

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, 2023

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

LivaNova PLC

(Exact name of registrant as specified in its charter)

England and Wales **98-1268150**
(State or other jurisdiction of (I.R.S. Employer
incorporation or organization) 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:

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Ordinary Shares - £1.00 par value per share	LIVN	The NASDAQ Stock Market LLC

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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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 ☒

<u>Class</u>	<u>Outstanding at October 26, 2023</u>
Ordinary Shares - £1.00 par value per share	53,870,826

LIVANOVA PLC
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DEFINITIONS

In this Quarterly Report on Form 10-Q for the quarter ended September 30, 2023 (this “Report”), the following terms and abbreviations have the meanings listed below. “LivaNova” and “the Company” refer to LivaNova PLC and its consolidated subsidiaries.

Abbreviation	Definition
2015 Plan	LivaNova PLC 2015 Incentive Award Plan
2022 Form 10-K	LivaNova PLC’s Annual Report on Form 10-K for the year ended December 31, 2022, filed with the SEC on February 27, 2023
2022 Plan	LivaNova PLC 2022 Incentive Award Plan
ACS	Advanced Circulatory Support
ALung	ALung Technologies, Inc.
AOCI	Accumulated other comprehensive income
A&R 2022 Plan	Amended and Restated LivaNova PLC 2022 Incentive Award Plan
BEPS	Base Erosion and Profit Shifting
Bridge Loan Facility	Incremental Facility Amendment No. 1 to the 2021 First Lien Credit Agreement, relating to a €200 million bridge loan facility, dated February 24, 2022, and repaid on July 6, 2022
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CMS	U.S. Centers for Medicare & Medicaid Services
Court of Appeal	Court of Appeal in Milan
CPB	Cardiopulmonary bypass
Delayed Draw Term Facility	\$50 million delayed draw term facility under the 2021 First Lien Credit Agreement resulting from the Incremental Facility Amendment No. 2
DRE	Drug-resistant epilepsy
DTD	Difficult-to-treat depression
ECJ	European Court of Justice
Exchange Act	U.S. Securities Exchange Act of 1934, as amended
FDA	U.S. Food and Drug Administration
FX	Foreign currency exchange rate
Hemolung RAS	Hemolung Respiratory Assist System
HLM	Heart-lung machine
ImThera	ImThera Medical, Inc., acquired by LivaNova in 2018, a company developing an implantable neurostimulation device system for the treatment of obstructive sleep apnea
Incremental Facility Amendment No. 2	An incremental facility amendment to the 2021 First Lien Credit Agreement, dated July 6, 2022
Initial Term Facility	\$300 million term facility under the 2021 First Lien Credit Agreement resulting from the Incremental Facility Amendment No. 2
ISIN	National Inspectorate for Nuclear Safety and Radiation Protection, a sub-body of the Italian Ministry of Economic Development
LivaNova USA	LivaNova USA, Inc.
LSM	LivaNova Site Management S.r.l.
MDL	Federal multi-district litigation in the U.S. District Court for the Middle District of Pennsylvania
Mitral	Mitral Holdco S.à r.l.
Notes	\$287.5 million aggregate principal amount of 3.00% senior notes due December 2025, issued June 17, 2020
OCI	Other comprehensive income (loss)
OECD	Organisation for Economic Co-operation and Development
Order	Administrative order
OSA	Obstructive sleep apnea

Abbreviation	Definition
OSPReY clinical trial	LivaNova's clinical trial, "Treating Obstructive Sleep Apnea using Targeted Hypoglossal Neurostimulation"
Public Administrations	The Italian Ministry of the Environment and other Italian government agencies
R&D	Research and Development
RECOVER clinical study	LivaNova's clinical study "A Prospective, Multi-center, Randomized Controlled Blinded Trial Demonstrating the Safety and Effectiveness of VNS Therapy System as Adjunctive Therapy Versus a No Stimulation Control in Subjects With Treatment-Resistant Depression"
RSUs	Service-based restricted stock units
SARs	Service-based stock appreciation rights
SEC	U.S. Securities and Exchange Commission
Securities Act	U.S. Securities Act of 1933, as amended
SG&A	Selling, general and administrative expense
SNIA	SNIA S.p.A.
SNIA Litigation Guarantee	A first demand bank guarantee of €270.0 million in connection with the SNIA litigation
SOFR	Secured Overnight Financing Rate
Sorin spin-off	The spin-off of Sorin from SNIA in 2004
Term Facilities	The Initial Term Facility, together with the Delayed Draw Term Facility
UK	United Kingdom
UK Act	Finance (No.2) Act 2023
U.S.	United States of America
U.S. GAAP	Generally Accepted Accounting Principles in the U.S.
USD	U.S. dollar
VNS	Vagus nerve stimulation

INTELLECTUAL PROPERTY, TRADEMARKS AND TRADE NAMES

This report may contain references to LivaNova's proprietary intellectual property, including among others:

- Trademarks for LivaNova's Neuromodulation systems, the VNS Therapy™ System, the VITARIA™ System and LivaNova's 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 LivaNova's Cardiopulmonary products and systems: Essenz™, S5™, S3™, S5 Pro™, B-Capta™, Inspire™, Heartlink™, XTRA™, 3T Heater-Cooler™, Connect™ and Revolution™.
- Trademarks for LivaNova's advanced circulatory support systems: TandemLife™, TandemHeart™, TandemLung™, ProtekDuo™, LifeSPARC™, ALung™, Hemolung™, Respiratory Dialysis™ and ActivMix™.
- Trademarks for LivaNova's obstructive sleep apnea system: ImThera™ and aura6000™.

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

CAUTIONARY NOTE ABOUT FORWARD-LOOKING STATEMENTS

Certain statements in this Quarterly Report on Form 10-Q, other than statements of historical or current fact, are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act and Section 21E of 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, the Company’s actual financial results, performance, achievements or prospects may differ materially from those expressed or implied by these forward-looking statements. Generally, you can identify forward-looking statements by the use of words such as “may,” “could,” “seek,” “guidance,” “predict,” “potential,” “likely,” “believe,” “will,” “should,” “expect,” “anticipate,” “estimate,” “plan,” “intend,” “forecast,” “foresee” or variations of these terms and similar expressions, or the negative of these terms or similar expressions. Such forward-looking statements are necessarily based on estimates and assumptions that, while considered reasonable by LivaNova and its management based on their knowledge and understanding of the business and industry, are inherently uncertain. These statements are not guarantees of future performance, and stockholders should not place undue reliance on forward-looking statements. There are a number of risks, uncertainties and other important factors, many of which are beyond the Company’s control, that could cause the Company’s 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 following risks and uncertainties: volatility in the global market and worldwide economic conditions, including as caused by the invasion of Ukraine, the evolving instability in the Middle East, inflation, foreign exchange fluctuations, changes to existing trade agreements and relationships between the U.S. and other countries including the implementation of sanctions; cyber-attacks or other disruptions to the Company’s information technology systems or those of third parties with which the Company interacts; costs of complying with privacy and security of personal information requirements and laws; losses or costs from pending or future lawsuits and governmental investigations, including in the case of the Company’s 3T Heater-Cooler and SNIA litigations; risks related to reductions, interruptions or increasing costs related to the supply of raw materials and components and the distribution of finished products, including as a result of inflation, war and extreme weather; changes in technology, including the development of superior or alternative technology or devices by competitors and/or competition from providers of alternative medical therapies; failure to obtain approvals or reimbursement in relation to the Company’s products; failure to establish, expand or maintain market acceptance of the Company’s products for the treatment of the Company’s approved indications; failure to develop and commercialize new products and the rate and degree of market acceptance of such products; unfavorable results from clinical studies or failure to meet milestones; failure to comply with, or changes in, laws, regulations or administrative practices affecting government regulation of the Company’s products; risks relating to recalls, enforcement actions or product liability claims; changes or reduction in reimbursement for the Company’s products or failure to comply with rules relating to reimbursement of healthcare goods and services; failure to comply with anti-bribery laws; risks associated with environmental laws and regulations as well as environmental liabilities, violations, protest voting and litigation; product liability, intellectual property, shareholder-related, environmental-related, income tax and other litigation, disputes, losses and costs; failure to retain key personnel, prevent labor shortages, or manage labor costs; the failure of the Company’s R&D efforts to keep up with the rapid pace of technological development in the medical device industry; the impact of climate change and the risk of environmental, social and governance pressures from internal and external stakeholders; the risk of quality concerns and the impacts thereof; failure to protect the Company’s proprietary intellectual property; the potential loss of funds resulting from recent and potential future bank failures; failure of new acquisitions to further the Company’s strategic objectives or strengthen the Company’s existing businesses; the potential for impairments of intangible assets and goodwill; risks relating to the Company’s indebtedness including under the exchangeable senior notes, the Company’s revolving credit facility and the Company’s 2022 Term Facilities, as defined herein; effectiveness of the Company’s internal controls over financial reporting; changes in the Company’s profitability and/or failure to manage costs and expenses; fluctuations in future quarterly operating results and/or variations in revenue and operating expenses relative to estimates; changes in tax laws and regulations, including exposure to additional income tax liabilities; and other unknown or unpredictable factors that could harm the Company’s financial performance.

Other factors that could cause LivaNova’s actual results to differ from projected results are described in (1) “Part II, Item 1A. Risk Factors” and elsewhere in this and the Company’s other Quarterly Reports on Form 10-Q, (2) the Company’s 2022 Form 10-K, (3) the Company’s reports and registration statements filed and furnished from time to time with the SEC and (4) other announcements LivaNova makes from time to time.

Readers are cautioned not to place undue reliance on the Company’s forward-looking statements, which speak only as of the date hereof. The Company undertakes 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 the Company’s unaudited condensed consolidated financial statements and related notes included elsewhere in this report. Operating results for the nine months ended September 30, 2023, are not necessarily indicative of future results, including the full fiscal year. You should also refer to the Company’s “Annual Consolidated Financial Statements,” “Notes” thereto, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Risk Factors” contained in LivaNova’s 2022 Form 10-K and in the Company’s 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 U.S. GAAP. The reporting currency of the Company’s condensed consolidated financial statements is USD.

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,	
	2023	2022	2023	2022
Net revenue	\$ 286,113	\$ 252,605	\$ 843,413	\$ 746,931
Cost of sales	84,310	81,687	262,330	223,220
Gross profit	201,803	170,918	581,083	523,711
Operating expenses:				
Selling, general and administrative	134,794	114,630	384,795	349,637
Research and development	46,541	35,725	147,651	110,872
Impairment of goodwill	—	129,396	—	129,396
Other operating expense	16,010	23,140	29,145	24,518
Operating income (loss)	4,458	(131,973)	19,492	(90,712)
Interest expense	(14,986)	(12,661)	(43,232)	(34,889)
Foreign exchange and other income/(expense)	8,550	38,528	36,810	44,065
(Loss) income before tax	(1,978)	(106,106)	13,070	(81,536)
Income tax expense	5,308	1,295	11,776	6,347
(Loss) income from equity method investments	(32)	57	(87)	(24)
Net (loss) income	\$ (7,318)	\$ (107,344)	\$ 1,207	\$ (87,907)
Basic (loss) income per share	\$ (0.14)	\$ (2.01)	\$ 0.02	\$ (1.64)
Diluted (loss) income per share	\$ (0.14)	\$ (2.01)	\$ 0.02	\$ (1.64)
Shares used in computing basic (loss) income per share	53,989	53,534	53,837	53,474
Shares used in computing diluted (loss) income per share	53,989	53,534	54,107	53,474

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,	
	2023	2022	2023	2022
Net (loss) income	\$ (7,318)	\$ (107,344)	\$ 1,207	\$ (87,907)
Other comprehensive income (loss):				
Net change in unrealized income (loss) on derivatives	—	1,653	(966)	(274)
Tax effect	—	—	—	—
Net of tax	—	1,653	(966)	(274)
Foreign currency translation adjustment	(19,222)	(39,887)	(5,716)	(85,653)
Total other comprehensive loss	(19,222)	(38,234)	(6,682)	(85,927)
Total comprehensive loss	<u>\$ (26,540)</u>	<u>\$ (145,578)</u>	<u>\$ (5,475)</u>	<u>\$ (173,834)</u>

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, 2023	December 31, 2022
ASSETS		
<i>Current Assets:</i>		
Cash and cash equivalents	\$ 233,941	\$ 214,172
Restricted cash	298,781	301,446
Accounts receivable, net of allowance of \$11,628 at September 30, 2023 and \$11,862 at December 31, 2022	189,871	183,110
Inventories	161,539	129,379
Prepaid and refundable taxes	25,505	31,708
Prepaid expenses and other current assets	44,230	26,321
Total Current Assets	953,867	886,136
Property, plant and equipment, net	149,302	147,187
Goodwill	767,055	768,787
Intangible assets, net	347,672	368,559
Operating lease assets	31,533	35,830
Investments	22,698	16,266
Deferred tax assets	1,506	1,384
Long-term derivative assets	43,669	54,393
Other assets	12,115	16,231
Total Assets	\$ 2,329,417	\$ 2,294,773
LIABILITIES AND STOCKHOLDERS' EQUITY		
<i>Current Liabilities:</i>		
Current debt obligations	\$ 19,027	\$ 23,434
Accounts payable	62,780	74,310
Accrued liabilities and other	89,680	81,481
Current litigation provision liability	26,704	29,481
Taxes payable	22,300	16,505
Accrued employee compensation and related benefits	74,905	72,187
Total Current Liabilities	295,396	297,398
Long-term debt obligations	568,163	518,067
Contingent consideration	89,808	85,292
Deferred tax liabilities	9,929	8,516
Long-term operating lease liabilities	25,192	29,548
Long-term employee compensation and related benefits	15,894	16,804
Long-term derivative liabilities	53,303	85,675
Other long-term liabilities	46,260	45,849
Total Liabilities	1,103,945	1,087,149
Commitments and contingencies (Note 8)		
<i>Stockholders' Equity:</i>		
Ordinary Shares, £1.00 par value: unlimited shares authorized; 53,903,564 shares issued and 53,860,644 shares outstanding at September 30, 2023; 53,851,979 shares issued and 53,564,664 shares outstanding at December 31, 2022	82,491	82,424
Additional paid-in capital	2,180,661	2,157,724
Accumulated other comprehensive loss	(54,801)	(48,119)
Accumulated deficit	(982,823)	(984,030)
Treasury stock at cost, 42,920 ordinary shares at September 30, 2023; 287,315 ordinary shares at December 31, 2022	(56)	(375)
Total Stockholders' Equity	1,225,472	1,207,624
Total Liabilities and Stockholders' Equity	\$ 2,329,417	\$ 2,294,773

