and obligations in accordance with paragraph (e) of this Section.

(c) [Intentionally Omitted].

(d) The Administrative Agent, acting for this purpose as a non-fiduciary agent of the Borrower, shall maintain at one of its offices in the United States a copy of each Assignment and Assumption delivered to it and a register for the recordation of the names and addresses of the Lenders, and the Commitments of, and principal amount of and interest owing with respect to the Term Loans owing to, each Lender pursuant to the terms hereof from time to time (the "Register"). Subject to the penultimate sentence of this paragraph (d), the entries in the Register shall be conclusive absent manifest error, and the Borrower, the Administrative Agent and the Lenders shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. In the case of an assignment to an Affiliate of a Lender or an Approved Fund pursuant to paragraph (c), as to which an Assignment and Assumption and an administrative questionnaire are not delivered to the Administrative Agent, the assigning Lender shall, acting solely for this purpose as a non-fiduciary agent of the Borrower, maintain a register (a "Related Party Register") comparable to the Register on behalf of the Borrower. The Register or Related Party Register shall be available for inspection by the Borrower and any Lender at the Administrative Agent's office at any reasonable time and from time to time upon reasonable prior notice. Except as otherwise provided in paragraph (c) above, upon its receipt of a duly completed Assignment and Assumption executed by an assigning Lender and an Assignee, the Assignee's completed administrative questionnaire (unless the Assignee shall already be a Lender hereunder), the processing and recordation fee referred to in paragraph (b)(iv) of this Section 10.6 and any written consent to such assignment required by paragraph (b) of this Section 10.6, the Administrative Agent shall accept such Assignment and Assumption and record the information contained therein in the Register. Except as otherwise provided in paragraph (c) above, no assignment shall be effective for purposes of this Agreement unless and until it has been recorded in the Register (or, in the case of an assignment pursuant to paragraph (c) above, the applicable Related Party Register) as provided in this paragraph (d). The date of such recordation of a transfer shall be referred to herein as the "Assignment Effective Date."

(e) Any Lender may, without the consent of, or notice to, the Borrower or the Administrative Agent, sell participations to one or more banks or other entities (a "Participant") in all or a portion of such Lender's rights and obligations under this Agreement (including all or a portion of its Commitments and the Term Loans owing to it); *provided* that (A) such Lender's obligations under this Agreement shall remain unchanged, (B) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations, (C) the Borrower, the Administrative Agent and the other Lenders shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations under this Agreement and (D) no participation shall be permitted to be made to Holdings or any of its Subsidiaries or Affiliates, nor any officer or director of any such Person. Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement; *provided* that such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, modification or waiver that requires the consent of each Lender directly affected thereby pursuant to the proviso to the second sentence of Section 10.1. Subject to paragraph (f) of this Section, the Borrower

agrees that each Participant shall be entitled to the benefits of Sections 3.9, 3.10 and 3.11 to the same extent as if it were a Lender (subject to the requirements and obligations of those sections including the documentary requirements in Section 3.10(e)) and had acquired its interest by assignment pursuant to paragraph (b) of this Section; provided that such Participant agrees to be subject to the provisions of Sections 3.12 and 3.13 as if it were an assignee under paragraph (b) of this Section. Each Lender that sells a participation agrees, at the Borrower's request and expense, to use reasonable efforts to cooperate with the Borrower to effectuate the provisions of Section 3.13 with respect to any Participant. To the extent permitted by law, each Participant also shall be entitled to the benefits of Section 10.7(b) as though it were a Lender; *provided* such Participant shall be subject to Section 10.7(a) as though it were a Lender. Each Lender that sells a participation shall, acting solely for this purpose as a non-fiduciary agent of the Borrower and solely for tax purposes, maintain a register complying with the requirements of Section 163(f), 871(h) and 881(c)(2) of the Code and the Treasury regulations issued thereunder relating to the exemption from withholding for portfolio interest on which it enters the name and address of each Participant and the principal amounts (and stated interest) of each Participant's interest in the Term Loans or other obligations under this Agreement (the "Participant Register"); *provided*, that no Lender shall have any obligation to disclose all or any portion of the Participant Register to any Person (including the identity of any Participant or any information relating to a Participant's interest in any Commitments, Loans or its other obligations under this Agreement) except to the extent that the relevant parties, acting reasonably and in good faith, determine that such disclosure is necessary to establish that such Commitment, Loan or other obligation is in registered form under Section 5f.103-1(c) of the United States Treasury Regulations. Unless otherwise required by the IRS, any disclosure required by the foregoing sentence shall be made by the relevant Lender directly and solely to the IRS. The entries in the Participant Register shall be conclusive absent manifest error, and such Lender shall treat each person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary. The entries in the Participant Register shall be conclusive and such Lender shall treat each Person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary.

