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

Form 10-Q

(Mark One)

☑ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended: March 31, 2021

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

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 is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☑

Class	Outstanding at April 22, 2021
Ordinary Shares - £1.00 par value per share	48,856,606

LIVANOVA PLC

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In this Quarterly Report on Form 10-Q, "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 106 (AspireSR®), Model 1000 (SenTiva®), Model 1000-D (SenTiva® Duo), Model 7103 (VITARIA® and TitrationAssist™) and Model 8103 (Symmetry®).
- Trademarks for our Cardiopulmonary product systems: S5® heart-lung machine, S3® heart-lung machine, S5 Pro™ heart-lung machine, B-Capta®, 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®, Perceval® Plus, Miami Instruments™, Top Hat®, Reduced Series Aortic Valves™, Carbomedics Carbo-Seal®, Carbo-Seal Valsalva®, Carbomedics Standard®, Orbis™ and Optiform®, and Mitral valve repair products: Memo3D®, Memo3D ReChord™, 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 Quarterly Report on Form 10-Q 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.

NOTE ABOUT FORWARD LOOKING STATEMENTS

Certain statements in this Quarterly Report on Form 10-Q, other than purely historical information, are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 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, the amount and timing of future cash distributions, 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. In some cases, 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 Quarterly Report on Form 10-Q, and include but are not limited to the risks and uncertainties summarized below:

- changes in our common stock price;
- activist investors causing disruptions to the business;
- changes in our profitability;
- regulatory activities and announcements, including the failure to obtain regulatory approvals for our new products;
- effectiveness of our internal controls over financial reporting;
- fluctuations in future quarterly operating results;
- failure to comply with, or changes in, laws, regulations or administrative practices affecting government regulation of our products, including, but not limited to, U.S. Food and Drug Administration ("FDA") laws and regulations;
- failure to establish, expand or maintain market acceptance of our products for the treatment of our approved indications;
- any legislative or administrative reform to the healthcare system, including the U.S. Medicare or Medicaid systems or international reimbursement systems, that significantly reduces reimbursement for our products or procedures or denies coverage for such products or procedures or enhances coverage for competitive products or procedures, as well as adverse decisions by administrators of such systems on coverage or reimbursement issues relating to our products;
- failure to maintain the current regulatory approvals for our products' approved indications;
- failure to obtain or maintain coverage and reimbursement for our products' approved indications;
- unfavorable results from clinical studies;
- variations in sales and operating expenses relative to estimates;
- our dependence on certain suppliers and manufacturers to provide certain materials, components and contract services necessary for the production of our products;
- product liability, intellectual property, shareholder-related, environmental-related, income tax and other litigation, disputes, losses and costs;
- protection, expiration and validity of our intellectual property;
- changes in technology, including the development of superior or alternative technology or devices by competitors;
- competition from providers of alternative medical therapies, such as pharmaceutical companies and providers of cannabis;
- cyber-attacks or other disruptions to our information technology systems;
- failure to comply with applicable U.S. laws and regulations, including federal and state privacy and security laws and regulations;
- failure to comply with applicable non-U.S. laws and regulations;

- non-U.S. operational and economic risks and concerns;
- failure to attract or retain key personnel;
- failure of new acquisitions to further our strategic objectives or strengthen our existing businesses;
- losses or costs from pending or future lawsuits and governmental investigations;
- changes in accounting rules that adversely affect the characterization of our consolidated financial position, results of operations or cash flows;
- changes in customer spending patterns;
- continued volatility in the global market and worldwide economic conditions, including volatility caused by Brexit and/or changes to existing trade agreements and relationships between the U.S. and other countries;
- risks relating to the outbreak and spread of COVID-19 around the world;
- changes in tax laws, including changes related to Brexit, or exposure to additional income tax liabilities;
- harsh weather or natural disasters that interrupt our business operations or the business operations of our hospital-customers; and
- failure of the market to adopt new therapies or to adopt new therapies quickly.

Other factors that could cause our actual results to differ from our projected results are described in (1) “Part II, Item 1A. Risk Factors” and elsewhere in this and our other Quarterly Reports on Form 10-Q, (2) our Annual Report on Form 10-K for the fiscal year ended December 31, 2020 (“2020 Form 10-K”), (3) our reports and registration statements filed and furnished from time to time with the Securities and Exchange Commission (“SEC”) and (4) other announcements we make from time to time.

Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date hereof. We undertake no obligation to update or revise any forward-looking statements after the date they are made, whether as a result of new information, future events or otherwise. You should read the following discussion and analysis in conjunction with our unaudited condensed consolidated financial statements and related notes included elsewhere in this report. Operating results for the three months ended March 31, 2021 are not necessarily indicative of future results, including the full fiscal year. You should also refer to our “Annual Consolidated Financial Statements,” “Notes” thereto, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Risk Factors” contained in our 2020 Form 10-K and in our Quarterly Reports on Form 10-Q.

Financial Information and Currency of Financial Statements

All of the financial information included in this quarterly report has been prepared in accordance with generally accepted accounting principles in the United States of America (“U.S.” and such principles, “U.S. GAAP”). The reporting currency of our condensed consolidated financial statements is U.S. dollars.

PART I. FINANCIAL INFORMATION

Item 1. *Financial Statements*

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

	Three Months Ended March 31,	
	2021	**2020**
Net sales	$ 247,603	$ 242,397
Costs and expenses:		
Cost of sales - exclusive of amortization	79,216	68,923
Product remediation	68	1,466
Selling, general and administrative	112,618	120,177
Research and development	44,625	35,902
Merger and integration expenses	630	3,474
Restructuring expenses	6,092	1,580
Revaluation of disposal group	(966)	—
Amortization of intangibles	6,699	10,267
Litigation provision, net	3,044	—
Operating (loss) income from continuing operations	(4,423)	608
Interest income	(74)	148
Interest expense	(15,936)	(4,849)
Foreign exchange and other losses	(6,369)	(1,914)
Loss from continuing operations before tax	(26,802)	(6,007)
Income tax expense (benefit)	2,856	(44,714)
Losses from equity method investments	(40)	(129)
Net (loss) income from continuing operations	(29,698)	38,578
Net loss from discontinued operations, net of tax	—	(995)
Net (loss) income	$ (29,698)	$ 37,583
Basic (loss) income per share:		
Continuing operations	$ (0.61)	$ 0.80
Discontinued operations	—	(0.02)
	$ (0.61)	$ 0.78
Diluted (loss) income per share:		
Continuing operations	$ (0.61)	$ 0.79
Discontinued operations	—	(0.02)
	$ (0.61)	$ 0.77
Shares used in computing basic (loss) income per share	48,736	48,485
Shares used in computing diluted (loss) income per share	48,736	48,769

See accompanying notes to the condensed consolidated financial statements

LIVANOVA PLC AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(UNAUDITED)
(In thousands)

	Three Months Ended March 31,	
	2021	**2020**
Net (loss) income	$ (29,698)	$ 37,583
Other comprehensive income (loss):		
Net change in unrealized gain (loss) on derivatives	(335)	(1,356)
Tax effect	339	325
Net of tax	4	(1,031)
Foreign currency translation adjustment	(25,875)	(32,100)
Total other comprehensive income (loss)	(25,871)	(33,131)
Total comprehensive income (loss)	$ (55,569)	$ 4,452

See accompanying notes to the condensed consolidated financial statements

LIVANOVA PLC AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(UNAUDITED)
(In thousands, except share amounts)

	March 31, 2021	December 31, 2020
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 252,539	$ 252,832
Accounts receivable, net of allowance of $11,268 at March 31, 2021 and $10,310 at December 31, 2020	180,707	184,356
Inventories	124,523	126,675
Prepaid and refundable taxes	36,632	60,240
Assets held for sale	67,475	70,539
Prepaid expenses and other current assets	28,754	24,792
Total Current Assets	690,630	719,434
Property, plant and equipment, net	157,892	163,805
Goodwill	909,992	922,318
Intangible assets, net	423,850	437,636
Operating lease assets	49,861	50,525
Investments	36,772	31,094
Deferred tax assets	2,921	2,990
Long-term derivative assets	84,852	72,302
Other assets	12,399	11,247
Total Assets	$ 2,369,169	$ 2,411,351
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Current debt obligations	$ 11,788	$ 13,343
Accounts payable	62,448	73,668
Accrued liabilities and other	92,034	95,408
Current litigation provision liability	26,570	28,612
Taxes payable	18,538	16,463
Accrued employee compensation and related benefits	56,860	51,879
Liabilities held for sale	27,118	29,679
Total Current Liabilities	295,356	309,052
Long-term debt obligations	646,369	642,298
Contingent consideration	89,847	89,850
Litigation provision liability	7,740	7,878
Deferred tax liabilities	8,151	8,915
Long-term operating lease liabilities	42,332	42,221
Long-term employee compensation and related benefits	19,010	20,628
Long-term derivative liabilities	148,283	121,940
Other long-term liabilities	46,324	49,740
Total Liabilities	1,303,412	1,292,522
Commitments and contingencies (Note 8)		
Stockholders' Equity:		
Ordinary Shares, £1.00 par value: unlimited shares authorized; 49,454,726 shares issued and 48,844,543 shares outstanding at March 31, 2021; 49,447,473 shares issued and 48,655,863 shares outstanding at December 31, 2020	76,310	76,300
Additional paid-in capital	1,770,407	1,768,156
Accumulated other comprehensive income	1,938	27,809
Accumulated deficit	(782,100)	(752,402)
Treasury stock at cost, 610,183 ordinary shares at March 31, 2021; 791,610 ordinary shares at December 31, 2020	(798)	(1,034)
Total Stockholders' Equity	1,065,757	1,118,829
Total Liabilities and Stockholders' Equity	$ 2,369,169	$ 2,411,351

See accompanying notes to the condensed consolidated financial statements

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

	Three Months Ended March 31,	
	2021	**2020**
Operating Activities:		
Net (loss) income	$ (29,698)	$ 37,583
Non-cash items included in net loss:		
Remeasurement of derivative instruments	7,268	(9,752)
Stock-based compensation	9,536	9,043
Amortization	6,699	10,267
Depreciation	6,079	6,796
Amortization of operating lease assets	5,389	3,136
Remeasurement of Respicardia investment and loan	(4,640)	—
Amortization of debt issuance costs	4,409	543
Remeasurement of contingent consideration to fair value	453	(17,283)
Deferred tax expense (benefit)	37	(22,884)
Other	673	(1,968)
Changes in operating assets and liabilities:		
Accounts receivable, net	(3,372)	24,336
Inventories	(2,900)	(12,513)
Other current and non-current assets	26,820	(15,948)
Accounts payable and accrued current and non-current liabilities	(1,858)	(1,792)
Taxes payable	(3,337)	—
Litigation provision liability	(2,078)	(115,609)
Net cash provided by (used in) operating activities	19,480	(106,045)
Investing Activities:		
Purchases of property, plant and equipment	(8,220)	(8,597)
Purchase of investments	(1,800)	(3,000)
Proceeds from asset sales	162	834
Other	—	(322)
Net cash used in investing activities	(9,858)	(11,085)
Financing Activities:		
Payment of contingent consideration	(4,387)	(4,604)
Shares repurchased from employees for minimum tax withholding	(3,740)	(3,997)
Change in short-term borrowing, net	(643)	(2,477)
Proceeds from long-term debt obligations	—	162,899
Proceeds from short term borrowings (maturities greater than 90 days)	—	46,115
Closing adjustment payment for sale of CRM business	—	(14,891)
Other	442	48
Net cash (used in) provided by financing activities	(8,328)	183,093
Effect of exchange rate changes on cash and cash equivalents	(1,587)	(1,277)
Net (decrease) increase in cash and cash equivalents	(293)	64,686
Cash and cash equivalents at beginning of period	252,832	61,137
Cash and cash equivalents at end of period	$ 252,539	$ 125,823

See accompanying notes to the condensed consolidated financial statements

Note 1. Unaudited Condensed Consolidated Financial Statements

Basis of Presentation

The accompanying condensed consolidated financial statements of LivaNova as of, and for the three months ended March 31, 2021 and 2020, have been prepared in accordance with U.S. GAAP for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X. The accompanying condensed consolidated balance sheet of LivaNova at December 31, 2020 has been derived from audited financial statements contained in our 2020 Form 10-K, but does not include all of the information and footnotes required by U.S. GAAP for complete financial statements. In the opinion of management, the condensed consolidated financial statements reflect all adjustments considered necessary for a fair statement of the operating results of LivaNova and its subsidiaries, for the three months ended March 31, 2021, and are not necessarily indicative of the results that may be expected for the year ending December 31, 2021. The financial information presented herein should be read in conjunction with the audited consolidated financial statements and notes thereto accompanying our 2020 Form 10-K.