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,	
	2023	2022
Operating Activities:		
Net income (loss)	\$ 1,207	\$ (87,907)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Stock-based compensation	28,069	32,492
Remeasurement of derivative instruments	(25,730)	(38,825)
Amortization	19,129	18,970
Depreciation	18,582	16,593
Amortization of debt issuance costs	14,246	16,394
Amortization of operating lease assets	7,270	7,100
Remeasurement of contingent consideration to fair value	4,516	(33,323)
Impairment of goodwill	—	129,396
Other	2,513	1,369
Changes in operating assets and liabilities:		
Accounts receivable, net	(8,239)	(1,665)
Inventories	(33,024)	(22,571)
Other current and non-current assets	(2,981)	12,191
Accounts payable and accrued current and non-current liabilities	(8,084)	(5,395)
Taxes payable	6,347	(1,772)
Litigation provision liability	(2,865)	8,171
Net cash provided by operating activities	20,956	51,218
Investing Activities:		
Purchases of property, plant and equipment	(22,062)	(17,383)
Purchase of investments	(6,570)	(928)
Acquisition, net of cash acquired	—	(8,857)
Other	439	(293)
Net cash used in investing activities	(28,193)	(27,461)
Financing Activities:		
Proceeds from long-term debt obligations	50,000	507,547
Repayment of long-term debt obligations	(16,061)	(220,784)
Shares repurchased from employees for minimum tax withholding	(6,995)	(8,550)
Repayments of short-term borrowings (maturities greater than 90 days)	(1,901)	—
Proceeds from share issuances under ESPP	1,625	1,788
Proceeds from deferred consideration from sale of Heart Valves, net of working capital adjustments	—	4,597
Payment of debt issuance costs	—	(3,292)
Other	(166)	481
Net cash provided by financing activities	26,502	281,787
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(2,161)	(7,257)
Net increase in cash, cash equivalents and restricted cash	17,104	298,287
Cash, cash equivalents and restricted cash at beginning of period	515,618	207,992
Cash, cash equivalents and restricted cash at end of period	\$ 532,722	\$ 506,279

See accompanying notes to the condensed consolidated financial statements

LIVANOVA PLC AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

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, 2023 and 2022, 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, 2022 has been derived from audited financial statements contained in LivaNova's 2022 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, 2023, and are not necessarily indicative of the results that may be expected for the year ending December 31, 2023. The financial information presented herein should be read in conjunction with the audited consolidated financial statements and notes thereto accompanying LivaNova's 2022 Form 10-K.

Macroeconomic Environment

The current macroeconomic environment, including foreign exchange volatility, inflationary pressures, geopolitical instability, and supply chain challenges, has impacted and may continue to impact LivaNova's business and profitability. Furthermore, LivaNova continues to experience supply chain delays and interruptions, labor shortages, inflationary pressures and logistical and capacity constraints, though, to date, the Company's supply of raw materials and the production and distribution of finished products have not been materially affected. Moreover, freight and labor costs at LivaNova's manufacturing facilities have increased substantially in the wake of inflation globally. The Company continues to respond to such challenges, and while LivaNova has business continuity plans in place, the impact of the ongoing challenges the Company is navigating, along with their potential escalation, may adversely affect its business.

Conflicts, including those in Ukraine and the Middle East, have caused the Company to assess its ability to sell in certain markets due to any applicable international sanctions, consider the potential impact of raw material sourced from these areas, and determine whether LivaNova is able to transact in a compliant fashion. Net revenues from each of these conflict areas represented approximately 1%, respectively, of LivaNova's total net revenue for 2022. These conflicts have increased economic uncertainties, and a significant escalation or continuation of these conflicts could have a material, global impact on the Company's operating results.

Reclassifications

The Company has reclassified certain prior period amounts on the condensed consolidated balance sheets for comparative purposes. These reclassifications had no impact on LivaNova's financial condition.

Significant Accounting Policies

LivaNova's significant accounting policies are detailed below and in "Note 2. Basis of Presentation, Use of Accounting Estimates and Significant Accounting Policies" and "Note 3. Revenue Recognition" of LivaNova's 2022 Form 10-K.

Note 2. Business Combinations

As of December 31, 2021, LivaNova owned a 3% investment in ALung, a privately held medical device company focused on creating advanced medical devices for treating respiratory failure. On May 2, 2022, LivaNova acquired the remaining 97% of equity interests in ALung for a purchase price of up to \$110.0 million, consisting of \$10.0 million paid at closing, subject to customary adjustments, and contingent consideration of up to \$100.0 million payable upon achievement of certain sales-based milestones beginning in 2023 and ending in 2027. Total consideration included approximately \$5.5 million of non-cash consideration.

The following table presents the acquisition date fair value of the consideration transferred and the fair value of LivaNova's interest in ALung prior to the acquisition, including certain measurement period adjustments (in thousands):

	Initial Fair Value of Consideration	Measurement Period Adjustments ⁽¹⁾	Adjusted Fair Value of Consideration
Cash and other considerations	\$ 15,586	\$ —	\$ 15,586
Contingent consideration	26,369	(9,578)	16,791
Fair value of consideration transferred	<u>\$ 41,955</u>	<u>\$ (9,578)</u>	<u>\$ 32,377</u>

(1) During the third quarter of 2022, measurement period adjustments were recorded based on information obtained about facts and circumstances that existed as of the acquisition date.

The purchase price allocation at fair value for the ALung acquisition was finalized during the second quarter of 2023 and is presented in the following table, which includes certain measurement period adjustments (in thousands):

	Initial Purchase Price Allocation	Measurement Period Adjustments ⁽¹⁾	Adjusted Purchase Price Allocation
Developed technology - 15-year life	\$ 13,950	\$ (11,050)	\$ 2,900
Goodwill	25,893	977	26,870
Other assets and liabilities, net	2,112	495	2,607
Net assets acquired	<u>\$ 41,955</u>	<u>\$ (9,578)</u>	<u>\$ 32,377</u>

(1) During the third quarter of 2022, measurement period adjustments were recorded based on information obtained about facts and circumstances that existed as of the acquisition date.

Goodwill arising from the ALung acquisition, which is not deductible for tax purposes, primarily represents the synergies anticipated between ALung and the Company's ACS business. The assets acquired, including goodwill, are recognized in LivaNova's ACS segment. The goodwill for the ACS reporting unit was fully impaired during the third quarter of 2022.

The Company's condensed consolidated financial statements include the operating results of ALung from the acquisition date. Separate post-acquisition operating results and pro forma financial information for this acquisition have not been presented as the effect was not material.

The contingent consideration payments are triggered upon the achievement of thresholds associated with sales of products covered by the purchase agreement and are estimated to occur during the years reflected in the table below. The sales-based earnout was valued using projected sales from the Company's internal strategic plan and is a Level 3 fair value measurement, which includes the following significant unobservable inputs (in thousands):

ALung Acquisition	Fair value at May 2, 2022	Valuation Technique	Unobservable Input	Ranges
Sales-based earnout	\$ 16,791	Monte Carlo simulation	Risk-adjusted discount rate	7.0% - 8.4%
			Credit risk discount rate	6.4% - 8.0%
			Revenue volatility	25.7%
			Projected years of earnout	2023 - 2027

For a reconciliation of the beginning and ending balance of contingent consideration liabilities, refer to "Note 5. Fair Value Measurements."

Note 3. Divestiture of Heart Valve Business

On December 2, 2020, LivaNova entered into a Purchase Agreement with Mitral, a company incorporated under the laws of Luxembourg and wholly owned and controlled by funds advised by Gyrus Capital S.A., a Swiss private equity firm. The Purchase Agreement provided 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 \$64.1 million.

On April 9, 2021, LivaNova and Mitral entered into an Amended & Restated 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 provision of LSM and the related expense reimbursement provisions. On April 7, 2023, Mitral provided notice to LivaNova, consistent with the terms of the Amended & Restated Purchase Agreement, that they would not exercise their right to purchase LSM.

Note 4. Goodwill and Intangible Assets

LivaNova tests goodwill and indefinite-lived intangible assets for impairment on an annual basis on October 1 or when events or changes in circumstances indicate that a potential impairment exists.

As part of LivaNova's assessment as of September 30, 2022, the Company considered that revenue for the ACS reporting unit during the nine months ended September 30, 2022, had declined by approximately 29% compared to the prior year period, primarily as a result of a reduction in severe COVID-19 cases, hospital-related challenges and product mix. Furthermore, future revenue projections were reduced. Based on these circumstances, LivaNova concluded it was more likely than not that the goodwill of the Company's ACS reporting unit was impaired, and performed a quantitative assessment of the goodwill as of September 30, 2022, using management's current estimate of future cash flows. Based on the valuation performed, LivaNova determined that the fair value of the ACS reporting unit was less than the carrying value and recognized a goodwill impairment of \$129.4 million in the Company's condensed consolidated statements of income (loss) for the three and nine months ended September 30, 2022. Cumulative goodwill impairments from continuing operations since the merger of Cyberonics, Inc. and Sorin S.p.A. in October 2015 through September 30, 2022 totaled \$193.1 million.

LivaNova also performed an interim impairment analysis related to the ImThera IPR&D intangible asset as of September 30, 2022. As a result of this analysis, the Company determined that the fair value of the asset exceeded the carrying value by 11% and that the IPR&D intangible asset was not impaired.

Note 5. Fair Value Measurements

The Company reviews 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, 2023 and 2022.

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, 2023	Fair Value Measurements Using Inputs Considered as:		
		Level 1	Level 2	Level 3
Assets:				
Derivative assets - freestanding instruments (FX)	\$ 2,625	\$ —	\$ 2,625	\$ —
Derivative assets - capped call derivatives	43,669	—	—	43,669
Convertible notes receivable	275	—	—	275
	<u>\$ 46,569</u>	<u>\$ —</u>	<u>\$ 2,625</u>	<u>\$ 43,944</u>
Liabilities:				
Derivative liabilities - freestanding instruments (FX)	\$ 207	\$ —	\$ 207	\$ —
Derivative liabilities - embedded exchange feature	53,303	—	—	53,303
Contingent consideration arrangements	89,808	—	—	89,808
	<u>\$ 143,318</u>	<u>\$ —</u>	<u>\$ 207</u>	<u>\$ 143,111</u>

	Fair Value as of December 31, 2022	Fair Value Measurements Using Inputs Considered as:		
		Level 1	Level 2	Level 3
Assets:				
Derivative assets - designated as cash flow hedges (interest rate swap)	\$ 1,333	\$ —	\$ 1,333	\$ —
Derivative assets - capped call derivatives	54,393	—	—	54,393
Convertible notes receivable	285	—	—	285
	<u>\$ 56,011</u>	<u>\$ —</u>	<u>\$ 1,333</u>	<u>\$ 54,678</u>
Liabilities:				
Derivative liabilities - freestanding instruments (FX)	\$ 5,886	\$ —	\$ 5,886	\$ —
Derivative liabilities - embedded exchange feature	85,675	—	—	85,675
Contingent consideration arrangements	85,292	—	—	85,292
	<u>\$ 176,853</u>	<u>\$ —</u>	<u>\$ 5,886</u>	<u>\$ 170,967</u>

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

	Capped Call Derivative Asset	Convertible Notes Receivable	Embedded Exchange Feature Derivative Liability	Contingent Consideration Liability Arrangements
As of December 31, 2022 - long-term	\$ 54,393	\$ 285	\$ 85,675	\$ 85,292
Changes in fair value	(10,724)	(10)	(32,372)	4,516
Total at September 30, 2023 - long-term	<u>\$ 43,669</u>	<u>\$ 275</u>	<u>\$ 53,303</u>	<u>\$ 89,808</u>

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, an unobservable input that is significant to the valuation. In general, an increase in LivaNova’s 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 income/(expense) in the condensed consolidated statements of income.

The fair value of the embedded exchange feature derivative liability and the capped call derivative assets was \$53.3 million and \$43.7 million, respectively, as of September 30, 2023, and the stock price volatility was 37%. As of September 30, 2023, a 10% lower volatility, holding other inputs constant, would reduce the fair value for the embedded exchange feature derivative liability by \$14.0 million, and a 10% higher volatility, holding other inputs constant, would increase the fair value by \$14.1 million. As of September 30, 2023, a 10% lower volatility, holding other inputs constant, would reduce the fair value for the capped call derivatives by \$8.5 million, and a 10% higher volatility, holding other inputs constant, would increase the fair value by \$3.7 million.

