

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

IPG PHOTONICS CORP  
Form S-1/A  
February 02, 2001

As filed with the Securities and Exchange Commission on February 2, 2001

Registration No. 333-51560

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

AMENDMENT NO. 1

TO

FORM S-1  
REGISTRATION STATEMENT UNDER  
THE SECURITIES ACT OF 1933

-----  
IPG Photonics Corporation  
(Exact name of Registrant as specified in its charter)

Delaware  
(State of other  
jurisdiction of  
incorporation or  
organization)

3674  
(Primary Standard Industrial  
Classification Code Number)

04-3444218  
(I.R.S. Employer  
Identification No.)

P.O. Box 519  
660 Main Street  
Sturbridge, Massachusetts 01566  
(508) 347-6800  
(Address, including zip code, and telephone number,  
including area code of Registrant's principal executive offices)

-----  
Dr. Valentin P. Gapontsev  
Chairman of the Board and Chief Executive Officer  
P.O. Box 519  
660 Main Street  
Sturbridge, Massachusetts 01566  
(508) 347-6800  
(Name, address, including zip code, and telephone number,  
including area code, of agent for service)

-----  
Please Send Copies of All Communications To:

Barry J. Hart, Esq.  
Daniel A. Ninivaggi, Esq.

Alan L. Jakimo, Esq.  
Howard M. Kleinman, Esq.

**Edgar Filing: IPG PHOTONICS CORP - Form S-1/A**

Winston & Strawn  
 200 Park Avenue  
 New York, NY 10166  
 (212) 294-6700

Brown & Wood LLP  
 One World Trade Center  
 New York, NY 10048  
 (212) 839-5300

-----

Approximate Date of Commencement of Proposed Sale to the Public: As soon as practicable after the effective date of this Registration Statement.

-----

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, please check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering:

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering.

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.

-----

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Per Share(1)	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee
Common Stock, \$0.0001 par value.....	9,375,000	\$16.00	\$150,000,000	\$39,600 (2)

(1) Estimated solely for the purpose for computing the amount of registration fee pursuant to Rule 457(o) under the Securities Act.

(2) An aggregate of \$39,600 of the fee was paid with the initial filing of the Registration Statement on December 8, 2000.

-----

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS PROSPECTUS SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THIS REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

Explanatory Note

This Registration Statement contains two forms of prospectus: one to be used in connection with a United States offering (the "U.S. Prospectus") and one to be used in a concurrent international offering (the "International Prospectus"). The two prospectuses will be identical in all respects except for the front and back cover pages and the sections entitled "Underwriting." Pages to be included in the International Prospectus and not the U.S. Prospectus are marked "Alternate Page."

+++++
+The information in this prospectus is not complete and may be changed. We may +
+not sell these securities until the registration statement filed with the +
+Securities and Exchange Commission is effective. This prospectus is not an +
+offer to sell these securities and it is not soliciting an offer to buy these +
+securities in any state where the offer or sale is not permitted. +
+++++

Subject to Completion

Preliminary Prospectus Dated February 2, 2001

PROSPECTUS

8,200,000 Shares
[IPG LOGO]
Common Stock

-----

This is IPG Photonics Corporation's initial public offering of common stock. IPG Photonics Corporation is selling all of the shares. The U.S. underwriters are offering shares in the U.S. and Canada and the international managers are offering shares outside the U.S. and Canada.

We expect the public offering price to be between \$14.00 and \$16.00 per share. Currently, no public market exists for the shares. After pricing of this offering, we expect that the common stock will trade on the Nasdaq National Market under the symbol "IPGP."

Investing in the common stock involves risks that are described in the "Risk Factors" section beginning on page 6 of this prospectus.

-----

Table with 2 columns: Description, Per Share Total. Rows include Public offering price, Underwriting discount, and Proceeds, before expenses, to IPG Photonics.

The U.S. underwriters may also purchase up to an additional shares from us at the public offering price, less the underwriting discount, within 30 days

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

from the date of this prospectus to cover over-allotments. The international managers may similarly purchase up to an additional shares from us.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The shares will be ready for delivery in New York, New York on or about , 2001.

-----

Merrill Lynch & Co.

Robertson Stephens

CIBC World Markets

U.S. Bancorp Piper Jaffray

Wit SoundView

-----

The date of this prospectus is , 2001.

Inside Front Cover:

The inside front cover is a gatefold containing three pages of graphics.

Page One:

The upper left-hand corner contains a photograph of optical fiber through which light is being transmitted.

The upper right-hand corner contains the following text, which runs along the right-hand edge of the photograph.

IPG Photonics is a leading supplier of:

- . Fiber Amplifiers
- . Raman Pump Lasers
- . Fiber Lasers

Along the bottom of the page is the registrant's logo which reads as follows:

IPG Photonics

...Enabling the Optical Network

Pages Two and Three:

These two pages will have one continuous graphic designed to depict the four types of optical networks: the "Long Haul Network," the optical fiber network that interconnects metropolitan areas; the "Metropolitan Ring," the optical fiber network that connects central telecommunications switching exchanges within metropolitan areas; the "Access Network," the optical fiber network that connects individual buildings and homes to central telecommunications switching exchanges within metropolitan and suburban areas; and the "Free Space Access Network," the optical fiber systems that are used

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

for free space optical communications between buildings in metropolitan areas.

At the upper left-hand corner of page two is the registrant's "IPG Photonics" logo.

At the center of page two is a triangle. The legs of this triangle depict the segments of the Long Haul Network that interconnect metropolitan areas. The middle of the triangle contains the words "Long Haul Network". Above the top leg of the triangle is a photograph of an IPG Photonics High Power Erbium-Doped Fiber Amplifier, illustrating the use of this product to amplify light signals in long haul networks. Along the lower left-hand leg of the triangle is a photograph of an IPG Photonics Raman pump laser, illustrating the use of this product to effect Raman amplification of light signals in long haul networks.

At each of the triangle's three corners is an identical image of five high-rise buildings standing in an ellipse. Each ellipse depicts the "Metropolitan Ring" in the metropolitan area in which the buildings are located. Underneath each ellipse are the words "Metropolitan Ring." Underneath and slightly to the right of the Metropolitan Ring at the right-hand corner of the Long Haul Network triangle is a photograph of an IPG Photonics Utility EDFA, illustrating the use of this product to amplify light signals in metropolitan rings.

The top half of page three is an exploded view of three of the high-rise buildings in the metropolitan area at the right-hand corner of the Long Haul Network triangle on page two. One of the buildings is connected to the metropolitan ring. There are two dotted lines connecting a point near the top of this building to each of the other two buildings in this exploded view, depicting free space optical communications taking place between the buildings. Above the three buildings are the words "Free Space Access Network." Underneath the three buildings is a photograph of an IPG Photonics Dynamic Power Free Space Amplifier, illustrating the use of this product in free space optical communications.

The lower half of page three is an expanded view of two of the high-rise buildings in the metropolitan area at the right-hand corner of the Long-Haul Network triangle on page two. The exploded view also contains images of three homes. The central telecommunications switching exchange to which the two buildings and three homes are connected is depicted by an ellipse in the middle of the five structures. A straight line running from each structure to this ellipse depicts the "fiber-to-the-curb" that connects the structure to the central telecommunications switching exchange. Below the ellipse is a photograph of an IPG Photonics High-Power, Multiport EDFA, illustrating the use of this product in access networks.

At the bottom right-hand corner of page three is the registrant's "...Enabling the Optical Network" logo.

### TABLE OF CONTENTS

Prospectus Summary.....	1
Risk Factors.....	6
Forward-Looking Statements.....	15
Use of Proceeds.....	16
Dividend Policy.....	16

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Capitalization.....	17
Dilution.....	19
Selected Combined Consolidated Financial Data.....	21
Management's Discussion and Analysis of Financial Condition and Results of Operations.....	23
Business.....	33
Management.....	48
Transactions with Related Parties.....	57
Indemnification of Directors and Executive Officers and Limitation of Liability.....	62
Principal Stockholders.....	63
Description of Capital Stock.....	65
Shares Eligible for Future Sale.....	67
Summary of Federal Income and Estate Tax Consequences of Ownership and Disposition of Common Stock by Non-U.S. Holders.....	69
Underwriting.....	72
Legal Matters.....	76
Experts.....	76
Where You Can Find More Information.....	77
Index to Combined Consolidated Financial Statements.....	F-1

Unless specifically stated, the information in this prospectus:

- . reflects the automatic conversion of all outstanding shares of our Series A convertible preferred stock and Series B convertible redeemable preferred stock into an aggregate of 12,083,333 shares of our common stock upon the closing of this offering;
- . reflects the acquisition of all of the remaining shares of IPG Laser GmbH by us on October 4, 2000;
- . a 2-for-1 stock split of our common shares to be effective upon commencement of this offering; and
- . assumes no exercise of the underwriters' overallotment option to purchase an aggregate of 1,175,000 shares of common stock.

You should rely only on the information contained in this prospectus. Neither we nor the underwriters have authorized any person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We and the underwriters are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate as of the date on the front cover of this prospectus only. Our business, financial condition, results of operations and prospects may have changed since that date.

IPG is a trademark of IPG Photonics Corporation. This prospectus contains product names, trade names and trademarks of IPG and other organizations.

i

### PROSPECTUS SUMMARY

The summary highlights selected information contained elsewhere in this prospectus. Because this is only a summary, it does not contain all the information that you should consider before buying shares in this offering. You should read the entire prospectus carefully, including our consolidated financial statements and the related notes included elsewhere in this

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

prospectus.

### IPG Photonics Corporation

We design, manufacture and sell high performance fiber amplifiers, Raman pump lasers and fiber lasers for telecommunications and industrial applications. Our proprietary technology, materials science expertise and vertically integrated manufacturing operations enable us to meet the demands of our customers for cost-effective fiber amplifiers and lasers having high power output and reliable performance. Our telecommunications products are used throughout optical communications networks. Our largest telecommunications customers in 2000 were Alcatel, Lucent, Marconi, Siemens and TeraBeam Networks. Our industrial products are used for a variety of manufacturing, medical and aerospace applications. Our largest industrial customers in 2000 were GSI Lumonics, Purup Escofot and Sunx.