Recent Developments Regarding COVID-19

Due to the COVID-19 pandemic ("COVID-19"), we have experienced and may continue to experience significant and unpredictable reductions in the demand for our products as healthcare customers have diverted medical resources and priorities towards the treatment of COVID-19. In addition, public health bodies have delayed elective procedures during the COVID-19 pandemic, which has negatively impacted the usage of our products, including the number of Neuromodulation procedures. Further, some people are avoiding seeking treatment for non-COVID-19 emergency procedures, which has also negatively impacted the demand for our products.

We observed improving market dynamics during the first quarter of 2021, especially in the Unites States; however, we continue to be impacted in regions with COVID-19 case rate variability. We expect the recovery to continue during the remainder of the year as patients and their caregivers return to in-person physician visits and procedure volumes improve.

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.

Significant Accounting Policies

Our significant accounting policies are detailed in "Note 2. Basis of Presentation, Use of Accounting Estimates and Significant Accounting Policies" and "Note 3. Revenue Recognition" of our 2020 Form 10-K.

Note 2. 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. (the "Purchaser"), 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 and site management operations conducted by the Company's subsidiary LivaNova Site Management S.r.l. ("LSM") at the Company's Saluggia campus. The purchase price of €60.0 million (approximately $70.4 million as of March 31, 2021) will be payable in two tranches: €50.0 million (approximately $58.7 million as of March 31, 2021) 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 $11.7 million as of March 31, 2021) payable on December 30, 2022.

On April 9, 2021, LivaNova and the Purchaser entered into an Amended and Restated Share and Asset Purchase Agreement (the "A&R Purchase Agreement") which amends and restates the original Purchase Agreement to, among other things, defer the closing of the sale and purchase of LSM by up to two years and include or amend certain additional terms relating to such deferral, including certain amendments relating to the potential hazardous substances liabilities of LSM and the related expense reimbursement provisions.

In addition, the A&R Purchase Agreement includes certain amendments relating to mechanics and timing for the initial closing of the transaction and subsequent closings of the local businesses. The initial closing of the transaction with respect to the heart valve business is expected to occur in the first half of 2021.

As a result of entering into the Purchase Agreement, during the fourth quarter of 2020 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 during the fourth quarter of 2020 to record the Heart Valves disposal group at fair value less estimated cost to sell. During the first quarter of 2021 we increased the carrying value of the disposal group by $1.0 million.

The major classes of assets and liabilities held for sale on the consolidated balance sheet as of March 31, 2021 and December 31, 2020 were as follows (in thousands):

	March 31, 2021	December 31, 2020
Accounts receivable, net	$ 20,280	$ 20,059
Inventories	44,623	45,081
Prepaid and refundable taxes	2,901	2,751
Prepaid expenses and other current assets	2,488	2,436
Property, plant and equipment, net	24,672	25,042
Intangible assets, net	150,197	153,632
Deferred tax assets	—	—
Operating lease assets	1,508	1,698
Impairment charge of disposal group	(179,194)	(180,160)
Total assets held for sale	$ 67,475	$ 70,539
Accounts payable	$ 7,492	$ 9,518
Accrued liabilities and other	3,743	4,205
Taxes payable	543	363
Accrued employee compensation and related benefits	8,829	8,781
Deferred tax liabilities	614	671
Long-term employee compensation and related benefits	5,038	4,994
Long-term operating lease liabilities	531	841
Other long-term liabilities	328	306
Total liabilities held for sale	$ 27,118	$ 29,679

Note 3. 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 condensed consolidated statements of income (loss).

During the fourth quarter of 2020, we initiated a reorganization plan (the “2020 Plan”) to reduce our cost structure. We incurred restructuring expenses of $5.3 million during the three months ended December 31, 2020 primarily associated with severance costs for 54 employees, and $6.1 million during the three months ended March 31, 2021 primarily associated with severance costs for 12 additional employees under the 2020 Plan and lease abandonment costs.

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 condensed consolidated balance sheet (in thousands):

	Employee Severance and Other Termination Costs	Other	Total
Balance at December 31, 2020	$ 5,749	$ 546	$ 6,295
Charges	4,110	1,982	6,092
Cash payments and other	(4,652)	(2,129)	(6,781)
Balance at March 31, 2021	$ 5,207	$ 399	$ 5,606

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

	Three Months Ended March 31,	
	2021	2020
Cardiovascular	$ 1,896	$ 686
Neuromodulation	1,210	503
Other	2,986	391
Total	$ 6,092	$ 1,580

Note 4. 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. The below equity investments are included in investments on the condensed consolidated balance sheets (in thousands):

	March 31, 2021	December 31, 2020
Respicardia Inc. [1] [2]	$ 21,796	$ 17,706
ALung Technologies, Inc. [3]	3,000	3,000
Ceribell, Inc.	3,000	3,000
ShiraTronics, Inc.	2,045	2,045
Noctrix Health, Inc.	3,159	1,359
MD Start II	1,174	1,227
Rainbow Medical Ltd.	1,149	1,201
Highlife S.A.S.	1,113	1,163
	36,436	30,701
Equity method investment	336	393
	$ 36,772	$ 31,094

(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 $1.3 million and $0.8 million as of March 31, 2021 and December 31, 2020, respectively, which is included in prepaid expenses and other current assets on the condensed consolidated balance sheet.

(2) In April 2021, Zoll Medical Corporation acquired Respicardia Inc. As a result of the acquisition we received proceeds of $23.1 million for our investment and loan receivable with carrying values of $17.7 million and $0.8 million as of December 31, 2020, respectively. The Company recorded a gain of $4.6 million during the first quarter of 2021 to adjust the investment and loans receivable to fair value, which is included in foreign exchange and other losses on the condensed consolidated statement of income (loss).

(3) ALung Technologies, Inc. (“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. We have a loan outstanding to ALung, with a carrying amount of $2.5 million and $2.5 million as of March 31, 2021 and December 31, 2020, respectively, which is included in prepaid expenses and other current assets on the condensed consolidated balance sheet.

Note 5. 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 three months ended March 31, 2021 and 2020.

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 March 31, 2021	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")	$ 1,379	$ —	$ 1,379	$ —
Derivative assets - freestanding instruments (FX)	863	—	863	—
Derivative assets - capped call derivatives	84,852	—	—	84,852
Convertible notes receivable	2,758	—	—	2,758
	$ 89,852	$ —	$ 2,242	$ 87,610
Liabilities:				
Derivative liabilities - designated as cash flow hedges (FX)	$ 724	$ —	$ 724	$ —
Derivative liabilities - freestanding instruments (interest rate swaps)	36	—	36	—
Derivative liabilities - freestanding instruments (FX)	705	—	705	—
Derivative liabilities - embedded exchange feature	148,091	—	—	148,091
Derivative liabilities - other	1,123	—	—	1,123
Contingent consideration arrangements	99,271	—	—	99,271
	$ 249,950	$ —	$ 1,465	$ 248,485

	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 (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

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
As of December 31, 2020	$ 72,302	$ 2,775	$ 121,756	$ 4,290	$ 103,818
Payments [1]	—	—	—	—	(5,000)
Changes in fair value	12,550	(17)	26,335	(3,167)	453
Total at March 31, 2021	84,852	2,758	148,091	1,123	99,271
Less current portion at March 31, 2021	—	2,495	—	931	9,424
Long-term portion at March 31, 2021	$ 84,852	$ 263	$ 148,091	$ 192	$ 89,847

(1) During the three months ended March 31, 2021, we paid $5.0 million under the contingent consideration arrangement for the acquisition of Miami Instruments, LLC ("Miami Instruments").

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

The stock price volatility as of March 31, 2021 was 34%. As of March 31, 2021, a 10% lower volatility, holding other inputs constant, would result in approximate fair value for the embedded exchange feature derivative of $131.7 million and a 10% higher volatility, holding other inputs constant, would result in approximate fair value of $165.6 million. As of March 31, 2021, a 10% lower volatility, holding other inputs constant would result in approximate fair value for the capped call derivatives of $88.9 million and a 10% higher volatility, holding other inputs constant, would result in approximate fair value of $78.5 million.

Contingent Consideration Arrangements

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

	March 31, 2021	December 31, 2020
ImThera Medical, Inc. (“ImThera”)	$ 89,426	$ 89,436
CardiacAssist, Inc., doing business as TandemLife (“TandemLife”)	8,942	8,809
Miami Instruments	903	5,573
	$ 99,271	$ 103,818

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 March 31, 2021:

ImThera Acquisition	Valuation Technique	Unobservable Input	Inputs
Regulatory milestone-based payment	Discounted cash flow	Discount rate	6.7%
		Probability of payment	85%
		Projected payment year	2024
Sales-based earnout	Monte Carlo simulation	Risk-adjusted discount rate	12.0% - 12.7%
		Credit risk discount rate	7.0% - 7.8%
		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 March 31, 2021:

TandemLife Acquisition	Valuation Technique	Unobservable Input	Inputs
Regulatory milestone-based payment	Discounted cash flow	Discount rate	4.9%
		Probability of payment	70%
		Projected payment year	2021

Note 6. Financing Arrangements

The outstanding principal amount of our long-term debt as of March 31, 2021 and December 31, 2020 was as follows (in thousands, except interest rates):

	March 31, 2021	December 31, 2020	Maturity	Interest Rate
2020 Senior Secured Term Loan	$ 425,167	$ 424,002	June 2025	LIBOR (1% Floor) + 6.50%
2020 Cash Exchangeable Senior Notes	215,145	212,073	December 2025	3.00%
Bank of America Merrill Lynch Banco Múltiplo S.A.	5,901	6,515	July 2021	4.27%
Mediocredito Italiano	5,198	5,406	December 2023	0.50 % - 2.74%
Bank of America, U.S.	2,016	2,019	January 2023	2.75%
Other	641	660		
Total long-term facilities	654,068	650,675		
Less current portion of long-term debt	7,699	8,377		
Total long-term debt	$ 646,369	$ 642,298		

Revolving Credit

The outstanding principal amount of our short-term unsecured revolving credit agreements and other agreements with various banks was $4.1 million and $5.0 million, at March 31, 2021 and December 31, 2020, respectively, with interest rates ranging from 3.06% to 7.65% and loan terms ranging from overnight to 365 days, as of March 31, 2021.

