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: September 30, 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 October 29, 2021
Ordinary Shares - £1.00 par value per share	53,225,496

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™, Revolution® and Essenz™ heart-lung machine.
- 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;
- logistical cost and delays related to the supply of raw materials and the distribution of finished 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, including any amount of liability or damages imposed by the Appeals Court or the Supreme Court of Italy with respect to SNIA S.p.A.;
- 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;
- risks relating to the exchangeability of the exchangeable senior notes;
- volatility in the global market and worldwide economic conditions, including volatility caused by Brexit, changes to existing trade agreements and relationships between the U.S. and other countries and/or COVID-19;
- risks relating to the outbreak and spread of COVID-19 and its variants 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 nine months ended September 30, 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 September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Net sales	$ 253,215	$ 240,083	$ 765,301	$ 664,686
Cost of sales	83,105	92,448	256,828	234,079
Gross profit	170,110	147,635	508,473	430,607
Operating expenses:				
Selling, general and administrative	109,042	104,036	347,471	331,711
Research and development	42,133	47,368	139,315	108,422
Other operating expenses	1,067	3,739	43,103	12,611
Operating income (loss) from continuing operations	17,868	(7,508)	(21,416)	(22,137)
Interest income	178	47	293	482
Interest expense	(11,355)	(14,673)	(43,806)	(25,237)
Loss on debt extinguishment	(60,238)	—	(60,238)	(1,407)
Foreign exchange and other gains	13,436	3,420	7,117	1,914
Loss from continuing operations before tax	(40,111)	(18,714)	(118,050)	(46,385)
Income tax expense (benefit)	2,098	(3,990)	9,094	17,581
Losses from equity method investments	(28)	(48)	(109)	(221)
Net loss from continuing operations	(42,237)	(14,772)	(127,253)	(64,187)
Net loss from discontinued operations, net of tax	—	—	—	(995)
Net loss	$ (42,237)	$ (14,772)	$ (127,253)	$ (65,182)
Basic loss per share:				
Continuing operations	$ (0.82)	$ (0.30)	$ (2.56)	$ (1.32)
Discontinued operations	—	—	—	(0.02)
	$ (0.82)	$ (0.30)	$ (2.56)	$ (1.34)
Diluted loss per share:				
Continuing operations	$ (0.82)	$ (0.30)	$ (2.56)	$ (1.32)
Discontinued operations	—	—	—	(0.02)
	$ (0.82)	$ (0.30)	$ (2.56)	$ (1.34)
Shares used in computing basic loss per share	51,582	48,652	49,748	48,582
Shares used in computing diluted loss per share	51,582	48,652	49,748	48,582

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 September 30,		Nine Months Ended September 30,	
	2021	**2020**	**2021**	**2020**
Net loss	$ (42,237)	$ (14,772)	$ (127,253)	$ (65,182)
Other comprehensive (loss) income:				
Net change in unrealized (loss) gain on derivatives	(1,197)	1,640	(2,782)	1,313
Tax effect	287	(393)	668	(314)
Net of tax	(910)	1,247	(2,114)	999
Foreign currency translation adjustment	(18,986)	23,457	(22,516)	8,008
Total other comprehensive (loss) income	(19,896)	24,704	(24,630)	9,007
Total comprehensive (loss) income	$ (62,133)	$ 9,932	$ (151,883)	$ (56,175)

See accompanying notes to the condensed consolidated financial statements

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

	September 30, 2021	December 31, 2020
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 181,846	$ 252,832
Accounts receivable, net of allowance of $11,837 at September 30, 2021 and $10,310 at December 31, 2020	182,008	184,356
Inventories	123,733	126,675
Prepaid and refundable taxes	36,029	60,240
Assets held for sale	—	70,539
Current derivative assets	95,928	2,053
Prepaid expenses and other current assets	26,811	22,739
Total Current Assets	646,355	719,434
Property, plant and equipment, net	152,728	163,805
Goodwill	905,154	922,318
Intangible assets, net	408,954	437,636
Operating lease assets	46,215	50,525
Investments	16,580	31,094
Deferred tax assets	2,012	2,990
Long-term derivative assets	—	72,302
Other assets	25,411	11,247
Total Assets	$ 2,203,409	$ 2,411,351
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Current debt obligations	$ 227,773	$ 13,343
Accounts payable	60,248	73,668
Accrued liabilities and other	97,504	88,036
Current derivative liabilities	151,388	7,372
Current litigation provision liability	33,526	28,612
Taxes payable	20,514	16,463
Accrued employee compensation and related benefits	67,512	51,879
Liabilities held for sale	—	29,679
Total Current Liabilities	658,465	309,052
Long-term debt obligations	10,797	642,298
Contingent consideration	104,080	89,850
Deferred tax liabilities	8,312	8,915
Long-term operating lease liabilities	38,688	42,221
Long-term employee compensation and related benefits	18,173	20,628
Long-term derivative liabilities	—	121,940
Other long-term liabilities	52,396	57,618
Total Liabilities	890,911	1,292,522
Commitments and contingencies (Note 8)		
Stockholders' Equity:		
Ordinary Shares, £1.00 par value: unlimited shares authorized; 53,731,820 shares issued and 53,221,234 shares outstanding at September 30, 2021; 49,447,473 shares issued and 48,655,863 shares outstanding at December 31, 2020	82,254	76,300
Additional paid-in capital	2,107,391	1,768,156
Accumulated other comprehensive income	3,179	27,809
Accumulated deficit	(879,655)	(752,402)
Treasury stock at cost, 510,586 ordinary shares at September 30, 2021; 791,610 ordinary shares at December 31, 2020	(671)	(1,034)
Total Stockholders' Equity	1,312,498	1,118,829
Total Liabilities and Stockholders' Equity	$ 2,203,409	$ 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)

	Nine Months Ended September 30,	
	2021	**2020**
Operating Activities:		
Net loss	$ (127,253)	$ (65,182)
Non-cash items included in net loss:		
Loss on debt extinguishment	60,238	1,407
Stock-based compensation	30,574	26,845
Amortization	20,005	29,346
Depreciation	18,493	22,206
Remeasurement of contingent consideration to fair value	17,755	(31,176)
Amortization of debt issuance costs	13,087	5,468
Amortization of operating lease assets	12,133	9,813
Remeasurement of Respicardia investment and loan	(4,642)	—
Remeasurement of derivative instruments	(2,211)	(17,654)
Deferred tax (benefit) expense	(342)	41,133
Other	1,944	(999)
Changes in operating assets and liabilities:		
Accounts receivable, net	(7,851)	65,401
Inventories	4,656	(12,141)
Other current and non-current assets	20,532	(15,360)
Accounts payable and accrued current and non-current liabilities	2,999	(50,741)
Taxes payable	4,996	(615)
Litigation provision liability	3,951	(124,158)
Net cash provided by (used in) operating activities	69,064	(116,407)
Investing Activities:		
Proceeds from sale of Heart Valves, net of cash disposed	40,244	—
Proceeds from sale of Respicardia investment and loan	23,057	—
Purchases of property, plant and equipment	(17,893)	(28,445)
Purchase of investments	(3,520)	(3,175)
Loans to investees	—	(2,250)
Other	(1,353)	533
Net cash provided by (used in) investing activities	40,535	(33,337)
Financing Activities:		
Repayment of long-term debt obligations	(451,396)	(481,360)
Proceeds from issuance of ordinary shares, net	324,180	—
Payment of make-whole premium on long-term debt obligations	(35,594)	—
Shares repurchased from employees for minimum tax withholding	(12,246)	(5,277)
Payment of contingent consideration	(5,249)	(8,860)
Proceeds from exercise of stock options	2,405	219
Debt issuance costs	(1,875)	(20,412)
Proceeds from share issuances under ESPP	1,750	2,063
Proceeds from long-term debt obligations	—	886,899
Proceeds from short term borrowings (maturities greater than 90 days)	—	46,717
Repayments of short term borrowings (maturities greater than 90 days)	—	(44,838)
Purchase of capped call	—	(43,096)
Closing adjustment payment for sale of CRM business	—	(14,891)
Other	(158)	(1,237)
Net cash (used in) provided by financing activities	(178,183)	315,927
Effect of exchange rate changes on cash and cash equivalents	(2,402)	491
Net (decrease) increase in cash and cash equivalents	(70,986)	166,674
Cash and cash equivalents at beginning of period	252,832	61,137
Cash and cash equivalents at end of period	$ 181,846	$ 227,811

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 and nine months ended September 30, 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 and nine months ended September 30, 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.