(f) A Participant shall not be entitled to receive any greater payment under Section 3.9, 3.10 or 3.11 than the applicable Lender would have been entitled to receive with respect to the participation sold to such Participant had no such participation been transferred to such Participant, unless the entitlement to a greater payment results from a change in any Requirement of Law after the date such Participant became a Participant.

(g) Any Lender may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement to secure obligations of such Lender, including any pledge or assignment to secure obligations to a Federal Reserve Bank, and this Section shall not apply to any such pledge or assignment of a security interest or to any such sale or securitization; *provided* that no such pledge or assignment of a security interest shall release a Lender from any of its obligations hereunder or substitute any such pledgee or Assignee for such Lender as a party hereto.

10.7 Sharing of Payments; Set-off.

(a) Except to the extent that this Agreement expressly provides for payments to be allocated to a particular Lender, if any Lender (a "Benefited Lender") shall, at any time after the Term Loans and other amounts payable hereunder shall become due and payable pursuant to Section 8, receive any payment of all or part of the Obligations owing to it, or receive any collateral in respect thereof (whether voluntarily or involuntarily, by set-off, pursuant to events or proceedings of the nature referred to in Section 8(f), or otherwise), in a greater proportion than any such payment to or collateral received by any other Lender, if any, in respect of the Obligations owing to such other Lender, such Benefited Lender shall purchase for cash from the other Lenders a participating interest in such portion of the Obligations owing to each such other Lender, or shall provide such other Lenders with the benefits of any such collateral, as shall be necessary to cause such Benefited Lender to share the excess payment or benefits of such collateral ratably with each of the Lenders; *provided*, however, that if all or any portion of such excess payment or benefits is thereafter recovered from such Benefited Lender, such purchase shall be rescinded, and the purchase price and benefits returned, to the extent of such recovery, but without interest. Each Loan Party consents to the foregoing and agrees, to the extent it may effectively do so under applicable law, that any Lender acquiring a participation pursuant to the foregoing arrangements may exercise against each Loan Party rights of setoff and counterclaim with respect to such participation as fully as if such Lender were a director creditor of each Loan Party in the amount of such participation to the extent provided in clause (b) of this Section 10.7.

(b) In addition to any rights and remedies of the Lenders provided by law, subject to Section 9.11, each Lender shall have the right, without prior notice to the Borrower, any such notice being expressly waived by the Borrower, and to the extent permitted by applicable law, upon the occurrence of any Event of Default which is continuing, upon any amount becoming due and payable by the Borrower hereunder (whether at the stated maturity, by acceleration or otherwise), to set off and appropriate and apply against such amount any and all deposits (general or special, time or demand, provisional or final), in any currency, and any other credits, indebtedness or claims, in any currency, in each case whether direct or indirect, absolute or contingent, matured or unmatured, at any time held or owing by such Lender or any branch or agency thereof to or for the credit or the account of the Borrower, as the case may be. Each Lender agrees promptly to notify the Borrower and the Administrative Agent after any such setoff and application made by such Lender; *provided* that the failure to give such notice shall not affect the validity of such setoff and application. Notwithstanding the foregoing, no amount set off from any Loan Party (other than the Borrower) shall be applied to any Excluded Swap Obligations of such Loan Party (other than the Borrower).

(c) Notwithstanding anything to the contrary contained herein, the provisions of this Section 10.7 shall be subject to the express provisions of this Agreement which require or permit differing payments to be made to Non-Defaulting Lenders as opposed to Defaulting Lenders.