Due to rapidly increasing worldwide levels of data, voice and video traffic, telecommunications service providers are expanding their use of fiber optic technologies and seeking to increase the transmission capacity, or bandwidth, of existing fiber optic networks. Fiber optic networks transmit information as pulses of light, or optical signals, through optical fibers, which are thin glass strands. In these networks, the distance that an optical signal can be transmitted is limited by losses in signal strength, or attenuation, as well as by losses to the signal as it passes through optical components in the network, known as insertion loss. Operators of fiber optic networks use fiber amplifiers to amplify optical signals during transmission to overcome attenuation and insertion loss. Prior to the invention of the fiber amplifier in 1987, this amplification could only be accomplished through the relatively expensive and inefficient process of optical to electronic to optical conversion. By addressing attenuation and insertion loss without the need for this type of conversion, fiber amplifiers allow communications networks to be deployed more cost-effectively.

Optical signals are most commonly amplified through the use of erbium-doped fiber amplifiers, or EDFAs, and Raman pump lasers. EDFAs are placed at specific points along an optical network to boost the optical signal in order to assure the signal maintains its integrity throughout transmission. Ryan, Hankin & Kent, a leading market research and consulting firm, estimates that revenue from the sale of erbium gain modules, the component of EDFAs in which amplification occurs, was \$641 million in 1999 and will increase to \$4.2 billion in 2004, representing a compound annual growth rate of 45.3%.

Raman pump lasers emit light at specific wavelengths that travels along a transmission fiber to amplify the optical signal, a process known as Raman amplification. Ryan, Hankin & Kent estimates that sales of Raman gain modules will grow from approximately \$18.0 million in 2000 to approximately \$1.0 billion in 2004, representing a compound annual growth rate of 173.1%.

Our innovative line of customized high and low power amplifiers is designed to meet the specific needs of our telecommunications customers. For example:

- . Our high-power fiber amplifiers enable bandwidth-enhancing technologies, such as dense wavelength division multiplexing, or DWDM, by which multiple wavelengths of optical signals are transmitted simultaneously through the same fiber.
- . Our high-power, multiple output fiber amplifiers enable fiber optic technology to be used in residential areas and cable television systems.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

- . Our high-power amplifiers automatically adjust power output to overcome atmospheric limitations, such as fog and rain, in free-space (wireless) optical networks.
- . Our low- and medium-power fiber amplifiers can be widely deployed in metropolitan areas because of their cost-effectiveness and high reliability.

In addition to telecommunications products, we also provide high power fiber lasers for a variety of industrial applications. Industrial lasers enable manufacturers to cut, mark and measure without physical contact which, in many applications, allows for higher processing speeds. Our high power fiber lasers offer several benefits compared to traditional industrial laser technologies, such as gas or solid state such as higher beam quality and mobility, increased reliability and efficiency, reduced size, maintenance-free operation and lower operating costs.

We employ more than 30 Ph.D.'s to support our proprietary technology platform. We produce our products using vertically integrated manufacturing operations located in the United States, Germany and Italy, all of which we are currently expanding. We design and manufacture a significant majority of our critical specialty components and test and qualify all of our components, assemblies and finished products. Our vertically integrated manufacturing operations enable us to quickly scale our production and maintain high product quality and reliability in order to meet the needs of our telecommunications and industrial customers.

Our objective is to be the leading supplier of fiber amplifiers, Raman pump lasers and fiber lasers to developers of optical communications and industrial laser systems. Key elements of our strategy include:

- . extending our existing technology leadership;
- . expanding and enhancing our existing line of products;
- . expanding our manufacturing capacity and reducing costs;
- . expanding our sales and marketing efforts;
- . providing our customers with a high degree of technical and engineering support for customization; and
- . acquiring strategic businesses and technologies consistent with our growth strategy.

### Corporate Information

Our main office is located at 660 Main Street, Sturbridge, Massachusetts 01566 and our telephone number is (508) 347-6800.



## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Common stock offered by  
IPG Photonics..... 8,200,000 shares

Common stock to be  
outstanding after this  
offering..... 92,084,201 shares

Use of proceeds..... For expansion of manufacturing facilities, marketing and  
distribution activities, research and development  
activities and repayment of a portion of outstanding  
indebtedness, working capital and other general corporate  
purposes, including acquisitions.

Proposed Nasdaq National  
Market symbol..... IPGP

The number of shares that will be outstanding after this offering is based on the number of shares outstanding as of December 31, 2000, including:

- . the conversion of all outstanding Series A and Series B preferred stock into an aggregate of 12,083,333 shares of common stock;
- . 1,000,000 shares of restricted common stock issued under our 2000 stock incentive plan subsequent to December 31, 2000 at a price of \$0.50 per share;

and excluding:

- . 5,126,532 shares of common stock issuable upon exercise of options outstanding at December 31, 2000 under our 2000 stock incentive plan, with a weighted-average exercise price of \$0.99 per share, and 2,653,000 shares of common stock issuable upon exercise of options granted subsequent to December 31, 2000 and prior to the date of this prospectus with a weighted-average exercise price of \$2.06 per share;
- . 5,525,600 shares of common stock reserved for issuance under our 2000 stock incentive plan with respect to unawarded options or other grant; and
- . 3,166,117 shares of common stock issuable upon exercise of warrants outstanding at December 31, 2000 held by owners of our Series B convertible redeemable preferred stock, assuming an exercise price of \$7.50 per share.

3

### Summary Combined Consolidated Financial Data

You should read the following Summary Combined Consolidated Financial Data in conjunction with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our combined consolidated financial statements and the related notes included elsewhere in this prospectus.

The following table sets forth our summary financial and operating data for the periods indicated on the basis described in "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained elsewhere in this prospectus. Our combined consolidated financial statements include the accounts of IPG Laser GmbH and IPG Fibertech S.r.l. The summary

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

combined consolidated financial data for each of the three years in the period ended December 31, 1999 are derived from our combined consolidated financial statements included elsewhere in this prospectus, which have been audited by independent auditors. The summary combined consolidated financial data as of September 30, 2000 and for the nine months ended September 30, 1999 and 2000 are derived from our unaudited combined consolidated financial statements included elsewhere in this prospectus. Our results of operations for the nine month period ended September 30, 2000 are not necessarily indicative of our results for the full fiscal year ended December 31, 2000. For purposes of presentation of our summary combined consolidated financial statements for the years ended December 31, 1997 and 1998, IPG Laser and IPG Laser's 80% owned subsidiary, IPG Fibertech, are referred to as the Predecessor.

	For the year ended December 31,			For the nine months ended September 30,	
	1997	1998	1999	1999	2000
(in thousands, except per share data)					
Predecessor					
Statement of Operations Data:					
Net sales.....	\$3,097	\$8,263	\$18,640	\$14,823	\$32,689
Cost of sales (1).....	2,436	5,560	9,688	6,882	12,610
Gross profit (1).....	661	2,703	8,952	7,941	20,079
Operating expenses:					
Sales and marketing (2).....	219	374	677	619	1,049
Research and development (3).....	127	682	1,477	1,036	1,127
General, administrative and other (4).....	276	1,000	2,712	2,006	3,946
Equity-based compensation.....	--	--	--	--	12,035
Total operating expenses.....	622	2,056	4,866	3,661	18,157
Operating income.....	39	647	4,086	4,280	1,922
Interest income (expense), net.....	(119)	(208)	(303)	(231)	(77)
Other income (expense), net.....	108	(47)	273	40	475
Income before provision for income taxes and minority interest.....	28	392	4,056	4,089	2,320
Provision for income taxes.....	22	234	2,102	2,178	5,828
Minority interest.....	--	(4)	(3)	(5)	--
Net income (loss).....	6	154	1,951	1,906	(3,508)
Accretion of preferred stock.....	--	--	--	--	(169)
Net income (loss) available to common shareholders.....	\$ 6	\$ 154	\$ 1,951	\$ 1,906	\$ (3,677)
Net income (loss) per share: (5)					
Basic .....	--	--	\$ 0.03	\$ 0.03	\$ (0.06)
Diluted .....	--	--	\$ 0.03	\$ 0.03	\$ (0.06)

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Pro forma net loss per share--basic  
and diluted (5)..... -- -- -- -- \$ (0.05)  
=====

4

- (1) Excludes \$677 of equity-based compensation for the nine months ended September 30, 2000.
- (2) Excludes \$166 of equity-based compensation for the nine months ended September 30, 2000.
- (3) Excludes \$184 of equity-based compensation for the nine months ended September 30, 2000.
- (4) Excludes \$11,008 of equity-based compensation for the nine months ended September 30, 2000.
- (5) The calculation of net income (loss) per share and pro forma basic and diluted net loss per share is described in Note 3 to the combined consolidated financial statements.

	September 30, 2000		
	Actual	Pro Forma (6)	As Adjusted (7)
	(in thousands)		
Balance Sheet Data:			
Cash and cash equivalents.....	\$ 52,999	\$ 73,499	\$185,869
Working capital.....	56,994	77,494	189,864
Total assets.....	102,977	123,477	235,847
Long-term debt, including current portion.....	7,299	7,299	7,299
Series B preferred stock.....	62,389	--	--
Series A preferred stock.....	4,954	--	--
Shareholders' equity.....	18,354	101,243	213,613

- (6) The pro forma amounts give effect to (i) the issuance of an additional 800,000 shares of Series B preferred stock at \$25.00 per share subsequent to September 30, 2000, (ii) the issuance of 2,806,000 shares of our common stock in connection with the acquisition of the remaining ownership of IPG Laser on October 4, 2000, (iii) the issuance subsequent to September 30, 2000 of 1,000,000 shares of common stock for \$500,000 and options to purchase 2,000,000 shares of common stock at a price of \$1.50 per share, reflecting a compensation charge of \$12.0 million and deferred compensation charge of \$22.0 million, (iv) the issuance subsequent to September 30, 2000 of options to purchase 1,607,000 shares of common stock at a weighted-average exercise price of \$3.25 per share to employees, consultants and members of the Board of Directors, reflecting a deferred compensation charge of \$14.7 million, (v) the conversion of all outstanding shares of Series A preferred stock into 1,000,000 shares of common stock, and (vi) the conversion of all outstanding shares of Series B preferred stock into 11,083,333 shares of common stock.
- (7) The pro forma as adjusted amounts reflect pro forma amounts, as adjusted to reflect the sale of 8,200,000 shares of our common stock in this offering, at an assumed initial public offering price of \$15.00 per share and after

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

deducting the estimated underwriting discount and estimated offering expenses, and our receipt of the net proceeds. For more information, see "Use of Proceeds" and "Capitalization."