Developments Regarding COVID-19

Since early 2020, the COVID-19 pandemic ("COVID-19") has caused and may continue to cause unpredictable demand for our products. Throughout the pandemic, healthcare customers have diverted medical resources and priorities towards the treatment of COVID-19, and public health bodies have delayed elective procedures, which has negatively impacted the usage of our products. Further, some people have avoided seeking treatment for non-COVID-19 procedures and hospitals and clinics have experienced staffing shortages, which has negatively impacted the demand for our products. While we have seen improvement during 2021, we continue to experience lingering COVID-19 related headwinds and are monitoring the potential for various strains of the virus to cause a resumption of high levels of infection and hospitalization, that in turn, may affect the demand for our products.

Reclassifications

We have reclassified certain prior period amounts on the condensed consolidated statements of income (loss), the condensed consolidated balance sheets and the condensed consolidated statements of cash flows for comparative purposes. These reclassifications did not have a material effect on our financial condition, results of operations or cash flows. The prior period reclassifications on the condensed consolidated statements of income (loss) are summarized and presented below (in thousands):

- Product remediation has been reclassified to cost of sales
- Merger and integration expenses have been reclassified to other operating expenses
- Restructuring expenses have been reclassified to other operating expenses
- Litigation provision, net has been reclassified to other operating expenses
- Amortization of intangibles has been reclassified to cost of sales or selling, general and administrative based on the nature of the underlying intangible asset and
- Loss on debt extinguishment has been reclassified from foreign exchange and other gains to loss on debt extinguishment.

	Three Months Ended September 30,			Nine Months Ended September 30,		
	As Previously Reported	Reclassifications	Current Presentation	As Previously Reported	Reclassifications	Current Presentation
Net sales	$ 240,083	$ —	$ 240,083	$ 664,686	$ —	$ 664,686
Cost of sales	86,467	5,981	92,448	212,152	21,927	234,079
Product remediation	1,133	(1,133)	—	6,868	(6,868)	—
Gross profit	152,483	(4,848)	147,635	445,666	(15,059)	430,607
Operating expenses:						
Selling, general and administrative	99,199	4,837	104,036	317,424	14,287	331,711
Research and development	47,368	—	47,368	108,422	—	108,422
Merger and integration expenses	1,094	(1,094)	—	6,616	(6,616)	—
Restructuring expenses	(349)	349	—	2,025	(2,025)	—
Amortization of intangibles	9,685	(9,685)	—	29,346	(29,346)	—
Litigation provision, net	2,994	(2,994)	—	3,970	(3,970)	—
Other operating expenses	—	3,739	3,739	—	12,611	12,611
Operating loss from continuing operations	(7,508)	—	(7,508)	(22,137)	—	(22,137)
Interest income	47	—	47	482	—	482
Interest expense	(14,673)	—	(14,673)	(25,237)	—	(25,237)
Loss on debt extinguishment	—	—	—	—	(1,407)	(1,407)
Foreign exchange and other gains	3,420	—	3,420	507	1,407	1,914
Loss from continuing operations before tax	$ (18,714)	$ —	$ (18,714)	$ (46,385)	$ —	$ (46,385)

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. Divestiture of Heart Valve Business

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 for €60.0 million (approximately $69.5 million as of September 30, 2021). 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.

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 met 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.

The initial closing of the sale of the Heart Valve business occurred on June 1, 2021 and we received €34.8 million (approximately $42.5 million as of June 1, 2021), subject to customary trade working capital and net indebtedness adjustments, as set forth in the Purchase Agreement. An additional €2.5 million (approximately $2.9 million as of September 30, 2021) is payable to LivaNova during the fourth quarter of 2021 and €10.0 million (approximately $11.6 million as of September 30, 2021) is payable to LivaNova on December 30, 2022. During the three and nine months ended September 30, 2021, we recognized a (loss) gain from the sale of the Heart Valve business of $(0.1) million and $0.7 million, respectively, which is included within other operating expenses on the condensed consolidated statements of income (loss).

In conjunction with the sale, we entered into a transition services agreement to provide certain support services generally for up to twelve months from the closing date of the sale. These services include, among others, accounting, information technology, human resources, quality assurance, regulatory affairs, supply chain, clinical affairs and customer support. During the three and nine months ended September 30, 2021, we recognized income of $1.0 million and $1.3 million, respectively, for providing these services. Income recognized related to the transition services agreements is recorded as a reduction to the related expenses in the associated expense line items in the condensed consolidated statements of income (loss).

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.

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 $0.1 million and $9.8 million during the three and nine months ended September 30, 2021, respectively, primarily associated with severance costs for 27 additional employees during the nine months ended September 30, 2021 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	7,800	1,981	9,781
Cash payments and other	(10,452)	(2,270)	(12,722)
Balance at September 30, 2021	$ 3,097	$ 257	$ 3,354

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Cardiovascular	$ 53	$ 9	$ 2,882	$ 1,265
Neuromodulation	(28)	43	1,493	851
Other	63	(401)	5,406	(91)
Total [1]	$ 88	$ (349)	$ 9,781	$ 2,025

(1) Restructuring expense is included within other operating expenses on the condensed consolidated statements of income (loss).

Note 4. Investments

Investments on the condensed consolidated balance sheets represent 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. At September 30, 2021 and December 31, 2020, the carrying value of our investments was $16.6 million and $31.1 million, respectively.

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 gains on the condensed consolidated statements of income (loss) for the nine months ended September 30, 2021.

During the second quarter of 2021 the Company received a cash dividend from its investment in MD Start II of $3.1 million, which is included in foreign exchange and other gains on the condensed consolidated statements of income (loss) for the nine months ended September 30, 2021.

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 nine months ended September 30, 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 September 30, 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")	$ 272	$ —	$ 272	$ —
Derivative assets - freestanding instruments (FX)	1,137	—	1,137	—
Derivative assets - capped call derivatives	94,519	—	—	94,519
Convertible notes receivable	2,764	—	—	2,764
	$ 98,692	$ —	$ 1,409	$ 97,283
Liabilities:				
Derivative liabilities - designated as cash flow hedges (FX)	$ 728	$ —	$ 728	$ —
Derivative liabilities - freestanding instruments (FX)	9	—	9	—
Derivative liabilities - embedded exchange feature	150,651	—	—	150,651
Contingent consideration arrangements	115,573	—	—	115,573
	$ 266,961	$ —	$ 737	$ 266,224

	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]	—	—	—	—	(6,000)
Changes in fair value	22,217	(11)	28,895	(4,290)	17,755
Total at September 30, 2021	94,519	2,764	150,651	—	115,573
Less current portion at September 30, 2021	94,519	2,495	150,651	—	11,493
Long-term portion at September 30, 2021	$ —	$ 269	$ —	$ —	$ 104,080

(1) During the nine months ended September 30, 2021, we paid $6.0 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, 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 gains in the condensed consolidated statements of income (loss).