Contingent Consideration Arrangements

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

	September 30, 2023	December 31, 2022
ImThera	\$ 78,525	\$ 69,389
ALung	11,283	15,903
	<u>\$ 89,808</u>	<u>\$ 85,292</u>

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 earnouts are valued using projected sales from LivaNova's internal strategic plan. These arrangements are Level 3 fair value measurements and include the following significant unobservable inputs as of September 30, 2023:

ImThera Acquisition	Valuation Technique	Unobservable Input	Inputs
Regulatory milestone-based payment	Discounted cash flow	Discount rate	7.9%
		Probability of payment	85%
		Projected payment year	2026
Sales-based earnout	Monte Carlo simulation	Risk-adjusted discount rate	14.6% - 14.8%
		Credit risk discount rate	8.1% - 8.6%
		Revenue volatility	32.5%
		Probability of payment	85%
		Projected years of earnout	2026 - 2029

The ALung business combination involved a contingent consideration arrangement composed of potential cash payments upon the achievement of certain sales-based thresholds associated with sales of products. The arrangement is a Level 3 fair value measurement and includes the following significant unobservable inputs as of September 30, 2023:

ALung Acquisition	Valuation Technique	Unobservable Input	Inputs
Sales-based earnout	Monte Carlo simulation	Risk-adjusted discount rate	10.2% - 11.0%
		Credit risk discount rate	7.6% - 8.3%
		Revenue volatility	27.4%
		Projected years of earnout	2023 - 2027

Note 6. Financing Arrangements

The outstanding principal amount of long-term debt as of September 30, 2023 and December 31, 2022 was as follows (in thousands, except interest rates):

	September 30, 2023	December 31, 2022	Maturity	Interest Rate
Term Facilities	\$ 332,433	\$ 289,294	July 2027	8.87%
2020 Cash Exchangeable Senior Notes	251,315	239,568	December 2025	3.00%
Bank of America Merrill Lynch Banco Múltiplo S.A.	—	6,462	N/A	N/A
Mediocredito Italiano	799	1,601	December 2023	0.50% - 7.15%
Bank of America, U.S.	1,500	1,500	January 2025	8.31%
Other	533	534		
Total long-term facilities	<u>586,580</u>	<u>538,959</u>		
Less current portion of long-term debt	<u>18,417</u>	<u>20,892</u>		
Total long-term debt obligations	<u>\$ 568,163</u>	<u>\$ 518,067</u>		

Revolving Credit

The outstanding principal amount of LivaNova's short-term unsecured revolving credit agreements and other agreements with various banks was \$0.6 million and \$2.5 million as of September 30, 2023 and December 31, 2022, respectively, with an interest rate of 4.24% and loan terms ranging from overnight to 364 days as of September 30, 2023.

On August 13, 2021, LivaNova PLC and its wholly-owned subsidiary, LivaNova USA as 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, referred to as the 2021 First Lien Credit Agreement. The 2021 First Lien Credit Agreement, as amended from time to time, expires on August 13, 2026, and bears interest at a rate equal to, for USD-denominated loans, an adjusted SOFR with a floor of 0.00%, or a Base Rate, plus, in each case, a variable margin based on the Company's Total Net Leverage Ratio, as defined in the agreement. Interest is paid monthly or quarterly, as selected by the borrower, with any outstanding principal due at maturity. The 2021 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 Total Net Leverage Ratio. As of September 30, 2023 and December 31, 2022, the applicable commitment fee percentage was 0.5% per annum. The 2021 First Lien Credit Agreement is available for working capital and other general corporate purposes and, if drawn, can be repaid at any time without premium or penalty. As of September 30, 2023, the Company was in compliance with the financial covenants contained in its 2021 First Lien Credit Agreement.

There were no outstanding borrowings under the 2021 First Lien Credit Agreement's \$125 million revolving credit facility as of September 30, 2023 and December 31, 2022.

Bridge Loan Facility

On February 24, 2022, LivaNova PLC and its wholly-owned subsidiary LivaNova USA entered into the €200 million Bridge Loan Facility. On March 16, 2022, LivaNova entered into Amendment No. 2 to the 2021 First Lien Credit Agreement, which converted the available borrowings under the Bridge Loan Facility from €200 million to \$220 million and converted the EURIBOR rate in the 2021 First Lien Credit Agreement to SOFR. LivaNova delivered a borrowing notice for \$220 million in connection with the Bridge Loan Facility, which was funded on March 17, 2022.

On March 18, 2022, LivaNova PLC, acting through its Italian branch, entered into an Indemnity Letter and an Account Pledge Agreement with Barclays, further to which Barclays issued the SNIA Litigation Guarantee. As security for the SNIA Litigation Guarantee, LivaNova is required to grant cash collateral to Barclays in USD in an amount equal to the USD equivalent of 105% of the amount of the SNIA Litigation Guarantee calibrated on a biweekly basis. The proceeds of the Bridge Loan Facility were used by LivaNova to post a portion of the cash collateral supporting the SNIA Litigation Guarantee. Cash collateral classified as restricted cash on the condensed consolidated balance sheet was \$298.8 million and \$301.4 million as of September 30, 2023 and December 31, 2022, respectively. For additional information regarding the SNIA litigation, please refer to "Note 8. Commitments and Contingencies."

Debt discounts and issuance costs related to the Bridge Loan Facility were approximately \$4.5 million. Amortization of debt discount and issuance costs for the Bridge Loan Facility was \$4.5 million for the nine months ended September 30, 2022 and is included in interest expense on the condensed consolidated statement of income.

The Bridge Loan Facility was repaid in full on July 6, 2022.

Term Facilities

On July 6, 2022, LivaNova and its wholly-owned subsidiary, LivaNova USA, entered into Incremental Facility Amendment No. 2. Incremental Facility Amendment No. 2 provides for LivaNova USA to, among other things, obtain commitments for term loan facilities from a syndicate of lenders in an aggregate principal amount of \$350 million consisting of (i) the Initial Term Facility with an aggregate principal amount of \$300 million and (ii) the Delayed Draw Term Facility with an additional aggregate principal amount of \$50 million. On April 6, 2023, LivaNova drew \$50 million under the Delayed Draw Term Facility for general corporate purposes.

Proceeds from the Initial Term Facility were used to repay in full the Bridge Loan Facility on July 6, 2022, with the remainder used for general corporate purposes of the Company. The Term Facilities have a maturity of the earlier of (i) five years or (ii) 91 days prior to December 15, 2025, the maturity date of the 2020 Cash Exchangeable Senior Notes, unless by that date LivaNova USA will have either redeemed or refinanced the Notes, or set aside an amount of cash equal to the then-outstanding principal amount of the Notes. The Term Facilities bear interest at a rate equal to an adjusted term SOFR plus a variable margin based on the Company's consolidated total net leverage ratio. As of September 30, 2023, the applicable margin over Adjusted SOFR was equal to 3.50% per annum. The Term Facilities are subject to an original issue discount of 1.5% of

their principal amount. The Term Facilities are subject to quarterly principal repayment, based on the following amortization schedule: (i) during the first year from the initial funding date: 1.9%; (ii) year two: 5.0%; (iii) year three: 5.0%; (iv) year four: 7.5%; and (v) year five: 10.0%, with the remainder to be paid at maturity. The effective interest rate of the Term Facilities at September 30, 2023 was 6.53%.

The 2021 First Lien Credit Agreement, as amended, contains customary representations, warranties and covenants, including the requirement to maintain a Senior Secured First Lien Net Leverage Ratio, calculated as the ratio of Consolidated Senior Secured First Lien Net Indebtedness to Consolidated EBITDA, as defined in the credit agreement, for the period of four consecutive fiscal quarters ended on the calculation date, of not more than 3.50 to 1.00 and an Interest Coverage Ratio, calculated as the ratio of Consolidated EBITDA to Consolidated Interest Expense, as defined in the credit agreement, for the period of four consecutive fiscal quarters ended on the calculation date, of not less than 3.00 to 1.00. As of September 30, 2023, the Company was in compliance with the financial covenants contained in the 2021 First Lien Credit Agreement.

Debt discounts and issuance costs related to the Initial Term Facility were approximately \$9.6 million. Amortization of debt discount and issuance costs for the Initial Term Facility was \$0.5 million and \$1.5 million for the three and nine months ended September 30, 2023, respectively, and is included in interest expense on the condensed consolidated statement of income. The unamortized discount and issuance costs related to the Initial Term Facility as of September 30, 2023 and December 31, 2022 were \$7.3 million and \$8.7 million, respectively. Issuance costs related to the Delayed Draw Term Facility were approximately \$1.6 million. Amortization of issuance costs for the Delayed Draw Term Facility was nil and \$0.5 million for the three and nine months ended September 30, 2023, respectively, and is included in interest expense on the condensed consolidated statement of income. The issuance costs related to the Delayed Draw Term Facility were fully amortized as of September 30, 2023.

2020 Cash Exchangeable Senior Notes

On June 17, 2020, LivaNova's wholly-owned subsidiary, LivaNova USA, issued \$287.5 million aggregate principal amount of 3.00% Notes by private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act. 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, 2023 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 for the Notes was \$4.1 million and \$11.7 million for the three and nine months ended September 30, 2023, respectively, and \$3.7 million and \$10.6 million for the three and nine months ended September 30, 2022, respectively, and is included in interest expense on the condensed consolidated statement of income. The unamortized discount related to the Notes as of September 30, 2023 and December 31, 2022 was \$36.2 million and \$47.9 million, respectively.

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 not satisfied during the quarterly period ending September 30, 2023. As a result, the Company has included its obligations from the Notes and the associated embedded exchange feature derivative as a long-term liability on the condensed consolidated balance sheet as of September 30, 2023. 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 income/(expense)" in the condensed consolidated statements of income. The fair value of the embedded exchange feature derivative liability was \$53.3 million and \$85.7 million as of September 30, 2023 and December 31, 2022, respectively.

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 income/(expense) in the condensed consolidated statements of income. The fair value of the capped call derivative assets was \$43.7 million and \$54.4 million as of September 30, 2023 and December 31, 2022, respectively. As of September 30, 2023, the capped call derivative assets were classified as long-term.

Note 7. Derivatives and Risk Management

Due to the global nature of LivaNova's operations, LivaNova is exposed to FX fluctuations. Historically, the Company has entered into FX derivative contracts and interest rate swap contracts to reduce the impact of FX and interest rate fluctuations, respectively, on earnings and cash flow. LivaNova is also exposed to equity price risk in connection with its Notes, including exchange and settlement provisions based on the price of the Company's ordinary shares at exchange or maturity of the Notes. The capped call transactions associated with the Notes also include settlement provisions that are based on the price of LivaNova's ordinary shares, subject to a capped price per share. LivaNova does not enter into derivative contracts for speculative purposes.

LivaNova measures all outstanding derivatives each period end at fair value and reports the fair value as either financial assets or liabilities on the condensed consolidated balance sheets. 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. These derivatives are intended to serve as economic hedges and follow the cash flows of the economic hedged item. The cash flows from these derivative contracts are reported as operating activities on LivaNova's condensed consolidated statements of cash flows.

If the derivative qualifies for hedge accounting, changes in the fair value of the derivative will be recorded in AOCI until the hedged item is recognized in earnings upon settlement/termination. FX derivative gains and losses in AOCI are reclassified to the condensed consolidated statements of income as shown in the tables below, and interest rate swap gains and losses in AOCI are reclassified to interest expense on the condensed consolidated statements of income. The Company evaluates hedge effectiveness at inception.

Freestanding FX Derivative Contracts

The gross notional amount of FX derivative contracts not designated as hedging instruments outstanding at September 30, 2023 and December 31, 2022 was \$174.2 million and \$154.5 million, respectively. These derivative contracts are designed to offset the FX effects in earnings of various intercompany loans and trade receivables. For these freestanding derivatives, LivaNova recorded net gains of \$5.0 million and \$7.7 million for the three months ended September 30, 2023 and 2022, respectively, and net gains of \$4.1 million and \$12.7 million for the nine months ended September 30, 2023 and 2022, respectively. These gains and losses are included in foreign exchange and other income/(expense) on the condensed consolidated statements of income.

Counterparty Credit Risk

LivaNova is exposed to credit risk in the event of non-performance by the counterparties to the Company's derivatives.

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

To manage credit risk with respect to its 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

Foreign Currency Risk

Historically, LivaNova utilized FX derivative contracts, designed as cash flow hedges, to hedge the variability of cash flows associated with LivaNova's 12-month USD forecasts of revenues and costs denominated in British Pound, Japanese Yen and the Euro. The Company transferred to earnings from AOCI the gain or loss realized on the FX derivative contracts at the time of invoicing. Upon the settlement of LivaNova's foreign currency cash flow hedges in the fourth quarter of 2022 and following an in-depth analysis of the utility of the Company's cash flow hedging program, LivaNova discontinued its foreign currency cash flow hedging program.

Interest Rate Risk

Historically, LivaNova entered into interest rate swaps associated with the Initial Term Facility, which qualified for and were designated as cash flow hedges. The Company's interest rate swaps expired on April 6, 2023. LivaNova elected not to renew the interest rate swaps as interest expense associated with the Initial Term Facility is principally offset by holding a significant portion of the Initial Term Facility in a depository account, which earns a floating rate of interest.

