

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q**

(Mark One)

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

For the quarterly period ended March 31, 2022

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 001-33155



IPG PHOTONICS CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

*(State or other jurisdiction of
incorporation or organization)*

04-3444218

*(I.R.S. Employer
Identification Number)*

50 Old Webster Road, Oxford, Massachusetts

(Address of principal executive offices)

01540

(Zip code)

Registrant's telephone number, including area code: **(508) 373-1100**

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

<u>Title of each class</u>	<u>Trading Symbol</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$0.0001 per share	IPGP	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, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer	☒	Accelerated Filer	☐
Non-Accelerated Filer	☐	Smaller Reporting Company	☐
Emerging Growth Company	☐		

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

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

As of May 3, 2022, there were 51,872,637 shares of the registrant's common stock outstanding.

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PART I—FINANCIAL INFORMATION
ITEM 1. UNAUDITED INTERIM FINANCIAL STATEMENTS

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS

	March 31, 2022	December 31, 2021
(In thousands, except share and per share data)		
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 642,517	\$ 709,105
Short-term investments	774,161	805,400
Accounts receivable, net	257,464	262,121
Inventories	484,971	460,747
Prepaid income taxes	40,888	36,990
Prepaid expenses and other current assets	82,833	73,320
Total current assets	2,282,834	2,347,683
Deferred income taxes, net	49,942	47,761
Goodwill	39,741	38,609
Intangible assets, net	50,017	52,678
Property, plant and equipment, net	625,366	635,302
Other assets	50,569	48,507
Total assets	\$ 3,098,469	\$ 3,170,540
LIABILITIES AND EQUITY		
Current liabilities:		
Current portion of long-term debt	\$ 17,459	\$ 18,126
Accounts payable	46,481	55,839
Accrued expenses and other current liabilities	203,579	230,826
Income taxes payable	12,317	8,642
Total current liabilities	279,836	313,433
Other long-term liabilities and deferred income taxes	94,650	93,855
Long-term debt, net of current portion	15,734	16,031
Total liabilities	390,220	423,319
Commitments and contingencies (Note 11)		
IPG Photonics Corporation equity:		
Common stock, \$0.0001 par value, 175,000,000 shares authorized; 55,921,562 and 52,542,466 shares issued and outstanding, respectively, at March 31, 2022; 55,788,246 and 53,010,265 shares issued and outstanding, respectively, at December 31, 2021.	6	6
Treasury stock, at cost, 3,379,096 and 2,777,981 shares held at March 31, 2022 and December 31, 2021, respectively.	(517,260)	(438,503)
Additional paid-in capital	917,693	908,423
Retained earnings	2,536,179	2,466,607
Accumulated other comprehensive loss	(229,369)	(189,951)
Total IPG Photonics Corporation equity	2,707,249	2,746,582
Non-controlling interests	1,000	639
Total equity	2,708,249	2,747,221
Total liabilities and equity	\$ 3,098,469	\$ 3,170,540

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF INCOME

	Three Months Ended March 31,	
	2022	2021
	(In thousands, except per share data)	
Net sales	\$ 369,979	\$ 345,585
Cost of sales	198,158	181,594
Gross profit	171,821	163,991
Operating expenses:		
Sales and marketing	20,374	18,883
Research and development	33,450	33,339
General and administrative	30,664	30,092
Gain on foreign exchange	(5,810)	(7,165)
Total operating expenses	78,678	75,149
Operating income	93,143	88,842
Other (expense) income, net:		
Interest expense, net	(70)	(495)
Other (expense) income, net	(236)	253
Total other expense	(306)	(242)
Income before provision for income taxes	92,837	88,600
Provision for income taxes	23,209	20,378
Net income	69,628	68,222
Less: net income attributable to non-controlling interests	56	95
Net income attributable to IPG Photonics Corporation common stockholders	\$ 69,572	\$ 68,127
Net income attributable to IPG Photonics Corporation per common share:		
Basic	\$ 1.32	\$ 1.27
Diluted	\$ 1.31	\$ 1.26
Weighted average common shares outstanding:		
Basic	52,810	53,541
Diluted	53,100	54,201

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Three Months Ended March 31,	
	2022	2021
	(In thousands)	
Net income	\$ 69,628	\$ 68,222
Other comprehensive income, net of tax:		
Foreign currency translation adjustments and other	(39,326)	(32,479)
Unrealized gain on derivatives	213	68
Total other comprehensive loss	(39,113)	(32,411)
Comprehensive income	30,515	35,811
Less: comprehensive income (loss) attributable to non-controlling interests	361	(124)
Comprehensive income attributable to IPG Photonics Corporation	\$ 30,154	\$ 35,935

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

	Three Months Ended March 31,	
	2022	2021
	(In thousands)	
Cash flows from operating activities:		
Net income	\$ 69,628	\$ 68,222
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	23,435	23,819
Deferred income taxes	(3,397)	3,944
Stock-based compensation	9,994	8,815
Unrealized gain on foreign currency transactions	(2,393)	(7,800)
Other	2,368	1,462
Provisions for inventory, warranty and bad debt	16,142	16,685
Changes in assets and liabilities that provided (used) cash, net of acquisitions:		
Accounts receivable	2,621	7,360
Inventories	(50,951)	(20,084)
Prepaid expenses and other assets	3,052	(1,052)
Accounts payable	(8,448)	18,980
Accrued expenses and other liabilities	(31,448)	(17,961)
Income and other taxes payable	(14,180)	(14,847)
Net cash provided by operating activities	16,423	87,543
Cash flows from investing activities:		
Purchases of and deposits on property, plant and equipment	(25,177)	(27,421)
Proceeds from sales of property, plant and equipment	428	130
Purchases of short-term investments	(475,435)	(513,564)
Proceeds from short-term investments	505,818	480,163
Acquisitions of businesses, net of cash acquired	(2,000)	—
Other	(1,164)	(2)
Net cash provided by (used in) investing activities	2,470	(60,694)
Cash flows from financing activities:		
Principal payments on long-term borrowings	(964)	(946)
Proceeds from issuance of common stock under employee stock option and purchase plans less payments for taxes related to net share settlement of equity awards	(724)	4,981
Purchase of treasury stock, at cost	(78,757)	(3,048)
Payment of purchase price holdback from business combination	—	(2,624)
Net cash used in financing activities	(80,445)	(1,637)
Effect of changes in exchange rates on cash, cash equivalents and restricted cash	(5,036)	(7,024)
Net (decrease) increase in cash, cash equivalents and restricted cash	(66,588)	18,188
Cash, cash equivalents and restricted cash — Beginning of period	709,105	878,553
Cash and cash equivalents — End of period	\$ 642,517	\$ 896,741
Supplemental disclosure of cash flow information:		
Cash paid for interest	\$ 857	\$ 703
Cash paid for income taxes	\$ 25,423	\$ 21,340
Non-cash transactions:		
Demonstration units transferred from inventory to other assets	\$ 917	\$ 1,109
Inventory transferred to machinery and equipment	\$ 780	\$ 727
Changes in accounts payable related to property, plant and equipment	\$ (646)	\$ 863
Leased assets obtained in exchange for new operating lease liabilities	\$ 4,229	\$ 409

See Note 3 for reconciliation of cash, cash equivalents and restricted cash between the condensed consolidated balance sheets and condensed consolidated statements of cash flows.

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF EQUITY
Three Months Ended March 31,

(In thousands, except share data)	Common Stock		Treasury Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Non- controlling Interest	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
Balance, January 1, 2022	53,010,265	\$ 6	(2,777,981)	\$ (438,503)	\$ 908,423	\$ 2,466,607	\$ (189,951)	\$ 639	\$ 2,747,221
Exercise of stock options and vesting of RSUs and PSUs	133,316	—	—	—	(724)	—	—	—	(724)
Purchased common stock	(601,115)	—	(601,115)	(78,757)	—	—	—	—	(78,757)
Stock-based compensation	—	—	—	—	9,994	—	—	—	9,994
Net income	—	—	—	—	—	69,572	—	56	69,628
Foreign currency translation adjustments and other	—	—	—	—	—	—	(39,631)	305	(39,326)
Unrealized gain on derivatives, net of tax	—	—	—	—	—	—	213	—	213
Balance, March 31, 2022	<u>52,542,466</u>	<u>\$ 6</u>	<u>(3,379,096)</u>	<u>\$ (517,260)</u>	<u>\$ 917,693</u>	<u>\$ 2,536,179</u>	<u>\$ (229,369)</u>	<u>\$ 1,000</u>	<u>\$ 2,708,249</u>
Balance, January 1, 2021	53,427,234	\$ 6	(2,034,012)	\$ (303,614)	\$ 854,301	\$ 2,188,191	\$ (146,065)	\$ 1,292	\$ 2,594,111
Exercise of stock options and vesting of RSUs and PSUs	211,537	—	—	—	4,981	—	—	—	4,981
Purchased common stock	(14,906)	—	(14,906)	(3,048)	—	—	—	—	(3,048)
Stock-based compensation	—	—	—	—	8,815	—	—	—	8,815
Net income	—	—	—	—	—	68,127	—	95	68,222
Foreign currency translation adjustments and other	—	—	—	—	—	—	(32,260)	(219)	(32,479)
Unrealized gain on derivatives, net of tax	—	—	—	—	—	—	68	—	68
Balance, March 31, 2021	<u>53,623,865</u>	<u>\$ 6</u>	<u>(2,048,918)</u>	<u>\$ (306,662)</u>	<u>\$ 868,097</u>	<u>\$ 2,256,318</u>	<u>\$ (178,257)</u>	<u>\$ 1,168</u>	<u>\$ 2,640,670</u>

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(In thousands, except share and per share data)

1. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation — The accompanying unaudited condensed consolidated financial statements have been prepared by IPG Photonics Corporation, or "IPG", "its" or the "Company". Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). The condensed consolidated financial statements include the Company's accounts and those of its subsidiaries. All intercompany balances have been eliminated in consolidation. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto in the Company's Annual Report on Form 10-K for the year ended December 31, 2021.