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 the three months ended March 31, 2021. 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 senior secured term loan (the “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 March 31, 2021 was 9.05%. 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) The secured leverage ratio is calculated as the ratio of (a) debt secured by a lien on assets to (b) Consolidated EBITDA as defined under the Term Loan agreement for the period of four consecutive fiscal quarters ended on the calculation date. The Company was in compliance with all financial covenants as of March 31, 2021, 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 $1.2 million for the three months ended March 31, 2021 and is included in interest expense on the condensed consolidated statement of income (loss). The unamortized discount related to the Term Loan as of March 31, 2021 was $24.8 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% cash exchangeable senior notes (the "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 March 31, 2021 was 9.95%. 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 $3.1 million for the three months ended March 31, 2021 and is included in interest expense on the condensed consolidated statement of income (loss). The unamortized discount related to the Notes as of March 31, 2021 was $72.4 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 condensed 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 $148.1 million as of March 31, 2021.

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 capped call transactions expire on December 15, 2025 and must be settled in cash. The capped calls are carried on the condensed 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 condensed consolidated statement of income (loss). The fair value of capped call derivative assets was $84.9 million as of March 31, 2021.

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 March 31, 2021, 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 5. Fair Value

Measurements" for details on the valuation of the embedded exchange feature derivative liability and capped call derivative assets.

Note 7. 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 condensed 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 accumulated other comprehensive income ("AOCI") until the hedged item is recognized in earnings upon settlement/termination. FX derivative gains and losses in AOCI are reclassified to our condensed 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 condensed consolidated statements of cash flows.

Freestanding FX Derivative Contracts

The gross notional amount of FX derivative contracts not designated as hedging instruments outstanding at March 31, 2021 and December 31, 2020 was $200.4 million and $352.6 million, respectively. These derivative contracts are designed to offset the FX effects in earnings of various intercompany loans and trade receivables. We recorded net gains for these freestanding derivatives of $7.7 million and $8.1 million for the three months ended March 31, 2021 and 2020, respectively. These gains are included in foreign exchange and other losses on our condensed consolidated statement 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 at March 31, 2021 and December 31, 2020 were as follows (in thousands):

Description of Derivative Contract	March 31, 2021	December 31, 2020
FX derivative contracts to be exchanged for British Pounds	$ 10,214	$ 9,545
FX derivative contracts to be exchanged for Japanese Yen	16,209	18,637
FX derivative contracts to be exchanged for Euros	41,325	47,444
	$ 67,748	$ 75,626

After-tax net loss 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 March 31, 2021	After-Tax Net Gain in AOCI as of Amount Expected to be Reclassified to Earnings in Next 12 Months
FX derivative contracts	$ 1,249	$ 1,249

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

		Three Months Ended March 31,			
		2021		2020	
Description of Derivative Contract	Location in Earnings of Reclassified Gain or Loss	Losses Recognized in OCI	(Losses) Gains Reclassified from AOCI to Earnings	Losses Recognized in OCI	Losses Reclassified from AOCI to Earnings
FX derivative contracts	Foreign exchange and other losses	$ (2,223)	$ (1,496)	$ (2,080)	$ (605)
FX derivative contracts	SG&A	—	685	—	(91)
Interest rate swap contracts	Interest expense	—	—	—	(28)
		$ (2,223)	$ (811)	$ (2,080)	$ (724)

We offset fair value amounts associated with our derivative instruments on our condensed 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 condensed consolidated balance sheets (in thousands):

March 31, 2021	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	$ 1,048	Accrued liabilities	$ 724
FX derivative contracts	Accrued liabilities	331		
Total derivatives designated as hedging instruments		1,379		724
Derivatives Not Designated as Hedging Instruments				
Interest rate swap contracts			Accrued liabilities	36
FX derivative contracts	Prepaid expenses and other current assets	863	Accrued liabilities	705
Capped call derivatives	Other assets	84,852		
Embedded exchange feature			Long-term derivative liability	148,091
Other derivatives			Accrued liabilities	931
Other derivatives			Long-term derivative liability	192
Total derivatives not designated as hedging instruments		85,715		149,955
Total derivatives		$ 87,094		$ 150,679

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

(1) For the classification of inputs used to evaluate the fair value of our derivatives, refer to “Note 5. Fair Value Measurements.”

Note 8. 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 Center for Disease Control (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 ("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 March 31, 2021, the product remediation liability was $0.4 million.

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, was 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 was $43.0 million which represented the low end of the estimated range of loss of $43.0 million to $55.0 million. At March 31, 2021 the liability was $41.0 million. The decrease in the liability from December 31, 2020 was primarily due to the effects of foreign currency changes during the first quarter of 2021.

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 April 28, 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.

At March 31, 2021, the provision for these matters was $34.3 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, 2020	$	36,490
Payments		(5,122)
Adjustments		3,044
FX and other		(102)
Total litigation provision liability at March 31, 2021		34,310
Less current portion of litigation provision liability at March 31, 2021		26,570
Long-term portion of litigation provision liability at March 31, 2021	$	7,740

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; the Public Administrations entered voluntarily into the proceeding, asking Sorin, as jointly liable with SNIA, to pay compensation for SNIA's environmental damages. 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 $343,000 as of March 31, 2021) 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 $671.4 million as of March 31, 2021). Next the Court will evaluate a report delivered by a panel of three experts assessing the environmental damages, including the costs of clean-up and compensatory damages; conduct a hearing; and review briefs from the parties. Thereafter, the Court will issue its ruling on the amount of damages attributable to LivaNova. In the interim, we have appealed the partial decision on liability 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 a liability 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 April 2021, the Patent Office issued a Non-Final Rejection of all the '307 claims. The Court has stayed the litigation pending the outcome of the IPR appeal proceeding. We have not recognized a liability 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 a liability 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 9. Stockholders' Equity

The tables below present the condensed consolidated statement of stockholders' equity as of and for the three months ended March 31, 2021 and 2020 (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, 2020	49,447	$ 76,300	$ 1,768,156	$ (1,034)	$ 27,809	$ (752,402)	$ 1,118,829
Stock-based compensation plans	8	10	2,251	236	—	—	2,497
Net loss	—	—	—	—	—	(29,698)	(29,698)
Other comprehensive income	—	—	—	—	(25,871)	—	(25,871)
March 31, 2021	49,455	$ 76,310	$ 1,770,407	$ (798)	$ 1,938	$ (782,100)	$ 1,065,757
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	—	—	—	—	—	(639)	(639)
Stock-based compensation plans	3	2	5,003	173	—	—	5,178
Net income	—	—	—	—	—	37,583	37,583
Other comprehensive loss	—	—	—	—	(33,131)	—	(33,131)
March 31, 2020	49,414	$ 76,259	$ 1,739,873	$ (1,090)	$ (52,523)	$ (369,811)	$ 1,392,708

(1) Refer to "Note 15. New Accounting Pronouncements"

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 three months ended March 31, 2021 and 2020 (in thousands):

	Change in Unrealized Gain (Loss) on Derivatives	Foreign Currency Translation Adjustments Gain (Loss) [1]	Total
December 31, 2020	$ 2,319	$ 25,490	$ 27,809
Other comprehensive income before reclassifications, before tax	(1,146)	(25,875)	(27,021)
Tax expense	534	—	534
Other comprehensive income before reclassifications, net of tax	(612)	(25,875)	(26,487)
Reclassification of loss from accumulated other comprehensive income (loss), before tax	811	—	811
Reclassification of tax benefit	(195)	—	(195)
Reclassification of loss from accumulated other comprehensive income (loss), after tax	616	—	616
Net current-period other comprehensive income, net of tax	4	(25,875)	(25,871)
March 31, 2021	$ 2,323	$ (385)	$ 1,938
December 31, 2019	$ 513	$ (19,905)	$ (19,392)
Other comprehensive loss before reclassifications, before tax	(2,080)	(32,100)	(34,180)
Tax benefit	498	—	498
Other comprehensive loss before reclassifications, net of tax	(1,582)	(32,100)	(33,682)
Reclassification of loss from accumulated other comprehensive income (loss), before tax	724	—	724
Reclassification of tax expense	(173)	—	(173)
Reclassification of loss from accumulated other comprehensive income (loss), after tax	551	—	551
Net current-period other comprehensive loss, net of tax	(1,031)	(32,100)	(33,131)
March 31, 2020	$ (518)	$ (52,005)	$ (52,523)

(1) Taxes are 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 10. Stock-Based Incentive Plans

Stock-based incentive plans compensation expense is as follows (in thousands):

	Three Months Ended March 31,	
	2021	2020
Service-based restricted stock units (“RSUs”)	$ 4,842	$ 4,478
Service-based stock appreciation rights (“SARs”)	3,322	2,684
Market performance-based restricted stock units	763	896
Operating performance-based restricted stock units	267	695
Employee share purchase plan	342	290
Total stock-based compensation expense	$ 9,536	$ 9,043

During the three months ended March 31, 2021, 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 from two to four years and are subject to forfeiture unless service conditions are met. Market performance-based awards were issued that cliff vest after three years subject to the rank of our total shareholder return for the three-year period ending December 31, 2023 relative to the total shareholder returns for a peer group of companies. Operating performance-based awards were issued that cliff vest after three years subject to the achievement of a target based on the adjusted free cash flow for fiscal year 2021. Additionally, operating performance-based awards were issued that cliff vest after three years subject to the achievement of a target based on the return on invested capital for fiscal year 2021. Compensation expense related to awards granted during 2021 for the three months ended March 31, 2021 was $0.1 million.

Stock-based compensation agreements issued during the three months ended March 31, 2021, representing potential shares and their weighted average grant date fair values by type follows (shares in thousands, fair value in dollars):

	Three Months Ended March 31, 2021	
	Shares	Weighted Average Grant Date Fair Value
Service-based SARs	594,617	$ 29.22
Service-based RSUs	322,310	$ 73.25
Market performance-based RSUs	47,916	$ 114.74
Operating performance-based RSUs	76,040	$ 73.25

Note 11. Income Taxes

Our effective income tax rate from continuing operations for the three months ended March 31, 2021 was (10.7)% compared with 744.4% for the three months ended March 31, 2020. 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.

We continually assess the realizability of our worldwide deferred tax asset and valuation allowance positions, and when the need arises, we establish or release valuation allowances accordingly.