The gross notional amounts of open derivative contracts designated as cash flow hedges at September 30, 2023 and December 31, 2022 were as follows (in thousands):

Description of Derivative Contract	September 30, 2023	December 31, 2022
Interest rate swap contracts	\$ —	\$ 210,000

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

		Three Months Ended September 30, 2022	
Description of Derivative Contract	Location in Earnings of Reclassified Gain or Loss	Gains Recognized in OCI	Gains (Losses) Reclassified from AOCI to Earnings
FX derivative contracts	Foreign exchange and other income/(expense)	\$ 413	\$ 1,838
FX derivative contracts	SG&A	—	(1,927)
Interest rate swap contracts	Interest expense	1,151	—
		\$ 1,564	\$ (89)

		Nine Months Ended September 30,			
		2023		2022	
Description of Derivative Contract	Location in Earnings of Reclassified Gain or Loss	Losses Recognized in OCI	Gains Reclassified from AOCI to Earnings	(Losses) Gains Recognized in OCI	Gains (Losses) Reclassified from AOCI to Earnings
FX derivative contracts	Foreign exchange and other income/(expense)	\$ —	\$ —	\$ (1,345)	\$ 3,517
FX derivative contracts	SG&A	—	—	—	(3,437)
Interest rate swap contracts	Interest expense	(433)	533	1,151	—
		<u>\$ (433)</u>	<u>\$ 533</u>	<u>\$ (194)</u>	<u>\$ 80</u>

The Company offsets fair value amounts associated with its derivative instruments on the condensed consolidated balance sheets that are executed with the same counterparty under master netting arrangements. 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):

		Asset Derivatives		Liability Derivatives	
September 30, 2023		Balance Sheet Location	Fair Value ⁽¹⁾	Balance Sheet Location	Fair Value ⁽¹⁾
Derivatives Not Designated as Hedging Instruments:					
Capped call derivatives	Long-term derivative assets		\$ 43,669		
Embedded exchange feature				Long-term derivative liabilities	\$ 53,303
FX derivative contracts	Prepaid expenses and other current assets		2,625	Accrued liabilities and other	207
Total derivatives not designated as hedging instruments			46,294		53,510
Total derivatives			<u>\$ 46,294</u>		<u>\$ 53,510</u>

		Asset Derivatives		Liability Derivatives	
December 31, 2022		Balance Sheet Location	Fair Value ⁽¹⁾	Balance Sheet Location	Fair Value ⁽¹⁾
Derivatives Designated as Hedging Instruments:					
Interest rate swap contracts	Prepaid expenses and other current assets		\$ 1,333		
Total derivatives designated as hedging instruments			1,333		
Derivatives Not Designated as Hedging Instruments:					
Capped call derivatives	Long-term derivative assets		54,393		
FX derivative contracts				Accrued liabilities and other	\$ 5,886
Embedded exchange feature				Long-term derivative liabilities	85,675
Total derivatives not designated as hedging instruments			54,393		91,561
Total derivatives			<u>\$ 55,726</u>		<u>\$ 91,561</u>

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

Note 8. Commitments and Contingencies

Saluggia Site Hazardous Substances

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 being a former 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 performed, and continues to perform, ordinary maintenance, secure the facilities, monitor air and water quality and file applicable reports with the competent environmental authorities.

In 2020, LSM received correspondence from ISIN 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.

Although 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, based on the aforementioned factors, the Company concluded its obligation to clean, dismantle, and deliver any hazardous substances to a national repository is probable and reasonably estimable. The estimated liability as of September 30, 2023 was €36.0 million (\$38.1 million), which represented the low end of the estimated range of loss of €36.0 million (\$38.1 million) to €45.8 million (\$48.4 million) as of September 30, 2023. The estimated liability as of December 31, 2022 was €34.2 million (\$36.6 million). The increase in the Saluggia site provision from December 31, 2022 was due to adjustments associated with expected disposal costs.

Product Liability Litigation

The Company is currently involved in litigation involving LivaNova's 3T Heater-Cooler device. The litigation includes the MDL, various U.S. state court cases and cases in jurisdictions outside the U.S. On March 29, 2019, LivaNova announced a settlement framework that provided for a comprehensive resolution of the personal injury cases pending in the MDL, the related class action in federal court, as well as certain cases in state courts across the United States. The agreement, which made no admission of liability, was subject to certain conditions, including acceptance of the settlement by individual claimants and provided for a total payment of up to \$225 million to resolve the claims covered by the settlement. Per the agreed-upon terms, the second and final payment of \$90 million was paid into a qualified settlement fund in January 2020.

Cases in state courts in the U.S. and in jurisdictions outside the U.S. continue to progress. As of November 1, 2023, the Company was aware of approximately 75 filed and unfiled claims worldwide, with the majority of the claims in various federal or state courts throughout the United States, including some cases removed to the MDL after the settlement described above. This number includes six cases in the process of settlement or dismissal. 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.

During the three and nine months ended September 30, 2023, the Company recorded an additional liability of \$13.6 million and \$25.7 million, respectively, due to new information received about the nature of certain claims. At September 30, 2023 and December 31, 2022, the provision for these matters was \$29.7 million and \$32.5 million, respectively. While the amount accrued represents the Company's best estimate for those filed and unfiled claims that the Company believes are both probable and estimable at this time, and which are a subset of the filed and unfiled claims worldwide of which LivaNova is currently aware, the actual liability for resolution of these matters may vary from the Company's estimate. The remaining claims for which a provision has not been recorded are remote or the potential loss is not estimable at this time.

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

Total litigation provision liability at December 31, 2022	\$	32,487
Payments		(28,604)
Adjustments ⁽¹⁾		25,739
FX and other		60
Total litigation provision liability at September 30, 2023		29,682
Less current portion of litigation provision liability at September 30, 2023		26,704
Long-term portion of litigation provision liability at September 30, 2023 ⁽²⁾	\$	2,978

(1) Adjustments to the litigation provision are included within other operating expense on the condensed consolidated statements of income.

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

SNIA Environmental Liability

Sorin was created as a result of a spin-off from SNIA in 2004, and in 2015, Sorin was merged into LivaNova. SNIA subsequently became insolvent, and the Public Administrations sought compensation from SNIA in an aggregate amount of approximately \$3.6 billion for remediation costs relating to the environmental damage at chemical sites previously operated by SNIA's other subsidiaries.

There are proceedings relating to the SNIA bankruptcy to which LivaNova is not a party in the Bankruptcy Court of Udine and the Bankruptcy Court of Milan. In 2011, the Bankruptcy Court of Udine held that 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. In 2016, the Court of Udine rejected the appeal, and the Public Administrations appealed to the Supreme Court. Similarly, in 2014, the Bankruptcy Court of Milan held that the Public Administrations were not creditors of either SNIA or its subsidiaries. The Public Administrations appealed. In April 2022, Bankruptcy Court of Milan declared the Public Administrations to be a non-privileged creditor of SNIA for up to €454 million, and the Public Administrations appealed to the Supreme Court.

In 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. In 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 \$308,952 as of September 30, 2023) for legal fees. The Public Administrations appealed the 2016 Decision to the Court of Appeal. 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 \$605.3 million as of September 30, 2023). LivaNova appealed the partial decision on liability to the Italian Supreme Court in August 2019.

In 2021, the Court of Appeal delivered the remainder of its decision, ordering LivaNova to pay damages of approximately €453.6 million (approximately \$479.9 million as of September 30, 2023). LivaNova appealed the decision on damages in December 2021. On February 21, 2022, the Court of Appeal notified the Company that it granted the Company a suspension with respect to the payment of damages until a decision has been reached on the appeal to the Italian Supreme Court. This suspension was subject to LivaNova providing a first demand bank guarantee of €270.0 million (approximately \$285.7 million as of September 30, 2023) within 30 calendar days, and on March 21, 2022, LivaNova delivered the guarantee, thereby satisfying the condition. Refer to "Note 6. Financing Arrangements" for information on the financing of the guarantee.

In November 2022, in response to one of a number of appeals asserted by LivaNova, the Supreme Court issued an ordinance, a procedural document, whereby the Supreme Court referred a question on interpretation of a European directive on demergers to the ECJ. Specifically, the ordinance asks the ECJ to provide a binding decision as to whether a company resulting from a demerger can be held jointly and severally liable not only for the established liabilities of the demerged company that were articulated at the time of demerger, but also for the environmental liabilities of the demerged company that materialized after the demerger which are derived from actions performed prior to the demerger. Following receipt of the binding decision from the ECJ, the Supreme Court is expected to incorporate and issue a decision in response to all of the appeals of LivaNova and counter-appeals submitted by the Public Administrations. While the timing of the decisions by the ECJ and, subsequently, the Supreme Court are uncertain, the Company believes that the effect of the ordinance will result in a delay of any final decision until at least 2024.

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 2020, Caffaro Brescia declared it was withdrawing from its agreement to maintain the environmental measures. In 2021, LivaNova (in addition to Caffaro Brescia, and other non-LivaNova entities) received an Order from the Italian Ministry of the Environment requiring the Company 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 Appeal decision regarding LivaNova's alleged joint liability with SNIA for SNIA's environmental liabilities. LivaNova's response, dated February 16, 2021, disputes the grounds upon which the Order is based. LivaNova also appealed the Order in the Administrative Court in Brescia.

LivaNova has not recognized a liability in connection with these related matters because any potential loss is not currently probable.

Caisson Contract Litigation

On November 25, 2019, LivaNova received notice of a lawsuit initiated by former members of 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., was filed in the United States District Court for the District of Minnesota. The complaint alleged (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 program and the Company's November 20, 2019 announcement that it was ending the program at the end of 2019. The lawsuit sought damages arising out of the 2017 acquisition agreement, including various regulatory milestone payments. In May 2022, the District Court granted LivaNova's motion for summary judgment, and in June 2023, the Eighth Circuit Court of Appeal affirmed the decision. The Company now considers Caisson's claim against LivaNova to be closed.

Mitral Litigation

On July 29, 2022, LivaNova received a demand letter from Mitral for approximately €20.8 million (\$22.0 million as of September 30, 2023) for breach of warranty claims under the A&R Purchase Agreement. Specifically, the claims allege failure to disclose certain information relating to a supplier, thereby allegedly impacting the profitability of Mitral's business in China and Japan. The Company does not believe that Mitral's claims will be sustained or that LivaNova is responsible for any alleged breach of warranty. Subject to certain exceptions, warranty claims of this type are contractually capped at €8.0 million (\$8.5 million as of September 30, 2023). On March 22, 2023, Mitral served a formal claim on LivaNova in the High Court of Justice Commercial Court (King's Bench Division) alleging damages flowing from the aforementioned asserted breaches of warranties in the A&R Purchase Agreement. Although the claim is in excess of €20.8 million, Mitral acknowledges the €8.0 million cap. The Company filed its Defense on May 17, 2023. As of September 30, 2023, the Company had recorded an accrued liability for an immaterial amount related to this matter.

Italian MedTech Payback Measure

As previously disclosed, in 2015, the Italian Parliament introduced rules regarding public contracts with the National Healthcare System for the supply of goods and services. In particular, the law introduced a "payback" measure requiring companies selling medical devices in Italy to repay a percentage of the healthcare expenditures exceeding the regional maximum caps for medical devices. In the intervening years since the rules were first issued, there has been considerable uncertainty about how the law will operate and what the exact timeline is for finalization. In August 2022, a decree was published which provided guidance and timetables for the rule. In response, LivaNova filed an appeal at the Administrative Court against the Decree of the Ministry of Health assessing the amount payable and against the MedTech Payback Guidelines. LivaNova also filed appeals against the regions requesting payments. In August 2023, the Administrative Court upheld LivaNova's request to suspend the effect of the requests for payment by the regions, pending the decision by the court on the merits of the case. The Company has accrued for the law since 2015 based on market and product information. As of September 30, 2023 and December 31, 2022, the total amount reserved for this matter was \$7.6 million and \$6.4 million, respectively; however, the actual liability could vary.

Other Matters

Additionally, LivaNova is the subject of various pending or threatened legal actions and proceedings that arise in the ordinary course of LivaNova's 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 LivaNova's consolidated net income, financial position or liquidity.

Note 9. Stockholders' Equity

The tables below present the condensed consolidated statements of stockholders' equity as of and for the three and nine months ended September 30, 2023 and 2022 (in thousands):

	Ordinary Shares	Ordinary Shares - Amount	Additional Paid-In Capital	Treasury Stock	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity ⁽¹⁾
June 30, 2023	53,904	\$ 82,441	\$ 2,169,346	\$ (95)	\$ (35,579)	\$ (975,505)	\$ 1,240,608
Stock-based compensation plans	—	50	11,315	39	—	—	11,404
Net income	—	—	—	—	—	(7,318)	(7,318)
Other comprehensive loss	—	—	—	—	(19,222)	—	(19,222)
September 30, 2023	53,904	\$ 82,491	\$ 2,180,661	\$ (56)	\$ (54,801)	\$ (982,823)	\$ 1,225,472
June 30, 2022	53,810	\$ 82,359	\$ 2,133,258	\$ (397)	\$ (54,870)	\$ (878,347)	\$ 1,282,003
Stock-based compensation plans	4	17	10,504	17	—	—	10,538
Net loss	—	—	—	—	—	(107,344)	(107,344)
Other comprehensive loss	—	—	—	—	(38,234)	—	(38,234)
September 30, 2022	53,814	\$ 82,376	\$ 2,143,762	\$ (380)	\$ (93,104)	\$ (985,691)	\$ 1,146,963
December 31, 2022	53,852	\$ 82,424	\$ 2,157,724	\$ (375)	\$ (48,119)	\$ (984,030)	\$ 1,207,624
Stock-based compensation plans	52	67	22,937	319	—	—	23,323
Net income	—	—	—	—	—	1,207	1,207
Other comprehensive loss	—	—	—	—	(6,682)	—	(6,682)
September 30, 2023	53,904	\$ 82,491	\$ 2,180,661	\$ (56)	\$ (54,801)	\$ (982,823)	\$ 1,225,472
December 31, 2021	53,762	\$ 82,295	\$ 2,117,961	\$ (650)	\$ (7,177)	\$ (897,784)	\$ 1,294,645
Stock-based compensation plans	52	81	25,801	270	—	—	26,152
Net loss	—	—	—	—	—	(87,907)	(87,907)
Other comprehensive loss	—	—	—	—	(85,927)	—	(85,927)
September 30, 2022	53,814	\$ 82,376	\$ 2,143,762	\$ (380)	\$ (93,104)	\$ (985,691)	\$ 1,146,963