In the opinion of the Company's management, the financial information for the interim periods presented reflects all adjustments necessary for a fair presentation of the Company's financial position, results of operations and cash flows. The results reported in these condensed consolidated financial statements are not necessarily indicative of results that may be expected for the entire year.

Accounts Receivable and Allowance for Doubtful Accounts — The Company maintains an allowance for doubtful accounts to provide for the estimated amount of accounts receivable that will not be collected. The allowance is based upon an estimate of expected credit losses over the life of outstanding receivables. The estimate involves an assessment of customer creditworthiness, historical payment experience, an assumption of future expected credit losses, and the age of outstanding receivables.

Activity related to the allowance for doubtful accounts was as follows:

	Three Months Ended March 31,	
	2022	2021
Balance, beginning of period	\$ 2,108	\$ 2,156
Provision for bad debts, net of (recoveries)	(146)	188
Uncollectable accounts written off	(1)	—
Foreign currency translation	(24)	(37)
Balance, end of period	<u>\$ 1,937</u>	<u>\$ 2,307</u>

Comprehensive Income — Comprehensive income includes charges and credits to equity that are not the result of transactions with stockholders. Included within comprehensive income is the cumulative foreign currency translation adjustment and unrealized gains or losses on derivatives. These adjustments are accumulated within the consolidated statements of comprehensive income.

IPG PHOTONICS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)
(In thousands, except share and per share data)

Total components of accumulated other comprehensive loss were as follows:

	Foreign currency translation adjustments	Unrealized (loss) gain on derivatives, net of tax	Total
Balance, January 1, 2022	\$ (189,767)	\$ (184)	\$ (189,951)
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments and other	(39,631)		(39,631)
Unrealized gain on derivatives, net of tax expense of \$66		213	213
Total other comprehensive (loss) income	(39,631)	213	(39,418)
Balance, March 31, 2022	\$ (229,398)	\$ 29	\$ (229,369)
Balance, January 1, 2021	\$ (145,603)	\$ (462)	\$ (146,065)
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments and other	(32,260)		(32,260)
Unrealized gain on derivatives, net of tax expense of \$21		68	68
Total other comprehensive (loss) income	(32,260)	68	(32,192)
Balance, March 31, 2021	\$ (177,863)	\$ (394)	\$ (178,257)

Subsequent Events — The Company has considered the impact of subsequent events through the filing date of these financial statements. There were no events through the filing date of these financial statements required to be disclosed.

2. REVENUE FROM CONTRACTS WITH CUSTOMERS

Sales are derived from products for different applications: fiber lasers, diode lasers, systems and accessories for materials processing; fiber lasers, diodes and amplifiers for advanced applications; fiber amplifiers and transceivers for communications applications; and fiber lasers, systems and fibers for medical applications.

The following tables represent a disaggregation of revenue from contracts with customers:

	Three Months Ended March 31,	
	2022	2021
<u>Sales by Application</u>		
Materials processing	\$ 338,963	\$ 317,241
Other applications	31,016	28,344
Total	<u>\$ 369,979</u>	<u>\$ 345,585</u>
<u>Sales by Product</u>		
High Power Continuous Wave ("CW") Lasers	\$ 167,691	\$ 170,482
Medium Power CW Lasers	23,668	15,882
Pulsed Lasers	66,932	55,395
Quasi-Continuous Wave ("QCW") Lasers	12,780	13,666
Laser and Non-Laser Systems	34,597	27,116
Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue	64,311	63,044
Total	<u>\$ 369,979</u>	<u>\$ 345,585</u>

IPG PHOTONICS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)
(In thousands, except share and per share data)

	Three Months Ended March 31,	
	2022	2021
<u>Sales by Geography</u>		
North America	\$ 77,225	\$ 73,384
Europe:		
Germany	27,417	26,260
Other including Eastern Europe/CIS	80,000	58,593
Asia and Australia:		
China	129,748	139,833
Japan	12,886	10,877
Other	38,675	33,110
Rest of World	4,028	3,528
Total	<u>\$ 369,979</u>	<u>\$ 345,585</u>
<u>Timing of Revenue Recognition</u>		
Goods and services transferred at a point in time	\$ 355,415	\$ 332,532
Goods and services transferred over time	14,564	13,053
Total	<u>\$ 369,979</u>	<u>\$ 345,585</u>

One of the Company's customers accounted for 22% of the Company's net accounts receivable as of both March 31, 2022 and December 31, 2021.

The Company enters into contracts to sell lasers and spare parts, for which revenue is generally recognized upon shipment or delivery, depending on the terms of the contract. The Company also provides installation services and extended warranties. The Company frequently receives consideration from a customer prior to transferring goods to the customer under the terms of a sales contract. The Company records customer deposits related to these prepayments, which represent a contract liability. The Company also records deferred revenue related to installation services when consideration is received before the services have been performed. The standalone selling price for installation services is determined based on the estimated number of days of service technician time required for installation at standard service rates. The Company recognizes customer deposits and deferred revenue as net sales after control of the goods or services has been transferred to the customer and all revenue recognition criteria are met. The Company bills customers for extended warranties upon entering into the agreement with the customer, resulting in deferred revenue that is recognized over the period of the extended warranty contract. The Company recognizes revenue over time on contracts for the sale of robotics systems. The timing of customer payments on these contracts generally differs from the timing of revenue recognized. If revenue recognized exceeds customer payments, a contract asset is recorded and if customer payments exceed revenue recognized, a contract liability is recorded. Contract assets are included within prepaid expense and other current assets on the condensed consolidated balance sheets. Contract liabilities are included within accrued expenses and other current liabilities on the condensed consolidated balance sheets. Certain deferred revenues related to extended warranties in excess one year from the balance sheet date are included within other long-term liabilities and deferred income taxes on the condensed consolidated balance sheets.

IPG PHOTONICS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)
(In thousands, except share and per share data)

The following table reflects the changes in the Company's contract assets and liabilities for the three months ended March 31, 2022 and 2021:

	March 31, 2022	December 31, 2021	Change	March 31, 2021	December 31, 2020	Change
Contract assets						
Contract assets	\$ 9,842	\$ 9,345	\$ 497	\$ 7,670	\$ 8,999	\$ (1,329)
Contract liabilities						
Contract liabilities - current	94,418	89,659	4,759	69,526	71,246	(1,720)
Contract liabilities - long-term	2,770	2,691	79	2,549	2,189	360

During the three months ended March 31, 2022 and 2021 the Company recognized revenue of \$21,024 and \$30,378, respectively, that was included in contract liabilities at the beginning of each period.

The Company has elected the practical expedient in ASC 606-10-50-14, whereby the performance obligations for contracts with an original expected duration of one year or less are not disclosed. The following table represents the Company's remaining performance obligations from contracts that are recognized over time as of March 31, 2022:

	Remaining Performance Obligations						
	2022 ^(a)	2023	2024	2025	2026	Thereafter	Total
Revenue expected to be recognized for extended warranty agreements	\$ 3,030	\$ 1,448	\$ 992	\$ 603	\$ 166	\$ 71	\$ 6,310
Revenue to be earned over time from contracts to sell robotic systems	18,834	10,775	—	—	—	—	29,609
Total	<u>\$ 21,864</u>	<u>\$ 12,223</u>	<u>\$ 992</u>	<u>\$ 603</u>	<u>\$ 166</u>	<u>\$ 71</u>	<u>\$ 35,919</u>

^(a) For the nine-month period beginning April 1, 2022.

3. RESTRICTED CASH

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the condensed consolidated balance sheets to the total of the same amounts shown in the condensed consolidated statements of cash flows.

	March 31,		December 31,	
	2022	2021	2021	2020
Cash and cash equivalents	\$ 642,517	\$ 896,741	\$ 709,105	\$ 876,231
Restricted cash included in prepaid expenses and other current assets	—	—	—	2,322
Cash, cash equivalents and restricted cash in the condensed consolidated statements of cash flows	<u>\$ 642,517</u>	<u>\$ 896,741</u>	<u>\$ 709,105</u>	<u>\$ 878,553</u>

During the first quarter of 2021, the Company released \$2,127 of restricted cash held back related to the Company's acquisition of the submarine networks division (SND) of Padtec SA, for indemnities provided by the seller.

4. FAIR VALUE MEASUREMENTS

The Company's financial instruments consist of cash equivalents, short-term investments, accounts receivable, accounts payable, drawings on revolving lines of credit, long-term debt, interest rate swaps and contingent purchase consideration.

The valuation techniques used to measure fair value are based upon observable and unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect internal market assumptions. These two types of inputs create the following fair value hierarchy: Level 1, defined as observable inputs such as quoted prices for identical instruments in active markets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs for which little or no market data exists, therefore requiring an entity to develop its own assumptions. The Company classifies its financial instruments according to the prescribed criteria.

IPG PHOTONICS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)
(In thousands, except share and per share data)

The carrying amounts of money market fund deposits, term deposits, accounts receivable, accounts payable and drawings on revolving lines of credit are considered reasonable estimates of their fair market value due to the short maturity of most of these instruments or as a result of the competitive market interest rates, which have been negotiated. The fair value of the Company's bond securities is based upon quoted prices for instruments with identical terms in active markets. The Company's commercial paper securities reported at fair value are based upon model-driven valuations in which all significant inputs are observable or can be derived from or corroborated by observable market data for substantially the full term of the asset or liability, and are therefore classified as Level 2.