10.8 Counterparts. This Agreement may be executed by one or more of the parties to this Agreement on any number of separate counterparts, and all of said counterparts taken together shall be deemed to constitute one and the same instrument. Delivery of an executed

signature page of this Agreement by facsimile transmission or electronic mail (in ".pdf" or similar format) shall be effective as delivery of a manually executed counterpart hereof. The words "execution," "execute", "signed," "signature," and words of like import in or related to any document to be signed in connection with this Agreement and the transactions contemplated hereby (including without limitation Borrowing Notices, amendments or other modifications, waivers and consents) shall be deemed to include electronic signatures, the electronic matching of assignment terms and contract formations on electronic platforms approved by Administrative Agent, or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable Law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act; *provided* that notwithstanding anything contained herein to the contrary no Agent is under any obligation to agree to accept electronic signatures in any form or in any format unless expressly agreed to by such Agent pursuant to procedures approved by it.

10.9 Severability. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.

10.10 Integration. This Agreement and the other Loan Documents represent the entire agreement of Holdings, the Borrower, the Agents and the Lenders with respect to the subject matter hereof and thereof, and there are no promises, undertakings, representations or warranties by any Agent or any Lender relative to subject matter hereof not expressly set forth or referred to herein or in the other Loan Documents.

10.11 GOVERNING LAW. THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES UNDER THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK WITHOUT REGARD TO CONFLICT OF LAW PRINCIPLES THAT WOULD RESULT IN THE APPLICATION OF ANY LAW OTHER THAN THE LAW OF THE STATE OF NEW YORK.

10.12 Submission To Jurisdiction; Waivers. Each of the parties hereto hereby irrevocably and unconditionally:

(a) submits for itself and its property in any legal action or proceeding relating to this Agreement and the other Loan Documents to which it is a party, or for recognition and enforcement of any judgment in respect thereof, to the exclusive jurisdiction of the courts of the State of New York sitting in the Borough of Manhattan, the courts of the United States for the Southern District of New York, and appellate courts from any thereof;

(b) consents that any such action or proceeding shall be brought in such courts and waives any objection that it may now or hereafter have to the venue of any such action or proceeding in any such court or that such action or proceeding was brought in an inconvenient court and agrees not to plead or claim the same;

(c) agrees that service of process in any such action or proceeding may be effected by mailing a copy thereof by registered or certified mail (or any substantially similar form of mail), postage prepaid, to the address set forth in Section 10.2 or on the signature pages hereof, as the case may be, or at such other address of which the Administrative Agent shall have been notified pursuant thereto; and

(d) agrees that nothing herein shall affect the right to effect service of process in any other manner permitted by law or shall limit the right to sue in any other jurisdiction.

10.13 Acknowledgments. The Borrower hereby acknowledges that:

(a) it has been advised by counsel in the negotiation, execution and delivery of this Agreement and the other Loan Documents;

(b) each Agent, each Lender and their Affiliates (collectively, solely for purposes of this paragraph, the "Lenders"), may have economic interests that conflict with those of the Loan Parties, their stockholders and/or their affiliates. Each Loan Party agrees that nothing in the Loan Documents or otherwise will be deemed to create an advisory, fiduciary or agency relationship or fiduciary or other implied duty between any Lender, on the one hand, and such Loan Party, its stockholders or its affiliates, on the other. The Loan Parties acknowledge and agree that (i) the transactions contemplated by the Loan Documents (including the exercise of rights and remedies hereunder and thereunder) are arm's-length commercial transactions between the Lenders, on the one hand, and the Loan Parties, on the other, and (ii) in connection therewith and with the process leading thereto, (x) no Lender has assumed an advisory or fiduciary responsibility in favor of any Loan Party, its stockholders or its affiliates with respect to the transactions contemplated hereby (or the exercise of rights or remedies with respect thereto) or the process leading thereto (irrespective of whether any Lender has advised, is currently advising or will advise any Loan Party, its stockholders or its Affiliates on other matters) or any other obligation to any Loan Party except the obligations expressly set forth in the Loan Documents and (y) each Lender is acting solely as principal and not as the agent or fiduciary of any Loan Party, its management, stockholders, creditors or any other Person. Each Loan Party acknowledges and agrees that it has consulted its own legal and financial advisors to the extent it deemed appropriate and that it is responsible for making its own independent judgment with respect to such transactions and the process leading thereto. Each Loan Party agrees that it will not claim that any Lender has rendered advisory services of any nature or respect, or owes a fiduciary or similar duty to such Loan Party, in connection with such transaction or the process leading thereto; and

(c) no joint venture is created hereby or by the other Loan Documents or otherwise exists by virtue of the transactions contemplated hereby among the Lenders or among the Borrower and the Lenders.