The stock price volatility as of September 30, 2021 was 32%. As of September 30, 2021, a 10% lower volatility, holding other inputs constant, would result in approximate fair value for the embedded exchange feature derivative of $133.3 million and a 10% higher volatility, holding other inputs constant, would result in approximate fair value of $170.2 million. As of September 30, 2021, a 10% lower volatility, holding other inputs constant would result in approximate fair value for the capped call derivatives of $101.3 million and a 10% higher volatility, holding other inputs constant, would result in approximate fair value of $86.8 million.

Contingent Consideration Arrangements

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

	September 30, 2021	December 31, 2020
ImThera Medical, Inc. (“ImThera”)	$ 104,080	$ 89,436
CardiacAssist, Inc., doing business as TandemLife (“TandemLife”)	11,493	8,809
Miami Instruments	—	5,573
	$ 115,573	$ 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 September 30, 2021:

ImThera Acquisition	Valuation Technique	Unobservable Input	Inputs
Regulatory milestone-based payment	Discounted cash flow	Discount rate	3.8%
		Probability of payment	85%
		Projected payment year	2024
Sales-based earnout	Monte Carlo simulation	Risk-adjusted discount rate	12.0% - 12.6%
		Credit risk discount rate	4.2% - 5.1%
		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 September 30, 2021:

TandemLife Acquisition	Valuation Technique	Unobservable Input	Inputs
Regulatory milestone-based payment	Discounted cash flow	Discount rate	2.3%
		Probability of payment	90%
		Projected payment year	2022

Note 6. Financing Arrangements

The outstanding principal amount of our long-term debt as of September 30, 2021 and December 31, 2020 was as follows (in thousands, except interest rates):

	September 30, 2021	December 31, 2020	Maturity	Interest Rate
2020 Cash Exchangeable Senior Notes	$ 221,704	$ 212,073	December 2025	3.00%
Bank of America Merrill Lynch Banco Múltiplo S.A.	6,237	6,515	July 2023	4.32%
Mediocredito Italiano	4,380	5,406	December 2023	0.50 % - 2.74%
Bank of America, U.S.	1,510	2,019	January 2023	2.66%
2020 Senior Secured Term Loan	—	424,002		
Other	576	660		
Total long-term facilities	234,407	650,675		
Less current portion of long-term debt	223,610	8,377		
Total long-term debt	$ 10,797	$ 642,298		

Revolving Credit

The outstanding principal amount of our short-term unsecured revolving credit agreements and other agreements with various banks was $4.2 million and $5.0 million, at September 30, 2021 and December 31, 2020, respectively, with interest rates ranging from 3.06% to 7.30% and loan terms ranging from overnight to 364 days, as of September 30, 2021.

On August 13, 2021, LivaNova PLC and its wholly-owned subsidiary, LivaNova USA, Inc. (the “Borrower”) entered into a First Lien Credit Agreement with the lenders and issuing banks party thereto and Goldman Sachs Bank USA, as First Lien Administrative Agent and First Lien Collateral Agent, relating to a $125 million senior secured multi-currency revolving credit facility to be made available to the Borrower (the “2021 Revolving Credit Facility”). The 2021 Revolving Credit Facility expires on August 13, 2026 and bears interest at a rate equal to, for U.S. dollar-denominated loans, an adjusted LIBOR (with LIBOR fallback language to address the announced future cessation of specified dollar LIBOR) with a floor of 0.00%, or a Base Rate, plus, in each case, a variable margin based on the Company’s senior secured net leverage ratio. Interest is paid monthly or quarterly, as selected by the Borrower, with any outstanding principal due at maturity. The First Lien Credit Agreement also contemplates the payment of commitment fees on the unused portion of the commitments, at a variable percentage based on the Company’s senior secured net leverage ratio. The 2021 Revolving Credit Facility is available for working capital and other general corporate purposes and, if drawn, can be repaid at any time without premium or penalty. The First Lien Credit Agreement contains customary representations, warranties and covenants, including the requirement to maintain a senior secured first lien net leverage ratio of less than 4.50 to 1.00 for as long as there are any revolving loans outstanding under the 2021 Revolving Credit Facility, as well as in order for the Company to borrow additional revolving loans.

There were no outstanding borrowings under the 2021 Revolving Credit Facility as of September 30, 2021.

On August 12, 2021, the Company terminated its previous $50.0 million revolving credit facility agreement with ACF FINCO I LP, which was undrawn, resulting in a loss on debt extinguishment of $1.6 million recognized during the three and nine months ended September 30, 2021 primarily associated with the write-off of unamortized debt issuance costs, and is included within loss on debt extinguishment on the condensed consolidated statements of income (loss).

2020 Senior Secured Term Loan

On August 12, 2021, the Company repaid in full and terminated its previously outstanding $450 million 2020 senior secured term loan, resulting in a loss on debt extinguishment of $58.6 million recognized during the three and nine months ended September 30, 2021, which is comprised of a $35.6 million make-whole premium and $23.0 million associated with the write-off of unamortized debt issuance costs, and is included within loss on debt extinguishment on the condensed consolidated statements of income (loss). For additional information, please refer to “Note 9. Stockholders' Equity.”

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. The effective interest rate of the Notes at September 30, 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 $3.3 million and $9.6 million for the three and nine months ended September 30, 2021 and $3.0 million and $3.4 million for the three and nine months ended September 30, 2020, respectively, are included in interest expense on the condensed consolidated statements of income (loss). The unamortized discount related to the Notes as of September 30, 2021 was $65.8 million.

Holders of the Notes are entitled to exchange the Notes at any time during specified periods, at their option. This includes the right 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, is greater than or equal to 130% of the exchange price, or $79.27 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. The exchange condition was satisfied on September 16, 2021, which allows the holders of the Notes to request to exchange the Notes through December 31, 2021. As a result, we have reclassified our obligations from the Notes and the associated embedded exchange feature derivative as a current liability on the condensed consolidated balance sheet as of September 30, 2021. However, as of the date of filing of this Form 10-Q, no holders have elected to exchange the Notes. 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 the unrealized gain or loss reflected within foreign exchange and other gains in the condensed consolidated statements of income (loss). The fair value of the embedded exchange feature derivative liability was $150.7 million as of September 30, 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. If the capped call transactions are converted or redeemed early, settlement occurs at their termination value, which is equal to their fair value at the time of the redemption. The capped call transactions 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 within foreign exchange and other gains in the condensed consolidated statements of income (loss). The fair value of the capped call derivative assets was $94.5 million as of September 30, 2021. As of September 30, 2021, the capped call derivative assets are classified as current.

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 September 30, 2021 and December 31, 2020 was $132.0 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 (losses) for these freestanding derivatives of $2.4 million and $(11.7) million for the three months ended September 30, 2021 and 2020, respectively, and $8.4 million and $(4.8) million for the nine months ended September 30, 2021 and 2020, respectively. These gains (losses) are included in foreign exchange and other gains on our condensed consolidated statements of income (loss).