The following table presents fair value information related to the Company's assets and liabilities measured at amortized cost on the condensed consolidated balance sheets with the exception of the interest rate swap and contingent purchase consideration, which are measured at fair value:

	Fair Value Measurements at March 31, 2022			
	Total	Level 1	Level 2	Level 3
Assets				
Cash equivalents:				
Money market fund deposits and term deposits	\$ 183,749	\$ 183,749	\$ —	\$ —
Commercial paper	170,251	—	170,251	—
Corporate bonds	4,518	—	4,518	—
Municipal bonds	3,122	—	3,122	—
Short-term investments:				
Commercial paper	468,493	—	468,493	—
Corporate bonds	182,898	—	182,898	—
Municipal bonds	22,125	—	22,125	—
Certificates of deposit	3,004	—	3,004	—
U.S. Treasury and agency obligations	95,007	—	95,007	—
Foreign government bonds	2,003	—	2,003	—
Other assets:				
Interest rate swap	37	—	37	—
Total	\$ 1,135,207	\$ 183,749	\$ 951,458	\$ —
Liabilities				
Term notes	\$ 33,162	\$ —	\$ 33,162	\$ —
Contingent purchase consideration	1,615	—	—	1,615
Total	\$ 34,777	\$ —	\$ 33,162	\$ 1,615

IPG PHOTONICS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)
(In thousands, except share and per share data)

	Fair Value Measurements at December 31, 2021			
	Total	Level 1	Level 2	Level 3
Assets				
Cash equivalents:				
Money market fund deposits and term deposits	\$ 279,066	\$ 279,066	\$ —	\$ —
Commercial paper	117,663	—	117,663	—
Corporate bonds	11,459	—	11,459	—
Municipal bonds	3,220	—	3,220	—
Short-term investments:				
Commercial paper	557,955	—	557,955	—
Corporate bonds	215,754	—	215,754	—
U.S. Treasury and agency obligations	21,980	—	21,980	—
Municipal bonds	4,546	—	4,546	—
Certificate of deposit	3,000	—	3,000	—
Foreign government bonds	2,015	—	2,015	—
Total	<u>\$ 1,216,658</u>	<u>\$ 279,066</u>	<u>\$ 937,592</u>	<u>\$ —</u>
Liabilities				
Term notes	\$ 34,226	\$ —	\$ 34,226	\$ —
Contingent purchase consideration	1,371	—	—	1,371
Interest rate swap	242	—	242	—
Total	<u>\$ 35,839</u>	<u>\$ —</u>	<u>\$ 34,468</u>	<u>\$ 1,371</u>

Short-term investments consist of liquid investments with original maturities of greater than three months but less than one year and are recorded at amortized cost. There were no impairments for the investments considered held-to-maturity during the quarters ended March 31, 2022 and 2021. There were no current expected credit loss allowances for the investments considered held-to-maturity at March 31, 2022 and 2021. The Company holds highly-rated held-to-maturity instruments that are within one year of maturity.

The following table presents the effective maturity dates of debt investments, which are held-to-maturity:

	March 31, 2022		December 31, 2021	
	Book Value	Fair Value	Book Value	Fair Value
Investment maturity				
Less than 1 year	<u>\$ 774,161</u>	<u>\$ 773,530</u>	<u>\$ 805,400</u>	<u>\$ 805,250</u>

The Company entered into an interest rate swap that is designated as a cash flow hedge associated with a long-term note issued during the second quarter of 2016 that will terminate with the long-term note in May 2023. The fair value at March 31, 2022 for the interest rate swap considered pricing models whose inputs are observable for the securities held by the Company.

At March 31, 2022 and December 31, 2021, the Company's long-term notes consisted of a variable rate note and a fixed rate note, and are reported at amortized cost on the condensed consolidated balance sheets. For disclosure purposes, the fair value of the long-term notes was estimated using a discounted cash flow model using observable market interest rates and is classified as Level 2. Based on the discounted cash flow model, the fair values of the long-term notes, including the current portion, at March 31, 2022 and December 31, 2021 were \$33,162 and \$34,226 respectively, as compared to the book value of \$33,193 and \$34,157, respectively.

The fair values of contingent purchase consideration at March 31, 2022 and December 31, 2021 were determined using an income approach at the respective business combination date and at the reporting date. The approach is based on significant inputs that are not observable in the market and include key assumptions such as assessing the probability of meeting certain milestones required to earn the contingent purchase consideration.

IPG PHOTONICS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)
(In thousands, except share and per share data)

The following table presents information about the Company's movement in Level 3 assets and liabilities measured at fair value:

	Three Months Ended March 31,	
	2022	2021
Contingent purchase consideration		
Balance, beginning of period	\$ 1,371	\$ 1,963
Cash payments	—	(466)
Foreign exchange adjustment	244	(154)
Balance, end of period	<u>\$ 1,615</u>	<u>\$ 1,343</u>

5. INVENTORIES

Inventories consist of the following:

	March 31, 2022	December 31, 2021
Components and raw materials	\$ 288,752	\$ 270,146
Work-in-process	36,806	32,506
Finished goods	159,413	158,095
Total	<u>\$ 484,971</u>	<u>\$ 460,747</u>

The Company recorded inventory provisions totaling \$10,781 and \$8,027 for the three months ended March 31, 2022 and 2021, respectively. These provisions relate to the recoverability of the value of inventories due to technological changes and excess quantities. These provisions are reported as a reduction to components and raw materials, work-in-process and finished goods.

6. GOODWILL AND INTANGIBLES

The following table sets forth the changes in the carrying amount of goodwill:

	Three Months Ended March 31,	
	2022	2021
Balance at January 1	\$ 38,609	\$ 41,366
Goodwill arising from business combinations	1,000	—
Adjustment to goodwill during measurement period	—	(2,205)
Foreign exchange adjustment	132	(397)
Balance at March 31	<u>\$ 39,741</u>	<u>\$ 38,764</u>

Intangible assets, subject to amortization, consisted of the following:

	March 31, 2022				December 31, 2021			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted-Average Lives	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted-Average Lives
Customer relationships	\$ 60,025	\$ (25,096)	\$ 34,929	10 years	\$ 59,729	\$ (23,556)	\$ 36,173	10 years
Technology, trademark and trade name	40,012	(27,051)	12,961	7 years	40,536	(26,269)	14,267	7 years
Production know-how	10,564	(8,903)	1,661	7 years	10,384	(8,723)	1,661	7 years
Patents	8,036	(7,570)	466	8 years	8,036	(7,459)	577	8 years
Total	<u>\$ 118,637</u>	<u>\$ (68,620)</u>	<u>\$ 50,017</u>		<u>\$ 118,685</u>	<u>\$ (66,007)</u>	<u>\$ 52,678</u>	

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)
(In thousands, except share and per share data)

Amortization expense for the three months ended March 31, 2022 and 2021 was \$3,021 and \$3,257, respectively. The estimated future amortization expense for intangibles for the remainder of 2022 and subsequent years is as follows:

2022 ^(a)	2023	2024	2025	2026	Thereafter	Total
\$ 8,460	\$ 10,590	8,165	\$ 6,527	\$ 4,791	\$ 11,484	\$ 50,017

(a) For the nine-month period beginning April 1, 2022.

7. ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

Accrued expenses and other current liabilities consist of the following:

	March 31, 2022	December 31, 2021
Contract liabilities	\$ 94,418	\$ 89,659
Accrued compensation	62,287	94,857
Current portion of accrued warranty	26,815	26,204
Short-term lease liabilities	5,808	5,454
Other	14,251	14,652
Total	<u>\$ 203,579</u>	<u>\$ 230,826</u>

8. PRODUCT WARRANTIES

The Company typically provides one to five years parts and service warranties on lasers, laser and non-laser systems, and amplifiers. Most of the Company's sales offices provide support to customers in their respective geographic areas. Warranty reserves have generally been sufficient to cover product warranty repair and replacement costs.

Activity related to the warranty accrual was as follows:

	Three Months Ended March 31,	
	2022	2021
Balance, beginning of period	\$ 49,864	\$ 45,669
Provision for warranty accrual	5,071	8,403
Warranty claims	(3,707)	(7,446)
Foreign currency translation	(882)	(1,382)
Balance, end of period	<u>\$ 50,346</u>	<u>\$ 45,244</u>

Accrued warranty reported in the accompanying condensed consolidated financial statements as of March 31, 2022 and December 31, 2021 consisted of \$26,815 and \$26,204 in accrued expenses and other current liabilities, respectively, and \$23,531 and \$23,660 in other long-term liabilities and deferred income taxes, respectively.

9. FINANCING ARRANGEMENTS

The Company's borrowings under existing financing arrangements consist of the following:

	March 31, 2022	December 31, 2021
Total debt	\$ 33,193	\$ 34,157
Less: current portion	(17,459)	(18,126)
Long-term debt, net of current portion	<u>\$ 15,734</u>	<u>\$ 16,031</u>

Term Debt:

At March 31, 2022, the Company has an unsecured long-term note with an outstanding principal balance of \$16,922, of which, \$1,188 is the current portion. The interest on this unsecured long-term note is variable at 1.20% above LIBOR and is

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fixed using an interest rate swap at 2.85% per annum. The unsecured long-term note matures in May 2023, at which time the outstanding principal balance will be \$15,438. Also at March 31, 2022, the Company has another long-term note that is secured by its corporate aircraft with an outstanding principal balance of \$16,271, all of which is current. The interest on this collateralized long-term note is fixed at 2.74% per annum. The collateralized long-term note matures in July 2022, at which time the outstanding principal balance will be \$15,375.

The future principal payments for the Company's Notes as of March 31, 2022 are as follows:

2022 ^(a)	\$ 17,162
2023	16,031
Total	<u>\$ 33,193</u>

^(a) For the nine-month period beginning April 1, 2022.

Revolving Line of Credit Facilities:

The Company maintains a \$75,000 U.S. revolving line of credit and a €50,000 (\$55,570) line-of-credit in Germany, both of which are available to certain foreign subsidiaries and allow for borrowings in the local currencies of those subsidiaries. The Company also maintains a €1,500 (\$1,667) Italian overdraft facility. At March 31, 2022 and December 31, 2021, there were no amounts drawn on the U.S. line-of-credit, and there were \$2,731 and \$2,478, respectively, of guarantees issued against the facility, which reduce the amount of the facility available to draw. At March 31, 2022 and December 31, 2021, there were no amounts drawn on the Euro line-of-credit, and there were \$1,976 and \$2,161, respectively, of guarantees issued against those facilities, which reduce the amount available to draw. At March 31, 2022 and December 31, 2021, there were no amounts drawn on the Euro overdraft facility. After providing for the guarantees used, the total unused lines-of-credit and overdraft facilities are \$127,530 at March 31, 2022.