5

### RISK FACTORS

You should carefully consider the risk factors set forth below, in addition to the other information contained in this prospectus, before making an investment decision. If any of the following risks actually occur, our business could be harmed, the trading price of our common stock could decline and you may lose all or part of your investment. You should also refer to the other information contained in this prospectus, including our financial statements and the related notes.

#### Risks Related to Our Business

We depend on a few key customers for a substantial portion of our sales revenue and the loss of any of these customers or a significant reduction or fluctuation in sales to these customers could significantly reduce our sales revenue or cause our results of operations to fluctuate.

Our results of operations have historically depended, and we anticipate will continue to depend for the foreseeable future, on sales to a relatively small number of customers. In the nine-month period ended September 30, 2000, TeraBeam and Marconi accounted for 40.2% and 19.6% of our net sales revenue, respectively, with eight customers accounting for 86% of our net sales revenue. Our net sales revenue generated from these customers, individually or in the aggregate, may not reach or exceed historic levels in any future period. In addition, some of these customers are also competitors.

Our net sales are dependent in part upon the ability of our customers to develop and sell systems that incorporate our fiber amplifiers, Raman pump lasers and fiber lasers. Adverse economic conditions, large inventory positions, limited marketing resources and other factors affecting these customers could have a substantial impact upon our financial results. In addition, our customers tend to order large quantities of products on an as needed basis. These ordering patterns may result in significant quarterly fluctuations in our net sales revenue and results of operations. None of our current customers have any minimum purchase obligations and may stop placing orders with us at any time. Our customers may purchase, and in several cases have purchased, fiber amplifiers and fiber lasers from other vendors, regardless of any forecast they may have previously provided to us. Loss or cancellations of orders from, or any downturn in the business of, any of these significant customers could cause a reduction in our sales revenue. In addition, we may not be able to reduce our dependence on a limited number of customers if the trend toward consolidation within various segments of the communications industry continues.

A significant portion of our sales are to a customer seeking to develop a free-space optical telecommunications business. If this customer's business does not develop as planned, our operating results could be materially adversely affected.

TeraBeam has developed a free-space optical telecommunications system to transmit data from building to building at high speeds without the use of copper or fiber optic cables. We understand that TeraBeam plans to introduce this system in metropolitan areas in the coming years. Free-space optical telecommunications systems are relatively new. We cannot predict the rate or

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

extent to which these new telecommunications systems will be adapted or whether they will be widely accepted. Finally, as a private company, TeraBeam does not publish financial statements or other reports of the type required of companies whose securities are publicly traded. Consequently, we cannot make any statements about TeraBeam's financial condition or resources.

Our ability to sell our products would suffer if we lose members of our senior management team or if these members are unable to work together effectively.

Our future success depends upon the continued services of members of our senior management, particularly Dr. Valentin P. Gapontsev, our founder, Chairman of the Board and Chief Executive Officer. The loss of Dr. Gapontsev could hurt our business, and we do not have "key person" life insurance policies covering Dr. Gapontsev or any of our other employees. We are currently seeking to obtain a "key person" life insurance policy for Dr. Gapontsev as well as other key employees. With the exception of John H. Dalton, John

6

Geagea and Angelo P. Lopresti, none of our executive officers or key employees are bound by an employment agreement for any specific term and these individuals may terminate their employment at any time. In addition, many of the members of our management team have been with us only for a relatively short period of time. For example, our President, Chief Operating Officer, Executive Vice President of Strategic Marketing, and General Counsel joined us within the past seven months.

If we do not successfully expand our sales and marketing organization, our sales revenue may not increase.

The sale of our products requires long and sustained efforts targeted at several key departments within our customers' and prospective customers' organizations. Our sales organization is currently limited and relies substantially upon our senior management, scientists and engineers. We will need to grow our sales force in order to increase market awareness and sales of our products. Competition for these individuals is intense, and we might not be able to hire the kind and number of sales personnel and applications engineers we need.

If we cannot reduce our manufacturing costs and introduce higher margin products to offset anticipated continued reductions in the average selling price of our products, we may experience reduced sales levels, reduced gross margins and loss of market share.

We anticipate that average selling prices of fiber optic communications products will continue to decrease in the future in response to technological advances, to product introductions by competitors and by us, and to other factors, including price pressures from significant customers. We cannot predict the rate at which selling prices will decrease. Therefore, we must continue to develop and introduce new products that incorporate features that can be sold at higher prices and reduce our manufacturing costs.

Our dependence on single or limited source suppliers for some of our key components and raw materials could adversely affect our results of operations.

We currently purchase some of our key components and raw materials used in the manufacture of our products from single or limited source suppliers and we have no contractual supply arrangements with any supplier other than SDL, our single source supplier of laser diode chips. Although we are actively seeking alternative sources of supply for the key components that we obtain

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

from single or limited source suppliers, we do not anticipate supplies being available from other sources in commercial quantities in the near future. Financial or other difficulties faced by our suppliers or significant changes in demand for the components and materials we obtain from them could limit the availability of these components and materials. Any interruption or delay in the supply of any of these components or materials, or the inability to obtain these components and materials from alternate sources at acceptable prices and within a reasonable amount of time would impair our ability to meet scheduled product deliveries to our customers and could cause customers to cancel orders. We currently manufacture many of our critical components and will attempt to manufacture more of them to reduce our dependence on single or limited source suppliers, but we cannot assure you that we will succeed at these efforts in a timely manner or at all.

Some of our competitors are also our suppliers and if our relationships with these suppliers deteriorate, we may experience delivery problems and have less control over product pricing and quality, which would harm our business.

Some of our component suppliers are both single source suppliers to us and major competitors. For example, we buy some of our key components from SDL, one of our competitors. SDL has recently announced its decision to merge with JDS Uniphase. A change in these supply relationships in any manner adverse to us could cause us to experience delivery problems as well as reduced control over product pricing and quality. In addition, we could experience delays in identifying and qualifying other suppliers in a timely manner, which could cause production delays.

7

If we are unable to expand our manufacturing capacity in a timely manner, we will have insufficient capacity, which could seriously harm our business prospects.

We are currently establishing additional manufacturing and research facilities in Oxford, Massachusetts and Burbach, Germany and plan to add additional capacity in Milan, Italy. During this process, we could face the inability to procure and install the necessary capital equipment, a lack of availability of manufacturing personnel to work in our existing or new facilities and difficulties in achieving adequate yields from new manufacturing lines. We could also experience delays, disruptions, capacity constraints or quality control problems in our existing or new manufacturing operations. If we experience difficulties and disruptions in the manufacture of our products, we may not be able to deliver our products in a timely manner, which could cause us to lose customers or make it more difficult to attract new customers and negatively impact our sales revenue, competitive position and reputation. An element of our manufacturing strategy is increasing use of automation in our manufacturing and assembly processes. We cannot assure you that we will be able to successfully increase our use of automation. In addition, if we outgrow our existing and new facilities in Massachusetts, Germany and Italy, we will need to locate and obtain additional space. The commercial real estate markets in Massachusetts and Germany are extremely competitive and we may not be able to obtain additional needed space on reasonable terms, or at all. Our failure to obtain additional space could adversely impact our ability to expand our business and operations and increase our sales.

If we do not achieve acceptable manufacturing costs or sufficient product reliability in our expanded facilities or we suffer any interruption in our manufacturing operations, our ability to compete may be impaired and our sales could suffer.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

The manufacture of our products involves complex and precise processes, requiring production in highly controlled clean room environments. Changes in our manufacturing processes or those of our suppliers, or inadvertent use of defective or contaminated materials by our suppliers or us, could significantly reduce our manufacturing yields and product reliability. Our manufacturing costs are relatively fixed and, thus, manufacturing yields are critical to our results of operations. To the extent we do not achieve acceptable manufacturing yields or experience product shipment delays, our gross margins would suffer. In addition, we may experience manufacturing delays and reduced manufacturing yields upon introducing new products. Furthermore, any interruption in manufacturing resulting from shortages of parts or equipment, earthquake, fire, equipment failures, yield fluctuations or otherwise could materially harm our operating results and business prospects.

If we fail to predict our manufacturing requirements accurately, we could incur additional costs or experience manufacturing delays, which could cause us to lose orders or customers and harm our operating results.

We need to accurately predict both the demand for our products and the lead time required to manufacture and obtain the raw materials and components for manufacturing our products. Lead times for raw materials and components that we order vary significantly and depend on factors such as the size of the order, contract terms and market demand for the raw materials or components. We currently use historical pricing, analytical reports and industry trend analysis to determine our requirements for components and raw materials. If we underestimate our requirements, our company may have inadequate manufacturing capacity or inventory, which could interrupt manufacturing of our products and result in delays in shipments and revenues. If we overestimate our requirements, we could have excess inventory.

8

If fiber optic technology is adopted at rates slower than we expect, we may have to significantly revise our strategy and demand for our products may decline, which would adversely impact our operating results and business prospects.

We have based a significant element of our business strategy on expanded use of fiber optic technology as a means of satisfying the increasing demand for bandwidth across communications networks, including the demand for higher transmission rates related to Internet-based communications. While we believe that both economic and technological factors favor the use of fiber optic communications systems over traditional copper wire-based systems, enhancements to copper wire-based technology, such as digital subscriber line, or DSL, could delay or prevent the adoption of fiber optic technology. Consequently, our sales could be adversely affected.

If we fail to manage our growth effectively, our ability to manufacture and sell our products could be adversely affected, which could harm our operating results.