Compared with the three months ended March 31, 2020, the change in the effective tax rate for the three months ended March 31, 2021 was primarily attributable to changes in valuation allowances and other discrete items as compared to the discrete tax benefit of $41.3 million related to the Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”) during the three months ended March 31, 2020.

We operate in multiple jurisdictions throughout the world, and our tax returns are periodically audited or subjected to review by tax authorities. As a result, there is an uncertainty in income taxes recognized in our financial statements. Tax benefits totaling $3.3 million and $3.4 million were unrecognized as of March 31, 2021 and December 31, 2020, respectively. It is reasonably possible that, within the next twelve months, due to the settlement of uncertain tax positions with various tax authorities and the expiration of statutes of limitations, unrecognized tax benefits could decrease by up to approximately $1.7 million.

Note 12. Earnings Per Share

Reconciliation of the shares used in the basic and diluted earnings per share computations for the three months ended March 31, 2021 and 2020 are as follows (in thousands):

	Three Months Ended March 31,	
	2021	2020
Basic weighted average shares outstanding	48,736	48,485
Add effects of share-based compensation instruments [(1)]	—	284
Diluted weighted average shares outstanding	48,736	48,769

(1) Excluded from the computation of diluted earnings per share were stock options, SARs and restricted share units totaling 4.3 million and 1.5 million for the three months ended March 31, 2021 and 2020, respectively, because to include them would have been anti-dilutive under the treasury stock method.

Note 13. Geographic and 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. Advanced circulatory support includes temporary life support controllers and product kits that can include a combination of pumps, oxygenators, and cannulae.

Our Neuromodulation segment generates its revenue from the design, development and marketing of neuromodulation therapy systems for the treatment of drug-resistant epilepsy, difficult-to-treat depression ("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 that each reportable segment develops and manufactures or distributes. We define segment income as operating income before merger and integration, restructuring and amortization of 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):

	Three Months Ended March 31,	
	2021	2020
Cardiopulmonary		
United States	$ 35,759	$ 36,858
Europe	30,626	34,234
Rest of World	42,334	45,275
	108,719	116,367
Heart Valves		
United States	2,717	3,373
Europe	8,284	9,529
Rest of World	10,454	12,309
	21,455	25,211
Advanced Circulatory Support		
United States	12,560	10,076
Europe	228	370
Rest of World	204	45
	12,992	10,491
Cardiovascular		
United States	51,036	50,307
Europe	39,138	44,133
Rest of World	52,992	57,629
	143,166	152,069
Neuromodulation		
United States	82,300	73,276
Europe	11,679	10,583
Rest of World	9,720	5,798
	103,699	89,657
Other	738	671
Totals		
United States	133,336	123,583
Europe [1]	50,817	54,716
Rest of World	63,450	64,098
Total [2]	$ 247,603	$ 242,397

(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) 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 income from continuing operations to consolidated income from continuing operations before tax (in thousands):

	Three Months Ended March 31,	
	2021	2020
Cardiovascular	$ 5,628	$ 8,681
Neuromodulation	34,039	33,858
Other	(30,669)	(26,610)
Total reportable segment income from continuing operations	8,998	15,929
Merger and integration expenses	630	3,474
Restructuring expenses	6,092	1,580
Amortization of intangibles	6,699	10,267
Operating income from continuing operations	(4,423)	608
Interest income	(74)	148
Interest expense	(15,936)	(4,849)
Foreign exchange and other losses	(6,369)	(1,914)
Income from continuing operations before tax	$ (26,802)	$ (6,007)

Assets by segment are as follows (in thousands):

	March 31, 2021	December 31, 2020
Cardiovascular	$ 1,319,493	$ 1,361,669
Neuromodulation	642,123	673,586
Other	407,553	376,096
Total assets	$ 2,369,169	$ 2,411,351

Capital expenditures by segment are as follows (in thousands):

	Three Months Ended March 31,	
	2021	2020
Cardiovascular	$ 4,149	$ 5,292
Neuromodulation	40	5,239
Other	925	1,843
Total	$ 5,114	$ 12,374

The changes in the carrying amount of goodwill by segment for the three months ended March 31, 2021 were as follows (in thousands):

	Cardiovascular	Neuromodulation	Total
December 31, 2020	$ 523,564	$ 398,754	$ 922,318
Foreign currency adjustments	(12,326)	—	(12,326)
March 31, 2021	$ 511,238	$ 398,754	$ 909,992

Property, plant and equipment, net by geography are as follows (in thousands):

	March 31, 2021	December 31, 2020
United States	$ 64,002	$ 64,553
Europe	87,945	93,821
Rest of World	5,945	5,431
Total	$ 157,892	$ 163,805

Note 14. Supplemental Financial Information

Inventories consisted of the following (in thousands):

	March 31, 2021	December 31, 2020
Raw materials	$ 42,907	$ 43,257
Work-in-process	9,755	8,055
Finished goods	71,861	75,363
	$ 124,523	$ 126,675

As of March 31, 2021 and December 31, 2020, inventories include adjustments totaling $4.0 million and $6.6 million, respectively, to record balances at lower of cost or net realizable value.

Accrued liabilities and other consisted of the following (in thousands):

	March 31, 2021	December 31, 2020
Legal and administrative costs	$ 15,650	$ 15,820
Operating lease liabilities	11,535	11,276
Contingent consideration [1]	9,424	13,968
Contract liabilities	9,234	6,929
Restructuring related liabilities [2]	5,569	6,258
Derivative contract liabilities [3]	2,065	7,372
Research and development costs	4,752	4,257
Provisions for agents, returns and other	2,377	3,063
Other accrued expenses	31,428	26,465
	$ 92,034	$ 95,408

(1) Refer to “Note 5. Fair Value Measurements”
(2) Refer to “Note 3. Restructuring”
(3) Refer to “Note 7. Derivatives and Risk Management”

As of March 31, 2021 and December 31, 2020, contract liabilities of $9.5 million and $8.6 million, respectively, are included within accrued liabilities and other long-term liabilities on the condensed consolidated balance sheets.

Note 15. 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
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.	January 1, 2021	There was no material impact to our consolidated financial statements as a result of adopting this ASU.
December 2019 ASU No. 2019-12, Income Taxes (Topic 740): *Simplifying the Accounting for Income Taxes*	This update simplifies various aspects related to the accounting for income taxes. The standard removes certain exceptions to the general principles in Topic 740 and also clarifies and modifies existing guidance to improve consistent application of Topic 740.	January 1, 2021	There was no material impact to our consolidated financial statements as a result of adopting this ASU.
August 2020 ASU No. 2020-06, Debt-Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging-Contracts in Entity's Own Equity (Subtopic 815-40): *Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*	This update simplifies the accounting for convertible debt instruments by removing certain accounting separation models as well as the accounting for debt instruments with embedded conversion features that are not required to be accounted for as derivative instruments. The update also improves the consistency of earnings per share calculations for convertible instruments.	January 1, 2021	There was no material impact to our consolidated financial statements as a result of adopting this ASU.

Item 2. *Management's Discussion and Analysis of Financial Condition and Results of Operations*

The following discussion and analysis should be read in conjunction with our condensed consolidated financial statements and related notes which appear elsewhere in this document and with our 2020 Form 10-K. Our discussion and analysis may contain forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of certain factors, including those set forth under "Risk Factors" in Item 1A of our 2020 Form 10-K, as updated and supplemented by our Quarterly Reports on Form 10-Q, including in Part 2, Item 1A and elsewhere in this Quarterly Report on Form 10-Q.

The capitalized terms used below have been defined in the notes to our condensed consolidated financial statements. In the following text, the terms "LivaNova," "the Company," "we," "us" and "our" refer to LivaNova PLC and its consolidated subsidiaries.

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.

We observed improving market dynamics during the first quarter of 2021, especially in the United States; however, we continue to be impacted in regions with COVID-19 case rate variability. We expect the recovery to continue during the remainder of the year as patients and their caregivers return to in-person physician visits and procedure volumes improve. However, COVID-19 case rate variability or delays in global vaccination roll-out efforts 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, and in some cases reimposed, 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 2020 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, and in April 2021 we randomized the 300th patient in the trial. 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 relating to COVID-19. 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 continue to implement cost reduction efforts to mitigate the impact of reduced revenues on our operating income. We have reduced expenses by evaluating whether projects and initiatives are 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.

Business Overview

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.

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 business segments, historical financial information and our methodology for the presentation of financial results, please refer to the condensed consolidated financial statements and accompanying notes of this Quarterly Report on Form 10-Q.

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.

Divestiture of Heart Valve Business

On December 2, 2020, LivaNova entered into a Purchase Agreement with the Purchaser 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 and site management operations for €60.0 million (approximately $70.4 million as of March 31, 2021), payable in two tranches: €50.0 million (approximately $58.7 million as of March 31, 2021) at closing and an additional €10.0 million (approximately $11.7 million as of March 31, 2021) payable on December 30, 2022. On April 9, 2021, LivaNova and the Purchaser entered into an A&R Purchase Agreement which amends and restates the original Purchase Agreement to, among other things, defer the closing of the sale and purchase of LSM by up to two years and include or amend certain additional terms relating to such deferral, including certain amendments relating to the potential hazardous substances liabilities of LSM and the related expense reimbursement provisions. The initial closing of the transaction with respect to the heart valve business is expected to occur in the first half of 2021.

Cardiopulmonary Product Approval

In April 2021, the FDA provided 510(k) clearance for B-Capta, the new in-line, blood-gas monitoring system integrated into the Company's S5 heart-lung machine. The system is designed to easily and accurately monitor arterial and venous blood gas parameters even during long and complex pediatric and adult cardiopulmonary bypass procedures. B-Capta, which received CE Mark in May 2020 and completed a successful limited commercial release in Europe, is now available globally.

Product Remediation

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.

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 April 28, 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 March 31, 2021, the provision for these matters was $34.3 million. While the amount accrued represents our best estimate, the actual liability for resolution of these matters may vary from our estimate.

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.

DTD UNCOVER Study

In April 2021, LivaNova and Verily, a subsidiary of Alphabet, announced that the first patient had been enrolled in their collaborative UNCOVER study, a subset of the RECOVER study. Data obtained from Verily-developed digital tools will

complement the clinical outcomes collected in RECOVER, providing clinicians a more comprehensive view of depression patient biomarkers.

Significant Accounting Policies and Critical Accounting Estimates

In addition to our critical accounting policies provided in “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in our 2020 Form 10-K, refer to “Significant Accounting Policies” within “Note 1. Unaudited Condensed Consolidated Financial Statements” included in this Quarterly Report on Form 10-Q.

The accompanying unaudited condensed consolidated financial statements of LivaNova and its consolidated subsidiaries have been prepared in accordance with U.S. GAAP on an interim basis.