10. DERIVATIVE FINANCIAL INSTRUMENTS

The Company's only outstanding derivative financial instrument is an interest rate swap that is classified as a cash flow hedge of its variable rate debt. The fair value amounts in the condensed consolidated balance sheets were:

	March 31, 2022	December 31, 2021
Notional amounts ⁽¹⁾	\$ 16,922	\$ 17,219
Fair values:		
Other assets	\$ 37	\$ —
Other long-term liabilities and deferred income taxes	—	242

⁽¹⁾ Notional amounts represent the gross contract/notional amount of the derivatives outstanding.

The derivative gains and losses in the condensed consolidated financial statements related to the Company's current and previous interest rate swap contracts were as follows:

	Three Months Ended March 31, 2022	2021
Effective portion recognized in other comprehensive income, pretax:		
Interest rate swap	\$ 279	\$ 89

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)
(In thousands, except share and per share data)

11. COMMITMENTS AND CONTINGENCIES

From time to time, the Company may be involved in legal disputes and other proceedings in the ordinary course of its business. These matters may include allegations of infringement of intellectual property, commercial disputes and employment matters. As of March 31, 2022 and through the filing date of these condensed consolidated financial statements, the Company is aware of no ongoing legal proceedings that management estimates could have a material effect on the Company's Consolidated Financial Statements.

We have submitted a number of voluntary self-disclosures regarding compliance with export control laws and regulations and the U.S. Department of Justice is conducting an investigation into certain shipments of equipment. At this time, we are not able to estimate the amount or probability of any monetary penalties or other expenses that we may incur as a result of this investigation.

12. INCOME TAXES

The effective tax rates were 25.0% and 23.0% for the three months ended March 31, 2022 and 2021, respectively. There were net discrete tax benefits of \$252 and \$4,288 for the three months ended March 31, 2022 and 2021, respectively, which were related in part to the tax deductions for equity-based compensation that were less than the compensation expense recognized for books in 2022 and exceeded compensation expense recognized for books in 2021. In 2022, the detriment for equity based compensation was more than offset by reductions in tax liability as a result of changes in tax position agreed to with tax authorities for prior year audits.

The Company accounts for its uncertain tax positions in accordance with the accounting standards for income taxes. The Company classifies interest and penalties related to unrecognized tax benefits as a component of the provision for income taxes. The following is a summary of the activity of the Company's unrecognized tax benefits for the three months ended March 31, 2022 and 2021:

	Three Months Ended March 31,	
	2022	2021
Balance at January 1,	\$ 19,209	\$ 14,706
Change in prior period positions	(249)	—
Additions for tax positions in current period	500	1,000
Foreign currency translation	(541)	(182)
Balance at March 31,	<u>\$ 18,919</u>	<u>\$ 15,524</u>

The liability for uncertain tax benefits is included in other long-term liabilities and deferred income taxes at March 31, 2022 and December 31, 2021. Substantially all of the liability for uncertain tax benefits related to various federal, state and foreign income tax matters would benefit the Company's effective tax rate, if recognized.

13. NET INCOME ATTRIBUTABLE TO IPG PHOTONICS CORPORATION PER COMMON SHARE

The following table sets forth the computation of diluted net income attributable to IPG Photonics Corporation per common share following the treasury stock method:

	Three Months Ended March 31,	
	2022	2021
Net income attributable to IPG Photonics Corporation common stockholders	\$ 69,572	\$ 68,127
Basic weighted average common shares	52,809,654	53,541,270
Dilutive effect of common stock equivalents	289,885	659,912
Diluted weighted average common shares	<u>53,099,539</u>	<u>54,201,182</u>
Basic net income attributable to IPG Photonics Corporation per common share	<u>\$ 1.32</u>	<u>\$ 1.27</u>
Diluted net income attributable to IPG Photonics Corporation per common share	<u>\$ 1.31</u>	<u>\$ 1.26</u>

The computation of diluted weighted average common shares excludes common stock equivalents including non-qualified stock options, performance stock units ("PSUs"), restricted stock units ("RSUs") and employee stock purchase plan

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)
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("ESPP") because the effect of including them would be anti-dilutive. The weighted average anti-dilutive shares outstanding for the three months ended March 31, 2022 and 2021 were as follows:

	Three Months Ended March 31,	
	2022	2021
Non-qualified stock options	472,699	202,500
Restricted stock units	205,272	61,100
Performance stock units	31,560	13,800
Total weighed average anti-dilutive shares outstanding	709,531	277,400

On February 15, 2022, the Company announced that its Board of Directors has authorized the purchase of up to \$200,000 of IPG common stock. This new authorization is in addition to the Company's existing stock repurchase program authorized in May 2020. Share repurchases may be made periodically in open-market transactions, and are subject to market conditions, legal requirements and other factors. The share repurchase program authorization does not obligate the Company to repurchase any dollar amount or number of its shares, and repurchases may be commenced or suspended from time to time without prior notice.

For the three months ended March 31, 2022, the Company repurchased 601,115 shares of common stock under the May 2020 authorization with an average price of \$130.99 per share in the open market. The impact on the reduction of weighted average shares for the three months ended March 31, 2022 was 262,657 shares. As of March 31, 2022, the remaining amount under the May 2020 authorization and February 2022 authorization was up to \$233,000.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion in conjunction with our condensed consolidated financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q. This discussion contains forward looking statements that are based on management's current expectations, estimates and projections about our business and operations. Our actual results may differ materially from those currently anticipated and expressed in such forward-looking statements. See "Cautionary Statement Regarding Forward-Looking Statements."

Overview

We develop, manufacture and sell high-performance fiber lasers, fiber amplifiers and diode lasers that are used for diverse applications, primarily in materials processing. We also manufacture and sell complementary products used with our lasers including optical delivery cables, fiber couplers, beam switches, optical processing heads, in-line sensors and chillers. In addition, we offer laser-based and non-laser based systems for certain markets and applications. Our portfolio of laser solutions is used in materials processing, communications, medical and advanced applications. We sell our products globally to original equipment manufacturers ("OEMs"), system integrators and end users. We market our products internationally, primarily through our direct sales force. Our major manufacturing facilities are located in the United States, Germany, Russia and Belarus. We have sales service offices and applications laboratories worldwide.

We are vertically integrated such that we design and manufacture most of the key components used in our finished products, from semiconductor diodes to optical fiber preforms, finished fiber lasers, amplifiers and complementary products. Our vertically integrated operations allow us to reduce manufacturing costs, control quality, rapidly develop and integrate advanced products and protect our proprietary technology.

Factors and Trends That Affect Our Operations and Financial Results

In reading our financial statements, you should be aware of the following factors and trends that our management believes are important in understanding our financial performance.

Recent Events. As outlined in our risk factors, the Russia-Ukraine conflict and the sanctions imposed in response to this crisis have increased the levels of uncertainty and risks facing the Company. While sales to third-parties in Russia were less than 2% of our revenue in the first quarter of 2022, we substantially rely on our facility in Russia for components they manufacture that are used in our other manufacturing facilities and for finished product sold to the Chinese market, which amounted to approximately \$100 million in 2021. In the first quarter, we managed to navigate the complex and evolving regulations, including sanctions, without material disruption to our ability to meet customer demand. However, certain sanctions increased the cost of operating in Russia and Belarus as a result of shipping limitations, logistics challenges and changes in tariffs. The U.S. increased tariffs on Russian and Belarus goods late in the first quarter, resulting in a greater impact going forward than reflected in our first quarter results.

In response to the risks from the Russia-Ukraine conflict, we initiated contingency plans to reduce our reliance on our Russia and Belarus operations by adding capacity in other countries, increasing inventories in the U.S. and Europe and qualifying third-party suppliers. In the first quarter, we began hiring additional employees, allocating workspace for increased production, and running second shifts in the U.S., Germany and Italy. These plans also include additional investments in facilities in the near term as well as additional ongoing operating costs, primarily associated with the higher cost of labor outside of Russia and Belarus. While we have sufficient financial resources to make these investments and expenditures, our gross margins and other financial results will be adversely impacted by increased operating costs associated with these transitions. Over time, we intend to mitigate some of these increases with cost reductions, higher productivity from automation, improved yields and product specifications.

Our Board of Directors has been monitoring and continues to assess and monitor risks associated with the Russia-Ukraine conflict and continuing our operations through management reports and discussions with management at quarterly and special meetings since before the conflict began. Although we continue to operate in Russia and Belarus while we implement contingency plans, if current conditions change such that we are no longer able to operate in Russia or Belarus or require us to significantly curtail operations in these countries, we would then need to assess the net realizable value of our working capital and whether our long lived assets are impaired. For additional information regarding the risks and potential impacts of the Russia-Ukraine conflict, see "Risk Factors – The ongoing conflict between Russia and Ukraine may adversely affect our business and results of operations" in Item 1A of Part II of this Form 10-Q.

COVID-19. Global demand trends have been impacted by the ongoing COVID-19 pandemic and therefore remain uncertain at this time. While business conditions generally improved from the severe contraction experienced in 2020, it is

difficult to predict whether conditions could change if there are additional restrictions imposed as a result of a resurgence in COVID-19 infections. To date, we have been able to accommodate these changes to our business operations and continue to meet customer demand. If guidelines or mandates from relevant authorities becomes more restrictive due to a resurgence of COVID-19 in a particular region, the effect on our operations could be more significant. This uncertainty continues to make forecasting our business challenging in the near to medium-term.

Supply Chain. We and our customers are experiencing increased lead times for certain components purchased from third party suppliers; particularly electronic components. We, our customers and our suppliers continue to face constraints related to supply chain and logistics, including availability of capacity, materials, air cargo space, sea containers and higher freight rates. Supply chain and logistics constraints are expected to continue for the foreseeable future and could impact our ability to supply products and our customers' demand for our product or readiness to accept deliveries. Supply chain constraints have not significantly affected our business but they have moderately increased our freight costs, caused us to carry higher levels of safety stock for certain inventory items, increased the cost of certain electronic components and caused delays in recognizing revenue for certain custom processing systems in our Genesis business due to delays in receiving robots. Notwithstanding these effects, we believe we have the ability to meet the near-term demand for our products, but the situation is fluid and subject to change.