The increase in the number of our employees and the growth in our operations, combined with the challenges of managing geographically-dispersed operations, has placed, and we expect will continue to place, a significant demand on our management systems and resources. We continue to expand the scope of our operations in the United States, Germany and Italy, and have increased the number of our employees substantially in the past year. In addition, we plan to hire a significant number of employees over the next few quarters. We expect that we will need to continue to improve our financial and managerial controls, reporting systems and procedures and continue to expand, train and

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

manage our work force worldwide.

Competition in the fiber amplifier and fiber laser market for telecommunications applications is intense and could adversely affect our sales revenue and gross margins.

Many of our competitors are large public companies that have long operating histories, significantly greater financial, technical, marketing and other resources, name recognition, extensive customer bases, well-developed distribution channels and broad product offerings. These companies include ADC, Alcatel, Corning, Corvis, Furakawa, JDS Uniphase, Lucent, Marconi, SDL and Siemens. These competitors and others are able to devote greater resources than we can to the development, marketing, sale and support of their products, and they can leverage their customer bases and broader product offerings and adopt aggressive pricing policies to gain market share. We expect to encounter potential customers that, due to existing relationships with these and other competitors, are committed to the products offered by them. The intensity of competition in our business could both prevent us from increasing or maintaining our market share and force us to reduce the prices of our products. If we cannot increase our market share or if we are forced to reduce the prices of our products, our sales revenue could stagnate or decline. Similarly, if we are forced to reduce the prices of our products, our margins could decline. Several of our competitors have large market capitalizations or cash reserves, and are much better positioned than we are to acquire other companies in order to increase their size or gain new technologies or products that may displace ours. These competitors could also acquire one or more of our significant customers, thereby leading to a decline in our sales revenue. In other circumstances, some of our competitors could spin-out new companies in the fiber optic components market that could as free-standing companies compete more aggressively with us. Finally, additional competitors may enter our market, and we are likely to compete with new companies in the future.

We do not have patents on our core technologies and, as a result, other companies may develop similar products or services, which could seriously harm our business.

Our success and ability to compete substantially depends on our ability to sell products in which we may not have sufficient intellectual property rights. We currently do not have patents on any of our core technology that would preclude or inhibit customers from using our core technologies, and we cannot assure you that we will be successful in protecting our technology through patent law. Historically, we have chosen to

9

rely upon trade secrets and contractual restrictions, as opposed to patents, to protect our rights because of our limited resources. Attempts may be made to copy or reverse engineer aspects of our products or to obtain and use information that we regard as proprietary. Accordingly, we may not be able to prevent misappropriation of our technology or deter others from developing similar technology. Furthermore, policing the unauthorized use of our products is difficult. Although we have applied for U.S. federal trademark protection, we do not have any U.S. federal trademark registrations for the marks "IPG," "IPG Photonics" or "IPG Laser" or certain of our other marks and we may not be able to obtain such registrations due to conflicting marks or otherwise. Litigation may be necessary in the future to enforce our intellectual property rights or to determine the validity and scope of the proprietary rights of others. This litigation could result in public disclosure of our proprietary technology, substantial costs and diversion of resources.



## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

We may be sued by third parties for infringement of their proprietary rights and we may incur defense costs, and possibly royalty obligations, or be prevented from using technology important to our business.

The fiber optic components and fiber laser industries are characterized by the existence of a large number of patents and frequent litigation based on allegations of patent infringement or other violations of intellectual property rights. Several manufacturers of fiber amplifiers have recently been sued for alleged infringement of a fiber amplifier patent. As the number of participants and the overall level of competitiveness in our markets increase, the possibility of an intellectual property claim against us increases. Any intellectual property claims, with or without merit, could be time consuming and expensive to litigate or settle and could divert management attention from administering our business. A third party asserting infringement claims against us or our customers with respect to our current or future products may adversely affect us by, for example, causing us to enter into costly licenses or incur settlement or litigation costs. We cannot assure you that third-party licenses will be available to us on commercially reasonable terms, or at all. The inability to obtain any third-party license required to continue the manufacture and sale of our current products or develop new products and product enhancements could require us to obtain substitute technology of lower quality or performance standards or at greater cost, either of which could seriously harm our ability to manufacture and sell our products.

If we fail to develop and successfully introduce new and enhanced products that meet the needs of our current and potential customers or do not comply with evolving fiber optic technology standards, our operating results would suffer.

The fiber amplifier and fiber laser industries are characterized by rapid technological changes, frequent new product introductions, changes in customer requirements and evolving standards. Our failure to predict accurately the needs of our customers and prospective customers, and to develop products or product enhancements that address those needs and these evolving standards, may result in the loss of current customers or the inability to convert prospective customers into customers. While we intend to continue to invest in product and technology development, our products could quickly become obsolete as new technologies and standards are introduced and incorporated into new and improved products. In addition, if laser products are not broadly accepted for industrial applications as an alternative to current technology, we may incur significant expenses and losses due to lack of customer demand, unusable purchased components for these products and the diversion of our engineers from future product development efforts. The development of new or enhanced products is a complex and uncertain process that requires the accurate anticipation of technological and market trends. We may experience design, manufacturing, marketing and other difficulties that could delay or prevent the development, introduction or marketing of new products and enhancements. The introduction of new or enhanced products also requires that we manage the transition from older to newer products in order to minimize disruption in customer ordering patterns and ensure that adequate supplies of new products can be delivered to meet anticipated customer demand. Our inability to effectively manage this transition would cause our operating results to suffer.

10

The long sales cycles for our products may cause our revenue and operating results to fluctuate significantly from quarter to quarter.

Customers often view the purchase of our products as a significant and strategic decision. As a result, customers typically expend significant effort in evaluating, testing and qualifying our products and our manufacturing

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

process. This customer evaluation and qualification process frequently results in a lengthy initial sales cycle. While any customer or prospective customer is evaluating our products and before they place an order with us, we may incur substantial sales and marketing and research and development expenses to customize our products to their needs. We may also expend significant management effort, increase manufacturing capacity and order long lead time components or materials prior to receiving an order. Even after this evaluation process, a customer or prospective customer may not purchase our products. Our sales cycles typically last four to six months. However, because of the evolving nature of the optical networking market and the customized nature of our products, some sales and development cycles may be longer.

Operations of our affiliate in Russia subject us to risks inherent in doing business in Russia.

Our wholly-owned subsidiary, IPG Laser, has agreed in principle to acquire a 51% interest in NTO IRE-POLUS, a company located in Russia and one of our affiliates. NTO IRE-POLUS conducts research and development and provides components and test equipment to us. The results of operations, business prospects and facilities of NTO IRE-POLUS are subject to the economic and political environment in Russia. Russia has experienced and is continuing to experience both political and economic instability, including, the successive turnover of persons holding the position of prime minister and other upper level government ministers, the devaluation of the ruble and problems relating to the bailout of Russia's economy by the International Monetary Fund. If Russia's federal or local governments adopt new restrictions, such as those relating to taxation, import and export tariffs, currency regulations, environmental regulations, land use rights, property and various other matters, or impose stricter regulations or interpretations of existing regulations, the supply of technology, test equipment or components to us from NTO IRE-POLUS could be limited and our operating results and financial position could be harmed.

We may not be successful in attracting, assimilating or retaining qualified personnel to fulfill our current or future needs, which could adversely impact our ability to manufacture and sell our products.

Our ability to continue to attract and retain highly skilled personnel is critical for us. During 2000, we hired approximately 106 new employees. We will need to increase the number, and ensure the continued quality, of our engineering, marketing, sales and manufacturing personnel to successfully implement our business plan. Our business requires individuals educated in several disciplines, including physics, optics, materials sciences, chemistry and electronics. Competition for this technical personnel is intense.

Our products are deployed in large and complex systems and may contain defects that are not detected until after our products have been installed, which could damage our reputation and cause us to lose customers.

Several of our products are designed to be deployed in large and complex optical networks. Although we test both critical components and our finished products, they can only be fully tested for reliability when deployed in networks for long periods of time. Our customers may discover defects in our products only after they have been fully deployed and have operated under peak stress conditions. In addition, our products are combined with products from other vendors. Should problems occur, it may be difficult to identify the source of the problem. If we are unable to fix defects or other problems, we could experience, among other things, loss of customers, damage to our brand reputation, failure to attract new customers or achieve market acceptance, diversion of development and engineering resources, and legal actions by our customers.

Our ability to grow may be limited if we need, but are unable to raise, additional capital to develop or enhance our products, take advantage of future opportunities or respond to competitive pressures or unanticipated requirements.

We compete in a dynamic and rapidly evolving industry and may be required to raise substantial additional capital in the future to develop or enhance our products, increase our manufacturing capacity or respond to future opportunities or competitive pressures. If we are required to raise additional funds, we may not be able to do so on favorable terms, or at all.

If we fail to successfully manage our exposure to the worldwide financial markets and currency fluctuations, our operating results could suffer.

During the first nine months of 2000, approximately 98% of our net sales were denominated in the U.S. dollar, with the remainder denominated in the German mark and the Italian lira. In addition, approximately 20% of our cost of sales and operating expenses were denominated in the German mark or the Italian lira and approximately \$4.8 million of our capital expenditures were denominated in the German mark. We currently do not engage in any hedging transactions. As a result, we are exposed to fluctuations in the exchange rates between these foreign currencies and the U.S. dollar and an increase in the value of these foreign currencies relative to the U.S. dollar could have a material adverse effect on our operating results. To reduce the impact of reductions in value and the volatility of future cash flows caused by changes in foreign exchange rates, we may need to establish hedging programs, which may not be available on commercially reasonable terms or at all.

Any acquisitions that we undertake could be difficult to integrate, disrupt our business, dilute stockholder value and harm our operating results and financial condition.