New accounting pronouncements are disclosed in “Note 15. New Accounting Pronouncements” contained in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

Results of Operations

The following table summarizes our condensed consolidated results of operations (in thousands):

	Three Months Ended March 31,	
	2021	**2020**
Net sales	$ 247,603	$ 242,397
Costs and expenses:		
Cost of sales - exclusive of amortization	79,216	68,923
Product remediation	68	1,466
Selling, general and administrative	112,618	120,177
Research and development	44,625	35,902
Merger and integration expenses	630	3,474
Restructuring expenses	6,092	1,580
Revaluation of disposal group	(966)	—
Amortization of intangibles	6,699	10,267
Litigation provision, net	3,044	—
Operating (loss) income from continuing operations	(4,423)	608
Interest income	(74)	148
Interest expense	(15,936)	(4,849)
Foreign exchange and other losses	(6,369)	(1,914)
Loss from continuing operations before tax	(26,802)	(6,007)
Income tax expense (benefit)	2,856	(44,714)
Losses from equity method investments	(40)	(129)
Net (loss) income from continuing operations	(29,698)	38,578
Net loss from discontinued operations, net of tax	—	(995)
Net (loss) income	$ (29,698)	$ 37,583

Net Sales

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

	Three Months Ended March 31,		
	2021	2020	% Change
Cardiopulmonary			
United States	$ 35,759	$ 36,858	(3.0)%
Europe	30,626	34,234	(10.5)%
Rest of World	42,334	45,275	(6.5)%
	108,719	116,367	(6.6)%
Heart Valves			
United States	2,717	3,373	(19.4)%
Europe	8,284	9,529	(13.1)%
Rest of World	10,454	12,309	(15.1)%
	21,455	25,211	(14.9)%
Advanced Circulatory Support			
United States	12,560	10,076	24.7 %
Europe	228	370	(38.4)%
Rest of World	204	45	353.3 %
	12,992	10,491	23.8 %
Cardiovascular			
United States	51,036	50,307	1.4 %
Europe	39,138	44,133	(11.3)%
Rest of World	52,992	57,629	(8.0)%
	143,166	152,069	(5.9)%
Neuromodulation			
United States	82,300	73,276	12.3 %
Europe	11,679	10,583	10.4 %
Rest of World	9,720	5,798	67.6 %
	103,699	89,657	15.7 %
Other	738	671	10.0 %
Totals			
United States	133,336	123,583	7.9 %
Europe [(1)]	50,817	54,716	(7.1)%
Rest of World	63,450	64,098	(1.0)%
Total	$ 247,603	$ 242,397	2.1 %

(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.”

The table below presents segment income from continuing operations (in thousands, except for percentages):

	Three Months Ended March 31,		
	2021	2020	% Change
Cardiovascular	$ 5,628	$ 8,681	(35.2)%
Neuromodulation	34,039	33,858	0.5 %
Other	(30,669)	(26,610)	15.3 %
Total reportable segment income from continuing operations [1]	$ 8,998	$ 15,929	(43.5)%

(1) For a reconciliation of segment income from continuing operations to (loss) income from continuing operations before tax refer to "Note 13. Geographic and Segment Information" in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

Cardiovascular

Cardiovascular net sales for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 decreased 5.9% largely due to the impact of COVID-19 in Europe and Rest of World, partially offset by the favorable impact of foreign currency fluctuations. COVID-19 only began to impact Cardiovascular net sales late in the first quarter of 2020, whereas uncertainty associated with COVID-19 impacted sales throughout the first quarter of 2021. Cardiopulmonary sales declined 6.6% to $108.7 million for the three months ended March 31, 2021 primarily due to declines in sales of oxygenators and autotransfusion systems related to the impact of COVID-19 on cardiac surgery procedure volumes in Europe and Rest of World, partially offset by an increase in sales of heart lung machines. Heart Valves sales declined 14.9% to $21.5 million for the three months ended March 31, 2021 primarily due to declines in sales of Perceval largely caused by the decline in cardiac surgery procedures globally resulting from COVID-19. These declines in sales were partially offset by a 23.8% increase in Advanced Circulatory Support sales to $13.0 million for the three months ended March 31, 2021, resulting from the continued adoption of LifeSPARC in the U.S. and an increase in procedure volumes.

Cardiovascular operating income for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 decreased primarily due to the decrease in net sales, as discussed above, as well as the net impact of changes in the fair value of the milestone-based contingent consideration arrangements associated with the acquisitions of TandemLife and Miami Instruments totaling $3.1 million. These decreases were partially offset by a decline in selling, general and administrative expenses and product remediation.

Neuromodulation

Neuromodulation net sales for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 increased 15.7% to $103.7 million, largely due to improving market dynamics, particularly in the U.S. and Asia Pacific.

Neuromodulation operating income for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 increased primarily due to an increase in net sales, as discussed above, partially offset by the net impact of changes in fair value of the sales-based and milestone-based contingent consideration arrangement associated with the acquisition of ImThera of $14.6 million.

Cost of Sales and Expenses

The table below presents our comparative cost of sales and significant expenses as a percentage of sales:

	Three Months Ended March 31,		
	2021	2020	Change
Cost of sales - exclusive of amortization	32.0 %	28.4 %	3.6 %
Product remediation	0.0 %	0.6 %	(0.6)%
Selling, general and administrative	45.5 %	49.6 %	(4.1)%
Research and development	18.0 %	14.8 %	3.2 %
Merger and integration expenses	0.3 %	1.4 %	(1.1)%
Restructuring expenses	2.5 %	0.7 %	1.8 %
Revaluation of disposal group	(0.4)%	0.0 %	(0.4)%
Amortization of intangibles	2.7 %	4.2 %	(1.5)%
Litigation provision, net	1.2 %	0.0 %	1.2 %

Cost of Sales - Exclusive of Amortization

Cost of sales consisted primarily of direct labor, allocated manufacturing overhead and the acquisition cost of raw materials and components. Cost of sales as a percentage of net sales for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 increased primarily due to the net impact of changes in fair value of sales-based contingent consideration arrangements of $8.7 million, as well as due to unfavorable manufacturing variances of $4.6 million for the three months ended March 31, 2021, partially offset by favorable product mix.

Selling, General and Administrative ("SG&A") Expenses

SG&A expenses consisted of sales, marketing, general and administrative activities. SG&A expenses as a percentage of net sales for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 decreased primarily due to sales and marketing reductions from cost containment actions resulting from COVID-19 and a decrease in legal expenses related to litigation involving our 3T device.

Research and Development ("R&D") 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 for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 increased primarily due to an increase in R&D expense resulting from the net impact of changes in fair value of milestone-based contingent consideration arrangements of $9.1 million.

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 for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 decreased primarily due to completion of certain integration activities associated with our merger and acquisitions.

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 for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 increased primarily due to severance and lease abandonment costs associated with our 2020 Plan. Refer to "Note 3. Restructuring" in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q for additional information regarding our restructuring activities.

Amortization of Intangibles

Amortization of intangible assets consist primarily of the amortization of finite-lived intangible assets, primarily intellectual property and customer relationships. Amortization of intangibles for the three months ended March 31, 2021 compared to the three months ended March 31, 2020 decreased primarily due to the ceasing of amortization of Heart Valves' intangible assets during the fourth quarter of 2020 upon being classified as held for sale. For further information, refer to "Note 2. Assets and Liabilities Held For Sale" in our condensed consolidated financial statements and accompanying notes of this Quarterly Report on Form 10-Q.

Litigation Provision, Net

During the first quarter of 2021, we recognized a $3.0 million adjustment to the provision for litigation involving our 3T device. Refer to "Note 8. Commitments and Contingencies" in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q for additional information regarding this provision.

Interest Expense

We incurred interest expense of $15.9 million for the three months ended March 31, 2021, as compared to $4.8 million for the three months ended March 31, 2020. The increase for the three months ended March 31, 2021 as compared to the three months ended March 31, 2020 was primarily due to an increase in debt borrowings in June 2020 at increased borrowing rates.

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 the embedded exchange feature and capped call derivatives.

We incurred foreign exchange and other losses of $6.4 million for the three months ended March 31, 2021, as compared to $1.9 million for the three months ended March 31, 2020. The increase for the three months ended March 31, 2021 as compared to the three months ended March 31, 2020 was primarily due to an increase in the fair value of the exchangeable notes embedded exchange feature derivative liability. This loss was partially offset by an increase in the fair value of the capped call derivative asset, a $4.6 million gain on the revaluation of our investment in Respicardia (Refer to "Note 4. Investments" in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q) and a net gain on foreign exchange revaluation.

Income Taxes

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.

Our effective income tax rate from continuing operations for the three months ended March 31, 2021 was (10.7)% compared with 744.4% for the three months ended March 31, 2020. 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 three months ended March 31, 2020, the change in the effective tax rate for the three months ended March 31, 2021 was primarily attributable to changes in valuation allowances and other discrete items as compared to the discrete tax benefit of $41.3 million related to the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act") during the three months ended March 31, 2020.

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 reserve relating to our tax position 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.

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 borrowing under our current debt facilities will be sufficient to fund our expected operating needs, working capital requirements, R&D opportunities, capital expenditures, and debt service requirements over the twelve-month period beginning from the issuance date of these condensed consolidated financial statements. Our liquidity could be adversely impacted by the factors affecting future operating results, including those referred to in "Part II, Item 1A. Risk Factors" in the 2020 Form 10-K as supplemented by the factors referred to in "Part II, Item 1A, Risk Factors" in this Quarterly Reports on Form 10-Q as well as "Note 8. Commitments and Contingencies" in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

On June 17, 2020, our wholly-owned subsidiary, LivaNova USA, Inc., issued the $287.5 million 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. If holders elect to exchange their Notes during future periods following the satisfaction of an exchange condition, we would be required to settle our exchange obligation through the payment of cash, which could adversely affect our liquidity. In addition, if the Notes become redeemable due to the satisfaction of an exchange condition, then we could be required to reclassify all or a portion of the Notes and the associated embedded exchange feature derivative as a current liability, which would result in a material reduction of our net working capital.

Refer to "Note 6. Financing Arrangements" in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q for additional information regarding our debt and debt transactions.

Cash Flows

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

	Three Months Ended March 31,	
	2021	**2020**
Operating activities	$ 19,480	$ (106,045)
Investing activities	(9,858)	(11,085)
Financing activities	(8,328)	183,093
Effect of exchange rate changes on cash and cash equivalents	(1,587)	(1,277)
Net increase in cash and cash equivalents	$ (293)	$ 64,686

Operating Activities

Cash provided by operating activities during the three months ended March 31, 2021 increased by $125.5 million as compared to the same prior-year period. The increase is primarily due to $115.6 million in 3T litigation settlement payments made during the three months ended March 31, 2020 and the receipt of a CARES Act tax refund of $24.6 million during the three months ended March 31, 2021, partially offset by a decrease in net income adjusted for non-cash items of $9.3 million.

Investing Activities

Cash used in investing activities during the three months ended March 31, 2021 decreased $1.2 million as compared to the same prior-year period. The decrease is primarily due to a $1.2 million decrease in purchases of investments.

Financing Activities

Cash provided by financing activities during the three months ended March 31, 2021 decreased $191.4 million as compared to the same prior-year period. The decrease is primarily due to an decrease in net borrowings of $207.2 million, partially offset by a closing adjustment payment for the sale of our former CRM business of $14.9 million made during the three months ended March 31, 2020.

Off-Balance Sheet Arrangements

As of March 31, 2021, we did not have any off-balance sheet arrangements.

Contractual Obligations

We had no material changes in our contractual commitments and obligations from amounts listed under "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources" in our 2020 Form 10-K.