Net sales. Our net sales have historically fluctuated from quarter to quarter. The increase or decrease in sales from a prior quarter can be affected by the timing of orders received from customers, the shipment, installation and acceptance of products at our customers' facilities, the mix of OEM orders and one-time orders for products with large purchase prices, competitive pressures, acquisitions, economic and political conditions in a certain country or region and seasonal factors such as the purchasing patterns and levels of activity throughout the year in the regions where we operate. Net sales can be affected by the time taken to qualify our products for use in new applications in the end markets that we serve. Our sales cycle varies substantially, ranging from a period of a few weeks to as long as one year or more, but is typically several months. The adoption of our products by a new customer or qualification in a new application can lead to an increase in net sales for a period, which may then slow until we penetrate new markets or obtain new customers.

Our business depends substantially upon capital expenditures by end users, particularly by manufacturers using our products for materials processing, which includes general manufacturing, automotive including electric vehicles (EV), other transportation, aerospace, heavy industry, consumer, semiconductor and electronics. Approximately 92% of our revenues for first quarter of 2022 and 91% of our revenues for the full 2021 fiscal year were from customers using our products for materials processing. Although applications within materials processing are broad, the capital equipment market in general is cyclical and historically has experienced sudden and severe downturns. For the foreseeable future, our operations will continue to depend upon capital expenditures by end users of materials processing equipment and will be subject to the broader fluctuations of capital equipment spending.

In response to inflation, some global central banks are adopting less accommodative monetary policy and have or expect to increase benchmark interest rates. An increase in interest rates could impact global growth and could lead to a recession that may reduce the demand for our products. In addition, an increase in interest rates would increase the cost of equipment financed with leases or debt.

In recent years, our net sales have been negatively impacted by tariffs and trade policy. New tariffs and other changes in U.S. trade policy could trigger retaliatory actions by affected countries, and certain foreign governments.

We are also susceptible to global or regional disruptions such as political instability, geopolitical conflicts, acts of terrorism, significant fluctuations in currency values, natural disasters, macroeconomic concerns and the impact of the COVID-19 outbreak that affect the level of capital expenditures or global commerce. With respect to the COVID-19 outbreak specifically, while our financial results for the three months ended March 31, 2022 improved as compared to quarterly results achieved for the three months ended March 2021, the possible affect over the longer term remains uncertain and dependent on future developments that cannot be accurately predicted at this time, such as the severity and transmission rate of COVID-19 or new variants, the extent and effectiveness of containment actions taken, the approval, effectiveness, timing and widespread vaccination of the global population, and the impact of these and other factors on our customer base and general commercial activity.

The average selling prices of our products generally decrease as the products mature. These decreases result from factors such as increased competition, decreased manufacturing costs and increases in unit volumes. We may also reduce selling prices in order to penetrate new markets and applications. Furthermore, we may negotiate discounted selling prices from time to time with certain customers that place high unit-volume orders.

The secular shift to fiber laser technology in large materials processing applications, such as cutting applications, had a positive effect on our sales trends in the past such that our sales trends were often better than other capital equipment

manufacturers in both positive and negative economic cycles. As the secular shift to fiber laser technology matures in such applications, our sales trends are more susceptible to economic cycles which affect other capital equipment manufacturers broadly and the machine tool and industrial laser industries more specifically.

Gross margin. Our total gross margin in any period can be significantly affected by a number of factors, including net sales, production volumes, competitive factors, product mix, and by other factors such as changes in foreign exchange rates relative to the U.S. Dollar. Many of these factors are not under our control. The following are examples of factors affecting gross margin:

- As our products mature, we can experience additional competition which tends to decrease average selling prices and affects gross margin;
- Our gross margin can be significantly affected by product mix. Within each of our product categories, the gross margin is generally higher for devices with greater average power. These higher power products often have better performance, more difficult specifications to attain and fewer competing products in the marketplace;
- Higher power lasers also use a greater number of optical components, improving absorption of fixed overhead costs and enabling economies of scale in manufacturing;
- The gross margin for certain specialty products may be higher because there are fewer or sometimes no equivalent competing products;
- Customers that purchase devices in greater unit volumes generally are provided lower prices per device than customers that purchase fewer units. In general, lower selling prices to high unit volume customers reduce gross margin although this may be partially offset by improved absorption of fixed overhead costs associated with larger product volumes, which drive economies of scale;
- Gross margin on systems and communication components can be lower than gross margin for our laser and amplifier sources, depending on the configuration, volume and competitive forces, among other factors, and finally,
- Persistent inflation leading to increases in average manufacturing salaries as well as an increase in the purchase price of components including, but not limited to, electronic components and metal parts could negatively impact gross margin if we are not able to pass those increases on to customers by increasing the selling price of our products.

We expect that some new technologies, products and systems will have returns above our cost of capital but may have gross margins below our corporate average. If we are able to develop opportunities that are significant in size, competitively advantageous or leverage our existing technology base and leadership, our current gross margin levels may not be maintained. Instead, we aim to deliver industry-leading levels of gross margins by growing sales, by taking market share in existing markets, or by developing new applications and markets we address, by reducing the cost of our products and by optimizing the efficiency of our manufacturing operations.

A high proportion of our costs is fixed so costs are generally difficult to adjust or may take time to adjust in response to changes in demand. In addition, our fixed costs increase as we expand our capacity. If we expand capacity faster than is required by sales growth, gross margins could be negatively affected. Gross margins generally decline if production volumes are lower as a result of a decrease in sales or a reduction in inventory because the absorption of fixed manufacturing costs will be reduced. Gross margins generally improve when the opposite occurs. If both sales and inventory decrease in the same period, the decline in gross margin may be greater if we cannot reduce fixed costs or choose not to reduce fixed costs to match the decrease in the level of production. If we experience a decline in sales that reduces absorption of our fixed costs, or if we have production issues, our gross margins will be negatively affected.

We also regularly review our inventory for items that are slow-moving, have been rendered obsolete or are determined to be excess. Any provision for such slow-moving, obsolete or excess inventory affects our gross margins. For example, we recorded provisions for slow-moving, obsolete or excess inventory totaling \$10.8 million and \$8.0 million for the three months ended March 31, 2022 and 2021, respectively.

Selling and general and administrative expenses. In the past, we invested in selling and general and administrative costs in order to support continued growth in the Company. As the secular shift to fiber laser technology matures, our sales growth becomes more susceptible to the cyclical trends typical of capital equipment manufacturers. Accordingly, our future management of and investments in selling and general and administrative expenses will also be influenced by these trends, although we may still invest in selling or general and administrative functions to support certain initiatives even in economic

down cycles. Certain general and administrative expenses are not related to the level of sales and may vary quarter to quarter based primarily upon the level of acquisitions and litigation.

Research and development expenses. We plan to continue to invest in research and development to improve our existing components and products and develop new components, products, systems and applications technology. We believe that these investments will sustain our position as a leader in the fiber laser industry and will support development of new products that can address new markets and growth opportunities. The amount of research and development expense we incur may vary from period to period.

Foreign exchange. Because we are a U.S.-based company doing business globally, we have both translational and transactional exposure to fluctuations in foreign currency exchange rates. Changes in the relative exchange rate between the U.S. Dollar and the foreign currencies in which our subsidiaries operate directly affects our sales, costs and earnings. Differences in the relative exchange rates between where we sell our products and where we incur manufacturing and other operating costs (primarily in the U.S., Germany, Russia and Belarus) also affects our costs and earnings. Certain currencies experiencing significant exchange rate fluctuations like the Euro, the Russian Ruble, the Japanese Yen and Chinese Yuan have had and could have an additional significant impact on our sales, costs and earnings. The depreciation of the Russian Ruble and Euro created a foreign exchange gain for the quarter ended March 31, 2022 because our Russian and European subsidiaries have certain net assets denominated in U.S. Dollars. Our ability to adjust the foreign currency selling prices of products in response to changes in exchange rates is limited and may not offset the impact of the changes in exchange rates on the translated value of sales or costs. In addition, if we increase the selling price of our products in local currencies, this could have a negative impact on the demand for our products.

Major customers. While we have historically depended on a few customers for a large percentage of our annual net sales, the composition of this group can change from year to year. Net sales derived from our five largest customers as a percentage of our net sales was 20% for the three months ended March 31, 2022 and 19%, 24% and 21% for the full years 2021, 2020 and 2019, respectively. One of our customers accounted for 22% of our net accounts receivable at both March 31, 2022 and December 31, 2021. We seek to add new customers and to expand our relationships with existing customers. We anticipate that the composition of our significant customers will continue to change. We generally do not enter into agreements with our customers obligating them to purchase a fixed number or large volume of our fiber lasers or amplifiers. If any of our significant customers substantially reduced their purchases from us, our results would be adversely affected.

Results of Operations for the Three Months Ended March 31, 2022 Compared to the Three Months Ended March 31, 2021

Net sales. Net sales increased by \$24.4 million, or 7.1%, to \$370.0 million for the three months ended March 31, 2022 from \$345.6 million for the three months ended March 31, 2021.

The table below sets forth sales by application:

	Three Months Ended March 31,						Change		
	2022			2021					
	(In thousands, except for percentages)								
<u>Sales by Application</u>	% of Total			% of Total					
Materials processing	\$	338,963	91.6 %	\$	317,241	91.8 %	\$	21,722	6.8 %
Other applications		31,016	8.4 %		28,344	8.2 %		2,672	9.4 %
Total	\$	369,979	100.0 %	\$	345,585	100.0 %	\$	24,394	7.1 %

The table below sets forth sales by type of product and other revenue:

	Three Months Ended March 31,						Change
	2022		2021				
	(In thousands, except for percentages)						
Sales by Product	% of Total		% of Total				
High Power Continuous Wave ("CW") Lasers	\$ 167,691	45.3 %	\$ 170,482	49.3 %	\$ (2,791)	(1.6)%	
Medium Power CW Lasers	23,668	6.4 %	15,882	4.6 %	7,786	49.0 %	
Pulsed Lasers	66,932	18.1 %	55,395	16.0 %	11,537	20.8 %	
Quasi-Continuous Wave ("QCW") Lasers	12,780	3.5 %	13,666	4.0 %	(886)	(6.5)%	
Laser and Non-Laser Systems	34,597	9.4 %	27,116	7.8 %	7,481	27.6 %	
Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue	64,311	17.3 %	63,044	18.3 %	1,267	2.0 %	
Total	\$ 369,979	100.0 %	\$ 345,585	100.0 %	\$ 24,394	7.1 %	

Materials processing

Sales for materials processing applications increased due to higher sales of pulsed lasers, laser and non-laser systems, medium power lasers and other laser products and service, partially offset by decreases in sales of high power lasers and QCW lasers.