10.14 Releases of Guarantees and Liens.

(a) Notwithstanding anything to the contrary contained herein or in any other Loan Document, each of the Administrative Agent and the Collateral Agent is hereby irrevocably authorized by each Secured Party (without requirement of notice to or consent of any Secured Party except as expressly required by Section 10.1) to take any action requested by the Borrower having the effect of releasing any Collateral or guarantee obligations (i) to the extent necessary to permit consummation of any transaction not prohibited by any Loan Document (including, without limitation, (x) the release of any Guarantor from its obligations under the Loan Documents if such Person ceases to be a Restricted Subsidiary as a result of a transaction permitted hereunder, (y) the release from the Collateral of any assets disposed to a Person other than a Loan Party in accordance with this Agreement and (z) the release from the Collateral of any assets of any Person that ceases to be a Guarantor in accordance with this Agreement) or that has been consented to in accordance with Section 10.1; *provided* that no such release shall occur if (x) such Guarantor continues to be a guarantor in respect of any Junior Indebtedness or (y) such Collateral continues to secure any Junior Indebtedness or (ii) under the circumstances described in paragraph (b) below.

(b) At such time as (i) the Term Loans and the other Obligations (other than Unasserted Contingent Obligations) shall have been paid in full and (ii) the Commitments have been terminated, the Collateral shall be released from the Liens created by the Security Documents, and the Security Documents and all obligations (other than those expressly stated to survive such termination) of the Administrative Agent, the Collateral Agent and each Loan Party under the Security Documents shall terminate, all without delivery of any instrument or performance of any act by any Person. At such time, the Collateral Agent shall take such actions as are reasonably necessary, at the cost of the Borrower, to effect each release described in this Section 10.14 in accordance with the relevant provisions of the Security Documents.

10.15 Confidentiality. Each Agent and each Lender agrees to keep confidential all non-public information provided to it by any Loan Party pursuant to this Agreement that is designated by such Loan Party as confidential in accordance with its customary procedures; *provided* that nothing herein shall prevent any Agent or any Lender from disclosing any such information (a) to any Agent, any other Lender, any Affiliate of a Lender or any Approved Fund (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential), (b) subject to an agreement to comply with confidentiality provisions at least as restrictive as the provisions of this Section, to any actual or prospective Transferee or any direct or indirect counterparty to any Hedge Agreement (or any professional advisor to such counterparty), (c) to its employees, directors, members, partners, agents, attorneys, accountants and other professional advisors or those of any of its affiliates (it being understood that the Person to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential), (d) upon the request or demand of any Governmental Authority (including, without limitation, public disclosures by any Agent or Lender or any Agent Related Party required by the Securities and Exchange Commission or any other governmental or regulatory authority), (e) in response to any order of any court or other Governmental Authority

or as may otherwise be required pursuant to any Requirement of Law, (f) if requested or required to do so in connection with any litigation or similar proceeding, (g) that has been publicly disclosed (other than as a result of a disclosure in violation of this Section 10.15), (h) to the National Association of Insurance Commissioners or any similar organization or any nationally recognized rating agency that requires access to information about a Lender's investment portfolio in connection with ratings issued with respect to such Lender, or (i) in connection with the exercise of any remedy hereunder or under any other Loan Document; *provided* that, unless specifically prohibited by applicable law or court order, each Lender shall notify the Borrower of any request by any Governmental Authority or representative thereof (other than any such request in connection with any examination of the financial condition or other routine examination of such Lender by such Governmental Authority) for disclosure of any such non-public information prior to disclosure of such information.