The table below presents the change in each component of AOCI, net of tax, and the reclassifications out of AOCI into net income (loss) for the nine months ended September 30, 2023 and 2022 (in thousands):

	Change in Unrealized Gain (Loss) on Derivatives	Foreign Currency Translation Adjustments Gain (Loss) ⁽¹⁾	Total
December 31, 2022	\$ 966	\$ (49,085)	\$ (48,119)
Other comprehensive loss before reclassifications, before tax	(433)	(5,716)	(6,149)
Tax benefit	—	—	—
Other comprehensive loss before reclassifications, net of tax	(433)	(5,716)	(6,149)
Reclassification of gain from accumulated other comprehensive loss, before tax	(533)	—	(533)
Reclassification of tax benefit	—	—	—
Reclassification of gain from accumulated other comprehensive loss, after tax	(533)	—	(533)
Net current-period other comprehensive loss, net of tax	(966)	(5,716)	(6,682)
September 30, 2023	\$ —	\$ (54,801)	\$ (54,801)
December 31, 2021	\$ (945)	\$ (6,232)	\$ (7,177)
Other comprehensive loss before reclassifications, before tax	(194)	(85,653)	(85,847)
Tax benefit	—	—	—
Other comprehensive loss before reclassifications, net of tax	(194)	(85,653)	(85,847)
Reclassification of gain from accumulated other comprehensive loss, before tax	(80)	—	(80)
Reclassification of tax benefit	—	—	—
Reclassification of gain from accumulated other comprehensive loss, after tax	(80)	—	(80)
Net current-period other comprehensive loss, net of tax	(274)	(85,653)	(85,927)
September 30, 2022	\$ (1,219)	\$ (91,885)	\$ (93,104)

(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

During the nine months ended September 30, 2023, LivaNova issued stock-based compensatory awards with terms approved by the Compensation Committee of LivaNova's Board of Directors. The awards with service conditions generally vest ratably over four years and are subject to forfeiture unless service conditions are met. The market performance-based awards that were issued cliff vest after three years subject to the rank of LivaNova's total shareholder return for the three-year period ending December 31, 2025 relative to the total shareholder returns for a peer group of companies. The adjusted free cash flow and return on invested capital operating performance-based awards that were issued, cliff vest after three years subject to the achievement of certain thresholds of cumulative results for the three-year period ending December 31, 2025. Compensation expense related to awards granted during 2023 for the three and nine months ended September 30, 2023 was \$4.5 million and \$6.9 million, respectively.

Stock-based awards may be granted under the 2015 Plan and the 2022 Plan in the form of stock options, SARs, RSUs and other stock-based and cash-based awards. As of September 30, 2023, there were 13,493 shares available for future grants to LivaNova's Non-Executive Directors under the 2015 Plan and 1,398,400 shares pursuant to Options or Stock Appreciation Rights and 912,743 shares pursuant to other types of awards available for future grants to LivaNova's employees under the 2022 Plan. In June 2023, the Company's shareholders approved the A&R 2022 Plan. The A&R 2022 Plan increases the aggregate number of ordinary shares that can be issued under the 2022 Plan pursuant to options or SARs from 1,900,000 to 2,250,000, and the number of ordinary shares that can be issued pursuant to awards other than options or SARs from 1,200,000 to 1,500,000.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
RSUs	\$ 5,690	\$ 5,484	\$ 16,103	\$ 16,710
SARs	3,886	3,069	10,713	9,727
Market performance-based restricted stock units	1,071	1,049	392	2,903
Operating performance-based restricted stock units	866	875	7	2,271
Employee share purchase plan	266	250	854	881
Total stock-based compensation expense	\$ 11,779	\$ 10,727	\$ 28,069	\$ 32,492

Stock-based compensation agreements issued during the nine months ended September 30, 2023 representing potential shares and their weighted average grant date fair values by type is as follows (shares in thousands, fair value in dollars):

	Nine Months Ended September 30, 2023	
	Shares	Weighted Average Grant Date Fair Value
Service-based SARs	974,204	\$ 19.44
Service-based RSUs	502,821	\$ 42.89
Market performance-based RSUs	94,561	\$ 38.95
Operating performance-based RSUs	94,556	\$ 42.30

Note 11. Income Taxes

LivaNova's effective income tax rate for the three and nine months ended September 30, 2023 was (268.4)% and 90.1%, respectively, compared with (1.2)% and (7.8)% for the three and nine months ended September 30, 2022, respectively. LivaNova's 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.

LivaNova continually assesses the realizability of its worldwide deferred tax asset and valuation allowance positions, and when the need arises, the Company establishes or releases valuation allowances accordingly.

The decrease in the effective tax rate for the three months ended September 30, 2023, compared to the prior year period, was primarily attributable to changes in valuation allowances and year-over-year changes in income before tax in countries with varying statutory tax rates. The increase in the effective tax rate for the nine months ended September 30, 2023, compared to the prior year period, was primarily attributable to changes in valuation allowances, year-over-year changes in income before tax in countries with varying statutory tax rates and an audit settlement.

LivaNova operates in multiple jurisdictions throughout the world, and its tax returns are periodically audited or subjected to review by tax authorities. As a result, there is an uncertainty in income taxes recognized in LivaNova's financial statements. Tax benefits totaling \$0.4 million and \$1.6 million were unrecognized as of September 30, 2023 and December 31, 2022, respectively.

On July 11, 2023, the UK Act implemented the OECD's BEPS Pillar Two Framework, providing a minimum effective tax rate of 15%, including both a multinational top-up tax and a domestic top-up tax for accounting periods beginning on or after December 31, 2023. The UK Act also included a transitional safe harbor election for accounting periods beginning on or before December 31, 2026. LivaNova is reviewing the draft guidance issued on June 15, 2023, and the UK Act to assess the full implications for 2024 and will continue to monitor related guidance in the UK and other jurisdictions that impact LivaNova's operations. Any material change in tax laws, regulations or policies, or their interpretation and enforcement, including with respect to the Pillar Two Framework, could result in a higher effective tax rate and have a material impact on our consolidated statements of income (loss) or financial condition.

Note 12. Earnings Per Share

Reconciliation of the shares used in the basic and diluted earnings per share computations for the three and nine months ended September 30, 2023 and 2022 are as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Basic weighted average shares outstanding	53,989	53,534	53,837	53,474
Add effects of share-based compensation instruments ⁽¹⁾	—	—	270	—
Diluted weighted average shares outstanding	53,989	53,534	54,107	53,474

- (1) Excluded from the computation of diluted earnings per share were stock options, SARs and restricted share units totaling 4.0 million and 3.9 million for the three months ended September 30, 2023 and 2022, respectively, and 3.1 million and 4.0 million for the nine months ended September 30, 2023 and 2022, respectively, because to include them would have been anti-dilutive under the treasury stock method.

Note 13. Geographic and Segment Information

LivaNova identifies operating segments based on how it manages, evaluates and internally reports its business activities to allocate resources, develop and execute its strategy and assess performance. LivaNova has three reportable segments: Cardiopulmonary, Neuromodulation and ACS. Net revenue of the Company's reportable segments includes revenues from the sale of products that each reportable segment develops and manufactures or distributes.

LivaNova's Cardiopulmonary segment is engaged in the development, production and sale of cardiopulmonary products, including heart-lung machines, oxygenators, autotransfusion systems, perfusion tubing systems, cannulae and other related accessories.

LivaNova's Neuromodulation segment is engaged in the design, development and marketing of devices that deliver neuromodulation therapy for treating DRE and DTD. 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. It also includes the development and management of clinical testing of LivaNova's aura6000 System for treating OSA. LivaNova's Neuromodulation segment also includes costs associated with LivaNova's former heart failure program, which, as previously disclosed, the Company began to wind down during the first quarter of 2023.

LivaNova's ACS segment is engaged in the development, production and sale of leading-edge temporary life support products. LivaNova's ACS products, which comprise the LifeSPARC platform, simplify temporary extracorporeal cardiopulmonary life support solutions for critically ill patients. The LifeSPARC platform includes a common compact console and pump that provides temporary support for emergent rescue patients in a variety of settings. LivaNova's ACS segment also includes the Hemolung RAS, which was acquired in May 2022 as part of the acquisition of ALung.

LivaNova operates under three geographic regions: U.S., Europe, and Rest of World. The table below presents net revenue by operating segment and geographic region (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Cardiopulmonary				
United States	\$ 48,547	\$ 38,476	\$ 131,372	\$ 114,437
Europe ⁽¹⁾	35,190	28,754	110,642	93,980
Rest of World	61,090	53,729	185,488	155,437
	144,827	120,959	427,502	363,854
Neuromodulation				
United States	102,475	96,504	301,029	275,145
Europe ⁽¹⁾	12,661	11,130	41,066	37,296
Rest of World	13,744	14,201	40,689	37,416
	128,880	121,835	382,784	349,857
Advanced Circulatory Support				
United States	10,562	8,430	29,423	28,183
Europe ⁽¹⁾	277	114	522	1,220
Rest of World	113	92	266	268
	10,952	8,636	30,211	29,671
Other Revenue ⁽²⁾				
	1,454	1,175	2,916	3,549
Totals				
United States	161,583	143,410	461,823	417,765
Europe ⁽¹⁾	48,129	39,998	152,231	132,496
Rest of World	76,401	69,197	229,359	196,670
Total ⁽³⁾	\$ 286,113	\$ 252,605	\$ 843,413	\$ 746,931

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

(2) Other revenue primarily includes rental income not allocated to segments.

(3) No single customer represented over 10% of the Company’s consolidated net revenue. No country’s net revenue exceeded 10% of the Company’s consolidated revenue except for the U.S.

LivaNova defines segment income as operating income before merger and integration expense, restructuring expense, amortization of intangible assets, the Saluggia site provision, as well as other income and expense not allocated to segments. Other income and expense not allocated to segments primarily includes rental income and SG&A expenses for finance, legal, human resources, information technology and corporate business development. The table below presents a reconciliation of segment income (loss) to consolidated (loss) income before tax (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Cardiopulmonary	\$ (3,959)	\$ (10,324)	\$ 15,006	\$ 215
Neuromodulation	41,930	43,281	107,084	132,119
Advanced Circulatory Support	2,884	(134,902)	(8,315)	(136,855)
Segment income (loss)	40,855	(101,945)	113,775	(4,521)
Other income/(expense) ⁽¹⁾	(36,397)	(30,028)	(94,283)	(86,191)
Operating income (loss)	4,458	(131,973)	19,492	(90,712)
Interest expense	(14,986)	(12,661)	(43,232)	(34,889)
Foreign exchange and other income/(expense)	8,550	38,528	36,810	44,065
(Loss) income before tax	\$ (1,978)	\$ (106,106)	\$ 13,070	\$ (81,536)

(1) Other income/(expense) primarily includes rental income, SG&A expenses for finance, legal, human resources, information technology and corporate business development, as well as amortization of intangible assets, the Saluggia site provision, merger and integration expense and restructuring expense.

Assets by segment are as follows (in thousands):

	September 30, 2023	December 31, 2022
Cardiopulmonary	\$ 934,188	\$ 874,143
Neuromodulation	643,459	646,633
Advanced Circulatory Support	115,881	121,454
Other assets ⁽¹⁾	635,889	652,543
Total	\$ 2,329,417	\$ 2,294,773

(1) Other assets primarily includes corporate assets not allocated to segments.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Cardiopulmonary	\$ 4,103	\$ 2,295	\$ 11,444	\$ 7,337
Neuromodulation	597	192	1,089	322
Advanced Circulatory Support	221	589	1,066	1,273
Other capital expenditures ⁽¹⁾	3,261	2,852	8,489	8,439
Total	\$ 8,182	\$ 5,928	\$ 22,088	\$ 17,371

(1) Other capital expenditures primarily includes corporate capital expenditures not allocated to segments.

The changes in the carrying amount of goodwill by segment for the nine months ended September 30, 2023 were as follows (in thousands):

	Cardiopulmonary	Neuromodulation	Total
December 31, 2022	\$ 370,033	\$ 398,754	\$ 768,787
Foreign currency adjustments	(1,732)	—	(1,732)
September 30, 2023	\$ 368,301	\$ 398,754	\$ 767,055

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

	September 30, 2023	December 31, 2022
United States	\$ 67,346	\$ 63,458
Europe	77,319	79,654
Rest of World	4,637	4,075
Total	<u>\$ 149,302</u>	<u>\$ 147,187</u>

Note 14. Supplemental Financial Information

Inventories consisted of the following (in thousands):

	September 30, 2023	December 31, 2022
Raw materials	\$ 90,953	\$ 70,027
Work-in-process	17,919	15,508
Finished goods	52,667	43,844
	<u>\$ 161,539</u>	<u>\$ 129,379</u>

As of September 30, 2023 and December 31, 2022, inventories included adjustments totaling \$11.6 million and \$8.2 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, 2023	December 31, 2022
Legal and professional costs	\$ 15,299	\$ 8,653
Contract liabilities	10,969	10,226
Interest payable	9,961	—
Operating lease liabilities	8,560	9,379
Italian medical device payback law	7,586	6,414
Research and development costs	5,860	7,020
Royalty accrual	4,172	3,950
Provisions for agents, returns and other	3,607	1,678
Restructuring liabilities	1,285	2,045
Current derivative liabilities	207	5,886
Other accrued expenses	22,174	26,230
	<u>\$ 89,680</u>	<u>\$ 81,481</u>

As of September 30, 2023 and December 31, 2022, contract liabilities totaling \$15.3 million and \$14.1 million, respectively, were 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 income/(expense)” on the condensed consolidated statements of income (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Exchangeable Notes fair value adjustment ⁽¹⁾	\$ 402	\$ 50,945	\$ 32,372	\$ 98,555
Capped call fair value adjustment ⁽¹⁾	1,635	(13,385)	(10,724)	(58,406)
Foreign exchange rate fluctuations	420	575	(588)	3,707
Interest income	5,921	547	15,985	624
Other	172	(154)	(235)	(415)
Foreign exchange and other income/(expense)	<u>\$ 8,550</u>	<u>\$ 38,528</u>	<u>\$ 36,810</u>	<u>\$ 44,065</u>

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

The table below presents a reconciliation of cash, cash equivalents and restricted cash reported on the condensed consolidated balance sheets that sum to the total of the amounts shown on the condensed consolidated statement of cash flows (in thousands):

	September 30, 2023	December 31, 2022
Cash and cash equivalents	\$ 233,941	\$ 214,172
Restricted cash ⁽¹⁾	298,781	301,446
Cash, cash equivalents and restricted cash	<u>\$ 532,722</u>	<u>\$ 515,618</u>

(1) Restricted cash represents funds held as collateral for the SNIA Litigation Guarantee. Refer to “Note 8. Commitments and Contingencies.”