- High power laser sales decreased due to lower sales for cutting applications partially offset by an increase in sales for welding applications. Within cutting applications, the decrease in sales was attributable to softer demand and increased competition in China. The increase in sales of high power lasers used in welding applications was driven by higher sales supporting E-mobility including electric vehicles, battery manufacturing and electric motors.
- The increase in medium power sales related to an increase in demand for welding and additive manufacturing applications.
- Pulsed laser sales, including high power pulsed lasers, increased due to growth in sales for foil cutting for EV battery processing applications, marking and engraving applications for general manufacturing and cleaning and stripping applications, partially offset by a decrease in demand for green pulsed lasers used for solar cell manufacturing applications.
- QCW laser sales decreased due to lower demand in fine processing for consumer electronics applications.
- The increase of revenue in laser and non-laser systems was attributable to higher demand for LightWELD and laser systems.
- Other revenue for materials processing increased due to higher sales of options and accessories.

Other Applications

Sales from other applications increased due to increased demand for lasers used in medical procedures, partially offset by decreased demand for lasers used in advanced applications and telecommunications.

Cost of sales and gross margin. Cost of sales increased by \$16.6 million, or 9.1%, to \$198.2 million for the three months ended March 31, 2022 from \$181.6 million for the three months ended March 31, 2021. Our gross margin decreased to 46.4% for the three months ended March 31, 2022 from 47.5% for the three months ended March 31, 2021. The decrease in gross margin was driven by an increase in cost of products sold from inventory as a percentage of sales due to sales mix, an increase in inventory provisions and an increase in shipping costs, partially offset by a reduction in manufacturing expenses as a percentage of sales.

Sales and marketing expense. Sales and marketing expense increased by \$1.5 million, or 7.9%, to \$20.4 million for the three months ended March 31, 2022 compared with \$18.9 million for the three months ended March 31, 2021. This change was primarily a result of increases in trade fairs and exhibits. As a percentage of sales, sales and marketing expense remained unchanged at 5.5% for the three months ended March 31, 2022 and 2021.

Research and development expense. Research and development expense increased by \$0.2 million, or 0.6%, to \$33.5 million for the three months ended March 31, 2022, compared to \$33.3 million for the three months ended March 31, 2021. This change was primarily a result of increases in personnel costs and other research and development expenses, partially offset by decreases in expense for materials used for research and development projects. As a percentage of sales, research and development expense decreased to 9.1% for the three months ended March 31, 2022 from 9.6% for the three months ended March 31, 2021, mainly due to the increase in sales.

General and administrative expense. General and administrative expense increased by \$0.6 million, or 2.0%, to \$30.7 million for the three months ended March 31, 2022 from \$30.1 million for the three months ended March 31, 2021. This change was primarily a result of increases in personnel and consultant costs partially offset by recoveries of previously reserved accounts receivable. As a percentage of sales, general and administrative expense decreased to 8.3% from 8.7% for the three months ended March 31, 2022 and 2021, respectively, mainly due to the increase in sales.

Effect of exchange rates on net sales, gross profit and operating expenses. We estimate that, if exchange rates relative to the U.S. Dollar had been the same as one year ago, net sales would have been \$9.7 million higher, gross margin would have been \$4.4 million higher and total operating expenses would have been \$2.7 million higher for the three months ended March 31, 2022. These estimates assume constant exchange rates between fiscal year 2022 and fiscal year 2021 and are calculated using the average exchange rates for the three-month period ended March 31, 2021 for the respective currencies, which were US\$1=Euro 0.83, US\$1=Russian Ruble 74, US\$1=Japanese Yen 106 and US\$1=Chinese Yuan 6.49.

Gain on foreign exchange. We incurred a foreign exchange gain of \$5.8 million for the three months ended March 31, 2022 as compared to a \$7.2 million gain for the three months ended March 31, 2021. Our Russian and European subsidiaries have certain net assets denominated in U.S. Dollars, and our Chinese subsidiary has certain net liabilities denominated in U.S. Dollars. The foreign exchange gain for the three months ended March 31, 2022 was primarily attributable to depreciation of the Russian Ruble and the Euro as compared to the U.S. Dollar.

Provision for income taxes. Provision for income taxes was \$23.2 million for the three months ended March 31, 2022 compared to \$20.4 million for the three months ended March 31, 2021, representing an effective tax rate of 25.0% and 23.0% for the three months ended March 31, 2022 and 2021, respectively. The increase in tax expense in 2022 is primarily due to a reduced benefit from discrete items. The discrete items included a detriment related to equity based compensation deductions for tax in 2022 whereas there was a benefit for this discrete item in 2021. The 2022 equity compensation detriment was offset by a benefit related to agreements with tax authorities related to prior year audits.

Net income attributable to IPG Photonics Corporation. Net income attributable to IPG Photonics Corporation increased by \$1.5 million to \$69.6 million for the three months ended March 31, 2022 compared to \$68.1 million for the three months ended March 31, 2021. Net income attributable to IPG Photonics Corporation as a percentage of our net sales decreased by 0.9 percentage points to 18.8% for the three months ended March 31, 2022 from 19.7% for the three months ended March 31, 2021 due to the factors described above.

Liquidity and Capital Resources

We believe that our existing cash and cash equivalents, short-term investments, our cash flows from operations and our existing lines of credit provide us with the financial flexibility to meet our liquidity and capital needs. We expect to continue making investments in capital expenditures, to assess acquisition opportunities and to repurchase shares of our stock in accordance with our repurchase program. The extent and timing of such expenditures may vary from period to period. Our future long-term capital requirements will depend on many factors including investments in European and North American manufacturing capacity in order to execute plans to reduce reliance on Russia for manufacturing capacity, our level of sales, the impact of the economic environment on our growth including any ongoing impact of the COVID-19 pandemic on certain global or regional economies, global or regional recessions, the timing and extent of spending to support development efforts, expansion of global sales and marketing activities, government regulation including trade sanctions, the timing and introductions of new products, the need to ensure access to adequate manufacturing capacity and the continuing market acceptance of our products.

With respect to the current geopolitical situation involving Ukraine and Russia, the imposition of sanctions against Russian banks or international bank messaging systems could impact our ability to access company cash in Russia, but would not materially disrupt our liquidity as a whole. The current balance of cash and cash equivalents and short term investments in Russia is less than 1.5% of total current cash and cash equivalents and short term investments. The Russian operations are self-funding. We attempt to keep only amounts that are needed for working capital in Russia and less than 10% of our consolidated working capital including cash, cash equivalents and short term investments is located in Russia. We are making no new investments in Russia.

The following table presents our principal sources of liquidity:

	March 31, 2022	December 31, 2021
	(In thousands)	
Cash and cash equivalents	\$ 642,517	\$ 709,105
Short-term investments	774,161	805,400
Unused credit lines and overdraft facilities	127,530	128,772
Working capital (excluding cash, cash equivalents and short-term investments)	586,320	519,745

Short-term investments at March 31, 2022 consist of liquid investments including commercial paper, corporate bonds, municipal bonds, certificates of deposit, U.S. Treasury and agency obligations, and foreign government bonds with original maturities of greater than three months but less than one year. See Note 4, "Fair Value Measurements" in the notes to the condensed consolidated financial statements for further information about our short-term investments.

The following table details our line-of-credit facilities and long-term notes as of March 31, 2022:

Description	Total Facility/ Note	Interest Rate	Maturity	Security
U.S. Revolving Line of Credit ⁽¹⁾	\$75.0 million	LIBOR plus 0.80% to 1.20%, depending on our performance	April 2025	Unsecured
Euro Credit Facility (Germany) ⁽²⁾	Euro 50.0 million (\$55.6 million)	Euribor plus 0.75% or EONIA plus 1.00%	July 2023	Unsecured, guaranteed by parent company and German subsidiary
Other Euro Facility ⁽³⁾	Euro 1.5 million (\$1.7 million)	Euribor plus 2.02%	June 2022	Common pool of assets of Italian subsidiary
Long-term Secured Note ⁽⁴⁾	\$16.3 million	Fixed at 2.74%	July 2022	Secured by the corporate aircraft
Long-term Unsecured Note ⁽⁵⁾	\$16.9 million	1.20% above LIBOR, fixed using an interest rate swap at 2.85% per annum	May 2023	Unsecured

⁽¹⁾ This facility is available to certain foreign subsidiaries in their respective local currencies. At March 31, 2022, there were no amounts drawn on this line; however, there were \$2.7 million of guarantees issued against the line which reduces total availability.

⁽²⁾ This facility is also available to certain foreign subsidiaries in their respective local currencies. At March 31, 2022, there were no drawings on this facility; however, there were \$2.0 million of guarantees issued against the line which reduces total availability.

⁽³⁾ At March 31, 2022, there were no drawings. This facility renews annually.

⁽⁴⁾ At maturity, the outstanding note balance will be \$15.4 million.

⁽⁵⁾ At maturity, the outstanding note balance will be \$15.4 million.

Our largest committed credit lines are with Bank of America N.A. and Deutsche Bank AG in the amounts of \$75.0 million and \$55.6 million (or 50.0 million Euro as described above), respectively, and neither of them is syndicated. We plan to seek amendments of our credit agreements to modify LIBOR and EONIA reference rates as these rates are phased out as borrowing rates. We do not plan to amend our long-term unsecured note as it matures prior to the final phase-out of LIBOR.

We are required to meet certain financial covenants associated with our U.S. revolving line of credit and long-term debt facility. These covenants, tested quarterly, include an interest coverage ratio and a funded debt to earnings before interest, taxes, depreciation and amortization ("EBITDA") ratio. The interest coverage covenant requires that we maintain a trailing twelve-month ratio of EBITDA to interest on all obligations that is at least 3.0:1.0. The funded debt to EBITDA covenant requires that the sum of all indebtedness for borrowed money on a consolidated basis be less than three times our trailing twelve months EBITDA. Funded debt is decreased by our cash and available marketable securities not classified as long-term investments in the U.S.A. in excess of \$50 million up to a maximum of \$500 million. We were in compliance with all such financial covenants as of and for the three months ended March 31, 2022.