Item 3. *Quantitative and Qualitative Disclosures About Market Risk*

We are exposed to certain market risks as part of our ongoing business operations, including risks from foreign currency exchange rates, equity price risk, 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. Quantitative and qualitative disclosures about these risks are included in this Quarterly Report on Form 10-Q in "Part I, Note 7. Derivatives and Risk Management," "Part I, Item 2. Management's Discussion and Analysis of Financial Conditions and Results of Operations" and "Part II, Item 1A. Risk Factors" and in our 2020 Form 10-K in "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Part I, Item 1A. Risk Factors."

Item 4. *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 Rules 13a-15(e) and 15d-15(e) of the Exchange Act, that are designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. This information is also 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 most recent fiscal quarter reported herein. Based on that evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of March 31, 2021.

(b) Changes in Internal Control Over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-5(f) under the Exchange Act) occurred during the quarter ended March 31, 2021 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. *Legal Proceedings*

For a description of our material pending legal and regulatory proceedings and settlements, refer to “Note 8. Commitments and Contingencies” in our condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

Item 1A. *Risk Factors*

There have been no material changes in our risk factors from those disclosed in Part I, Item 1A to our 2020 Annual Report on Form 10-K.

Item 2. *Unregistered Sales of Equity Securities and Use of Proceeds*

None.

Item 3. *Defaults Upon Senior Securities*

None.

Item 4. *Mine Safety Disclosures*

Not applicable.

Item 5. *Other Information*

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 quarterly 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.

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 $1.3 million and $0.6 million for the three months ended March 31, 2021, 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.

Item 6. *Exhibits*

The exhibits marked with the asterisk symbol (*) are filed or furnished (in the case of Exhibit 32.1) with this Quarterly Report on Form 10-Q. 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
10.1*†	Executive Employment Contract between Sorin Group Italia S.r.l. and Marco Dolci, effective April 20, 2017
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 Chief Financial Officer of LivaNova PLC 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 Condensed Consolidated Statements of Income (Loss) for the three months ended March 31, 2021 and 2020, (ii) the Condensed Consolidated Statements of Comprehensive Income (Loss) for the three months ended March 31, 2021 2020, (iii) the Condensed Consolidated Balance Sheet as of March 31, 2021 and December 31, 2020, (iv) the Condensed Consolidated Statements of Cash Flows for the three months ended March 31 2021 and 2020, and (vi) the Notes to the Condensed Consolidated Financial Statements
104*	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

SIGNATURE

Pursuant to the requirements 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

Date: April 28, 2021 By: /s/ DAMIEN MCDONALD

Damien McDonald
Chief Executive Officer
(Principal Executive Officer)

LIVANOVA PLC

Date: April 28, 2021 By: /s/ ALEX SHVARTSBURG

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

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EXECUTIVE EMPLOYMENT CONTRACT	CONTRATTO DI LAVORO PER DIRIGENTE
between	tra
Sorin Group Italia S.r.l.	**Sorin Group Italia S.r.l.**
- hereinafter referred to as "*the Company*" -	- di seguito indicato come "*la Società*" -
and	e
Marco Dolci	**Marco Dolci**
- hereinafter referred to as "*the Executive*" -	- di seguito indicata come "*il Dirigente*" -
PREAMBLE	**PREMESSE**
This contract, entered into on 22/03/2017 in Milan (Italy), which will take effect between the parties as of 20/04/2017 (the "**Start Date**"), is governed by the rules of the law and the Collective Bargaining Agreement for Executives of the Industry Sector and sets out all the terms and the conditions of the employment contract between the parties.	Il presente contratto, sottoscritto il 22/03/2017 a Milano (Italia), che avrà effetto tra le parti a partire dal 20/04/2017 ("**Data di Inizio**"), è regolato dalle disposizioni di legge e dal Contratto Collettivo del Lavoro relativo ai Dirigenti del Settore Industria e stabilisce i termini e le condizioni del contratto di lavoro in vigore tra le parti.
1. JOB DESCRIPTION	**1. QUALIFICA E MANSIONI**
Mr. Marco Dolci will be hired as «Dirigente» of the Company, with the role of President, Europe. In accordance with Article 2103 of the Italian Civil Code, the Company will maintain the right to assign the Executive tasks that differ from those mentioned in paragraph 1 according to the level of professionalism acquired.	Il Sig. Marco Dolci verrà assunto con la qualifica di Dirigente della Società e gli saranno affidate le mansioni di President, Europe. Conformemente a quanto previsto dall'art. 2103 c.c., la Società manterrà il diritto di assegnare al Dirigente mansioni diverse da quelle di cui al paragrafo 1 nel rispetto della professionalità acquisita.
2. PLACE OF WORK	**2. SEDE DI LAVORO**
The place of work is Milan (Italy). However, the Company has the right to move the Executive, according to article 2103 of the Italian Civil Code. According to the needs of the Company, the Executive will travel both in Italy and abroad for business purposes.	La sede di lavoro è Milano (Italia). In ogni caso, la Società ha il diritto di assegnare il Dirigente ad una diversa sede, ai sensi dell'articolo 2103 del codice civile. Secondo le esigenze della Società e ai fini dell'attività della medesima, il Dirigente si sposterà sia in Italia sia all'estero per lo svolgimento delle sue mansioni.

WD.

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3. DUTIES OF THE EXECUTIVE	3. DOVERI DEL DIRIGENTE
The Executive must behave in an appropriate manner for the duties inherent in the exercise of the function assigned to his.	Il Dirigente deve tenere un comportamento adeguato ai doveri inerenti all'esercizio delle funzioni ad esso attribuite.
In compliance with the duty of loyalty provided by art. 2105 of the Italian Civil Code, the Executive is forbidden from conducting himself in a way which may, through its nature or through its possible consequences, result in a situation in contrast with the duties connected to his position within the Company and which may give rise to a conflict of interest.	In conformità al dovere di fedeltà stabilito ai sensi dell'articolo 2105 del codice civile, il Dirigente non potrà assumere condotte tali, per loro natura o per le possibili conseguenze, da dare luogo a violazioni dei doveri collegati alla posizione del Dirigente medesimo all'interno della Società e ad ipotesi di conflitto di interesse.
The Executive is forbidden from entering into any employment contract or any other type of contract such as, only by way of example and not exhaustive, self-employment, consultancy, collaboration, profit sharing or any other sort, even if not in competition with the Company.	Al Dirigente è vietata la sottoscrizione di contratti di lavoro o altro tipo di accordo, quali, a titolo esemplificativo e non esaustivo, di lavoro autonomo, consulenza, collaborazione, condivisione degli utili o qualsiasi altro tipo, anche se non in concorrenza con la Società.
The Executive hereby declares and guarantees that he is not subject to any legal or contractual restriction which can limit or exclude his ability to perform his obligations under this contract.	Il Dirigente con il presente contratto dichiara e garantisce di non essere soggetto ad alcun vincolo legale o contrattuale che possa escluderne o limitarne la capacità di adempiere ai propri obblighi derivanti dal presente contratto.
Without prejudice to the foregoing generality, the Executive:	Fatte salve le disposizioni di carattere generale che precedono, il Dirigente:
(a) shall (unless prevented by ill health or other incapacity) devote the whole of his time and attention to his employment hereunder during normal business hours and during such further time as the Company shall reasonably require;	(a) dedicherà (ove non impedito da malattia o altra causa di incapacità) tutto il proprio tempo e attenzione al proprio lavoro, in forza del presente contratto, nel corso dell'ordinario orario lavorativo e il tempo ulteriore che la Società possa ragionevolmente esigere;
(b) shall comply with and conform to the lawful orders or directions from time to time given or made by the Company, shall serve the Company well and faithfully to the best of his knowledge, power and ability and shall use his best endeavours to promote the business and interests of the Company;	(b) rispetterà e si atterrà agli ordini o indicazioni legittime di volta in volta date o individuate dalla Società, assolverà le proprie prestazioni in favore della Società con diligenza e lealtà al meglio delle proprie conoscenze, dei propri poteri e abilità e si adopererà al meglio al fine di promuovere l'attività e gli interessi della Società;
(c) shall not make any agreements, accept orders, or give assistance to any present or potential customer or client, suppliers or contractors, for any purpose other than for the legitimate	(c) non concluderà accordi con, accetterà ordini da, ovvero presterà assistenza ad alcun cliente, fornitore o contraente, attuali o potenziali, a

business interest of the Company, its parent or any other associated or subsidiary Companies.	scopo diverso dal perseguimento dei legittimi interessi commerciali della Società e di qualsiasi altra sua società controllante, controllata o collegata.
4. REMUNERATION	**4. RETRIBUZIONE**
As salary and compensation for all of his obligations provided for by this contract the Executive will receive a total gross annual remuneration equal to EUR 310,000.00 paid in 13 instalments.	Quale retribuzione complessiva per ogni attività svolta e come corrispettivo di ogni obbligazione, la Società corrisponderà al Dirigente la somma lorda annuale di Euro 310,000.00 pagabile in 13 mensilità.
The salary as provided in this clause, has been determined in consideration of the nature of the particular features of the employment contract and as a special condition in favour of the Executive. The remuneration is of a comprehensive nature and it is paid also in anticipation of any eventual salary increase, which could derive from any source, and substitutes and excludes any other payments, any items or entitlements of a remunerative nature, however named, even of a retrospective nature, foreseen by the collective bargaining agreement even at company level and the Law.	Il trattamento economico di cui alla presente clausola ha carattere complessivo e viene corrisposto a titolo di anticipazione di ogni eventuale miglioramento che possa derivare da qualunque fonte e sostituisce ogni diverso trattamento, voce od istituto di carattere retributivo o reintegratorio. Esso assorbe, fino a concorrenza, ogni aumento retributivo comunque disposto in prosieguo, anche se attuato mediante particolari istituti comunque denominati ed anche se con effetto retroattivo, da parte della contrattazione collettiva, anche aziendale, e dalla legge.
5. BONUS	**5. BONUS**
In addition to the remuneration set out in clause 4, the Executive may receive a bonus according to the terms and conditions set forth by the parties.	In aggiunta alla retribuzione di cui all'articolo 4, il Dirigente potra' ricevere un bonus ai sensi dei termini e delle condizioni previste dalle parti.
The Executive will be included in a bonus plan that foresees the payment of a bonus on condition that the company and individual objectives are achieved. The gross target bonus equals 50% of the Executives annual base salary.	Il Dirigente sara' inserito in un sistema di incentivazione che prevede l'erogazione di un premio variabile in funzione del raggiungimento dei risultati aziendali ed individuali. Per il conseguimento del livello target di risultato atteso, sarà riconosciuto al Dirigente un premio annuo lordo pari al **50%** della sua retribuzione annua lorda.
The bonus, which will be paid to the Executive only if all of the indicated targets are fully reached, will not oblige the Company in case the indicated targets are evaluated not to be reached; an essential condition for the payment of the bonus will be that on the date decided for the payment the working relationship will	Il bonus, che verrà riconosciuto al Dirigente solo in caso di raggiungimento degli obbiettivi indicati, non darà luogo ad alcuna obbligazione di pagamento da parte della Società nel caso in cui, a suo esclusivo ed insindacabile giudizio, i risultati non coincidano