Counterparty Credit Risk

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

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

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

Cash Flow Hedges

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

The gross notional amounts of open derivative contracts designated as cash flow hedges at September 30, 2021 and December 31, 2020 were as follows (in thousands):

Description of Derivative Contract	September 30, 2021	December 31, 2020
FX derivative contracts to be exchanged for British Pounds	$ 5,380	$ 9,545
FX derivative contracts to be exchanged for Japanese Yen	6,946	18,637
FX derivative contracts to be exchanged for Euros	17,332	47,444
	$ 29,658	$ 75,626

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

Description of Derivative Contract	After-Tax Net Gain in AOCI as of September 30, 2021	After-Tax Net Gain in AOCI as of Amount Expected to be Reclassified to Earnings in Next 12 Months
FX derivative contracts	$ 207	$ 207

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 September 30,			
		2021		2020	
Description of Derivative Contract	Location in Earnings of Reclassified Gain or Loss	Losses Recognized in OCI	Gains Reclassified from AOCI to Earnings	Gains Recognized in OCI	(Losses) Gains Reclassified from AOCI to Earnings
FX derivative contracts	Foreign exchange and other gains	$ (491)	$ 133	$ 1,482	$ (692)
FX derivative contracts	SG&A	—	573	—	534
		$ (491)	$ 706	$ 1,482	$ (158)

		Nine Months Ended September 30,			
		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	Gains Recognized in OCI	(Losses) Gains Reclassified from AOCI to Earnings
FX derivative contracts	Foreign exchange and other gains	$ (3,335)	$ (2,669)	$ 632	$ (777)
FX derivative contracts	SG&A	—	2,116	—	209
Interest rate swap contracts	Interest expense	—	—	—	(113)
		$ (3,335)	$ (553)	$ 632	$ (681)

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):

September 30, 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	Current derivative assets	$ 272	Current derivative liabilities	$ 728
Total derivatives designated as hedging instruments		272		728
Derivatives Not Designated as Hedging Instruments				
FX derivative contracts	Current derivative assets	1,137	Current derivative liabilities	9
Capped call derivatives	Current derivative assets	94,519		
Embedded exchange feature			Current derivative liabilities	150,651
Total derivatives not designated as hedging instruments		95,656		150,660
Total derivatives		$ 95,928		$ 151,388

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	Current derivative assets	$ 1,998	Current derivative liabilities	$ 14
FX derivative contracts	Current derivative liabilities	895		
Total derivatives designated as hedging instruments		2,893		14
Derivatives Not Designated as Hedging Instruments				
Interest rate swap contracts			Current derivative liabilities	74
FX derivative contracts	Current derivative assets	55	Current derivative liabilities	4,073
Capped call derivatives	Long-term derivative assets	72,302		
Embedded exchange feature			Long-term derivative liability	121,756
Other derivatives			Current derivative 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 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. 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 the fourth quarter of 2016, and furthermore, the cost associated with the plan was reasonably estimable. At September 30, 2021, the product remediation liability was $0.5 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. 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.

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 September 30, 2021 the liability was $40.2 million. The decrease in the liability from December 31, 2020 was primarily due to the effects of foreign currency changes during the nine months ended September 30, 2021.

Litigation

Product Liability

The Company is currently involved in litigation involving our 3T device. The litigation includes 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. A class action, filed in February 2016 in the U.S. District Court for the Middle District of Pennsylvania, consisting 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, was dismissed on July 16, 2021.

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 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 November 2, 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 8 cases that have settled but have not yet been dismissed. The complaints generally seek damages and other relief based on theories of strict liability, negligence, breach of express and implied warranties, failure to warn, design and manufacturing defect, fraudulent and negligent misrepresentation or concealment, unjust enrichment, and violations of various state consumer protection statutes.

In the second quarter of 2021, we recorded an additional liability of $29.4 million due to new information received about the nature of certain claims. At September 30, 2021, the provision for these matters was $40.2 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		(28,303)
Adjustments [1]		32,254
FX and other		(227)
Total litigation provision liability at September 30, 2021		40,214
Less current portion of litigation provision liability at September 30, 2021		33,526
Long-term portion of litigation provision liability at September 30, 2021 [2]	$	6,688

(1) Adjustments to the litigation provision are included within other operating expenses on the condensed consolidated statements of income (loss) and were $(0.2) million and $32.3 million for the three and nine months ended September 30, 2021, respectively.

(2) Included within other long-term liabilities on the condensed consolidated balance sheet.

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 were 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 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 $338,000 as of September 30, 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 $662.8 million as of September 30, 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, and review briefs from the parties. Thereafter, the Court will issue its ruling on the amount of damages attributable to LivaNova. We cannot predict the outcome of these proceedings with respect to damages, or the timing of any resolution by the Court, however we do not expect a final judgment earlier than December 2021. Separately, we have appealed the partial decision on liability to the Italian Supreme Court (Corte di Cassazione), although any final judgment on damages may not be stayed pending resolution by the Italian Supreme Court.

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 also appealed the Order in the Administrative Court in Brescia.

We have not recognized a liability in connection with these related matters 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 appealed the decision, and in September 2021, the Federal Circuit affirmed the Patent Office’s decision that all challenged claims are unpatentable. Following finality of the Federal Circuit decision, LivaNova will seek dismissal of the litigation. 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

On August 6, 2021, the Company closed an offering and issued 4,181,818 ordinary shares, par value £1.00 per share, at an offering price of $82.50 per share. Net proceeds from the offering were approximately $322.6 million, after deducting underwriting discounts, commissions and offering expenses. Proceeds from the offering were used to repay the Company’s $450 million 2020 senior secured term loan.

The tables below present the condensed consolidated statements of stockholders' equity as of and for the three and nine months ended September 30, 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
June 30, 2021	49,523	$ 76,405	$ 1,779,113	$ (705)	$ 23,075	$ (837,418)	$ 1,040,470
Issuance of shares	4,182	5,808	316,798	—	—	—	322,606
Stock-based compensation plans	27	41	11,480	34	—	—	11,555
Net loss	—	—	—	—	—	(42,237)	(42,237)
Other comprehensive loss	—	—	—	—	(19,896)	—	(19,896)
September 30, 2021	53,732	$ 82,254	$ 2,107,391	$ (671)	$ 3,179	$ (879,655)	$ 1,312,498
June 30, 2020	49,476	$ 76,338	$ 1,750,798	$ (1,057)	$ (35,089)	$ (457,804)	$ 1,333,186
Stock-based compensation plans	—	—	7,670	4	—	—	7,674
Cancellation of shares	(73)	—	—	—	—	—	—
Net loss	—	—	—	—	—	(14,772)	(14,772)
Other comprehensive income	—	—	—	—	24,704	—	24,704
September 30, 2020	49,403	$ 76,338	$ 1,758,468	$ (1,053)	$ (10,385)	$ (472,576)	$ 1,350,792

	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
Issuance of shares	4,182	5,808	316,798	—	—	—	322,606
Stock-based compensation plans	103	146	22,437	363	—	—	22,946
Net loss	—	—	—	—	—	(127,253)	(127,253)
Other comprehensive loss	—	—	—	—	(24,630)	—	(24,630)
September 30, 2021	53,732	$ 82,254	$ 2,107,391	$ (671)	$ 3,179	$ (879,655)	$ 1,312,498
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	65	81	23,598	210	—	—	23,889
Cancellation of shares	(73)	—	—	—	—	—	—
Net loss	—	—	—	—	—	(65,182)	(65,182)
Other comprehensive income	—	—	—	—	9,007	—	9,007
September 30, 2020	49,403	$ 76,338	$ 1,758,468	$ (1,053)	$ (10,385)	$ (472,576)	$ 1,350,792

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 nine months ended September 30, 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 loss before reclassifications, before tax	(3,335)	(22,516)	(25,851)
Tax benefit	801	—	801
Other comprehensive loss before reclassifications, net of tax	(2,534)	(22,516)	(25,050)
Reclassification of loss from accumulated other comprehensive income, before tax	553	—	553
Reclassification of tax benefit	(133)	—	(133)
Reclassification of loss from accumulated other comprehensive income, after tax	420	—	420
Net current-period other comprehensive loss, net of tax	(2,114)	(22,516)	(24,630)
September 30, 2021	$ 205	$ 2,974	$ 3,179
December 31, 2019	$ 513	$ (19,905)	$ (19,392)
Other comprehensive income before reclassifications, before tax	632	8,008	8,640
Tax expense	(152)	—	(152)
Other comprehensive income before reclassifications, net of tax	480	8,008	8,488
Reclassification of loss from accumulated other comprehensive income (loss), before tax	681	—	681
Reclassification of tax benefit	(162)	—	(162)
Reclassification of loss from accumulated other comprehensive income (loss), after tax	519	—	519
Net current-period other comprehensive income, net of tax	999	8,008	9,007
September 30, 2020	$ 1,512	$ (11,897)	$ (10,385)

(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 September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Service-based restricted stock units (“RSUs”)	$ 4,757	$ 4,410	$ 14,804	$ 13,139
Service-based stock appreciation rights (“SARs”)	3,053	3,211	9,439	9,185
Market performance-based restricted stock units	925	814	2,586	2,745
Operating performance-based restricted stock units	2,072	(962)	2,578	882
Employee share purchase plan	315	337	1,167	894
Total stock-based compensation expense	$ 11,122	$ 7,810	$ 30,574	$ 26,845

During the nine months ended September 30, 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 and nine months ended September 30, 2021 was $3.9 million and $7.3 million, respectively.