The financial covenants in our loan documents may cause us to not make or to delay investments and actions that we might otherwise undertake because of limits on capital expenditures and amounts that we can borrow or lease. In the event that we do not comply with any one of these covenants, we would be in default under the loan agreement or loan agreements, which may result in acceleration of the debt, cross-defaults on other debt or a reduction in available liquidity, any of which could harm our results of operations and financial condition.

See Note 9, "Financing Arrangements" in the notes to the condensed consolidated financial statements for further information about our facilities and term debt.

The following table presents cash flow activities:

	Three Months Ended March 31,	
	2022	2021
	(In thousands)	
Cash provided by operating activities	\$ 16,423	\$ 87,543
Cash provided by (used) in investing activities	2,470	(60,694)
Cash used in financing activities	(80,445)	(1,637)

Operating activities. Net cash provided by operating activities decreased by \$71.1 million to \$16.4 million for the three months ended March 31, 2022 from \$87.5 million for the three months ended March 31, 2021, primarily due to an increase in cash used by working capital. Our largest working capital items typically are inventory and accounts receivable. Items such as accounts payable to third parties, prepaid expenses and other current assets and accrued expenses and other liabilities are not as significant as our working capital investment in accounts receivable and inventory because of the amount of value added within IPG due to our vertically integrated structure. Accruals and payables for personnel costs including bonuses and income and other taxes payable are largely dependent on the timing of payments for those items. The decrease in cash flow from operating activities in 2022 primarily resulted from:

- an increase in cash used by inventory, including an increase in days inventory on hand as the company builds safety stocks for supply chain disruptions related to third party electronic parts and components internally manufactured by our factory in Russia,
- an increase in cash used by accounts payable due to timing of payments,
- an increase in cash used by accrued expenses due to higher bonus payments,
- a decrease in cash provided by accounts receivable due to increased sales; partially offset by,
- an increase in cash provided by prepaid expenses and other assets.

Investing activities. Net cash provided by investing activities was \$2.5 million for the three months ended March 31, 2022 as compared to cash used in investing activities of \$60.7 million in 2021. The cash provided by investing activities in 2022 related to \$30.4 million of net proceeds of short-term investments, partially offset by \$25.2 million of cash used for property, plant and equipment. The cash used in investing activities in 2021 related to \$33.4 million of net purchases of short-term investments and \$27.4 million for property, plant and equipment.

In 2022, we expect to incur between \$130 million to \$140 million in capital expenditures, excluding acquisitions. Capital expenditures include investments in property, facilities and equipment to add capacity worldwide to support anticipated revenue growth, increase vertical integration, increase redundant manufacturing capacity for critical components and enhance research and development capabilities. The timing and extent of any capital expenditures in and between periods can have a significant effect on our cash flow. If we obtain financing for certain projects, our cash expenditures would be reduced in the year of expenditure. Many of the capital expenditure projects that we undertake have long lead times and are difficult to cancel or defer to a later period.

Financing activities. Net cash used in financing activities was \$80.4 million for the three months ended March 31, 2022 as compared to net cash used of \$1.6 million in 2021. The cash used in financing activities in 2022 primarily related to the purchase of treasury stock of \$78.8 million. The cash used in financing activities in 2021 primarily related to the purchase of treasury stock of \$3.0 million and \$2.6 million of payments of purchase price holdbacks from business combinations; partially offset by, proceeds of \$5.0 million from the exercise of stock options net of amounts disbursed in relation to shares withheld to cover employee income taxes due upon the vesting and release of restricted stock units.

Cautionary Statement Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and we intend that such forward-looking statements be subject to the safe harbors created thereby. For this purpose, any statements contained in this Quarterly Report on Form 10-Q except for historical information are forward-looking statements. Without limiting the generality of the foregoing, words such as "may," "will," "expect," "believe," "anticipate," "intend," "could," "estimate," or "continue" or the negative or other variations thereof or comparable terminology are intended to identify forward-looking statements. In addition, any statements that refer to projections of our future financial performance, trends in our businesses, or other characterizations of future events or circumstances are forward-looking statements.

The forward-looking statements included herein are based on current expectations of our management based on available information and involve a number of risks and uncertainties, all of which are difficult or impossible to accurately predict and many of which are beyond our control. As such, our actual results may differ significantly from those expressed in any forward-looking statements. Factors that may cause or contribute to such differences include, but are not limited to, those discussed in more detail in Item 1, "Business" and Item 1A, "Risk Factors" of Part I of the Form 10-K filed with the SEC for the year ended December 31, 2021 (the "Annual Report"). Readers should carefully review these risks, as well as the additional risks described in other documents we file from time to time with the Securities and Exchange Commission. In light of the significant risks and uncertainties inherent in the forward-looking information included herein, the inclusion of such information should not be regarded as a representation by us or any other person that such results will be achieved, and readers are cautioned not to rely on such forward-looking information. We undertake no obligation to revise the forward-looking statements contained herein to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

Recent Accounting Pronouncements

None.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risk in the ordinary course of business, which consists primarily of interest rate risk associated with our cash and cash equivalents and our debt and foreign exchange rate risk.

Interest rate risk. Certain interest rates are variable and fluctuate with current market conditions. Our investments have limited exposure to market risk. We maintain a portfolio of cash, cash equivalents and short-term investments consisting primarily of bank deposits, money market funds, certificates of deposit, commercial paper, corporate bonds and municipal bonds. None of these investments have a maturity date in excess of one year. Because of the short-term nature of these instruments, a sudden change in market interest rates would not be expected to have a material impact on our financial condition or results of operations.

We are also exposed to market risk as a result of increases or decreases in the amount of interest expense we must pay on our bank debt and borrowings on our bank credit facilities. Our interest obligations on our long-term debt are fixed either by the underlying agreement or by means of an interest rate swap agreement. Although our U.S. revolving line of credit and our Euro credit facility have variable rates, we do not believe that a 10% change in market interest rates would have a material impact on our financial position or results of operations.

Exchange rates. Due to our international operations, a significant portion of our net sales, cost of sales and operating expenses are denominated in currencies other than the U.S. Dollar, principally the Euro, the Russian Ruble, the Chinese Yuan and the Japanese Yen. Changes in the exchange rate of the U.S. Dollar versus the functional currencies of our subsidiaries affect the translated value and relative growth of sales and net income that we report from one period to the next. In addition, our subsidiaries may have assets or liabilities denominated in a currency other than their functional currency which results in foreign exchange transaction gains and losses due to changes in the value of the functional currency versus the currency the assets and liabilities are denominated in. The gain on foreign exchange transactions totaled \$5.8 million for the three months ended March 31, 2022 compared to a gain of \$7.2 million for the three months ended March 31, 2021. Management attempts to minimize these exposures by partially or fully off-setting foreign currency denominated assets and liabilities at our subsidiaries that operate in different functional currencies. The effectiveness of this strategy can be limited by the volume of underlying transactions at various subsidiaries and by our ability to accelerate or delay inter-company cash settlements. As a result, we are unable to create a perfect offset of the foreign currency denominated assets and liabilities. At March 31, 2022, our material foreign currency exposure is net U.S. Dollar denominated assets at subsidiaries where the Euro or the Russian Ruble is the functional currency and U.S. Dollar denominated liabilities where the Chinese Yuan is the functional currency. The U.S. Dollar denominated assets are comprised of cash, third party receivables and inter-company receivables. The U.S. Dollar denominated

liabilities are comprised of inter-company payables. A 5% change in the relative exchange rate of the U.S. Dollar to the Euro as of March 31, 2022 applied to the net U.S. Dollar asset balances, would result in a foreign exchange gain of \$4.9 million if the U.S. Dollar appreciated and a \$5.2 million foreign exchange loss if the U.S. Dollar depreciated. A 5% change in the relative exchange rate of the U.S. Dollar to the Russian Ruble as of March 31, 2022 applied to the net U.S. Dollar asset balances, would result in a foreign exchange gain of \$1.2 million if the U.S. Dollar appreciated and a \$1.3 million foreign exchange loss if the U.S. Dollar depreciated. A 5% change in the relative exchange rate of the U.S. Dollar to the Chinese Yuan as of March 31, 2022 applied to the net U.S. Dollar liabilities balances, would result in a foreign exchange loss of \$4.3 million if the U.S. Dollar appreciated and a \$4.5 million foreign exchange gain if the U.S. Dollar depreciated. Volatility between the U.S. Dollar and the currencies to which we are exposed may be increased by the COVID-19 pandemic, sanctions on the Russian government and changes in central bank policy.

In addition, we are exposed to foreign currency translation risk for those subsidiaries whose functional currency is not the U.S. Dollar as changes in the value of their functional currency relative to the U.S. Dollar affect the translated amounts of our assets and liabilities. Changes in the translated value of assets and liabilities due to changes in functional currency exchange rates relative to the U.S. Dollar result in foreign currency translation adjustments that are a component of other comprehensive income or loss.

Foreign currency derivative instruments can also be used to hedge exposures and reduce the risks of certain foreign currency transactions; however, these instruments provide only limited protection and can carry significant cost. We have no foreign currency derivative instruments as of March 31, 2022. We will continue to analyze our exposure to currency exchange rate fluctuations and may engage in financial hedging techniques in the future to attempt to minimize the effect of these potential fluctuations. Exchange rate fluctuations may adversely affect our financial results in the future.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Under the supervision of our chief executive officer and our chief financial officer, our management has evaluated the effectiveness of the design and operation of our "disclosure controls and procedures" (as defined in Rules 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act")), as of the end of the period covered by this Quarterly Report on Form 10-Q (the "Evaluation Date"). Based upon that evaluation, our chief executive officer and our chief financial officer have concluded that, as of the Evaluation Date, our disclosure controls and procedures are effective.

Changes in Internal Controls

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act) that occurred during the last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We are continually monitoring and assessing the changes to business processes resulting from COVID-19 to ensure the design and operating effectiveness of our controls are adequate.