10.16 WAIVERS OF JURY TRIAL. EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

10.17 Judgment Currency. If for the purposes of obtaining judgment in any court it is necessary to convert a sum due from the Borrower hereunder in the currency expressed to be payable herein (the "specified currency") into another currency, the parties hereto agree, to the fullest extent that they may effectively do so, that the rate of exchange used shall be that at which in accordance with normal banking procedures any Lender could purchase the specified currency with such other currency at such Lender's New York office on the Business Day preceding that on which final judgment is given. The obligations of the Borrower in respect of any sum due to any Lender hereunder shall, notwithstanding any judgment in a currency other than the specified currency, be discharged only to the extent that on the Business Day following receipt by such Lender of any sum adjudged to be so due in such other currency such Lender may in accordance with normal banking procedures purchase the specified currency with such other currency; if the amount of the specified currency so purchased is less than the sum originally due to such Lender in the specified currency, the Borrower agrees, to the fullest extent that it may effectively do so, as a separate obligation and notwithstanding any such judgment, to indemnify the Lender against such loss, and if the amount of the specified currency so purchased exceeds the sum originally due to such Lender in the specified currency, such Lender agrees to remit such excess to the Borrower.

10.18 Patriot Act Notice. Each Lender and the Administrative Agent (for itself and not on behalf of any Lender) hereby notifies the Loan Parties that pursuant to the requirements of the Patriot Act, it may be required to obtain, verify and record information that identifies each Loan Party, which information includes the name and address of such Loan Party and other information that will allow such Lender or the Administrative Agent, as applicable, to identify such Loan Party in accordance with the Patriot Act.

10.19 Acknowledgment and Consent to Bail-In of Affected Financial Institutions. Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any party hereto that is an Affected Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the Write-Down and Conversion Powers of the applicable Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an Affected Financial Institution; and

(b) the effect of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such Affected Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the Write-Down and Conversion Powers of any Resolution Authority.

Exhibit 10.49

AMENDMENT no. 2 to CREDIT AGREEMENT

THIS AMENDMENT NO. 2 TO CREDIT AGREEMENT (this "Agreement") is entered into as of February 24, 2021 by and among **LIVANOVA USA INC.**, a Delaware corporation (the "Borrower"), **LIVANOVA PLC**, a company incorporated under the laws of England and Wales ("Holdings"), the Lenders party hereto and **ARES CAPITAL CORPORATION**, a Maryland Corporation, as administrative agent (in such capacity, the "Administrative Agent").

W I T N E S S E T H:

WHEREAS, the Borrower, Holdings, the Administrative Agent and the Lenders are parties to that certain Credit Agreement dated as of June 10, 2020 (as amended, restated, supplemented or modified prior to the date hereof, the "Existing Credit Agreement", and as amended by this Agreement, and as may be further amended, restated, supplemented, or modified, the "Credit Agreement"); unless otherwise defined herein, capitalized terms used herein shall have the respective meanings assigned to such terms in the Credit Agreement, as amended by this Agreement;and

WHEREAS, the Borrower, Holdings, the Administrative Agent and each of the Lenders signatory hereto, constituting not less than the Required Lenders, desire to amend the Credit Agreement, subject to the terms and conditions set forth herein, as more fully set forth below.

NOW, THEREFORE, in consideration of the mutual agreements, provisions and covenants contained herein, the parties agree as follows:

1. Amendments to the Existing Credit Agreement. The Existing Credit Agreement is hereby amended as follows:

a. by deleting clause (xi) of the definition of "Consolidated EBITDA" and replacing it in its entirety as follows:

"(xi) non-cash reserve or accrual in an amount not to exceed $43,000,000 as a loss contingency liability as required by GAAP per ASC 450 in connection with the clean-up of a hazardous waste storage site and contaminated areas located in Saluggia Italy, solely in the case of the periods ending December 31, 2020, March 31, 2021, June 30, 2021 and September 30, 2021, it being understood no amount shall be added pursuant to this clause (xi) to the extent duplicative of any such reserves or accruals that are included in clauses (xii) below;"

2. Conditions. The effectiveness of the amendments set forth in Section 1, of this Agreement are subject to the satisfaction of the following conditions precedent:

(a) *Agreement*. The Administrative Agent shall have received a copy of this Agreement in form and substance reasonably satisfactory to the Administrative Agent, executed and delivered by each of the parties hereto.

(b) *Revolving Credit Amendment*. The Administrative Agent shall have received a copy of the amendment to the Revolving Credit Agreement in form and substance reasonably satisfactory to the Administrative Agent, executed and delivered by each of the parties hereto.