We expect to review opportunities from time to time to acquire or invest in other businesses and technologies that would complement our current products, expand the breadth of our markets or enhance our technical capabilities, or that may otherwise offer growth opportunities. From time to time, such acquisitions or investments may be required to remain competitive. If we make any future acquisitions, we could issue stock that would dilute existing stockholders' percentage ownership, incur substantial debt or assume contingent liabilities. Our experience in acquiring other businesses and technologies is limited. Potential acquisitions also involve numerous risks, including:

- . problems assimilating the purchased operations, technologies or products;
- . unanticipated costs associated with the acquisition;
- . diversion of management's attention from our core business;
- . adverse effects on existing business relationships with suppliers and customers;
- . risks associated with entering markets in which we have no or limited prior experience; and
- . potential loss of key employees of purchased organizations.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

We cannot assure you that we would be successful in overcoming problems encountered in connection with such acquisitions, and our inability to do so could significantly harm our business.

12

If we do not comply with various government export regulations in the countries in which we operate and in which our products are used, we could be subject to significant fines, penalties or other adverse consequences and our manufacturing operations and ability to satisfy purchase orders and achieve financial projections could be harmed.

Because our products can be used or adapted for military, weapons or other similar uses, our products are subject to U.S., German, Italian and Russian export control laws and regulations that regulate the export of products, including components, and disclosure of technical information to foreign countries and citizens. These laws and regulations may require licenses for the export of some of our products from one or more of the countries in which we are operating, as well as licenses for the disclosure of aspects of our technology to our employees who are employed in, but not citizens of, those countries. We cannot assure you that we will succeed in obtaining any of these licenses. Depending on the outcome of any pending request, additional applications for licenses and other approvals may be required. We cannot assure you that any of these additional applications will be approved.

If we do not comply with various environmental and other safety regulations, we could be subject to significant fines, penalties and forced shutdowns of our manufacturing operations.

We are subject to a variety of national and local laws and regulations concerning the storage, use, discharge and disposal of toxic, volatile or otherwise hazardous or regulated chemicals or materials used in our manufacturing and assembly processes. Further, we are subject to other safety, labeling and training regulations as required by local, state and federal law. We cannot assure you that the systems we have in place to monitor and maintain compliance with these regulations will be adequate.

The failure of our customers to sell products that incorporate our products due to industry cyclicality, adverse economic conditions, large inventory positions, limited marketing resources and other factors could negatively impact our net sales.

Our business is significantly dependent on capital expenditures by manufacturers in the telecommunications as well as the industrial products area. These areas are cyclical and have historically experienced periods of oversupply, resulting in significantly reduced demand for capital equipment, including the products manufactured and marketed by us. Our net sales are dependent in part upon the ability of our customers to develop and sell systems that incorporate our fiber amplifiers, Raman pump lasers and fiber lasers. In addition, our customers could experience financial or other difficulties that could adversely affect our operations and, in turn, our financial condition or results of operations.

### Risks Related to This Offering

We expect to experience volatility in our share price, which could negatively affect your investment, and you may not be able to resell your shares at or above the offering price.

The market price of our common stock after the offering may vary from the

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

offering price. If you purchase shares of common stock, you may not be able to resell those shares at or above the offering price. We expect that our common stock price will fluctuate significantly in the future due to:

- . any deviations in our net sales revenue, gross profit or net income or losses from levels expected by securities analysts;
- . our relatively limited operating history;
- . the rapid expansion of our business;
- . changes in financial estimates by securities analysts;

13

- . changes in market valuations of other fiber optic companies and the high volatility of the fiber optic industry; and
- . future sales of our common stock or other securities.

In addition, the Nasdaq National Market has experienced volatility that has often been unrelated to the performance of particular companies. Future market fluctuations may cause our stock price to fall regardless of our performance.

We will have broad discretion to use the proceeds from this offering. If we do not use the proceeds effectively to develop and grow our business, your investment could suffer.

We intend to use a portion of the proceeds from this offering for the expansion of our manufacturing facilities, marketing and distribution activities, research and development activities and general corporate purposes. We may use the balance of the proceeds to acquire or invest in related businesses, products and technologies. Our management will have broad discretion in deciding how we use the net proceeds from this offering, including the uses for which we have provided estimated amounts in "Use of Proceeds." You will not have the opportunity to evaluate the economic, financial or other information on which we base our decisions regarding the use of the net proceeds from this offering and we may spend these proceeds in ways that do not increase our results of operations or market value.

Insiders will continue to have substantial control over us after this offering and could delay or prevent a change in our corporate control and cause our stock price to decline.

Upon completion of this offering and assuming no exercise of the underwriters' over-allotment option, our executive officers, directors and our existing principal stockholders who hold 5% or more of the outstanding common stock and their affiliates will beneficially own approximately 90% of our outstanding common stock based on shares outstanding as of December 31, 2000. As a result, these stockholders will be able to continue to exercise significant control over all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions, which could delay or prevent an outside party from acquiring or merging with us and cause our stock price to decline. You should read "Principal Stockholders" for a full presentation of the equity ownership of these stockholders.

There may be sales of a substantial amount of our common stock after this offering that could cause our stock price to fall.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Our current stockholders hold a substantial number of shares, a significant portion of which they will be able to sell in the public market 180 days after the date of this prospectus. Sales of a substantial number of shares of our common stock after this offering could cause our stock price to fall. In addition, the sale of these shares could impair our ability to raise capital through the sale of additional stock. You should read "Shares Eligible for Future Sale" for a full discussion of the shares that may be sold in the public market in the future.

Provisions of our charter documents, Delaware law and change of control agreements may have anti-takeover effects that could prevent a change in control, which may cause our stock price to decline.

Provisions of our certificate of incorporation and bylaws may discourage, delay or prevent a merger or acquisition that a stockholder may consider favorable. These provisions include authorizing our board of directors to issue preferred stock without stockholder approval, limitations on shareholder action by written consent, and prohibiting cumulative voting in the election of directors. Certain provisions of Delaware law also may discourage, delay or prevent someone from acquiring or merging with us, which may cause the market price of our common stock to decline. You should read "Description of Capital Stock--Delaware Anti-Takeover Law and Certain Charter and Bylaw Provisions" for a full discussion of the charter and bylaw provisions and Delaware anti-takeover law.

14

### FORWARD-LOOKING STATEMENTS

This prospectus, including the sections entitled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business," contains forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by the forward-looking statements. These risks and other factors include those listed under "Risk Factors" and elsewhere in this prospectus. In some cases, you can identify forward-looking statements by words such as "may," "will," "should," "could," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "continue" or the negative of these terms or other comparable words. In addition, these forward-looking statements include, but are not limited to, statements regarding the following:

- . the expansion of our manufacturing capacity;
- . improvement of our manufacturing efficiencies;
- . development and introduction of new products;
- . anticipated sources of future revenues;
- . the possibility of lower prices, reduced margins and loss of market share due to increased competition;
- . anticipated expenditures for research and development, sales and marketing and general and administrative expenses; and
- . the adequacy of our capital resources to fund our operations.

These statements are only predictions. Although we believe that the

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

expectations reflected in the forward-looking statements are reasonable at this time, we cannot guarantee future results, levels of activity, performance or achievements. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information or future events.

15

### USE OF PROCEEDS

We estimate our net proceeds from the sale of the 8,200,000 shares of common stock offered by us in this offering to be approximately \$112.4 million, based on an assumed initial public offering price of \$15.00 per share and after deducting the estimated underwriting discount and offering expenses. The net proceeds are expected to be approximately \$128.7 million if the underwriters' over-allotment option is exercised in full.

We intend to use the net proceeds of this offering for:

Purpose -----	Amount ----- (approximately)
expansion of manufacturing facilities	\$80 million
sales and marketing activities	\$14 million
research and development activities	\$18 million
working capital and other general corporate purposes	Remainder

If the opportunity arises, we may use a portion of the net proceeds from this offering to acquire or invest in related businesses, joint ventures, products and technologies. Except for the agreement in principle for IPG Laser to acquire a 51% interest in NTO IRE-POLUS, our Russian affiliate, we currently have no commitments or agreements for any material acquisition of, or investment in, any third party, or creation of any joint ventures. The estimated amounts set forth above and the timing of these expenditures will vary depending on a number of factors, including future revenue growth, if any, the amount of cash we generate from operations, the progress of our manufacturing, sales and marketing expansion efforts and our international market penetration. See "Risk Factors--We have broad discretion to use the proceeds from this offering. If we do not use the proceeds effectively to develop and grow our business, your investment could suffer." Pending any use of the net proceeds for the above purposes, we intend to invest the funds in short-term, interest-bearing, investment grade securities. For more information, see "Business--The IPG Strategy."

### DIVIDEND POLICY

We have never paid dividends on our capital stock. We currently intend to retain future earnings to finance the growth and development of our business, and we do not anticipate paying any dividends in the foreseeable future. Our loan agreements include covenants which may restrict our ability to pay dividends. In addition, certain of the loans to our German subsidiary, IPG Laser, restrict the payment of dividends to IPG. For more information about these loans, see "Management's Discussion and Analysis of Financial Condition and Results of Operations--Liquidity and Capital Resources."

16

# Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

## CAPITALIZATION

The following table sets forth our cash, debt, minority interests and capitalization as of September 30, 2000:

- . on an actual basis;
- . on a pro forma basis, giving effect to:
  - . the issuance of 2,806,000 shares of our common stock in connection with the acquisition of the remaining ownership of IPG Laser on October 4, 2000;
  - . the issuance, subsequent to September 30, 2000, of 1,000,000 shares of common stock for \$500,000 and options to purchase 2,000,000 shares of common stock at an exercise price of \$1.50 per share, reflecting a compensation charge of \$12.0 million and deferred compensation charge of \$22.0 million;
  - . the issuance, subsequent to September 30, 2000, of options to purchase 1,607,000 common shares at a weighted-average exercise price of \$3.25 per share to employees, consultants and members of the Board of Directors, reflecting a deferred compensation charge of \$14.7 million.
  - . the conversion of all outstanding shares of Series A preferred stock into 1,000,000 shares of common stock;
  - . the issuance of an additional 800,000 shares of Series B preferred stock at \$25.00 per share subsequent to September 30, 2000;
  - . the conversion of all outstanding shares of Series B preferred stock into 11,083,333 shares of common stock; and
- . on a pro forma as adjusted basis, giving effect to the sale of 8,200,000 shares of our common stock in this offering, at an assumed initial public offering price of \$15.00 per share and after deducting the estimated underwriting discount and estimated offering expenses, and our receipt and application of the net proceeds.