PART II—OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Information with respect to this item may be found in Note 11, "Commitments and Contingencies" in the Notes to Condensed Consolidated Financial Statements in Part I, Item 1 of this Quarterly Report and is incorporated herein by reference.

ITEM 1A. RISK FACTORS

The Company is supplementing the risk factors previously disclosed in the Company's 2021 Annual Report on Form 10-K for the year ended December 31, 2021 with the following risk factor. In addition to the other information in this Quarterly Report on Form 10-Q, you should carefully consider the factors discussed in Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2021, which could materially and adversely affect our financial condition, results of operations or cash flows, or cause our actual results to differ materially from those projected in any forward-looking statements. We may also face other risks and uncertainties that are not presently known, are not currently believed to be material, or are not identified in our Annual Report or this Quarterly Report because they are common to all businesses.

The ongoing conflict between Russia and Ukraine may adversely affect our business and results of operations.

In the first quarter of 2022, Russian military forces invaded Ukraine. This military action had significant and immediate adverse economic impacts globally. Given the nature of our business and our global operations, particularly those in Russia and Belarus, the current conflict between Russia and Ukraine may adversely affect our business and results of operations in a number of respects.

We manufacture a variety of components, including proprietary fiber-based components, at our facility in Russia and electronic components at our facility in Belarus. We have substantial reliance on our facility in Russia for components manufactured there. Our operations in Russia and Belarus are subject to additional regulatory and political constraints and additional compliance costs in connection with sanctions, other trade controls and higher tariffs imposed by the United States, the European Union and other governments in response to Russia's military operations in Ukraine. Future sanctions restricting our ability to source components from our Russia and Belarus facilities would impact our ability to timely deliver products to our customers. We are implementing steps to mitigate the impacts of the Russia-Ukraine conflict on our business and reduce reliance on our facilities in Russia and Belarus. Such steps include, on a near-term basis, increasing the production of components for inventory as well as, on a longer-term basis, migrating the production of a number of our components currently manufactured in Russia and Belarus into other countries. However, during this transition, we may not be able to adequately mitigate the impact of any future sanctions, the scope of which are not known, to timely deliver products to all current or future customers.

If the relationship between Russia and the United States or Europe significantly worsens, or if Russia, the United States, Europe or other countries impose additional economic sanctions, embargoes, supply chain restrictions or other restrictions on doing business, or increase tariffs, and we are restricted or precluded from continuing our operations in Russia or Belarus, our production could be interrupted, our costs could increase and our business and results of operations would be materially adversely affected.

The current conflict between Russia and Ukraine and our continued operations in Russia and Belarus may also have the effect of heightening many other risks disclosed in our public filings, any of which could materially and adversely affect our business and results of operations. Such risks include, but are not limited to, increases in tariffs; adverse effects on global macroeconomic conditions; increased exposure to cyberattacks; impact of export controls and economic sanctions; limitations in our ability to implement and execute our business strategy; risks to employees, assets and operations we have in Russia and Belarus; disruptions in global supply chains; exposure to foreign currency fluctuations and potential nationalizations and asset seizures in Russia; constraints or disruption in the capital markets and our sources of liquidity; and potential contractual breaches and litigation.

Additionally, there have been no material changes from the risk factors disclosed in Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2021 other than as set forth below.

We must comply with and could be impacted by various export controls and trade and economic sanctions laws and regulations that could negatively affect our business and may change due to diplomatic and political considerations outside of our control.

A significant part of our business involves the export and import of components and products among many countries, including the U.S., Germany, Russia, Belarus and China. The U.S. government and governments of other countries in which we do business have Trade Controls that impact our ability to export, re-export or transfer products, software and technology originating in those countries. Trade Controls may require that we obtain a license before we can export, re-export or transfer certain products, software or technology. The requirement to obtain a license could put us at a competitive disadvantage by restricting our ability to sell products to customers in certain countries or by giving rise to delays or expenses related to obtaining a license. We have experienced and, in the future, may experience delays in obtaining export licenses based on issues solely within the control of the applicable government agency. Licenses may also include conditions that limit the use, resale, transfer, re-export, modification, disassembly, or transfer of a product, software or technology after it is exported without first obtaining permission from the relevant government agency. Delays in obtaining or failure to obtain required export licenses may require us to defer shipments for substantial periods or cancel orders. Any of these circumstances could adversely affect our operations and, as a result, our financial results could suffer. Although we have implemented compliance measures designed to prevent transactions prohibited by current or future Trade Controls, we have previously identified, and may continue to identify, instances in which we exported products without obtaining the required export authorizations and/or submitting the required requests. As a result, we have submitted a limited number of voluntary self-disclosures regarding compliance with export control laws and regulations with the U.S. Department of Commerce's Bureau of Industry and Security ("BIS"). In October 2021, the U.S. Department of Justice ("DOJ") advised us it is conducting an investigation into certain shipments of equipment. While we are cooperating fully with the DOJ's review, we are unable to estimate its ultimate impact on the Company. Our failure to comply with these laws and regulations could result in costly government investigations, government sanctions, including substantial monetary penalties, civil or criminal penalties, denial of export privileges, debarment from government contracts, and a loss of revenues and reputational harm.

Our manufacturing facilities in the U.S., Germany and Russia provide finished products to China, our largest market. Should the United States, the European Union or Russia implement new or broad-based Trade Controls directed at each other or China, our production and/or deliveries as well as results of operations and/or financial condition could be affected.

In addition, Trade Controls and their implementation are fluid and may change due to diplomatic and political considerations outside of our control. The United States, the European Union and Russia have imposed numerous additional trade restrictions and sanctions in response to the Russia-Ukraine conflict. Such changes, including the potential expansion of sanctions and sanctions designations, as well as public statements by government officials, could be significant. While the Company has a trade compliance program, there is a risk that IPG may not be able to comply due to the number, complexity and fast-changing nature of sanctions being added in response to the Russia-Ukraine conflict. Trade Controls and governmental responses to the conflict may require us to take certain actions, including increasing costs and abandoning operations, or respond to nationalization or expropriation of assets abroad, adversely affect prevailing market prices of our common stock, have a reputational impact, or otherwise have a material adverse impact on us, our business and financial results.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities

There have been no sales of unregistered securities for the three months ended March 31, 2022.

Issuer Purchases of Equity Securities

The following table reflects issuer purchases of equity securities for the three months ended March 31, 2022:

	Total Number of Shares (or Units) Purchased		Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs
January 1, 2022 — January 31, 2022	128,374	(2)	\$ 156.74	128,374	\$ 90,303
February 1, 2022 — February 28, 2022	182,983	(2), (3)	142.02	182,983	265,377
March 1, 2022 — March 31, 2022	327,428	(1), (2), (3)	113.64	289,758	232,738
Total	638,785		\$ 130.43	601,115	\$ 232,738

- (1) In 2012, our Board of Directors approved "withhold to cover" as a tax payment method for vesting of restricted stock awards for certain employees. Pursuant to the "withhold to cover" method, we withheld from such employees the shares noted in the table above to cover tax withholding related to the vesting of their awards. For the three months ended March 31, 2022 a total of 37,670 shares were withheld at an average price of \$121.52.

- (2) On May 5, 2020, we announced that our Board of Directors authorized the purchase of up to \$200 million of IPG common stock (the "May 2020 program"), exclusive of any fees, commissions or other expenses. We repurchased 601,115 shares in the first quarter of 2022 under the May 2020 authorization.
- (3) On February 15, 2022, we announced that our Board of Directors authorized the purchase of up to \$200 million of IPG common stock (the "February 2022 program"). This new authorization is in addition to the Company's existing stock repurchase program authorized in May 2020. There were no shares purchased in the first quarter of 2022 under the February 2022 authorization.

Share repurchases under both purchase authorizations may be made periodically in open-market transactions using the Company's working capital, and are subject to market conditions, legal requirements and other factors. The share purchase program authorizations do not obligate us to repurchase any dollar amount or number of our shares, and repurchases may be commenced or suspended from time to time without prior notice.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

(a) Exhibits

Exhibit No.	Description
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a)
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a)
32	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 1350
101.INS	Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

SIGNATURES

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.

IPG PHOTONICS CORPORATION

Date: May 4, 2022

By: /s/ Eugene A. Scherbakov
Eugene A. Scherbakov
Chief Executive Officer
(Principal Executive Officer)

Date: May 4, 2022

By: /s/ Timothy P.V. Mammen
Timothy P.V. Mammen
Senior Vice President and Chief Financial Officer
(Principal Financial Officer)

Certification of Chief Executive Officer

Pursuant to Rule 13a – 14(a) or Rule 15d – 14(a) of the Securities Exchange Act of 1934

I, Eugene A. Scherbakov, certify that:

1. I have reviewed this quarterly report on Form 10-Q of IPG Photonics Corporation;
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 Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be signed 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: May 4, 2022

By:

/s/ Eugene A. Scherbakov

Eugene A. Scherbakov
Chief Executive Officer (Principal Executive Officer)

Certification of Chief Financial Officer

Pursuant to Rule 13a – 14(a) or Rule 15d – 14(a) of the Securities Exchange Act of 1934

I, Timothy P.V. Mammen, certify that:

1. I have reviewed this quarterly report on Form 10-Q of IPG Photonics Corporation;
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 Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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: May 4, 2022

By:

/s/ Timothy P.V. Mammen

Timothy P.V. Mammen

Senior Vice President and Chief Financial Officer (Principal Financial Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the filing of the Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2022 (the "Report") by IPG Photonics Corporation (the "Company"), Eugene A. Scherbakov, as the Chief Executive Officer of the Company, and Timothy P.V. Mammen, as the 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:

- 1 the Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934; and
- 2 the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 4, 2022

/s/ Eugene A. Scherbakov

Eugene A. Scherbakov
Chief Executive Officer

/s/ Timothy P.V. Mammen

Timothy P.V. Mammen
Senior Vice President and Chief Financial Officer

A signed original of this written statement required by 18 U.S.C. Section 1350 has been provided to IPG Photonics Corporation and will be retained by IPG Photonics Corporation and furnished to the Securities and Exchange Commission or its staff upon request.