Stock-based compensation agreements issued during the nine months ended September 30, 2021, representing potential shares and their weighted average grant date fair values by type follows (shares in thousands, fair value in dollars):

	Nine Months Ended September 30, 2021	
	Shares	Weighted Average Grant Date Fair Value
Service-based SARs	594,617	$ 29.22
Service-based RSUs	349,609	$ 73.94
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 and nine months ended September 30, 2021 was (5.2)% and (7.7)%, respectively, compared with 21.3% and (37.9)%, respectively, for the for the three and nine months ended September 30, 2020. Our effective income tax rate fluctuates based on, among other factors, changes in pretax income in countries with varying statutory tax rates, valuation allowances, tax credits and incentives, and 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 September 30, 2020, the change in the effective tax rate for the three months ended September 30, 2021 was primarily attributable to the discrete tax impact of the debt extinguishment as compared to a discrete tax benefit related to the settlement of tax litigation in Italy offset by a valuation allowance for certain jurisdictions outside of the U.S. during the three months ended September 30, 2020.

Compared with the nine months ended September 30, 2020, the change in the effective tax rate for the nine months ended September 30, 2021 was primarily attributable to changes in valuation allowances, the discrete tax impact of the sale of the Heart Valve business and the debt extinguishment as compared to the $42.4 million realized discrete tax benefit related to the Coronavirus Aid, Relief and Economic Security Act (“CARES Act”) and the discrete tax benefit due related to the settlement of tax litigation in Italy offset by the establishment of a $74.5 million valuation allowance for the U.K. and other jurisdictions outside the U.S. during the nine months ended September 30, 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 $3.2 million and $3.4 million were unrecognized as of September 30, 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 $1.5 million.

European Union State Aid Challenge

On April 2, 2019, the European Commission 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 in our financing, no reserve relating to our tax position was 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 in a similar fashion. On October 1, 2021, we received a notification from Her Majesty’s Revenue and Customs (“HMRC”) stating that in agreement with our assessment, we are not a beneficiary of state aid as a result of our claim under Chapter 9 for the accounting periods 2015-2018, and accordingly, HMRC regards the issue as closed.

Note 12. Earnings Per Share

The following table sets forth the basic and diluted weighted-average shares outstanding used in the computation of basic and diluted net income per share for the three and nine months ended September 30, 2021 and 2020 are as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Basic and diluted weighted average shares outstanding [(1)]	51,582	48,652	49,748	48,582

(1) Excluded from the computation of diluted earnings per share were stock options, SARs and restricted share units totaling 3.7 million and 4.1 million for the three months ended September 30, 2021 and 2020, respectively, and 4.0 million and 4.2 million for the nine months ended September 30, 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 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 products include temporary life support product kits that can include a combination of pumps, oxygenators, and cannulae. On June 1, 2021, the Company completed the initial closing of the sale of the Heart Valve business which was part of the Cardiovascular segment. Revenues and expenses of the Heart Valves business prior to the closing date are included in the Cardiovascular segment results.

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 September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Cardiopulmonary				
United States	$ 40,143	$ 33,549	$ 113,290	$ 96,223
Europe	32,850	29,947	98,609	87,475
Rest of World	50,242	43,704	137,931	140,925
	123,235	107,200	349,830	324,623
Heart Valves				
United States	—	3,129	4,929	8,990
Europe	—	7,945	14,407	22,822
Rest of World	—	10,062	16,843	32,001
	—	21,136	36,179	63,813
Advanced Circulatory Support				
United States	14,925	12,331	40,449	28,075
Europe	355	162	761	835
Rest of World	119	49	456	136
	15,399	12,542	41,666	29,046
Cardiovascular				
United States	55,068	49,009	158,668	133,288
Europe	33,205	38,054	113,777	111,132
Rest of World	50,361	53,815	155,230	173,062
	138,634	140,878	427,675	417,482
Neuromodulation				
United States	88,724	79,854	262,803	197,345
Europe	12,516	10,475	38,799	27,474
Rest of World	12,047	8,079	33,020	20,458
	113,287	98,408	334,622	245,277
Other	1,294	797	3,004	1,927
Totals				
United States	143,792	128,863	421,471	330,633
Europe [1]	45,721	48,529	152,576	138,606
Rest of World	63,702	62,691	191,254	195,447
Total [2]	$ 253,215	$ 240,083	$ 765,301	$ 664,686

(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 loss from continuing operations before tax (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Cardiovascular [1]	$ 15,682	$ (7,311)	$ (7,033)	$ (8,037)
Neuromodulation	36,155	21,154	108,278	82,294
Other	(27,212)	(10,921)	(92,109)	(58,407)
Total reportable segment income from continuing operations	24,625	2,922	9,136	15,850
Other expenses [2]	6,757	10,430	30,552	37,987
Operating income (loss) from continuing operations	17,868	(7,508)	(21,416)	(22,137)
Interest income	178	47	293	482
Interest expense	(11,355)	(14,673)	(43,806)	(25,237)
Loss on debt extinguishment	(60,238)	—	(60,238)	(1,407)
Foreign exchange and other gains	13,436	3,420	7,117	1,914
Loss from continuing operations before tax	$ (40,111)	$ (18,714)	$ (118,050)	$ (46,385)

(1) Cardiovascular segment operating income (loss) includes provision for litigation involving our 3T device of $(0.2) million and $32.3 million for the three and nine months ended September 30, 2021, respectively, and $3.0 million and $4.0 million for the three and nine months ended September 30, 2020, respectively, which is included within other operating expenses on the condensed consolidated statements of income (loss). For additional information, please refer to “Note 8. Commitments and Contingencies.”

(2) Other expenses consists of merger and integration expense, restructuring expense and amortization of intangible assets.

Assets by segment are as follows (in thousands):

	September 30, 2021	December 31, 2020
Cardiovascular	$ 1,232,299	$ 1,361,669
Neuromodulation	652,951	673,586
Other	318,159	376,096
Total assets	$ 2,203,409	$ 2,411,351

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Cardiovascular	$ 3,388	$ 7,040	$ 11,955	$ 17,777
Neuromodulation	45	1,210	136	7,285
Other	104	967	2,692	3,174
Total	$ 3,537	$ 9,217	$ 14,783	$ 28,236

The changes in the carrying amount of goodwill by segment for the nine months ended September 30, 2021 were as follows (in thousands):

	Cardiovascular	Neuromodulation	Total
December 31, 2020	$ 523,564	$ 398,754	$ 922,318
Foreign currency adjustments	(17,164)	—	(17,164)
September 30, 2021	$ 506,400	$ 398,754	$ 905,154

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

	September 30, 2021	December 31, 2020
United States	$ 61,877	$ 64,553
Europe	85,460	93,821
Rest of World	5,391	5,431
Total	$ 152,728	$ 163,805

Note 14. Supplemental Financial Information

Inventories consisted of the following (in thousands):

	September 30, 2021	December 31, 2020
Raw materials	$ 41,524	$ 43,257
Work-in-process	11,559	8,055
Finished goods	70,650	75,363
	$ 123,733	$ 126,675

As of September 30, 2021 and December 31, 2020, inventories include adjustments totaling $4.4 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):

	September 30, 2021	December 31, 2020
Legal and administrative costs	$ 20,563	$ 15,820
Operating lease liabilities	11,581	11,276
Contingent consideration [1]	11,493	13,968
Contract liabilities	8,194	6,929
Amount payable to Gyrus Capital S.A.	6,625	—
Research and development costs	5,505	4,257
Restructuring related liabilities [2]	3,317	6,258
Provisions for agents, returns and other	2,486	3,063
Other accrued expenses	27,740	26,465
	$ 97,504	$ 88,036

(1) Refer to “Note 5. Fair Value Measurements”

(2) Refer to “Note 3. Restructuring”

As of September 30, 2021 and December 31, 2020, contract liabilities of $9.8 million and $8.6 million, respectively, are included within accrued liabilities and other long-term liabilities on the condensed consolidated balance sheets.