(c) *Representations and Warranties*. As of the date hereof, the representations and warranties contained in Section 3 below shall, after giving effect to this Agreement and the transactions contemplated hereby, be true and correct.

(d) *Payment of Other Fees and Expenses*. All costs, fees, expenses (including, without limitation, reasonable, documented, out-of-pocket legal fees) and other compensation payable to the Administrative Agent in connection with this Agreement or any other Loan Document shall have been paid (or shall be paid concurrently with the effectiveness of this Agreement).

3. Representations and Warranties. Each of Borrower and Holdings, on behalf of itself and the other Loan Parties, hereby represents and warrants to the Administrative Agent and each Lender as follows:

(a) the execution, delivery and performance by each of the Loan Parties of this Agreement have been duly authorized by all necessary organizational action, and do not and will not:

(i) contravene the terms of any of that Person's Organizational Documents;

(ii) conflict with or result in any breach or contravention of, or result in the creation of any Lien under, any document evidencing any Contractual Obligation to which such Person is a party or any order, injunction, writ or decree of any Governmental Authority to which such Person or its Property is subject, except as would not reasonably be expected to have, either individually or in the aggregate, a Material Adverse Effect; or

(iii) violate any Requirement of Law in any respect, except, as would not reasonably be expected to have, either individually or in the aggregate, a Material Adverse Effect;

(b) such Loan Party has the power and authority to execute, deliver and perform its obligations under this Agreement and the Credit Agreement, as modified hereby;

(c) this Agreement constitutes the legal, valid and binding obligations of each such Person which is a party hereto, enforceable against such Person in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency or similar laws affecting the enforcement of creditors' rights generally or by equitable principles relating to enforceability;

(d) immediately after giving effect to this Agreement and the transactions contemplated hereby, each of the representations and warranties contained in the Credit

Agreement and the other Loan Documents is true and correct in all material respects (without duplication of any materiality qualifier contained therein) on and as of the date hereof as if made on the date hereof (except for (i) representations and warranties that speak as of a specific date, which shall be true and correct in all material respects (without duplication of any materiality qualifier contained therein) as of such specific date and (ii) the representations and warranties under Section 4.9 (last sentence) and 4.29 of the Credit Agreement, which shall be true and correct in all material respect as of the Closing Date);

(e) after giving effect to this Agreement and the transactions contemplated hereby, no Default or Event of Default exists or would result therefrom; and

4. No Modification. Except as expressly set forth herein, nothing contained herein shall be deemed to constitute a waiver of compliance with any term or condition contained in the Credit Agreement or any of the other Loan Documents or constitute a course of conduct or dealing among the parties. Except as expressly stated herein, the Administrative Agent and Lenders reserve all rights, privileges and remedies under the Loan Documents. Except as amended hereby, the Credit Agreement and other Loan Documents remain unmodified and in full force and effect. All references in the Loan Documents to the Credit Agreement shall be deemed to be references to the Credit Agreement, as modified hereby. This Agreement shall constitute a Loan Document.

5. Counterparts. This Agreement may be executed by one or more of the parties to this Agreement on any number of separate counterparts, and all of said counterparts taken together shall be deemed to constitute one and the same instrument. Delivery of an executed signature page of this Agreement by facsimile transmission or electronic mail (in ".pdf" or similar format) shall be effective as delivery of a manually executed counterpart hereof. The words "execution," "execute", "signed," "signature," and words of like import in or related to any document to be signed in connection with this Agreement and the transactions contemplated hereby shall be deemed to include electronic signatures, the electronic matching of assignment terms and contract formations on electronic platforms approved by Administrative Agent, or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable Law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act; *provided* that notwithstanding anything contained herein to the contrary no Agent is under any obligation to agree to accept electronic signatures in any form or in any format unless expressly agreed to by such Agent pursuant to procedures approved by it.

6. Successors and Assigns. The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns; provided that none of the Loan Parties may assign or transfer any of its rights or obligations under this Agreement without the prior written consent of the Administrative Agent and each Lender.