17

You should read this table together with "Use of Proceeds," "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Description of Capital Stock," our combined consolidated financial statements and the related notes and the other financial information in this prospectus.

	September 30, 2000		
	Actual	Pro Forma	Pro Forma As Adjusted
	-----	-----	-----
	(In thousands, except per share data)		
Cash.....	\$52,999	\$ 73,499	\$185,869
	=====	=====	=====



Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Debt, including current portion.....	\$ 7,299	\$ 7,299	\$ 7,299
	-----	-----	-----
Minority interest.....	10	10	10
	-----	-----	-----
Convertible redeemable preferred stock--Series B, \$0.0001 par value; 3,800,000 shares authorized, 3,000,000 shares issued and outstanding at September 30, 2000 actual; no shares issued or outstanding at September 30, 2000 on a pro forma and pro forma as adjusted basis.....	62,389	--	--
	-----		
Shareholders' equity:			
Preferred stock--\$0.0001 par value; 700,000 shares authorized, no shares issued or outstanding.....	--	--	--
Convertible preferred stock--Series A, \$0.0001 par value; 500,000 shares authorized, 500,000 shares issued and outstanding at September 30, 2000 actual; no shares issued or outstanding at September 30, 2000 on a pro forma and pro forma as adjusted basis.....	4,954	--	--
Common stock, \$0.0001 par value, 100,000,000 shares authorized, 67,961,868 shares issued and outstanding at September 30, 2000 actual; 100,000,000 shares authorized, 83,851,201 shares issued and outstanding at September 30, 2000 on pro forma basis and 500,000,000 shares authorized, 92,051,201 issued and outstanding at September 30, 2000 on a pro forma as adjusted basis.....	7	8	9
Additional paid-in capital.....	30,934	164,120	276,489
Warrants to issue common stock.....	12,400	15,707	15,707
Notes receivable from shareholders.....	(440)	(440)	(440)
Deferred compensation.....	(17,452)	(54,103)	(54,103)
Accumulated deficit.....	(11,362)	(23,362)	(23,362)
Accumulated other comprehensive income.....	(687)	(687)	(687)
	-----	-----	-----
Total shareholders' equity.....	18,354	101,243	213,613
	-----	-----	-----
Total capitalization.....	\$88,052	\$108,552	\$ 220,922
	=====	=====	=====

-----  
The information provided in the above table excludes:

- . 5,126,532 shares of common stock issuable upon exercise of options outstanding at December 31, 2000 under our 2000 stock incentive plan, with a weighted-average exercise price of \$0.99 per share, 33,000 options exercised in December 2000 and 2,653,000 shares issuable upon exercise of options granted subsequent to December 31, 2000, with a weighted-average exercise price of \$2.06 per share;
- . 5,525,600 shares reserved for future issuance under our 2000 stock incentive plan; and
- . 3,166,667 shares of common stock issuable upon exercise of warrants outstanding at December 31, 2000 held by owners of our Series B preferred stock, assuming an exercise price of \$7.50 per share.

DILUTION

The pro forma net tangible book value of our common stock as of September 30, 2000 was approximately \$101.1 million, or \$1.21 per share. Pro forma net tangible book value per share represents the amount of our total tangible assets less total liabilities, divided by the pro forma number of shares of common stock outstanding after giving effect to the pro forma adjustments described in "Capitalization." Dilution in pro forma net tangible book value per share represents the difference between the amount per share paid by investors in this offering and the pro forma net tangible book value per share of our common stock immediately after the offering. After giving effect to our sale of shares of common stock offered by this prospectus, at an assumed initial public offering price of \$15.00 per share, and after deducting the underwriting discount and estimated offering expenses payable by us, our pro forma net tangible book value would have been approximately \$213.4 million, or \$2.32 per share. This represents an immediate increase in pro forma net tangible book value of \$1.11 per share to existing stockholders and an immediate dilution in pro forma net tangible book value of \$12.68 per share to new investors purchasing shares of common stock in this offering. The following table illustrates this dilution.

Initial public offering price per share.....	\$15.00
Pro forma net tangible book value per share as of September 30, 2000.....	\$1.21
Increase per share attributable to new investors.....	1.11
	-----
Pro forma net tangible book value per share after this offering.....	2.32
	-----
Dilution per share to new investors.....	\$12.68
	=====

The following table summarizes, on a pro forma basis after giving effect to the pro forma adjustments described in "Capitalization," as of September 30, 2000:

- . the number of shares of common stock issued by us;
- . the total consideration paid to us;
- . the average price per share paid by existing stockholders; and
- . the average price per share paid by new investors, before deducting the estimated underwriting discount and offering expenses payable by us.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders.....	83,851,201	91%	\$ 86,416	41%	\$ 1.03
New investors.....	8,200,000	9%	\$123,000	59%	\$15.00

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Total.....	92,051,201	100%	\$209,416	100%	\$ 2.27
	=====	===	=====		

The information in the above tables excludes the following:

- . 5,126,532 shares of common stock issuable upon exercise of options outstanding at December 31, 2000 under our 2000 stock incentive plan with a weighted average exercise price of \$0.99 per share, options to purchase 33,000 shares of common stock exercised in December 2000 and 2,653,000 shares of common stock issuable upon exercise of options granted subsequent to December 31, 2000 and prior to the date of this prospectus with a weighted average exercise price of \$2.06 per share;

19

- . 3,166,667 shares of common stock issuable upon exercise of warrants outstanding at December 31, 2000 at an exercise price of \$7.50 per share held by owners of our Series B preferred stock, assuming an initial public offering price of \$15.00 per share; and
- . up to 1,175,000 shares of common stock that may be issued by us pursuant to the underwriters' over-allotment option.

Assuming exercise of all outstanding options and warrants, pro forma net tangible book value per share at September 30, 2000 would be \$1.38, representing dilution of \$12.52 per share to new investors. For more information about dilution, see "Management--Stock Option Plan," "Description of Capital Stock" and the notes to our combined consolidated financial statements included in this prospectus.

20

SELECTED COMBINED CONSOLIDATED FINANCIAL DATA

We were incorporated on December 2, 1998 and at that date shared an affiliation through common ownership with IPG Laser and IPG Fibertech, collectively known as the IPG Group. In August 2000, the IPG Group was reorganized, resulting in IPG Laser becoming our wholly-owned subsidiary upon completion of the reorganization. Because IPG Laser and IPG Fibertech, the 80% owned subsidiary of IPG Laser, have been under common managerial, operational and shareholder control since inception, the transfers of interest are accounted for in the financial statements as a reorganization of companies under common control in a manner similar to a pooling of interests. Our combined consolidated financial statements include the accounts of IPG Laser and IPG Fibertech. All intercompany transactions and balances have been eliminated. For purposes of presentation of the combined consolidated financial statements for the years ended December 31, 1997 and 1998, IPG Laser and IPG Fibertech, are referred to as the Predecessor.

We prepare our financial statements in accordance with accounting principles generally accepted in the United States. The selected combined consolidated financial data presented below as of December 31, 1998 and 1999 and for each of the three years in the period ended December 31, 1999 are derived from our audited combined consolidated financial statements included elsewhere in this prospectus. The selected combined consolidated financial data

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

as of December 31, 1995, 1996 and 1997 and for the years ended December 31, 1995 and 1996 are derived from our unaudited combined consolidated financial statements that are not included in this prospectus. The unaudited combined consolidated financial statements have been prepared on the same basis as the audited combined consolidated financial statements and, in the opinion of our management, include all adjustments necessary for a fair presentation of the information set forth in such statements. Historical results are not necessarily indicative of results that may be expected for any future period.

The combined consolidated financial data as of September 30, 2000 and for the nine months ended September 30, 1999 and 2000 are derived from our unaudited combined consolidated financial statements included elsewhere in this prospectus. We have prepared the unaudited information on the same basis as the audited combined consolidated financial statements and have included all adjustments that we consider necessary for a fair presentation of our financial position and operating results for the interim periods. Our results of operations for the nine month period ended September 30, 2000 are not necessarily indicative of our results for the full fiscal year ended December 31, 2000.

You should read the Selected Combined Consolidated Financial Data set forth below in conjunction with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our combined consolidated financial statements and the related notes included elsewhere in this prospectus.

21

	For the year ended December			
	1995	1996	1997	1999
	(in thousands, except Predecessor)			
<b>Statement of Operations Data:</b>				
Net sales.....	\$1,396	\$1,486	\$3,097	\$8,2
Cost of sales (1).....	628	930	2,436	5,5
	768	556	661	2,7
Gross profit (1).....				
<b>Operating expenses:</b>				
Sales and marketing (2).....	87	51	219	3
Research and development (3).....	187	305	127	6
General, administrative and other (4).....	270	431	276	1,0
Equity-based compensation.....	--	--	--	
	544	787	622	2,0
Total operating expenses.....				
Operating income (loss).....	224	(231)	39	6
Interest income (expense), net.....	(35)	(60)	(119)	(2)
Other income (expense), net.....	(2)	106	108	(
	187	(185)	28	3
Income (loss) before provision (benefit) for income taxes and minority interest.....				
Provision (benefit) for income taxes.....	72	(96)	22	2

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Minority interest.....	--	--	--	--
Net income (loss).....	115	(89)	6	1
Accretion of preferred stock.....	--	--	--	--
Net income (loss) available to common shareholders.....	\$ 115	\$ (89)	\$ 6	\$ 1
	=====	=====	=====	=====
Net income (loss) per share: (5)				
Basic .....	--	--	--	--
Diluted .....	--	--	--	--
Pro forma net loss per share - basic and diluted (5).....	--	--	--	--

- 
- (1) Excludes \$677 of equity-based compensation for the nine months ended September 30, 2000.
  - (2) Excludes \$166 of equity-based compensation for the nine months ended September 30, 2000.
  - (3) Excludes \$184 of equity-based compensation for the nine months ended September 30, 2000.
  - (4) Excludes \$11,008 of equity-based compensation for the nine months ended September 30, 2000.
  - (5) The calculation of net income (loss) per share and pro forma basic and diluted net loss per share is described in Note 3 to the combined consolidated financial statements.