The table below presents the items included within foreign exchange and other gains on the condensed consolidated statements of income (loss) (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Exchangeable Notes fair value adjustment [1]	$ 23,489	$ 12,103	$ (28,895)	$ 15,553
Capped call fair value adjustment [1]	(9,741)	(5,926)	22,217	(4,097)
Investment revaluation [2]	—	—	4,642	—
Other derivative liabilities fair value adjustment [1]	200	(1,350)	4,290	(1,350)
Dividend income [2]	287	—	3,420	—
Foreign exchange rate fluctuations	(782)	(1,608)	352	(4,369)
Exchangeable Notes issuance costs	—	—	—	(2,478)
Other	(17)	201	1,091	(1,345)
Foreign exchange and other gains	$ 13,436	$ 3,420	$ 7,117	$ 1,914

(1) Refer to “Note 5. Fair Value Measurements”

(2) Refer to “Note 4. Investments”

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

Since early 2020, the COVID-19 pandemic ("COVID-19") has caused and may continue to cause unpredictable demand for our products. Throughout the pandemic, healthcare customers have diverted medical resources and priorities towards the treatment of COVID-19, and public health bodies have delayed elective procedures, which has negatively impacted the usage of our products. Further, some people have avoided seeking treatment for non-COVID-19 procedures and hospitals and clinics have experienced staffing shortages, which has negatively impacted the demand for our products. While we have seen improvement during 2021, we continue to experience lingering COVID-19 related headwinds and are monitoring the potential for various strains of the virus to cause a resumption of high levels of infection and hospitalization, that in turn, may affect the demand for our products.

While our RECOVER study and ANTHEM-HFrEF pivotal trial experienced delays during 2020 due to COVID-19, work continues to progress throughout 2021. Impacts related to the Delta strain of COVID-19 have created some delay in implants in the RECOVER study during the quarter, and we continue to monitor relevant conditions at participating centers for both RECOVER and ANTHEM-HFrEF as there can be no assurance that there will not be closures of sites in the future should COVID-19 or variants thereof strengthen or reemerge.

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 to limit the spread of COVID-19. We continue to evaluate the evolving laws and regulations developing around the world and are working to meet customer-specific requirements to operate in a COVID-19 business environment. However, if the pandemic has a substantial impact on our employees, vendors or productivity, our operations may suffer, and in turn our results of operations and overall financial performance may be harmed.

Importantly, we continue to take actions in managing the health and safety of our employees throughout the pandemic. As guidance from authorities such as the U.S. Centers for Disease Control and Prevention or the World Health Organization evolves, we update our practices accordingly. For our manufacturing, operations, and other personnel who have remained on site throughout the pandemic 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. At the start of the 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 implemented company-wide travel restrictions. Though there has been no Company-wide mandate to return to the office, employees are encouraged to return for purposeful collaboration. We continue to maintain enhanced safety protocols and encourage our employees to seek vaccination. 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 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, while there are many supply chain, labor shortages and logistical issues emerging in the wake of COVID-19 related disruptions, to date, the supply of raw materials and the production and distribution of finished products remain operational with no material constraints relating to COVID-19. We continue to monitor the landscape for any potential disruptions.

We continue to implement cost reduction efforts. 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 and advanced circulatory support. Cardiopulmonary products include oxygenators, heart-lung machines, autotransfusion systems, perfusion tubing systems, cannulae and other related accessories. Advanced circulatory support products include 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, 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 LSM at the Company's Saluggia campus for €60.0 million (approximately $69.5 million as of September 30, 2021). 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 sale of the Heart Valve business occurred on June 1, 2021 and we received €34.8 million (approximately $42.5 million as of June 1, 2021), subject to customary trade working capital and net indebtedness adjustments, as set forth in the Purchase Agreement. An additional €2.5 million (approximately $2.9 million as of September 30, 2021) is payable to LivaNova during the fourth quarter of 2021 and €10.0 million (approximately $11.6 million as of September 30, 2021) is payable to LivaNova on December 30, 2022.

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 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. A class action, filed in February 2016 in the U.S. District Court for the Middle District of Pennsylvania, consisting 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, was dismissed on July 16, 2021.

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 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 November 2, 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 8 cases that have settled but have not yet been dismissed. The complaints generally seek damages and other relief based on theories of strict liability, negligence, breach of express and implied warranties, failure to warn, design and manufacturing defect, fraudulent and negligent misrepresentation or concealment, unjust enrichment, and violations of various state consumer protection statutes.

In the second quarter of 2021, we recorded an additional liability of $29.4 million due to new information received about the nature of certain claims. At September 30, 2021, the provision for these matters was $40.2 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.

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.

Obstructive Sleep Apnea

In June 2021, LivaNova received approval from the FDA to proceed with its investigational device exemption clinical study, "Treating Obstructive Sleep Apnea using Targeted Hypoglossal Neurostimulation (OSPREY)." The OSPREY study seeks to demonstrate the safety and effectiveness of the Aura6000® System, the LivaNova implantable hypoglossal neurostimulator intended to treat adult patients with moderate to severe obstructive sleep apnea.

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 September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Net sales	$ 253,215	$ 240,083	$ 765,301	$ 664,686
Cost of sales	83,105	92,448	256,828	234,079
Gross profit	170,110	147,635	508,473	430,607
Operating expenses:				
Selling, general and administrative	109,042	104,036	347,471	331,711
Research and development	42,133	47,368	139,315	108,422
Other operating expenses	1,067	3,739	43,103	12,611
Operating income (loss) from continuing operations	17,868	(7,508)	(21,416)	(22,137)
Interest income	178	47	293	482
Interest expense	(11,355)	(14,673)	(43,806)	(25,237)
Loss on debt extinguishment	(60,238)	—	(60,238)	(1,407)
Foreign exchange and other gains	13,436	3,420	7,117	1,914
Loss from continuing operations before tax	(40,111)	(18,714)	(118,050)	(46,385)
Income tax expense (benefit)	2,098	(3,990)	9,094	17,581
Losses from equity method investments	(28)	(48)	(109)	(221)
Net loss from continuing operations	(42,237)	(14,772)	(127,253)	(64,187)
Net loss from discontinued operations, net of tax	—	—	—	(995)
Net loss	$ (42,237)	$ (14,772)	$ (127,253)	$ (65,182)