7. **GOVERNING LAW**. **THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES UNDER THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK WITHOUT REGARD TO CONFLICT OF LAW PRINCIPLES THAT WOULD RESULT IN THE APPLICATION OF ANY LAW OTHER THAN THE LAW OF THE STATE OF NEW YORK.**

8. Severability. The illegality or unenforceability of any provision of this Agreement or any instrument or agreement required hereunder shall not in any way affect or impair the legality or enforceability of the remaining provisions of this Agreement or any instrument or agreement required hereunder.

9. Captions. The captions and headings of this Agreement are for convenience of reference only and shall not affect the interpretation of this Agreement.

[Remainder of Page Intentionally Left Blank; Signature Pages Follow]

IN WITNESS WHEREOF, each of the undersigned has executed this Agreement as of the date set forth above.

LIVANOVA USA, INC.,
a Delaware corporation

By: /s/ Damien McDonald
Name: Damien McDonald
Title: Vice President

LIVANOVA PLC,
a company incorporated under the laws of England and Wales

By: /s/Damien McDonald
Name: Damien McDonald
Title: CEO

ADMINISTRATIVE AGENT AND REQUIRED LENDER:

ARES CAPITAL CORPORATION, as the Administrative Agent and a Required Lender

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

REQUIRED LENDERS:

CION ARES DIVERSIFIED CREDIT FUND

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

ARES JASPER FUND, L.P.,
By: Capital Management LLC, its investment manager

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

ARES CSIDF HOLDINGS, LLC,
By: Ares Capital Management LLC, as a servicer

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

ARES SENIOR DIRECT LENDING MASTER FUND DESIGNATED ACTIVITY COMPANY,
By: Ares Capital Management LLC, its investment manager

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

ARES SENIOR DIRECT LENDING PARALLEL FUND (L), L.P.,
By: Ares Capital Management LLC, its investment manager

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

ARES SENIOR DIRECT LENDING PARALLEL FUND (U), L.P.,
By: Ares Capital Management LLC, its investment manager

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

ARES SDL HOLDINGS (U) INC.,
By: Ares Capital Management LLC, its investment manager

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

ARES SFERS HOLDINGS LLC,
By: Ares Capital Management LLC, its servicer

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

CHIMNEY TOPS LOAN FUND, LLC,
By: Ares Capital Management LLC, its servicer

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

AC AMERICAN FIXED INCOME IV, L.P.,
By: Ares Capital Management LLC, its investment manager

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

AO MIDDLE MARKET CREDIT FINANCING L.P.,
By: AO Middle Market Credit Financing GP Ltd., its general partner

By: /s/ K. Patel
Name: K. Patel
Title: Director

By: /s/ Jeremy Ehrlich
Name: Jeremy Ehrlich
Title: Director

NATIONWIDE LIFE INSURANCE COMPANY,
By: Ares Capital Management LLC, its investment manager

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

NATIONWIDE MUTUAL INSURANCE COMPANY,
By: Ares Capital Management LLC, its investment manager

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

GREAT AMERICAN INSURANCE COMPANY,
By: Ares Capital Management LLC, its investment manager

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

GREAT AMERICAN LIFE INSURANCE COMPANY,
By: Ares Capital Management LLC, its investment manager

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

BLUE EAGLE 2019-1, LTD.,
By: Global Atlantic Financial Company, its collateral manager
By: Ares Capital Management LLC, its investment manager

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

BOWHEAD IMC LP,
By: Ares Capital Management LLC, its investment manager

By: /s/ Scott Lem
Name: Scott Lem
Title: Authorized Signatory

AMERICAN FAMILY MUTUAL INSURANCE COMPANY, S.I.

By: /s/ Eyal Karsh
Name: Eyal Karsh
Title: Authorized Signer

CDPQ REVENU FIXE VIII INC.

By: /s/ Thomas Cockburn
Name: Thomas Cockburn
Title: Senior Director, Corporate Credit

By: /s/ Jerome Marquis
Name: Jerome Marquis
Title: Managing Director, Head of Corporate Credit