	December 31,					September 30,
	1995	1996	1997	1998	1999	2000
	-----					
	(in thousands)					
	Predecessor					
	-----					
Balance Sheet Data:						
Cash and cash equivalents..	\$ 200	\$ 72	\$ 222	\$1,181	\$ 706	\$ 52,999
Working capital						
(deficiency).....	27	587	725	547	(775)	56,994
Total assets.....	1,186	2,186	3,456	8,819	12,800	102,977
Long-term debt, including						
current portion.....	762	1,597	2,483	4,716	4,646	7,299
Convertible redeemable						
preferred stock.....	--	--	--	--	--	62,389
Convertible preferred						
stock.....	--	--	--	--	--	4,954
Shareholders' equity.....	75	145	256	435	2,216	18,354

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

The following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ substantially from those anticipated in these forward-looking statements as a result of many factors, including those set forth under "Risk Factors" and elsewhere in this prospectus. The following discussion should be read together with our combined consolidated financial statements and related notes thereto included elsewhere in this prospectus.

### Overview

We design, manufacture and sell high performance fiber amplifiers, Raman pump lasers and fiber lasers for telecommunications and industrial applications. Our proprietary technology, materials science expertise and vertically integrated manufacturing operations enable us to meet the demands of our customers for cost-effective fiber amplifiers and lasers having high power output and reliable performance. Our telecommunications products are used in several segments of optical communications networks. Our industrial products are used for a variety of manufacturing, medical and aerospace applications.

### Financial Statement Presentation

We were incorporated as a Delaware corporation on December 2, 1998 and began operations in the United States in 1999. In November 1994, our founding shareholder founded and incorporated a new company in Germany, IPG Laser GmbH. In 1998, IPG Fibertech S.r.l. was incorporated in Italy as an 80% owned subsidiary of IPG Laser. In August 2000, we restructured the ownership of several affiliated companies, acquiring 100% of IPG Laser and its 80% owned subsidiary, IPG Fibertech. For more detail regarding this restructuring, see "Transactions with Related Parties--History of IPG and Restructuring." In addition, IPG Laser, our wholly-owned subsidiary, expects to acquire a 51% interest in our Russian affiliate, NTO IRE-POLUS, in the first half of 2001. NTO IRE-POLUS began its operations in 1991.

The combined consolidated financial statements and all financial data included throughout this prospectus include IPG Laser and IPG Fibertech. These combined consolidated financial statements have been prepared on the basis of accounting principles generally accepted in the United States. All inter-company transactions and balances have been eliminated. The historical financial statements of IPG Laser and IPG Fibertech have been prepared in their local functional currencies and have been translated to U.S. dollars for purposes of financial reporting. For purposes of the preparation of the combined consolidated financial statements for the years ended December 31, 1997 and 1998, IPG Laser and IPG Laser's 80% owned subsidiary, IPG Fibertech, are referred to as the Predecessor. The combination of these financial statements, in the opinion of management, represents the results of our operations and financial condition as if the acquisition of IPG Laser and IPG Fibertech had been in place as of January 1, 1997. However, the results of our operations may have been different if we had managed these entities as one consolidated entity. As such, our historical results may not be indicative of future operations.

We currently manage our business as two segments: U.S. and Germany. We believe that these segments share similar economic characteristics and similarities in product, types of customers and methods of distribution. See Note 12 to our combined consolidated financial statements included elsewhere in this prospectus for a further discussion of our operating segments.

### Net Sales

We derive revenues from fiber amplifiers and Raman pump lasers for the telecommunications industry, and fiber lasers for industrial applications. Telecommunications revenue represented 76.8% of our revenue for the nine months

ended September 30, 2000.

23

During 1999 and throughout 2000, we significantly expanded our sales and customer relationships. Customers who accounted for more than \$100,000 in net sales from us or our distributors for the eleven months ended November 30, 2000 included ADC, Agilent, Alcatel, Antares Laser Calient, Corning, Corvis, Hughes Space and Communications, JDS Uniphase, Lucent, Marconi, MIT Lincoln Labs, Molecular OptoElectronics, Nortel, Siemens, T.E.M. and TeraBeam in our telecommunications product line and Baasel Scheel Lasergraphics, DaimlerChrysler Aerospace, GSI Lumonics, Krause Danmark, Purup Escofot and Sunx in our industrial applications product line. However, we continue to derive a significant portion of our net sales from a limited number of companies. We had five customers that individually comprised more than 10% of our net sales in one or more of the periods in the three year period ended December 31, 1999 and in the nine month period ended September 30, 2000. The composition of our net sales to our largest customers has changed significantly during these periods due to the commencement of our U.S. operations in 1999, the significant growth in our net sales and the addition of new customers. We seek to continue to add new customers and to expand our relationships with existing customers. As our sales base grows, we anticipate that the composition of our net sales to our significant customers will continue to change. We have provided additional information about our dependence on a limited number of customers in "Risk Factors--We depend on a few key customers for a substantial portion of our sales revenue and the loss of any of these customers or a significant reduction or fluctuation in sales to these customers could significantly reduce our sales revenue or cause our results of operations to fluctuate."

As of September 30, 2000, we did not have any written commitments from our customers for deliveries to be made in 2001. Our sales are made on a purchase order basis rather than by long-term purchase commitments. As such, our customers may cancel or defer purchase orders without penalty on short term notice.

The average selling prices of our products generally decrease as the products mature, especially in the telecommunications industry. These decreases arise from factors such as increased competition, the introduction of new products, maintenance of market share and increases in unit volumes. In addition, we have in the past lowered our selling prices in order to establish new markets and niches where previously it was not economically feasible for customers to deploy our products. We cannot predict the timing and degree of these price declines.

#### Gross Profits

Our cost of sales consists primarily of raw materials and components, direct labor and an allocation of indirect labor and manufacturing overhead. We are vertically integrated and currently manufacture a majority of the critical components for our products. Our vertical integration lowers our cost of sales. We currently maintain surplus inventory of key components sourced from outside vendors to provide an adequate supply and to be able to fill orders quickly for our customers. While we have not historically incurred any costs related to inventory obsolescence, this higher inventory may be subject to a greater risk of obsolete inventory in the future. Inventories which are considered obsolete will be written off when identified and charged to cost of sales. For more information, please refer to "Risk Factors--Our dependence on single or limited source suppliers for some of our key components and raw materials could adversely affect our results of operations."

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Our gross profits are typically greater for high power telecommunications products. Our overall gross profits have increased over the last three years because of increased productivity and economies of scale. As we continue automation of our manufacturing processes in both our new and existing facilities and manufacture additional components in-house, we anticipate further economies and productivity gains. We expect, however, that these economies and productivity gains will only partially offset decreases in average selling prices. Additionally, the increase in manufacturing capacity is reflected in increased capital expenditures on property, plant and equipment which will result in increased depreciation expense in future periods. For more information, please refer to "Risk Factors--If we cannot reduce our manufacturing costs and introduce higher margin products to offset anticipated continued reductions in the average selling price of our products, we may experience reduced sales levels, reduced gross margins and loss of market share."

24

### Operating Expenses

**Sales and marketing.** Sales and marketing expenses consist primarily of salaries and related personnel costs, travel expenses, expenses related to trade shows, exhibitions and other marketing events. One of our strategies is to expand our marketing operations significantly to increase market awareness and acceptance of our products and build sales from these efforts. In addition, we expect to expand our customer service and support organizations in order to maintain and support our customers. We expect to incur additional sales and marketing expenses in the future as we hire staff, establish an advertising program, print and distribute promotional material and supply sample products to potential new customers.

**Research and development.** Research and development expenses consist primarily of salaries and related personnel costs, test and prototype expenses related to the design of our products, and facilities costs. We use a common research and development platform for both our telecommunications and industrial products. Most costs related to product development are recorded as research and development expenses in the period in which they are incurred. However, the research and development costs of prototypes developed for customer-specific solutions are reported as cost of sales if those prototypes are sold. We expect that research and development expenses will increase significantly as we continue to enhance our existing products and expand new product development.

**General, administrative and other.** General, administrative and other expenses consist primarily of salaries and related personnel costs, recruiting expenses and costs associated with the infrastructure that supports our operations. We intend to create an information technology department that will implement and maintain an enterprise resource planning system for our worldwide operations. We anticipate that in addition to the cost of our new information technology department, general, administrative and other costs will also increase to support the expansion of our infrastructure and as a result of being a public company.

**Equity-based compensation.** Equity-based compensation represents the difference between the estimated fair value of the common stock underlying the options awarded and the exercise price of those options on the date the options were granted to our employees and the fair value of options awarded to non-employees. The deferred compensation charges related to options awarded to our employees are being amortized using the straight-line method over the vesting period of the options, which is generally four years. Deferred compensation



Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

related to options awarded to non-employees is being amortized in accordance with the requirements of FIN 28. In connection with the grant of stock options, we recorded deferred compensation of approximately \$29.5 million through September 30, 2000 and equity-based compensation expense of approximately \$12.0 million for the nine months ended September 30, 2000. Given the vesting periods of the awarded options, the \$29.5 million of deferred compensation will be recognized as follows: \$16.0 million in 2000, \$5.2 million in 2001, \$3.9 million in 2002, \$3.2 million in 2003 and \$1.2 million in 2004. Certain options awarded during 2000 require variable plan accounting, which requires that equity-based compensation be remeasured at each reporting date. As such, our equity-based compensation charge may increase in future periods. Subsequent to September 30, 2000, we issued 1,000,000 shares of restricted common stock at a price of \$0.50 per share, which will result in a compensation charge of \$12.0 million in 2001, and granted 3,607,000 options to purchase common stock to employees, members of the Board of Directors and consultants which will result in aggregate deferred compensation expense of \$36.7 million, to be recognized through 2005.

25

Results of Operations

The following table sets forth for the periods indicated the percentage of net sales represented by the items included in our combined consolidated statements of operations for the years ended December 31, 1997, 1998 and 1999, and the nine month periods ended September 30, 1999 and 2000.