Net Sales

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

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2021	2020	% Change	2021	2020	% Change
Cardiopulmonary						
United States	$ 40,143	$ 33,549	19.7 %	$ 113,290	$ 96,223	17.7 %
Europe	32,850	29,947	9.7 %	98,609	87,475	12.7 %
Rest of World	50,242	43,704	15.0 %	137,931	140,925	(2.1)%
	123,235	107,200	15.0 %	349,830	324,623	7.8 %
Heart Valves						
United States	—	3,129	(100.0)%	4,929	8,990	(45.2)%
Europe	—	7,945	(100.0)%	14,407	22,822	(36.9)%
Rest of World	—	10,062	(100.0)%	16,843	32,001	(47.4)%
	—	21,136	(100.0)%	36,179	63,813	(43.3)%
Advanced Circulatory Support						
United States	14,925	12,331	21.0 %	40,449	28,075	44.1 %
Europe	355	162	119.1 %	761	835	(8.9)%
Rest of World	119	49	142.9 %	456	136	235.3 %
	15,399	12,542	22.8 %	41,666	29,046	43.4 %
Cardiovascular						
United States	55,068	49,009	12.4 %	158,668	133,288	19.0 %
Europe	33,205	38,054	(12.7)%	113,777	111,132	2.4 %
Rest of World	50,361	53,815	(6.4)%	155,230	173,062	(10.3)%
	138,634	140,878	(1.6)%	427,675	417,482	2.4 %
Neuromodulation						
United States	88,724	79,854	11.1 %	262,803	197,345	33.2 %
Europe	12,516	10,475	19.5 %	38,799	27,474	41.2 %
Rest of World	12,047	8,079	49.1 %	33,020	20,458	61.4 %
	113,287	98,408	15.1 %	334,622	245,277	36.4 %
Other	1,294	797	62.4 %	3,004	1,927	55.9 %
Totals						
United States	143,792	128,863	11.6 %	421,471	330,633	27.5 %
Europe [1]	45,721	48,529	(5.8)%	152,576	138,606	10.1 %
Rest of World	63,702	62,691	1.6 %	191,254	195,447	(2.1)%
Total	$ 253,215	$ 240,083	5.5 %	$ 765,301	$ 664,686	15.1 %

(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 September 30,			Nine Months Ended September 30,		
	2021	2020	% Change	2021	2020	% Change
Cardiovascular	$ 15,682	$ (7,311)	(314.5)%	$ (7,033)	$ (8,037)	(12.5)%
Neuromodulation	36,155	21,154	70.9 %	108,278	82,294	31.6 %
Other	(27,212)	(10,921)	149.2 %	(92,109)	(58,407)	57.7 %
Total reportable segment income from continuing operations [1]	$ 24,625	$ 2,922	742.7 %	$ 9,136	$ 15,850	(42.4)%

(1) For a reconciliation of segment income from continuing operations to loss 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

Total Cardiovascular net sales for the three months ended September 30, 2021 compared to the three months ended September 30, 2020 decreased 1.6% and for the nine months ended September 30, 2021 compared to the nine months ended September 30, 2020 increased 2.4%. Cardiopulmonary sales for the three months ended September 30, 2021 compared to the three months ended September 30, 2020 increased 15.0% to $123.2 million primarily from growth in oxygenator and heart-lung machine sales across all regions. Cardiopulmonary sales for the nine months ended September 30, 2021 compared to the nine months ended September 30, 2020 increased 7.8% to $349.8 million primarily related to growth in oxygenator sales, across all regions, growth in heart-lung machine sales in the U.S. region, as well as the favorable impact of foreign currency fluctuations, partially offset by a reduction in capital equipment purchases in the Rest of World region. Advanced Circulatory Support sales for the three and nine months ended September 30, 2021 compared to the three and nine months ended September 30, 2020 increased 22.8% and 43.4% to $15.4 million and $41.7 million, respectively, resulting from continued adoption of LifeSPARC in the U.S. and an increase in procedure volumes. Heart Valve sales for the three and nine months ended September 30, 2021 compared to the three and nine months ended September 30, 2020 declined $21.1 million and $27.6 million, respectively, due to the sale of the Heart Valves business on June 1, 2021.

Cardiovascular operating income for the three months ended September 30, 2021 compared to the three months ended September 30, 2020 increased primarily due to an increase in net sales in the Cardiopulmonary and Advanced Circulatory Support businesses, as discussed above, the divestiture of the Heart Valves business on June 1, 2021 and the net impact of the change in the fair value of the milestone-based contingent consideration arrangement associated with the acquisition of TandemLife of $6.5 million.

Cardiovascular operating loss for the nine months ended September 30, 2021 compared to the nine months ended September 30, 2020 decreased primarily due to an increase in net sales in the Cardiopulmonary and Advanced Circulatory Support businesses, as discussed above, the divestiture of the Heart Valves business on June 1, 2021, as well as a decrease in 3T Heater-Cooler product remediation expense of $6.5 million. These decreases in operating loss were partially offset by an increase in the litigation provision related to our 3T Heater-Cooler device of $28.3 million.

Neuromodulation

Neuromodulation net sales for the three and nine months ended September 30, 2021 compared to the three and nine months ended September 30, 2020 increased 15.1% and 36.4% to $113.3 million and $334.6 million, respectively, primarily due to improving market dynamics across all regions resulting from increased hospital access and patient willingness to return to clinics.

Neuromodulation operating income for the three and nine months ended September 30, 2021 compared to the three and nine months ended September 30, 2020 increased primarily due to an increase in net sales, as discussed above. The nine-month period operating income was partially offset by the net impact of the change in fair value of the sales-based and milestone-based contingent consideration arrangement associated with the acquisition of ImThera of $48.5 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 September 30,			Nine Months Ended September 30,		
	2021	2020	Change	2021	2020	Change
Cost of sales	32.8 %	38.5 %	(5.7)%	33.6 %	35.2 %	(1.6)%
Selling, general and administrative	43.1 %	43.3 %	(0.2)%	45.4 %	49.9 %	(4.5)%
Research and development	16.6 %	19.7 %	(3.1)%	18.2 %	16.3 %	1.9 %
Other operating expenses	0.4 %	1.6 %	(1.2)%	5.6 %	1.9 %	3.7 %

Cost of Sales

Cost of sales consisted primarily of direct labor, allocated manufacturing overhead, the acquisition cost of raw materials and components and product remediation expenses. Cost of sales as a percentage of net sales for the three and nine months ended September 30, 2021 compared to the three and nine months ended September 30, 2020 decreased primarily due to favorable product mix, largely due to the sale of Heart Valves during the second quarter of 2021, as well as a decline in product remediation expenses associated with our 3T Heater-Cooler device. These decreases were partially offset by the net impact of the change in fair value of a sales-based contingent consideration arrangement of $28.7 million for the nine months ended September 30, 2021 compared to the nine months ended September 30, 2020.

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 nine months ended September 30, 2021 compared to the nine months ended September 30, 2020 decreased primarily due to an increase in sales, partially offset by an increase in sales and marketing expenses due to lower commercial related variable and discretionary spending as a result of COVID-19 during the nine months ended September 30, 2020.

Research and Development (“R&D”) Expenses

R&D expenses consisted 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 September 30, 2021 compared to the three months ended September 30, 2020 decreased primarily due to a decrease in R&D expense resulting from the net impact of changes in fair value of milestone-based contingent consideration arrangements of $7.3 million. R&D expenses as a percentage of net sales for the nine months ended September 30, 2021 compared to the nine months ended September 30, 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 $20.2 million.

Other Operating Expenses

Other operating expenses consists primarily of merger and integration expense, restructuring expense, the provision for litigation involving our 3T Heater-Cooler device and gain (loss) on the on sale of Heart Valves. Other operating expenses as a percentage of net sales for the three months ended September 30, 2021 compared to the three months ended September 30, 2020 decreased primarily due to a decrease in the litigation provision related to our 3T Heater-Cooler device of $3.2 million. Other operating expenses as a percentage of net sales for the nine months ended September 30, 2021 compared to the nine months ended September 30, 2020 increased primarily due to an increase in the litigation provision related to our 3T Heater-Cooler device of $28.3 million.