BELUGA IMC TRUSTEE INC., as a trustee for BELUGA IMC INV TRUST

By: /s/ Kenton Freitag
Name: Kenton Freitag
Title: Vice President

EXHIBIT 21.1

LIST OF SUBSIDIARIES
LivaNova PLC and Subsidiaries
As of December 31, 2020

Company	Jurisdiction of Formation
LivaNova Plc	United Kingdom
LivaNova Plc (Italian Branch)	Italy
Caisson Interventional, LLC	USA
CardiacAssist, Inc. Dba TandemLife	USA
Corcym S.r.l.	Italy
Cyberonics Holdings, LLC	USA
Cyberonics Latam SRL	Costa Rica
Cyberonics Netherlands CV	Netherlands
Cyberonics Spain SL	Spain
ImThera Medical, Inc.	USA
LivaNova Australia PTY Limited	Australia
LivaNova Austria GmbH	Austria
LivaNova Belgium N.V.	Belgium
LivaNova Brasil Comércio e Distribuição de Equipamentos Médico-hospitalares Ltda	Brazil
LivaNova Canada Corp.	Canada
LivaNova Cayman Limited	Cayman Islands
LivaNova Chile SpA	Chile
LivaNova (China) Medical Technology Co. Ltd	China
LivaNova Colombia Sas	Colombia
LivaNova Deutschland GmbH	Germany
LivaNova Espana, S.L.	Spain
LivaNova Finland Oy	Finland
LivaNova Holding S.r.l.	Italy
LivaNova Hong Kong Limited	Hong Kong
LivaNova Hungary Limited Liability Company	Hungary
LivaNova, Inc.	USA
LivaNova India Private Limited	India
LivaNova IP Limited	United Kingdom
LivaNova Japan K.K.	Japan
LivaNova Malaysia Sbn. Bhd.	Malaysia
LivaNova Nederland N.V.	Netherlands
LivaNova Norway AS	Norway
LivaNova Poland Sp. Z o.o.	Poland
LivaNova SAS	France
LivaNova Scandinavia AB	Sweeden
LivaNova Singapore Pte Ltd	Singapore
LivaNova Site Management S.r.l.	Italy
LivaNova Switzerland SA	Switzerland
LivaNova Taiwan Co. Ltd	Taiwan
LivaNova (Thailand) Ltd	Thailand
LivaNova Turkey Medikal Limited Sirketi	Turkey

Company	Jurisdiction of Formation
LivaNova UK Limited	United Kingdom
LivaNova USA, Inc.	USA
LIVN Irishco 2 UC	Ireland
LIVN Irishco Unlimited Company	Ireland
LIVN Luxco 2 sarl	Luxembourg
LIVN UK Holdco Limited	United Kingdom
LIVN UK Limited 2 Co. Limited	United Kingdom
LIVN UK Limited 3 Co. Limited	United Kingdom
LIVN US 3, LLC	USA
LIVN US 5, LLC	USA
LIVN US, L.P.	USA
Sorin Group Czech Republic s.r.o.	Czech Republic
Sorin Group Italia S.r.l.	Italy
Sorin Group Rus LLC	Russia

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-228411 and 333-207478) of LivaNova PLC of our report dated March 1, 2021 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Houston, Texas
March 1, 2021

EXHIBIT 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Damien McDonald, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2020 of LivaNova PLC and its consolidated subsidiaries;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934 (the "Exchange Act")) and internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2021

/s/ DAMIEN MCDONALD

Damien McDonald
Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER

PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Alex Shvartsburg, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2020 of LivaNova PLC and its consolidated subsidiaries;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934 (the "Exchange Act")) and internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2021

/s/ ALEX SHVARTSBURG
Alex Shvartsburg
Chief Financial Officer
(Principal Accounting and Financial Officer)

EXHIBIT 32.1

CERTIFICATION OF THE

CHIEF EXECUTIVE OFFICER AND

CHIEF FINANCIAL OFFICER

OF LIVANOVA PLC

PURSUANT TO 18 U.S.C. SECTION 1350

AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Each of Damien McDonald, Chief Executive Officer of LivaNova PLC (the "Company"), and Alex Shvartsburg, Chief Financial Officer of the Company, each hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of his knowledge:

(a) the Annual Report on Form 10-K of the Company and its consolidated subsidiaries for the year ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(b) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 1, 2021

/s/ DAMIEN MCDONALD
Damien McDonald
Chief Executive Officer
(Principal Executive Officer)

/s/ ALEX SHVARTSBURG
Alex Shvartsburg
Chief Financial Officer
(Principal Accounting and Financial Officer)

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as a part of this report or on a separate disclosure document.