still be in force and that there had not been a discontinuance for any given reason. In case of early termination of the employment, the Executive will not be entitled to a pro-quota payment of the bonus. The bonus will not be relevant for any indirect salary item, with the only exception of the TFR under section. 2120 of the Italian Civil Code, as in its determination the Company will take into account also this aspect. Furthermore, the Executive will receive a one off lump sum payment of Euro 90,000.00 gross that will be paid within 60 days of the Executive's start date.	con quelli previsti; condizione essenziale per la sua corresponsione sarà inoltre che alla data prevista per il pagamento il rapporto di lavoro sia ancora in essere e non sia intervenuto un recesso da qualunque causa determinato. In caso di anticipata cessazione del rapporto di lavoro, il Dirigente non avrà diritto ad alcun pagamento *pro quota* del bonus. Resta inteso che gli eventuali importi che dovessero essere corrisposti a tale titolo al Dirigente, non saranno utili per la determinazione di alcun istituto retributivo indiretto con la sola eccezione del trattamento di fine rapporto ex art. 2120 cod. civ., poiché nella loro quantificazione già si terrà conto di tale incidenza. Inoltre, il Dirigente ricevera' un pagamento una tantum pari a Euro 90,000.00 lordi che verra' pagato entro 60 gg dalla data d'inizio del rapporto di lavoro.
6. DURATION AND WITHDRAWAL This contract is open ended. In the case of an ordinary withdrawal, the withdrawing party must communicate the withdrawal to the other party in writing, giving notice according to the collective agreement applied. No notice will be due in case of withdrawal for just cause. If a party withdraws from the employment contract without observing the terms of the notice period, such party must pay the other party an indemnity determined under art. 2121 of the Italian Civil Code and under the collective agreement applied. At the end of his employment, or at most within three days from the same date, the Executive has to immediately deliver to the Company all the documents, also digital, any software, electronic equipment, keys, credit cards and all other	**6. DURATA E RECESSO** Il presente contratto è a tempo indeterminato. Nel caso di recesso ordinario, la parte recedente dovrà comunicare la volontà di recedere alla controparte in forma scritta, dando preavviso in conformità al contratto collettivo applicabile. Alcun preavviso sarà dovuto in caso di recesso per giusta causa. Nel caso di recesso unilaterale dal contratto di lavoro, senza che siano rispettati i termini di preavviso, tale parte recedente dovrà corrispondere all'altra parte un'indennità determinata ai sensi dell'articolo 2121 del codice civile nonché del contratto collettivo applicabile. Al termine del proprio lavoro, ovvero entro tre giorni dalla medesima data, il Dirigente è tenuto ad inviare immediatamente alla Società tutti i documenti, anche in formato digitale, qualsiasi software, dispositivo elettronico, chiave, carta di credito, ed

belongings of the Company. In any case all the tools mentioned above cannot be used after the withdrawal from the contract without the written consent of the Company.	ogni altra proprietà della Società. In ogni caso, gli strumenti predetti non potranno essere utilizzati a seguito del recesso dal contratto, in assenza del consenso scritto della Società.
7. WORKING TIME Taking into account the particular type of work carried out and the responsibility of the Executive, he will not be subject to any working time limit according to art. 17, point 5, a) of Legislative Decree no. 66 of 8 April 2003.	**7. ORARIO DI LAVORO** In considerazione del peculiare tipo di lavoro svolto e delle responsabilità del Dirigente, lo stesso non sarà soggetto ad alcun limite di orario lavorativo, in conformità a quanto previsto dall'articolo 17, comma 5, a) del Decreto Legislativo 8 Aprile 2003, no. 66.
8. CONFIDENTIALITY The Executive undertakes that, during his employment and/or after termination of service, without the prior written consent of the Company, he will not: • divulge to any person whomever and shall use his best endeavours to prevent the unauthorized disclosure of any trade secrets or information as to the practice, business, dealings or affairs of the Company or of any other company of the same group, their shareholders, customers or clients or any other matters which come to his knowledge by reason of his employment; • use or attempt to use any such information in any manner which may injure or cause loss either directly or indirectly to the Company or to any other company of the same group or their business or may be likely to do so; • copy or reproduce in any form or by or on any media or device or allow others access to or to copy or reproduce recorded information whether or not in documentary form containing or referring to "Confidential Information". By way of example (not exhaustive), "Confidential Information" means lists of the Company's or any company of the same group's actual or potential	**8. RISERVATEZZA** Il Dirigente si impegna, nel corso del rapporto di lavoro e/o in seguito alla cessazione dell'incarico, in assenza del previo consenso scritto della Societa', a non: • divulgare ad alcun soggetto e ad adoperarsi al meglio al fine di impedire la divulgazione non autorizzata di qualsiasi informazione sensibile di natura commerciale od altra informazione relativa all'attività, ai rapporti commerciali ovvero agli affari della Società o di qualsiasi altra società del medesimo gruppo, ai loro soci, clienti, ovvero qualsiasi altra questione di cui possa venire a conoscenza in ragione del proprio incarico; • utilizzare o tentare di utilizzare tali informazioni in qualunque modo possa, o vi sia probabilità che possa, pregiudicare o comportare perdite, direttamente o indirettamente, per la Società o per qualsiasi altra società del medesimo gruppo o per le rispettive attività; • fare copia o riprodurre in qualunque forma o mediante qualunque mezzo o dispositivo ovvero consentire ad altri di accedere, fare copia o riprodurre le informazioni archiviate, in forma documentale o meno, contenenti o relative a "Informazioni Riservate". A titolo esemplificativo (ma non esaustivo) per "Informazioni Riservate" si intendono i dati relativi a clienti attuali o potenziali della Società o di

clients; details of relationships or arrangements with or knowledge of the requirements of the Company's or any company of the same group's actual or potential clients; details of the Company's or any company of the same group's business methods, finances, prices or pricing strategy, marketing or development plans or strategies; details of any tenders, pitches or presentations proposed or made by the Company or any company of the same group; personal information about any of the Company's or any company of the same group's directors or employees; information divulged to the Company or any company of the same group by a third party in confidence; and any information relating to the Company or any company of the same group or client in question reasonably considers to be confidential. Confidential information does not include data which are generally known or easily accessible by the public, unless it is generally known or easily accessible by the public because of a breach of the Executive's obligations.	qualunque società del medesimo gruppo; informazioni relative alle relazioni o agli accordi ovvero la conoscenza delle richieste dei clienti della Società o di qualunque società del medesimo gruppo; dati relativi ai metodi commerciali, mezzi finanziari, prezzi o strategie di prezzo, marketing o piani o strategie di sviluppo; i dati relativi a qualunque offerta, vendita o presentazioni proposte o effettuate dalla Società o da altra società del medesimo gruppo; le informazioni personali relative a qualunque amministratore o dipendente della Società o delle società del medesimo gruppo; le informazioni divulgate alla Società o a qualunque società del medesimo gruppo da parte di terzi in via riservata; e qualunque informazione relativa alla Società, ad una società del medesimo gruppo o cliente che i medesimi ragionevolmente ritengano riservata. Le Informazioni Riservate non comprendono informazioni generalmente note o facilmente accessibili al pubblico, salvo che esse siano generalmente note o facilmente accessibili al pubblico in ragione di una violazione degli obblighi del Dirigente.
All documents containing or referring to Confidential Information that are under the control of or in the possession of the Executive at any time are and shall at all times remain the absolute property of the Company, and the Executive undertakes, both during his employment and afterwards:	Tutti i documenti contenenti o relativi ad Informazioni Riservate che siano sotto il controllo o in possesso del Dirigente sono e restano in ogni momento proprietà esclusiva della Società, ed il Dirigente si impegna, sia nel corso del proprio incarico sia in seguito, a:
• to exercise due care and diligence to avoid unauthorised publication, disclosure or use of the confidential information and any documents containing or referring to it; • to deliver all confidential information (including all copies of all documents whether or not lawfully made or obtained) to the Company and to delete confidential information from any reusable medium; • to carry out such activities and sign such documents at the expense of the Company as shall be reasonably necessary to give effect to	• adoperarsi con la dovuta correttezza e diligenza al fine di impedire la pubblicazione, divulgazione o utilizzo non autorizzati delle Informazioni Riservate e di qualunque documenti contenente o relative alle stesse; • inviare tutte le Informazioni Riservate (comprese le copie di tutti I documenti legittimamente o illegittimamente effettuate o ottenute) alla Società e cancellare le Informazioni Riservate da qualunque supporto nuovamente utilizzabile; • svolgere le attività e sottoscrivere i documenti, a spese della Società, che siano ragionevolmente necessari a dare esecuzione al presente

this clause and/or to provide evidence that it has been complied with.	articolo e/o a dare prova che sia stato osservato.
The Executive agrees that the restrictions set out in this clause 8 are without prejudice to any other duties of confidentiality owed to the Company, its parent, associated or subsidiary companies whether express or implied and shall continue to be in force after the termination of his employment.	Il Dirigente conviene che i vincoli previsti dal presente articolo 8 non pregiudicano qualsiasi altro obbligo di riservatezza dovuto nei confronti della Società, delle sue società controllanti, controllate o collegate, sia esso espresso ovvero implicito e che tali vincoli continueranno ad avere effetto a seguito della cessazione del proprio incarico.
9. COMPUTER, INTERNET AND E-MAIL SERVICES	**9. COMPUTER, INTERNET E SERVIZI E-MAIL**
The use of the computers, devices, Internet and e-mail services provided by the Company is allowed only for business purposes and in relation to the Executive's job and in accordance with the Company's policy.	L'utilizzo di computer, dispositive, Internet e servizi e-mail forniti dalla Società è consentito ai fini esclusivi dell'attività e in connessione all'incarico del Dirigente, oltre che in conformità alla policy della Società.
10. COMPANY BENEFITS	**10. BENEFIT AZIENDALI**
The Executive will be assigned a company car or a car allowance in order to facilitate the performance of his work, in line with the Company Car Policy.	Per agevolare l'adempimento della prestazione di lavoro, verrà assegnata al Dirigente una vettura di servizio oppure una car allowance, nell'ambito della policy prevista dalla Società.
The Company has implemented a Flexible Benefits program that allows the Executive to create his own benefits package based on his personal and family needs. The Executive will be assigned a budget for 2017 of 1,700 points (1 point = 1€). The Company reserves the right to modify the program following any changes in legislation that could occur in the coming years.	L'azienda ha inoltre attivato un programma di Flexible Benefit che prevede la possibilità di comporre il proprio pacchetto di benefit in funzione delle proprie esigenze personali e familiari. Al Dirigente sarà assegnato per il 2017 un budget di 1,700 punti (1 punto=1€) per accedere ad un paniere di servizi attraverso un portale on-line, La societa' si riserva di modificare il piano a seconda di eventuali modifiche legislative che potrebbero avvenire in anni successivi.
11. DATA PROTECTION	**11. PROTEZIONE DEI DATI PERSONALI**
The personal data given by the Executive will be processed solely in order to fulfil any obligations deriving from the contract and from the Law, such as, by way of example, in order to pay his salary, to	I dati personali forniti dal Dirigenti verranno trattati esclusivamente al fine di rispettare gli obblighi derivanti dal contratto e dalla Legge quali, a titolo esemplificativo, quelli inerenti al pagamento della

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carry out any social security and insurance obligations as well as the obligations concerning prevention of accidents on the workplace.