Interest Expense

Interest expense for the three months ended September 30, 2021 of $11.4 million as compared to the three months ended September 30, 2020 of $14.7 million decreased primarily due to the repayment of the Company’s 2020 senior secured term loan during the third quarter of 2021. Interest expense for the nine months ended September 30, 2021 of $43.8 million as compared to the nine months ended September 30, 2020 of $25.2 million increased primarily due to an increase in debt borrowings in June 2020 at increased borrowing rates. For further details refer to “Note 6. Financing Arrangements” in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

Loss on Debt Extinguishment

Loss on debt extinguishment for the three and nine months ended September 30, 2021 resulted from the early repayment and termination of the Company's 2020 senior secured term loan and revolving credit facility with ACF FINCO I LP, respectively, totaling $60.2 million. For further details on loss on debt extinguishment refer to "Note 6. Financing Arrangements" in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

Foreign Exchange and Other Gains

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

We incurred foreign exchange and other gains of $13.4 million and $7.1 million for the three and nine months ended September 30, 2021, respectively, as compared to $3.4 million and $1.9 million for the three and nine months ended September 30, 2020, respectively. For further details on foreign exchange and other gains refer to "Note 14. Supplemental Financial Information" in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

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. Our effective income tax rate fluctuates based on, among other factors, changes in pretax income in countries with varying statutory tax rates, valuation allowances, tax credits and incentives, and unrecognized tax benefits associated with uncertain tax positions.

Our effective income tax rate from continuing operations for the three and nine months ended September 30, 2021 was (5.2)% and (7.7)%, respectively, compared with 21.3% and (37.9)%, respectively, for the for the three and nine months ended September 30, 2020.

Compared with the three months ended September 30, 2020, the change in the effective tax rate for the three months ended September 30, 2021 was primarily attributable to the discrete tax impact of the debt extinguishment as compared to a discrete tax benefit related to the settlement of tax litigation in Italy offset by a valuation allowance for certain jurisdictions outside of the U.S. during the three months ended September 30, 2020.

Compared with the nine months ended September 30, 2020, the change in the effective tax rate for the nine months ended September 30, 2021 was primarily attributable to changes in valuation allowances, the discrete tax impact of the sale of the Heart Valve business and the debt extinguishment as compared to the $42.4 million realized discrete tax benefit related to the CARES Act and the discrete tax benefit due related to the settlement of tax litigation in Italy offset by the establishment of a $74.5 million valuation allowance for the U.K. and other jurisdictions outside the U.S. during the nine months ended September 30, 2020.

European Union State Aid Challenge

On April 2, 2019, the European Commission 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 in our financing, no reserve relating to our tax position was 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 in a similar fashion. On October 1, 2021, we received a notification from HMRC stating that in agreement with our assessment, we are not a beneficiary of state aid as a result of our claim under Chapter 9 for the accounting periods 2015-2018, and accordingly, HMRC regards the issue as closed.

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. From time to time, we may decide to access debt and/or equity markets to optimize our capital structure, raise additional capital or increase liquidity as necessary, including to satisfy liabilities in the event of an adverse ruling in connection with the SNIA litigation. 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 $287.5 million aggregate principal amount of 3.00% Cash Exchangeable Senior Notes due 2025 (the "Notes"). Holders of the Notes are entitled to exchange the Notes at any time during specified periods, at their option. This includes the right 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, is greater than or equal to 130% of the exchange price, or $79.27 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. The exchange condition was satisfied on September 16, 2021, which allows the holders of the Notes to request to exchange the Notes through December 31, 2021. As a result, we have reclassified our obligations from the Notes and the associated embedded exchange feature derivative as a current liability on the condensed consolidated balance sheet as of September 30, 2021. However, as of the date of filing of this Form 10-Q, no holders have elected to exchange the Notes. 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 the current period or any future periods in the event an exchange condition is met, we would be required to settle our exchange obligation through the payment of cash, which could adversely affect our liquidity. Currently, the Company believes it is unlikely the holders of the Notes will exchange significant amounts of the Notes.

The Company has also entered into privately negotiated capped call transactions with terms substantially similar to those applicable to the Notes. The capped call transactions 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. If the capped call transactions are converted or redeemed early, settlement occurs at their termination value, which is equal to their fair value at the time of the redemption. The capped call transactions are included at their estimated fair value as of September 30, 2021 within current derivative assets on the condensed consolidated balance sheet.

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.

On August 6, 2021, the Company closed an offering and issued 4,181,818 ordinary shares, par value £1.00 per share, at an offering price of $82.50 per share. Net proceeds from the offering were approximately $322.6 million, after deducting underwriting discounts, commissions and offering expenses. Proceeds from the offering were used to repay the Company's $450 million 2020 senior secured term loan.

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):

	Nine Months Ended September 30, 2021	
	2021	**2020**
Operating activities	$ 69,064	$ (116,407)
Investing activities	40,535	(33,337)
Financing activities	(178,183)	315,927
Effect of exchange rate changes on cash and cash equivalents	(2,402)	491
Net (decrease) increase in cash and cash equivalents	$ (70,986)	$ 166,674

Operating Activities

Cash provided by operating activities during the nine months ended September 30, 2021 increased by $185.5 million as compared to the same prior-year period. The increase is primarily due to a decrease in 3T litigation settlement payments of $99.8 million, the receipt of a CARES Act tax refund of $24.6 million during the nine months ended September 30, 2021, an increase in sales and improved working capital management.

Investing Activities

Cash provided by investing activities during the nine months ended September 30, 2021 increased $73.9 million as compared to the same prior-year period. The increase is primarily due to proceeds from the sale of Heart Valves of $40.2 million, proceeds from the sale of LivaNova's investment in and loan to Respicardia totaling $23.1 million, as well as a decrease in purchases in property, plant and equipment of $10.6 million.

Financing Activities

Cash used in financing activities during the nine months ended September 30, 2021 increased $494.1 million as compared to the same prior year period. The increase is primarily due to a net repayment of borrowings during the nine months ended September 30, 2021 of $453.3 million compared to net proceeds from borrowings of $387.0 million in the prior year period, as well as a payment of $35.6 million for the make-whole premium on long-term debt obligations made during the nine months ended September 30, 2021. These increases were partially offset by the net proceeds from the issuance of ordinary shares of $324.2 million during the nine months ended September 30, 2021, as well as the purchase of a capped call associated with our Notes of $43.1 million and a closing adjustment payment for the sale of our former CRM business of $14.9 million made during the nine months ended September 30, 2020.

Off-Balance Sheet Arrangements

As of September 30, 2021, we did not have any off-balance sheet arrangements.

Contractual Obligations

Except for the repayment of the 2020 senior secured term loan discussed in "Note 6. Financing Arrangements," 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 September 30, 2021.

(b) Changes in Internal Control Over Financial Reporting

During the third quarter of 2021, we implemented a new version of our financial consolidation system. Certain internal controls over financial reporting were designed and implemented as part of our implementation process. There have been no other changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-5(f) under the Exchange Act) during the quarter ended September 30, 2021 that have materially affected, or are 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 cardiopulmonary, cardiac surgery and neuromodulation 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 $2.7 million and $1.1 million for the three months ended September 30, 2021, respectively, and $7.3 million and $3.1 million for the nine months ended September 30, 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	First Lien Credit Agreement dated August 13, 2021 among LivaNova PLC, LivaNova USA, Inc. the lenders and issuing banks party thereto and Goldman Sachs USA, as First Lien Administrative Agent and First Lien Collateral Agent, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed on August 16, 2021
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 and nine months ended September 30, 2021 and 2020, (ii) the Condensed Consolidated Statements of Comprehensive Income (Loss) for the three and nine months ended September 30, 2021 and 2020, (iii) the Condensed Consolidated Balance Sheet as of September 30, 2021 and December 31, 2020, (iv) the Condensed Consolidated Statements of Cash Flows for the nine months ended September 30 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: November 3, 2021 By: /s/ DAMIEN MCDONALD

Damien McDonald
Chief Executive Officer
(Principal Executive Officer)

LIVANOVA PLC

Date: November 3, 2021 By: /s/ ALEX SHVARTSBURG

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

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 September 30, 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: November 3, 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 September 30, 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: November 3, 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 September 30, 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: November 3, 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.