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 the condensed consolidated financial statements and related notes, which appear elsewhere in this document, and with LivaNova’s 2022 Form 10-K. LivaNova’s discussion and analysis may contain forward-looking statements that involve risks and uncertainties. The Company’s 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 Part I, Item 1A. of LivaNova’s 2022 Form 10-K, as updated and supplemented by LivaNova’s Quarterly Reports on Form 10-Q, including in Part II, Item 1A. and elsewhere in this Quarterly Report on Form 10-Q.

The capitalized terms used below have been defined in the notes to LivaNova’s condensed consolidated financial statements and the “Definitions” section of this Quarterly Report on Form 10-Q.

Macroeconomic Environment

The current macroeconomic environment, including foreign exchange volatility, inflationary pressures, geopolitical instability, and supply chain challenges, has impacted and may continue to impact LivaNova’s business and profitability. Furthermore, LivaNova continues to experience supply chain delays and interruptions, labor shortages, inflationary pressures and logistical and capacity constraints, though, to date, the Company’s supply of raw materials and the production and distribution of finished products have not been materially affected. Moreover, freight and labor costs at LivaNova’s manufacturing facilities have increased substantially in the wake of inflation globally. The Company continues to respond to such challenges, and while LivaNova has business continuity plans in place, the impact of the ongoing challenges the Company is navigating, along with their potential escalation, may adversely affect its business.

Conflicts, including those in Ukraine and the Middle East, have caused the Company to assess its ability to sell in certain markets due to any applicable international sanctions, consider the potential impact of raw material sourced from these areas, and determine whether LivaNova is able to transact in a compliant fashion. Net revenues from each of these conflict areas represented approximately 1%, respectively, of LivaNova’s total net revenue for 2022. These conflicts have increased economic uncertainties, and a significant escalation or continuation of these conflicts could have a material, global impact on the Company’s operating results.

Business Overview

LivaNova is a global medical technology company built on nearly five decades of experience and a relentless commitment to provide hope for patients and their families through medical technologies, delivering life-changing improvements for both the Head and Heart. The Company is a public limited company organized under the laws of England and Wales and headquartered in London, England.

LivaNova is comprised of three reportable segments: Cardiopulmonary, Neuromodulation and ACS, corresponding to its primary business units.

For further information regarding LivaNova’s business segments, historical financial information and its 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.

Cardiopulmonary

LivaNova’s Cardiopulmonary segment is engaged in the development, production and sale of cardiopulmonary products, including heart-lung machines, oxygenators, autotransfusion systems, perfusion tubing systems, cannulae and other related accessories.

In March 2023, LivaNova announced it received FDA 510(k) clearance for its Essenz HLM. With FDA clearance, LivaNova initiated the commercial launch of Essenz in the U.S. In March 2023, LivaNova also initiated a broad commercial release in Europe following a successful limited commercial release that supported more than 200 adult, pediatric and neonatal patients in Europe. The Company has also received approval for the Essenz HLM from Health Canada and the Japanese Pharmaceuticals and Medical Devices Agency.

In August 2023, LivaNova announced it received FDA 510(k) clearance and CE Mark for its Essenz In-Line Blood Monitor, which provides accurate and continuous measurement of essential blood parameters to perfusionists throughout CPB procedures. The In-Line Blood Monitor is integrated into LivaNova’s next-generation CPB platform, the Essenz Perfusion System, which allows perfusionists to access and manage reliable blood parameters without the need for additional monitors or holders.

Information on Cardiopulmonary that could potentially impact LivaNova's condensed consolidated financial statements and related disclosures is incorporated by reference to Part I. Note 8. Commitments and Contingencies: Product Liability Litigation.

Neuromodulation

LivaNova's Neuromodulation segment is engaged in the design, development and marketing of devices that deliver neuromodulation therapy for treating DRE and DTD. 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. It also includes the development and management of clinical testing of LivaNova's aura6000 System for treating OSA. This device stimulates the hypoglossal nerve, which engages certain tongue muscles to open the airway while a patient sleeps. LivaNova's Neuromodulation segment also includes costs associated with LivaNova's former heart failure program, which the Company began to wind down during the first quarter of 2023.

In March 2023, LivaNova randomized the 500th unipolar depression patient into the RECOVER clinical study and subsequently completed all implants in May. Upon receipt of the 12-month follow-up data for all 500 patients, the Company expects to conduct a final analysis for the unipolar cohort, culminating in a publication of the study results for that cohort.

In June 2023, LivaNova randomized the 150th bipolar depression patient into the RECOVER clinical study. The RECOVER clinical study's protocol allows for a minimum of 150 and a maximum of 500 bipolar depression patients to be randomized into the study. Having randomized the 150th bipolar patient, a series of interim analyses will be conducted by an independent Statistical Analysis Committee to assess if predictive probability of success has been reached for the bipolar cohort of the study. If any analysis reveals that the predictive probability of success has been reached, recruitment into the bipolar arm of the study will cease and LivaNova will notify CMS of the initiation of the prospective open-label longitudinal study for future bipolar Medicare patients. After the last patient enrolled into the RECOVER clinical study has completed 12 months of follow-up, a final analysis will be conducted on the complete bipolar dataset.

The RECOVER clinical study, if successful, will be used to support a peer-reviewed article and reconsideration of reimbursement for VNS therapy by CMS for the treatment of DTD. The reconsideration process will happen independently for the unipolar and bipolar cohorts.

Advanced Circulatory Support

LivaNova's ACS segment is engaged in the development, production and sale of leading-edge temporary life support products. LivaNova's ACS products, which comprise the LifeSPARC platform, simplify temporary extracorporeal cardiopulmonary life support solutions for critically ill patients. The LifeSPARC platform includes a common compact console and pump that provides temporary support for emergent rescue patients in a variety of settings. Designed for ease of use, the system offers power and versatility for multi-disciplinary programs to support more patients in more places. The platform is accompanied by four specialized and ready-to-deploy kits, each designed to support diverse cannulation strategies. LivaNova's ACS segment also includes the Hemolung RAS. The Hemolung RAS is the only FDA-cleared platform designed specifically for low-flow extracorporeal carbon dioxide removal for acute respiratory failure. The Hemolung RAS was acquired in May 2022 as part of the acquisition of ALung.

Critical Accounting Estimates

For a discussion of LivaNova's critical accounting estimates, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in the 2022 Form 10-K.

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.

Results of Operations

The following table summarizes LivaNova's condensed consolidated results of operations (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Net revenue	\$ 286,113	\$ 252,605	\$ 843,413	\$ 746,931
Cost of sales	84,310	81,687	262,330	223,220
Gross profit	201,803	170,918	581,083	523,711
Operating expenses:				
Selling, general and administrative	134,794	114,630	384,795	349,637
Research and development	46,541	35,725	147,651	110,872
Impairment of goodwill	—	129,396	—	129,396
Other operating expense	16,010	23,140	29,145	24,518
Operating income (loss)	4,458	(131,973)	19,492	(90,712)
Interest expense	(14,986)	(12,661)	(43,232)	(34,889)
Foreign exchange and other income/(expense)	8,550	38,528	36,810	44,065
(Loss) income before tax	(1,978)	(106,106)	13,070	(81,536)
Income tax expense	5,308	1,295	11,776	6,347
(Loss) income from equity method investments	(32)	57	(87)	(24)
Net (loss) income	\$ (7,318)	\$ (107,344)	\$ 1,207	\$ (87,907)

Net Revenue

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

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2023	2022	% Change	2023	2022	% Change
Cardiopulmonary						
United States	\$ 48,547	\$ 38,476	26.2 %	\$ 131,372	\$ 114,437	14.8 %
Europe ⁽¹⁾	35,190	28,754	22.4 %	110,642	93,980	17.7 %
Rest of World	61,090	53,729	13.7 %	185,488	155,437	19.3 %
	144,827	120,959	19.7 %	427,502	363,854	17.5 %
Neuromodulation						
United States	102,475	96,504	6.2 %	301,029	275,145	9.4 %
Europe ⁽¹⁾	12,661	11,130	13.8 %	41,066	37,296	10.1 %
Rest of World	13,744	14,201	(3.2)%	40,689	37,416	8.7 %
	128,880	121,835	5.8 %	382,784	349,857	9.4 %
Advanced Circulatory Support						
United States	10,562	8,430	25.3 %	29,423	28,183	4.4 %
Europe ⁽¹⁾	277	114	143.0 %	522	1,220	(57.2)%
Rest of World	113	92	22.8 %	266	268	(0.7)%
	10,952	8,636	26.8 %	30,211	29,671	1.8 %
Other Revenue ⁽²⁾	1,454	1,175	23.7 %	2,916	3,549	(17.8)%
Totals						
United States	161,583	143,410	12.7 %	461,823	417,765	10.5 %
Europe ⁽¹⁾	48,129	39,998	20.3 %	152,231	132,496	14.9 %
Rest of World	76,401	69,197	10.4 %	229,359	196,670	16.6 %
Total	\$ 286,113	\$ 252,605	13.3 %	\$ 843,413	\$ 746,931	12.9 %

(1) Includes countries in Europe where the Company has a direct sales presence. Countries where sales are made through distributors are included in "Rest of World."

(2) Other revenue primarily includes rental income not allocated to segments.

The table below presents segment income (loss) (in thousands, except for percentages):

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2023	2022	% Change	2023	2022	% Change
Cardiopulmonary	\$ (3,959)	\$ (10,324)	(61.7)%	\$ 15,006	\$ 215	6,879.5 %
Neuromodulation	41,930	43,281	(3.1)%	107,084	132,119	(18.9)%
Advanced Circulatory Support	2,884	(134,902)	(102.1)%	(8,315)	(136,855)	(93.9)%
Segment income (loss) ⁽¹⁾	\$ 40,855	\$ (101,945)	(140.1)%	\$ 113,775	\$ (4,521)	(2,616.6)%

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

Cardiopulmonary

Cardiopulmonary net revenue for the three and nine months ended September 30, 2023 increased 19.7% to \$144.8 million and 17.5% to \$427.5 million, respectively, compared to the three and nine months ended September 30, 2022, respectively, with growth across all regions, driven by increased heart-lung machine placements, including Essenz Perfusion System installations in the U.S. and Europe, and strong oxygenator demand.

Cardiopulmonary segment loss for the three months ended September 30, 2023 was \$4.0 million, compared to \$10.3 million for the three months ended September 30, 2022. The decrease in segment loss was primarily due to the increase in net revenue, as described above, and a decrease in the litigation provision related to LivaNova’s 3T Heater-Cooler device of \$5.0 million, partially offset by an increase in sales and marketing expense associated with the launch of Essenz. Cardiopulmonary segment income for the nine months ended September 30, 2023 was \$15.0 million, compared to \$0.2 million for the nine months ended September 30, 2022. The increase in segment income was primarily due to the increase in net revenue, as described above, partially offset by an increase in sales and marketing expense associated with the launch of Essenz, as well as an increase in the litigation provision related to LivaNova’s 3T Heater-Cooler device of \$6.4 million.

Neuromodulation

Neuromodulation net revenue for the three and nine months ended September 30, 2023 increased 5.8% to \$128.9 million and 9.4% to \$382.8 million, respectively, compared to the three and nine months ended September 30, 2022, respectively. For the three-month comparative period, net revenue increased with growth in the U.S. and Europe regions. For the nine-month comparative period, net revenue increased with growth across all regions.

Neuromodulation segment income for the three and nine months ended September 30, 2023 was \$41.9 million and \$107.1 million, respectively, compared to \$43.3 million and \$132.1 million for the three and nine months ended September 30, 2022, respectively. The decreases in segment income were primarily due to the net unfavorable impact of the change in fair value of the sales-based and milestone-based contingent consideration arrangement associated with the acquisition of ImThera of \$7.2 million and \$29.3 million for the three- and nine-month comparative periods, respectively, as well as an increase in R&D expense for the three- and nine-month comparative periods totaling \$1.8 million and \$10.6 million, respectively, associated with the Company’s RECOVER clinical study and OSPREY clinical trial. These increases in expense were partially offset by the increase in net revenue, as described above.

Advanced Circulatory Support

ACS net revenue for the three and nine months ended September 30, 2023, increased 26.8% and 1.8% to \$11.0 million and \$30.2 million, respectively, compared to \$8.6 million and \$29.7 million for the three and nine months ended September 30, 2022, respectively, reflecting growth in case volumes.