The processing of Executive's data will be carried out by means of digital and paper archives and in order to guarantee the best safety and privacy, according to the above-mentioned Law and to the obligations connected thereto, as well as and according to the purposes and modalities illustrated in the present informative report.

For the purposes mentioned under this clause, supplying personal data is mandatory. The refusal to provide the Company with such data will result in the impossibility for the Company to fulfil any obligations deriving from the Law and from the contract with the further consequence of the impossibility to stipulate the contract. In addition, while the above-mentioned activities are being performed, any requests to cancel from Company's archives the data needed to comply with the obligations deriving from the contract and from the law, or any refusal to supply it, will result in the termination of the contract.

The Executive acknowledges that, pursuant to art. 24 of Legislative Decree no. 196/2003 his consent is not necessary in order to process the data given in order to fulfil the obligations set out under the law and the employment contract of which he is a party.

The personal data given will not be circulated.

The personal data of the Executive may be communicated to consultants and/or professionals with whom the Company operates, who in turn undertake the contractual obligation to guarantee an adequate processing of the personal data in relation to the performance of the activity carried out.

The processing operation could also involve personal information falling within the category of sensitive information: *i.e.*, information apt to reveal racial and ethnic origin, religious and philosophical beliefs, or beliefs of another kind, political opinions, memberships in parties, unions, associations or organizations of a religious, philosophical, political or

remunerazione, agli obblighi pensionistici e assicurativi e quelli concernenti la prevenzione di infortuni sul luogo di lavoro.

Il trattamento dei dati del Dirigente verrà svolto attraverso archivi cartacei e digitali e al fine di garantire la miglior sicurezza e privacy, ai sensi della Legge e degli obblighi connessi e ai sensi e per gli effetti degli scopi e modalità illustrate nella presente informativa.

Ai fini previsti ai sensi del paragrafo 1 della presente clausola, la fornitura dei dati personali è obbligatoria. Il rifiuto di fornire alla Società tali dati comporterà l'impossibilità per la Società di adempiere ai propri obblighi derivanti dalla Legge e dal contratto, con l'ulteriore impossibilità di stipula dello stesso. In aggiunta, mentre le sopracitate attività vengono svolte, qualsiasi richiesta di cancellazione dai registri della Società dei dati necessari al rispetto degli obblighi derivanti dal contratto e dalla Legge, o ogni rifiuto di fornire gli stessi, comporterà la risoluzione del contratto.

Il Dirigente riconosce che, ai sensi dell'art. 24 del Decreto Legislativo 196/2003, il suo consenso non è necessario al fine di processare i dati trasmessi al fine di rispettare gli obblighi previsti dalla legge e il contratto di lavoro di cui egli è parte.

I dati personali trasmessi non verranno circolati.

I dati personali del Dirigente potranno essere comunicati a consulenti e/o professionisti con i quali la Società collabori, i quali a loro volta si impegno a garantire un adeguato trattamento dei dati personali in relazione alle attività da essi svolte.

Le operazioni di trattamento possono anche riguardare informazioni personali qualificabili come dati sensibili: *i.e.*, informazioni atte a rilevare l'origine razziale e etnica, i propri convincimenti religiosi e filosofici o di altra natura, le opinioni politiche, l'appartenenza a partiti, sindacati, associazioni o organizzazioni di natura religiosa, filosofica, politica o sindacale, così come informazioni personali atte a

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union-related character, as well as personal information apt to reveal one's state of health and sex life.

The processing to be carried out on said sensitive information, within the limits indicated in the general authorization of the Authority, for the sole purpose of carrying out the obligations deriving from this contract and the law-such as, but not limited to, payment of compensation, carrying out social security obligations, welfare obligations, insurance obligations and obligations pertaining to accident-prevention regulations, as well as for the purposes of any union deductions mentioned in Art. 26 of the Statute of Worker Rights and of the granting of union rights mentioned in Title III of the Statute of Worker Rights-shall be processed using computer media and paper archives, appropriate for ensuring maximum security and confidentiality in compliance with the above-mentioned legislation and associated obligations, and according to the purposes and procedures illustrated in this information report.

Health information may be processed by medical studies specializing in assessment of one's fitness for work pursuant to current legislation in matters of work-place hygiene and safety. In said case, the Employer shall not have access to said information, but only to the fitness-related assessments expressed by these medical studies based on said information.

The Executive, moreover, acknowledges that, pursuant to Art. 26, paragraph 4, letter d), of Legislative Decree no. 196/2003, his consent is not required for the processing of sensitive information transferred by his and required for fulfilment of the obligations deriving from the law, from a regulation or a European Community regulation pertaining to the handling of employment relationships, even in matters of work-place hygiene and safety and social security and welfare, within the limits of the general authorization of the Authority.

The Controller of Processing is the Company.

The personal information of the Executive shall be

rivelare il proprio stato di salute e orientamento sessuale.

Il trattamento di tali informazioni sensibili verrà effettuato, entro i limiti indicati nella autorizzazione generale dell'Autorità, al solo fine di rispettare (i) gli obblighi derivanti dal contratto e dalla legge quali, a tititolo meramente esemplificativo, il pagamento dei compensi, l'adempimento degli obblighi contributivi, assistenziali e assicurativi e degli obblighi inerenti alla prevenzione degli infortuni, così come quelli inerenti alle deduzioni sindacali di cui all'art. 26 dello Statuto dei Lavoratori e (ii) concedere i diritti sindacali previsti nel Titolo III dello Statuto dei Lavoratori, attraverso mezzi elettronici e cartacei, appropriati al fine di assicurare la massima sicurezza e confidenzialità nel rispetto degli obblighi legislativi sopramenzionati e ai sensi e per gli effetti delle procedure illustrate nella presente informativa.

Le informazioni sulla salute potranno essere trattate da studi medici specializzati nella valutazione dello stato di salute ai fini dell'impiego ai sensi della legislazione vigente in tema di igiene e sicurezza sui luoghi e di lavoro. In tali casi, il Datore di Lavoro non avrà accesso a tali informazioni, ma solo alle valutazioni sullo stato di salute espresse da tali studi medici.

Il Dirigente, inoltre, riconosce che, ai sensi dell'art. 26, comma 4, lettera d), del Decreto Legislativo 196/2003, il suo consenso non è richiesto per il trattamento delle informazioni sensibili da lui trasferite e richieste al fine del soddisfacimento degli obblighi derivanti dalla legge, da un regolamento della Comunità Europea relative al trattamento della relazioni di lavoro, anche con riferimento a tematiche di igiene e sicurezza sui luoghi di lavoro, alle prestazioni pensionistiche e assistenziali, entro i limiti dell'autorizzazione generale dell'Autorità.

Il Controllore del Trattamento è la Società.

Le informazioni personali del Dirigente verranno trattate non solo dal Controllore ma anche dal

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processed not only by the Controller but also by the Manager, by the processors, by its collaborators and/or consultants, again for the purposes mentioned in paragraph 1 of this clause and subject to the appointment of the processors by the Controller, including specific instructions required for fulfilment of the legislation covering protection of personal information with particular reference to security-related aspects. The Executive may exercise his rights, at any time, towards the Controller of Processing pursuant to Art. 7 of Legislative Decree no. 196/2003. By signing this contract, the Executive, having acquired the information provided by the Controller of Processing, pursuant to Art. 13 of Legislative Decree no. 196/2003, acknowledges the information report above and hereby gives his consent to the processing of his personal information for the purposes indicated in the aforesaid information report.	Responsabile, dall'incaricato, dai suoi collaboratori e consulenti, ai fini menzionati nel primo paragrafo della presente clausola e subordinatamente alla nomina dell'incaricato da parte del Controllore, che includerà le condizioni e istruzioni necessarie per il rispetto della legislazione in materia di protezione delle informazioni personali con particolare riferimento alle tematiche inerenti alla sicurezza. Il Dirigente può esercitare i suoi diritti, in ogni momento, verso il Controllore del trattamento ai sensi dell'art. 7 del Decreto Legislativo 196/2003. Firmando il presente contratto, il Dirigente, avendo acquisito le informazioni fornite dal Controllore del Trattamento, ai sensi dell'art. 13 del Decreto Legislativo 196/2003, riconosce l'informativa fornita e rilascia il proprio consenso al trattamento delle sue informazioni personali ai fini indicati nell'informativa che precede.
12. COLLECTIVE AGREEMENT For anything that is not provided for in this contract the rules of Italian Law and of the Collective Bargaining Agreement for Executives of the Industry Sector will be applicable.	**12. CONTRATTO COLLETTIVO** Tutto quanto non espressamente disciplinato dal presente contratto, sarà regolato dalla legge italiana e dalle disposizioni del Contratto Collettivo Nazionale per i dirigenti di aziende del settore Industria.
Please return us a copy of this contract signed and dated by you to indicate your acceptance and also your approval of the clauses shown below. On behalf of Sorin Group Italia S.r.l. Gian Vincenzo D'Agostaro Gian Vincenzo D'Agostaro	Si prega di restituire copia firmata e datata del presente contratto, al fine di indicare l'accettazione e l'approvazione delle condizioni illustrate di seguito. Per conto di Sorin Group Italia S.r.l. Gian Vincenzo D'Agostaro Gian Vincenzo D'Agostaro .....

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I have read, understood and accepted the Terms and Conditions of Employment as stated and referred to in this employment contract relevant to my employment with the Company. Marco Dolci 22/03/2017	Dichiaro di aver letto, compreso e accettato i Termini e Condizioni di Lavoro stabilite e previste dal presente contratto di lavoro, relative al personale impiego preso la Società. Marco Dolci 22/03/2017
The parties declare they have read and understood all the clauses of the contract. For specific approval of the clauses: 1) Job description; 2) Place of work; 3) Duties of the Executive; 4) Remuneration; 5) Bonus and benefits; 6) Withdrawal; 7) Working time; 8) Confidentiality; 9) Computer, internet and e-mail services; 10) Company Benefits; 11) Data Protection; 12) Collective Agreement. Marco Dolci	Le parti dichiarano di aver letto e compreso tutte le disposizioni del contratto. Per l'approvazione specifica degli articoli: 1) Descrizione del lavoro; 2) Sede di lavoro; 3) Doveri del Dirigente; 4) Compensi; 5) Bonus; 6) Recesso; 7) Orario di lavoro; 8) Riservatezza; 9) Computer, internet e servizi e-mail; 10) Benefit Aziendali; 11) Protezione dei dati personali; 12) Contratto Collettivo; Marco Dolci .....

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www.livanova.com

Società soggetta all'attività di direzione e coordinamento da parte della capogruppo LivaNova Plc

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 Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2021 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: April 28, 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 Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2021 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: April 28, 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 Quarterly Report on Form 10-Q of the Company and its consolidated subsidiaries for the quarterly period ended March 31, 2021, 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: April 28, 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.