ACS segment income for the three months ended September 30, 2023, was \$2.9 million, compared to segment loss of \$134.9 million for the three months ended September 30, 2022. ACS segment loss for the nine months ended September 30, 2023, was \$8.3 million, compared to \$136.9 million for the nine months ended September 30, 2022. These increases in segment income were primarily due to the impairment of the goodwill associated with the Company’s ACS segment of \$129.4 million during the three and nine months ended September 30, 2022. For additional information, please refer to “Note 4. Goodwill and Intangible Assets” in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

Cost of Sales and Expenses

The following table presents costs and expenses as a percentage of net revenue for the three and nine months ended September 30, 2023 and 2022:

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2023	2022	Change	2023	2022	Change
Cost of sales	29.5 %	32.3 %	(2.8)%	31.1 %	29.9 %	1.2 %
Selling, general and administrative	47.1 %	45.4 %	1.7 %	45.6 %	46.8 %	(1.2)%
Research and development	16.3 %	14.1 %	2.2 %	17.5 %	14.8 %	2.7 %
Impairment of goodwill	— %	51.2 %	(51.2)%	— %	17.3 %	(17.3)%
Other operating expense	5.6 %	9.2 %	(3.6)%	3.5 %	3.3 %	0.2 %

Cost of Sales

Cost of sales consists primarily of direct labor, allocated manufacturing overhead and raw materials and components.

Cost of sales as a percentage of net revenue was 29.5% for the three months ended September 30, 2023, a decrease of 2.8% compared to the three months ended September 30, 2022. Cost of sales as a percentage of net revenue was 31.1% for the nine months ended September 30, 2023, an increase of 1.2% compared to the nine months ended September 30, 2022. The decrease for the three-month comparative period was primarily due to the net impact of the change in fair value of sales-based contingent consideration arrangements totaling \$6.1 million. The increase for the nine-month comparative period was primarily due to the net impact of the change in fair value of sales-based contingent consideration arrangements totaling \$13.0 million.

Selling, General and Administrative Expense

SG&A expense is comprised of sales, marketing, and general and administrative activities.

SG&A expense as a percentage of net revenue was 47.1% for the three months ended September 30, 2023, an increase of 1.7% compared to the three months ended September 30, 2022, and 45.6% for the nine months ended September 30, 2023, a decrease of 1.2% compared to the nine months ended September 30, 2022. The increase for the three-month comparative period was primarily due to an increase in legal costs, partially offset by a decrease in sales and marketing expense as a percentage of net revenue. The decrease for the nine-month comparative period was primarily due to a decrease in stock-based compensation expense due to forfeitures of awards associated with the recent departure of the Company's former CEO and prior year business development expense related to the acquisition of ALung, partially offset by an increase in legal costs.

Research and Development Expense

R&D expense consists of product design and development efforts, clinical study programs and regulatory activities, which are essential to LivaNova's strategic portfolio initiatives, including DTD, OSA and, until recently, heart failure.

R&D expense as a percentage of net revenue was 16.3% and 17.5% for the three and nine months ended September 30, 2023, respectively, an increase of 2.2% and 2.7% compared to the three and nine months ended September 30, 2022, respectively. These increases were primarily due to the net impact of the change in the fair value of milestone-based contingent consideration arrangements totaling \$9.2 million and \$24.9 million for the three- and nine-month comparative periods, respectively, as well as increases associated with the Company's RECOVER clinical study and OSPREY clinical trial totaling \$1.8 million and \$10.6 million for the three- and nine-month comparative periods, respectively.

Impairment of Goodwill

LivaNova tests goodwill for impairment on an annual basis on October 1 or when events or changes in circumstances indicate that a potential impairment exists. As part of LivaNova's assessment as of September 30, 2022, the Company considered that revenue for the ACS reporting unit during the nine months ended September 30, 2022 had declined by approximately 29% compared to the prior year period, primarily as a result of a reduction in severe COVID-19 cases, hospital-related challenges and product mix. Furthermore, future revenue projections were reduced. Based on these circumstances, LivaNova concluded it was more likely than not that the goodwill of the Company's ACS reporting unit was impaired, and performed a quantitative assessment of the goodwill as of September 30, 2022, using management's current estimate of future cash flows. Based on the valuation performed, LivaNova determined that the fair value of the ACS reporting unit was less than the carrying value and recognized a goodwill impairment of \$129.4 million in the Company's condensed consolidated statements of income (loss) for the three and nine months ended September 30, 2022.

Other Operating Expense

Other operating expense primarily consists of the provision for litigation involving LivaNova's 3T Heater-Cooler device, the Saluggia site provision, restructuring expense, and merger and integration expense.

Other operating expense as a percentage of net revenue was 5.6% for the three months ended September 30, 2023, a decrease of 3.6% compared to the three months ended September 30, 2022. Other operating expense as a percentage of net revenue was 3.5% for the nine months ended September 30, 2023, an increase of 0.2% compared to the nine months ended September 30, 2022. The decrease for the three-month comparative period was primarily due to a decline in the amount recorded for the litigation provision related to LivaNova's 3T Heater-Cooler device of \$5.0 million, partially offset by an increase in the Saluggia site provision of \$2.3 million. For additional information on these provisions, please refer to "Note 8. Commitments and Contingencies" in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

Interest Expense

Interest expense for the three and nine months ended September 30, 2023, increased to \$15.0 million and \$43.2 million, respectively, compared to \$12.7 million and \$34.9 million for the three and nine months ended September 30, 2022, respectively, primarily due to an increase in interest rates and an increase in average borrowings, partially offset by a reduction in amortization of debt issuance costs for the nine-month comparative period. For further details, refer to "Note 6. Financing Arrangements" in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

Foreign Exchange and Other Income/(Expense)

Foreign exchange and other income/(expense) consist primarily of gains and losses arising from transactions denominated in a currency different from an entity's functional currency, FX derivative gains and losses, changes in the fair value of the embedded exchange feature and capped call derivatives and interest income.

Foreign exchange and other income/(expense) was income of \$8.6 million and \$36.8 million for the three and nine months ended September 30, 2023, respectively, compared to income of \$38.5 million and \$44.1 million for the three and nine months ended September 30, 2022, respectively. For further details, 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. LivaNova's 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 the Company's subsidiaries conduct operations vary. LivaNova's 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.

LivaNova's effective income tax rate for the three and nine months ended September 30, 2023 was (268.4)% and 90.1%, respectively, compared with (1.2)% and (7.8)% for the three and nine months ended September 30, 2022, respectively. The decrease in the effective tax rate for the three months ended September 30, 2023, compared to the prior year period, was primarily attributable to changes in valuation allowances and year-over-year changes in income before tax in countries with varying statutory tax rates. The increase in the effective tax rate for the nine months ended September 30, 2023, compared to the prior year period, was primarily attributable to changes in valuation allowances, year-over-year changes in income before tax in countries with varying statutory tax rates and an audit settlement.

On July 11, 2023, the UK Act implemented the OECD's BEPS Pillar Two Framework, providing a minimum effective tax rate of 15%, including both a multinational top-up tax and a domestic top-up tax for accounting periods beginning on or after December 31, 2023. The UK Act also included a transitional safe harbor election for accounting periods beginning on or before December 31, 2026. LivaNova is reviewing the draft guidance issued on June 15, 2023, and the UK Act to assess the full implications for 2024 and will continue to monitor related guidance in the UK and other jurisdictions that impact LivaNova's operations. Any material change in tax laws, regulations or policies, or their interpretation and enforcement, including with respect to the Pillar Two Framework, could result in a higher effective tax rate and have a material impact on our consolidated statements of income (loss) or financial condition.

Liquidity and Capital Resources

Based on LivaNova's current business plan, the Company believes that its sources of liquidity, which primarily consist of cash and cash equivalents, future cash generated from operations and available borrowings under its revolving credit facility, will be sufficient to fund its uses of liquidity, primarily consisting of day-to-day operating expenses, working capital, capital expenditures, acquisition earn-outs and debt service requirements over the twelve-month period beginning from the issuance

date of these condensed consolidated financial statements. From time to time, LivaNova may access debt and/or equity markets to optimize its capital structure, raise additional capital, or increase liquidity as necessary. LivaNova's liquidity could be adversely impacted by the factors affecting future operating results, including those referred to in "Part I, Item 1A. Risk Factors" in the 2022 Form 10-K as well as "Note 8. Commitments and Contingencies" in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

LivaNova's operating and working capital obligations primarily consist of liabilities arising from the normal course of business, including inventory supply contracts, the future settlement of derivative instruments and future payments of operating leases, as well as contingent consideration arrangements resulting from acquisitions and obligations associated with legal and other accruals.

The following table presents selected financial information related to LivaNova's liquidity as of September 30, 2023 and December 31, 2022 (in thousands):

	September 30, 2023	December 31, 2022
Available Short-term Liquidity		
Cash and cash equivalents	\$ 233,941	\$ 214,172
Availability under the 2021 First Lien Credit Agreement	125,000	125,000
Availability under the Delayed Draw Term Facility ⁽¹⁾	—	50,000
	<u>\$ 358,941</u>	<u>\$ 389,172</u>
Working Capital		
Current assets	\$ 953,867	\$ 886,136
Current liabilities	295,396	297,398
	<u>\$ 658,471</u>	<u>\$ 588,738</u>
Debt Obligations		
Current portion of long-term debt	\$ 18,417	\$ 20,892
Short-term unsecured borrowing arrangements	610	2,542
Current debt obligations	19,027	23,434
Long-term debt obligations	568,163	518,067
Total debt obligations	<u>\$ 587,190</u>	<u>\$ 541,501</u>

(1) On April 6, 2023, LivaNova drew the full \$50 million under the Delayed Draw Term Facility to be used for general corporate purposes.

For additional information, refer to "Note 6. Financing Arrangements" in the condensed consolidated financial statements in this Quarterly Report on Form 10-Q.

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, cash equivalents and restricted cash were as follows (in thousands):

	Nine Months Ended September 30,	
	2023	2022
Operating activities	\$ 20,956	\$ 51,218
Investing activities	(28,193)	(27,461)
Financing activities	26,502	281,787
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(2,161)	(7,257)
Net increase in cash, cash equivalents and restricted cash	<u>\$ 17,104</u>	<u>\$ 298,287</u>

Operating Activities

Cash provided by operating activities during the nine months ended September 30, 2023 decreased by \$30.3 million compared to the same prior year period primarily due to an increase in 3T Heater-Cooler litigation settlement payments of \$17.5 million, as well as additional changes in working capital.

Investing Activities

Cash used in investing activities during the nine months ended September 30, 2023 increased \$0.7 million compared to the same prior year period primarily due to increases in purchases of investments of \$5.6 million and purchases of property, plant and equipment of \$4.7 million, partially offset by \$8.9 million paid during the nine months ended September 30, 2022 associated with the acquisition of ALung.

Financing Activities

Cash provided by financing activities during the nine months ended September 30, 2023 decreased \$255.3 million compared to the same prior year period, primarily due to a reduction in proceeds from net borrowings of \$251.8 million.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

LivaNova is exposed to certain market risks as part of its 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 LivaNova's consolidated financial position, results of operations or cash flows. The Company manages 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 LivaNova's 2022 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

LivaNova maintains a system of disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act, that is designed to ensure that information required to be disclosed in the Company's 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 LivaNova's CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure. LivaNova's management, under the supervision and with the participation of its CEO and CFO, evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures as of the end of the most recent fiscal quarter reported herein. Based on that evaluation, LivaNova's CEO and CFO concluded that the Company's disclosure controls and procedures were effective as of September 30, 2023.

(b) Changes in Internal Control Over Financial Reporting

There have been no changes in LivaNova's 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, 2023 that have materially affected, or are reasonably likely to materially affect, LivaNova's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. *Legal Proceedings*

For a description of LivaNova's material pending legal and regulatory proceedings and settlements, refer to "Note 8. Commitments and Contingencies" in the Company's condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

Item 1A. *Risk Factors*

There have been no material changes in LivaNova's risk factors from those disclosed in Part I, Item 1A of the Company's 2022 Annual Report on Form 10-K and Part II, Item 1A of the Company's 10-Q for the quarter ending March 31, 2023.

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

None.

Item 3. *Defaults Upon Senior Securities*

None.

Item 4. *Mine Safety Disclosures*

Not applicable.

Item 5. *Other Information*

During the three months ended September 30, 2023, none of the Company's directors or officers (as defined in Rule 16a-1(f) of the Securities Exchange Act of 1934) adopted, terminated or modified a Rule 10b5-1 trading arrangement or non-Rule 10b5-1 trading arrangement (as such terms are defined in Item 408 of Regulation S-K of the Securities Act of 1933).

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 dealings with government-owned entities, even when those activities are lawful and do not involve U.S. persons. One of LivaNova's non-U.S. subsidiaries currently sells medical devices, including cardiopulmonary, cardiac surgery and neuromodulation products, to distributors and a non-governmental public organization in Iran.

LivaNova has limited visibility into the identity of the end customers in Iran. It is possible that such 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 the Company's knowledge at this time, LivaNova does not have any contracts or commercial arrangements with the Iranian government.

LivaNova's net revenue and net profits attributable to the above-mentioned Iranian activities were \$0.4 million and \$0.3 million, respectively, for the three months ended September 30, 2023, and \$3.3 million and \$1.4 million, respectively, for the nine months ended September 30, 2023.

The Company believes its 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. LivaNova intends to continue its 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. Exhibits marked with the cross symbol (†), if any, 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*†	Marco Dolci Retirement Agreement dated September 18, 2023
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, 2023 and 2022, (ii) the Condensed Consolidated Statements of Comprehensive Income (Loss) for the three and nine months ended September 30, 2023 and 2022, (iii) the Condensed Consolidated Balance Sheet as of September 30, 2023 and December 31, 2022, (iv) the Condensed Consolidated Statements of Cash Flows for the nine months ended September 30, 2023 and 2022, 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 1, 2023 By: /s/ WILLIAM A. KOZY
William A. Kozy
Interim Chief Executive Officer and Chair of the Board
(Principal Executive Officer)

LIVANOVA PLC

Date: November 1, 2023 By: /s/ ALEX SHVARTSBURG
Alex Shvartsburg
Chief Financial Officer
(Principal Accounting and Financial Officer)

Settlement Agreement

This Agreement is entered into on 18 September 2023

Between

Sorin Group Italia S.r.l., tax code 10556980158, with registered office in Milan, Via Enrico Cialdini 16

hereinafter, the "Company"

and

Mr. Marco Dolci, tax code DLCMRC62B07F205Y

hereinafter, the "Executive"; jointly, the "Parties"

This Agreement disciplines the termination and the full settlement of the employment contract between the Company and the Executive, as well as the termination of the offices held by the Executive in the boards of the companies belonging to LivaNova's Group ("LN Group"), and relevant mutual waivers.

Preamble:

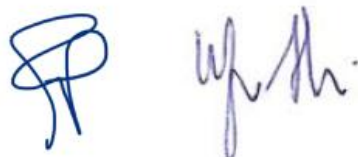
- the Parties entered into an employment contract effective from April 20, 2017 (the "**Employment**") with the Executive hired under the contractual classification as Executive (*dirigente*) of the National Collective Bargaining Agreement for Executives of Industrial Companies ("NCBA"). The Executive has been also appointed, within the performance of the Employment, as *preposto* of LivaNova Plc branch (*sede secondaria*);
- the Executive currently holds the following offices within the Group:
 - i. Chairman of the Board of Directors of LivaNova Site Management S.r.l.;
 - ii. Chairman of the Board of Directors of Sorin Group Italia S.r.l.;
 - iii. Chairman of the Board of Directors of LivaNova Holding S.r.l. (jointly defined the "**Offices**")
- the Parties have agreed that the Employment and the Offices can no longer continue, and that - for the purpose of the Executive's retirement - a mutual termination of the Employment should be agreed, allowing the Company to benefit from the Executive's service (also for handover purposes) during a garden leave period, before termination date;
- the Parties, after having discussed in depth their views, have decided to execute an agreement concerning the termination of the Employment and the Offices, with the purpose of reaching the settlement of any current or future claims between the Executive, the Company and any other LN Group company that may have in any way directly or indirectly arisen due to the Employment, the Offices and their termination or from any other relationship between the Parties.

1. Preamble

1.1. The preamble shall be considered as an integral part of this agreement (the "**Agreement**").

2. Retirement – resignation from the Offices

2.1. The Parties hereby declare and agree that the Employment (and all associated roles and proxies) will terminate on a mutual consent basis, due to the Executive's retirement, on December 31st, 2023 (the "**Date of Termination**").



Due to the nature of this Agreement, no notice period (and/or the payment of the relevant indemnity in lieu of notice) shall apply.

It is hereby understood and agreed that no event such as - among the others - the Executive's illness, shall have an impact on the Date of Termination.

The Executive undertakes to comply (by and no later than 7 days from the execution of this Agreement) with the online INPS procedure related to the termination of the Employment.

- 2.2. Until the Date of Termination, the Executive will keep his formal job title and role within the organization, but will be exempted from day-by-day working performance and duties.

Without prejudice to the above, the Executive expressly undertakes to fully cooperate with LN Group ELT executives and officers, and/or with other individuals appointed by the Company and/or by LN Group, and use his best efforts in order to facilitate a smooth handover, including but not limited by sharing any information and document in his possess, attending meetings scheduled with at least 24 hours' notice, etc., until the Date of Termination.

The Executive, until the Date of Termination, will continue to be subject to ordinary duties based on Italian law and NCBA (e.g. confidentiality, non-compete, etc.).

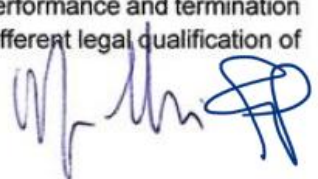
- 2.3. The Executive undertakes to (i) irrevocably resign from all the Offices pursuant to applicable laws and by-laws, according to the timeline that will be communicated by the Company in good faith and based on the LN Group's needs, and (ii) to fully cooperate with the Company and LN Group to assure the timely termination of the Offices.

3. Payments up to the Date of Termination

- 3.1. The Executive will receive, until the Date of Termination, his normal gross monthly salary.
- 3.2. Furthermore, the Executive will receive, after the Date of Termination:
- the TFR, if in the Company's availability;
 - pro-rata of additional monthly instalments;
 - payment in lieu of any unused holidays and leaves accrued at the Date of Termination.

4. Full settlement

- 4.1. The Executive, pursuant to a «*transazione generale novativa*» as provided for by Articles 1965, 1975 and 1976 of the Italian Civil Code, waives towards the Company, and towards any other company belonging to the LN Group, to all claims or rights of any nature or kind whatsoever related to, or caused by, the Employment or its termination, including - but not limited to - claims related to a different length of service, salary differences, bonus (including STI 23) based on the LN Group's incentive plans, equity awards or rights (except for what is provided in this Agreement under paragraph 7), impact of LN Group's incentive plans, equity awards or rights on mandatory payments calculation e.g. TFR, travel allowances, reimbursement of expenses (save those already submitted), compensation for demotion, damages according to Articles 2043, 2059, 2087, 2103 and 2116, paragraph 2, of the Italian Civil Code, and, more in general, to any rights deriving from the law, the Employment contract or the NCBA, and LN Group's policies. Without prejudice to the above, the Executive will maintain his rights pursuant to Article 15 of the applicable NCBA.
- 4.2. Furthermore, the Executive, as part of the «*transazione generale novativa*» pursuant to Articles 1965, 1975 and 1976 of the Italian Civil Code, waives towards the Company, and towards any other company of the LN Group, to any claim or right connected to, or even only occasioned, by the performance and termination of the Offices, including - but not limited to - any request or claim related to a different legal qualification of



the Offices, additional consideration and/or fees, reimbursement of expenses and to any other right, including compensation for damages.

- 4.3. The Company, also on behalf of any other LN Group company, accepts the above mentioned waivers and, in connection with the same, waives to any claim towards the Executive in relation to the performance of the Employment and the Offices and, as a consideration for the «*transazione generale novativa*», undertakes to pay the Executive the gross amount of Eur 30.000.

For the purpose of this Clause 4.3, the Company hereby undertakes to procure that, for each company where the Executive holds the Offices, the relevant shareholders meeting passes a resolution whereby (i) each company ratifies the Executive's activity as member of the board and (ii) any liability action against the Executive in relation to the execution of the Offices, is waived, consistently with the provisions below.

Without prejudice to the above, it is acknowledged that any waivers in relation to the termination of the Employment and the Offices shall not prevent the Company (or any other company belonging to the LN Group) to raise any claim vis-a-vis the Executive pursuant to the recoupment or clawback policies applicable to the Executive, as in effect from time to time, or in relation to actions and/or inactions - unknown to the Company at the time this Agreement is executed - by the Executive with fraud or gross negligence ascertained with a first instance judgment, in the performance of the Employment or the Offices. The Company, also on behalf of all LN Group company, confirms and acknowledges that as at the date hereof, there are no concerns regarding the Executive's conduct which have come to its attention, and which would be a reason for the Company or any Group company to pursue any kind of claim or action for pecuniary or non-pecuniary damages against the Executive.

- 4.4. For a period of 6 years from the Date of Termination, the Company will maintain D&O insurance for the benefit of the Executive in respect of those liabilities which he may have incurred as a director of the Company or any LN Group company on the same terms as are provided to its directors from time to time during such period.

5. Retirement

- 5.1. The Company undertakes to pay the Executive, in connection with the agreed retirement, the gross amount of Eur 830.000.
- 5.2. The amount under point 5.1 above, which is not subject to social security charges, as provided for by Article 12(4.b) of the law 30 April 1969, No. 153, as modified by Article 6 of D.Lgs. 2 September 1997, No. 314, it shall be subject to I.R.Pe.F., calculated according to Articles 17 and 19 T.U.I.R. It is agreed that the Company will have no liabilities or further obligations, towards the Executive, in case the tax authority demands the payment of additional taxes due to a new calculation of the applicable withholding.

6. Payments terms

- 6.1. The amounts under point 4.3 and 5.1 above shall be paid, by wire transfer to the account specified by the Executive, within 30 days from the Date of Termination, upon the preliminary conditions that (i) the Parties have executed the *Verbale di conciliazione* under point 10 below, and (ii) the Executive have fulfilled his obligations under point 2.3 above.

7. LTI

- 7.1. Without prejudice to the termination of the Employment and the Offices, the Compensation Committee of LivaNova PLC has designated the Executive's termination of the Employment to be an "Approved Retirement" pursuant to the terms of the outstanding agreements related to Restricted Stock Units, Performance Share Units, and Stock Appreciation Rights granted to the Executive (the "Equity Awards") and confirms that the unvested portion of each of the Equity Awards shall continue to vest pursuant to the terms of their respective award agreements. The Company warrants that it has taken all required steps



and obtained all necessary approvals and/or authorisations from all relevant parties in order to give effect to the provisions of this clause 7.1. The Company finds it important to make it explicit to the Executive, that any vested SARs (Stock Appreciation Rights) from 2017 & 2018 are excluded from the Approved Retirement Equity Award terms, hence will expire 3 months after the Date of Termination.

The definitions used in this clause 7.1 refer to the definitions used in the Equity Awards plans.

The Company and Executive agree that the Executive shall not be eligible to receive any further equity awards in the Company or in any other company of the LN Group.

The Executive is responsible for any taxes related to the Equity Awards.

8. Company's belongings – phone number

8.1. The Executive undertakes to return the Company - by 5 days from the execution of this Agreement - all Company's belongings (except for what is provided for under point 8.2 and 8.3 below) as well as any document, in any form or by any media or device, containing or referring to confidential information about the Company of any company of the LN Group.

8.2. The Executive will be entitled to download, from the Company's laptop, all of his personal files, during a meeting to be scheduled in agreement with the Company, with the attendance of a member of the IT department who will take care of the download procedure.

In order to allow the fulfilment of the Executive's obligations under point 2.2 above, the Company will provide the Executive with a new laptop and will maintain active his e-mail account until the Date of Termination.

8.3. The Company will allow the Executive to keep his current Company's mobile number, even after the Date of Termination and will support the Executive in the related process with no costs for the Executive. Until Termination Date the costs related to the use of the mobile phone will be borne by the Company.

9. Confidentiality

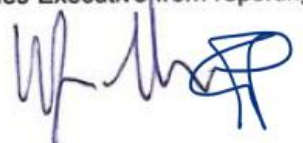
9.1. The Executive shall not use, disclose or communicate to any person any confidential information which he shall have come to know or have received or obtained at any time by reason of or in connection with his service with the Company or any other affiliated, controlled or controlling company belonging to the LN Group.

9.2. For the purpose of this clause «Confidential Information» includes any information that may have been given in confidence or have a confidential nature relating to the business or prospective business or internal affairs of the Company or of any other affiliated, controlled or controlling company belonging to the LN Group.

9.3. The Executive undertakes not to disclose any information concerning the organization of the Company, of any other and any other affiliated, controlled or controlling company, or improperly use any information in order to cause prejudice.

9.4. The Executive undertakes not to produce and disclose any false declaration, denigrating or damaging the Company or any other affiliated, controlled or controlling company - also with reference to their products and policies - or any information related to the business of the Company or of any other company belonging to the LN Group, as well as clients, investors, shareholders, consultants, directors and agents. In turn the Company undertakes not to make or publish any derogatory or defamatory comments concerning the Executive preserving his reputation.

9.5. Without prejudice to the above, nothing in this Agreement prohibits or impedes Executive from reporting



possible violations of any law or regulation to any governmental agency or entity, in every jurisdiction, otherwise communicating, cooperating, or filing a complaint with or making other disclosures or complaints to any such agency or entity that are protected under any applicable whistleblower provisions; provided, that in each case such communications and disclosures are consistent with applicable law. Executive does not need the prior authorization of the Company to make any such reports or disclosures and Executive is not required to notify the Company that Executive has made such reports or disclosures.

- 9.6. The Company and/or LN Group shall have the right to communicate, at their discretion after the execution of this Agreement, the termination of the Employment, as well as any associated changes in the organizational structure, confirming that the Executive's employment is terminated by mutual consent and giving a positive representation of the employment relationship

10. Agreement in accordance with Section 2113 the Italian Civil Code

- 10.1. The Parties undertake to execute a *Verbale di conciliazione* - having same substantial content of the Agreement – in a date close to the Date of Termination, before a competent certification commission.

11. Legal expenses

- 11.1. The Company will pay, as partial reimbursement of legal expenses borne by the Executive, the amount of 60.000 Eur, plus VAT and 4% social security, to Simmons&Simmons law firm, upon issuance of the relevant notice of invoicing.

12. Applicable law and language

- 12.1. This Agreement will be governed by and subject to Italian laws.

13. Definition of Group

- 13.1. In this Agreement, LN Group means Sorin Group Italia S.r.l. its direct and/or indirect parent company, and any companies that are directly or indirectly controlled by and/or connected to LivaNova PLC, and/or its direct and/or indirect parent company.

Sorin Group Italia S.r.l.



FRANCO POLETTI

Mr. Marco Dolci



CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, William A. Kozy, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2023 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 1, 2023

/s/ WILLIAM A. KOZY

William A. Kozy
Interim Chief Executive Officer and Chair of the Board
(Principal Executive Officer)

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, 2023 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 1, 2023

/s/ ALEX SHVARTSBURG

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

**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 William A. Kozy, Interim Chief Executive Officer and Chair of the Board 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, 2023, 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 1, 2023

/s/ WILLIAM A. KOZY

William A. Kozy

Interim Chief Executive Officer and Chair of the Board

(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.