	Year Dece
	----- 1997 ----- Predece -----
Net sales.....	100.0%
Cost of sales(1).....	78.7%
	-----
Gross profit(2).....	21.3%
	-----
Operating Expenses:	
Sales and marketing(3).....	7.1%
Research and development(4).....	4.1%
General, administrative and other(5).....	8.9%
Equity-based compensation(6).....	0.0%
	-----
Total operating expenses.....	20.1%
	-----
Operating income .....	1.2%
Interest income (expense), net.....	(3.8%)
Other income (expense), net.....	3.5%
	-----
Income before provision for income taxes and minority interest.....	0.9%
Provision for income taxes.....	0.7%
Minority interest.....	0.0%
	-----
Net income (loss).....	0.2%
	----- =====

- 
- (1) After allocation of \$677 equity-based compensation for the nine months ended September 30, 2000, the percentage of net sales would increase to 36.1%.
  - (2) After allocation of \$677 equity-based compensation for the nine months ended September 30, 2000, the percentage of net sales would decrease to 63.9%.
  - (3) After allocation of \$166 of equity-based compensation for the nine months ended September 30, 2000, the percentage of net sales would increase to 3.7%.
  - (4) After allocation of \$184 of equity-based compensation for the nine months ended September 30, 2000, the percentage of net sales would increase to 5.5%.
  - (5) After allocation of \$11,008 of equity-based compensation for the nine months ended September 30, 2000, the percentage of net sales would increase to 45.7%.
  - (6) Percentage of net sales would be 0.0% for the nine months ended September 30, 2000 after allocation of equity-based compensation.

Nine Months Ended September 30, 2000 Compared to Nine Months Ended September 30, 1999

Net sales. Net sales increased \$17.9 million, or 120.5%, to \$32.7 million for the nine months ended September 30, 2000 from \$14.8 million during the comparable period in 1999. This increase was due primarily to new orders for fiber amplifiers for free-space optical communications and, in part, to orders for long-haul fiber amplifiers and Raman pump lasers and a growth in our industrial products sales. Our telecommunications products accounted for \$25.1 million, or 76.8%, of net sales for the nine months ended September 30, 2000 and \$11.4 million, or 76.8%, of net sales for the nine months ended September 30, 1999. Our industrial products accounted for the remainder of our net sales in both of these periods. We do not foresee a significant change in our product mix in the short term. During the nine months ended September 30, 2000, 71.2% of our net sales were in North America and 16.7% of our net sales were in Europe. Net sales to customers in North America increased \$14.0 million, or 152.3%, to \$23.3 million for the nine months ended September 30, 2000 from \$9.2 million during the comparable period in 1999 due to increased sales of optical communications products and the overall expansion of our customer base in the United States. We expect that our sales to North American customers will continue to comprise the significant majority of our worldwide sales.

26

Gross Profits. Gross profits increased \$12.1 million, or 152.9%, to \$20.1 million for the nine months ended September 30, 2000 from \$7.9 million during the comparable period in 1999. This increase resulted from both an increase in net sales and the effects of increased productivity, economies of scale and volume component purchases.

Sales and marketing expenses. Sales and marketing expenses increased \$430,000, or 69.5%, to \$1.0 million for the nine months ended September 30, 2000 from \$619,000 during the comparable period in 1999. This increase in marketing expenses resulted principally from an increase in the number of sales and marketing personnel, resulting in an increase of approximately \$200,000, and an increase in expenditures for public relations and promotional materials totaling \$230,000.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Research and development expenses. Research and development expenses increased \$91,000, or 8.8%, to \$1.1 million for the nine months ended September 30, 2000 from \$1.0 million during the comparable period in 1999. This increase resulted from the hiring of additional research and development personnel and more research and development activities conducted by the existing staff.

General, administrative and other expenses. General, administrative and other expenses increased \$1.9 million, or 96.7%, to \$3.9 million for the nine months ended September 30, 2000 from \$2.0 million during the comparable period in 1999. The increase resulted principally from \$750,000 in additional costs related to additional hiring and higher salaries, and \$675,000 for legal, tax and accounting fees related to the reorganization in the third quarter of 2000.

Equity-based compensation expenses. During the nine months ended September 30, 2000, we issued options to purchase approximately 2.0 million shares of our common stock at a weighted-average exercise price of \$0.60 per share, resulting in deferred compensation of \$29.5 million. This deferred compensation will be amortized over the options' vesting periods, generally four years, and resulted in the recognition of \$12.0 million of equity-based compensation expense during the nine month period ended September 30, 2000. Of this amount, approximately \$11.5 million was attributable to our United States operating segment. Options to purchase our common stock issued during the comparable period in 1999 did not result in deferred compensation.

Interest income (expense), net. Net interest expense decreased \$154,000, or 66.7%, to \$77,000 for the nine months ended September 30, 2000 from \$231,000 during the comparable period in 1999. The decrease in interest expense was caused principally by the capitalization of approximately \$152,000 of interest expense during the nine months ended September 30, 2000 for construction projects in the United States and Germany, and the effect of interest income on the net proceeds from the private placements of Series A and Series B preferred stock.

Other income (expense), net. Other income increased \$435,000 to \$475,000 in the nine months ended September 30, 2000 from \$40,000 during the comparable period in 1999. Other income is primarily comprised of transaction exchange rate gains and losses from U.S. dollar denominated sales and cost of sales by our German and Italian subsidiaries.

Provision for income taxes. Provision for income taxes has increased \$3.7 million to \$5.8 million for the nine months ended September 30, 2000 from \$2.2 million during the comparable period in 1999, resulting in an effective tax rate in excess of 100% in 2000 and 53% in 1999. The increased effective tax rate reflects nondeductible equity based compensation which was recorded in 2000.

Net income. As a result of the foregoing factors, we had net income of \$1.9 million for the nine months ended September 30, 1999, compared to a net loss of \$3.5 million in the corresponding period in 2000. Our U.S. operations incurred a net loss of \$6.3 million, before intercompany eliminations, as compared with net income of \$3.2 million for our German operations, principally as a result of equity-based compensation

expense related to U.S. employees and, to a lesser extent, costs related to commencing operations in the United States. Excluding equity-based compensation, our net income would have been \$7.3 million in the nine months ended September 30, 2000, compared to net income of \$1.9 million in the

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

corresponding period in 1999.

Year Ended December 31, 1999 Compared to Year Ended December 31, 1998

**Net sales.** Net sales increased \$10.4 million, or 125.6%, to \$18.6 million in 1999 from \$8.3 million in 1998. This increase was attributable primarily to an increase in the number of new customers and sales growth from existing customers, with fiber amplifiers for the access segment comprising a majority of our net sales. Our telecommunications products accounted for 77.2% of our net sales in 1999 and 72.1% in 1998. Net sales to North American customers accounted for approximately 61% of the increase in net sales, with the remainder resulting from growth at our German operations.

**Gross Profits.** Gross profits increased \$6.2 million, or 231%, to \$9.0 million for 1999 from \$2.7 million for 1998. This increase is principally due to increased sales during the period and an overall increase in the gross profit percentage from 32.7% to 48.0%. The increase in gross profit resulted from increased productivity and economies of scale and volume component purchases.

**Sales and marketing expenses.** Sales and marketing expenses increased \$303,000, or 81.0%, to \$677,000 in 1999 from \$374,000 in 1998. This increase resulted principally from increased senior management time devoted to sales and marketing efforts during 1999, and to a lesser extent, our increased attendance at trade shows and fairs.

**Research and development expenses.** Research and development expenses increased \$795,000, or 116.6%, to \$1.5 million in 1999 from \$682,000 in 1998. This increase resulted from the hiring of additional research and development personnel, the continued development of our existing technology platform and the development of new products for both telecommunications and industrial applications.

**General, administrative and other expenses.** General, administrative and other expenses increased \$1.7 million, or 171.2%, to \$2.7 million in 1999 from \$1.0 million in 1998. This increase resulted from start-up costs related to the formation of IPG Photonics in the United States, and approximately \$350,000 attributable to the hiring of additional management and administrative staff, such as our controller and vice president of corporate affairs.

**Interest income (expense), net.** Net interest expense increased \$95,000, or 45.7%, to \$303,000 in 1999 from \$208,000 in 1998 due to an overall increase in borrowings.

**Other income (expense), net.** Other income increased \$320,000 to \$273,000 in 1999 from net other expense of \$47,000 in 1998, reflecting primarily foreign currency gains arising from the appreciation of the U.S. dollar relative to the Deutsche mark in 1999.

**Provision for income taxes.** Provision for income taxes increased \$1.9 million to \$2.1 million in 1999 from \$234,000 in 1998 resulting in an effective tax rate of 53% in 1999 and 59.7% in 1998. This decreased tax rate reflects the contribution to total net income before taxes from our U.S. operations during 1999 where the tax rate is lower, coupled with a high statutory tax rate in Germany.

**Net income.** As a result of the foregoing factors, net income increased from \$154,000 in 1998 to \$2.0 million in 1999. Substantially all of this increase was attributable to our Germany operating segment, as we only commenced operations in the U.S. in 1999.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Year Ended December 31, 1998 Compared to Year Ended December 31, 1997

**Net sales.** Net sales increased \$5.2 million, or 166.8%, to \$8.3 million in 1998 from \$3.1 million in 1997. This increase was primarily due to a large order from a new customer for use of our products in low density access networks and, to a lesser extent, increased sales of free-space optical communication products. Our telecommunications products accounted for 72.1% of our net sales in 1998 and 61.3% in 1997.

**Gross Profits.** Gross profits increased \$2.0 million, or 308.9%, to \$2.7 million for 1998 from \$661,000 for 1997. This increase resulted from increased sales during the period and an overall increase in the gross profit percentage from 21.3% to 32.7%. The increase in gross profit percentage resulted from increased productivity in manufacturing and assembly processes, the implementation and improvement of training programs for our assembly personnel and gains resulting from economies of scale, higher yields on component production and the improved quality of purchased components.

**Sales and marketing expenses.** Sales and marketing expenses increased \$155,000, or 70.8%, to \$374,000 in 1998 from \$219,000 in 1997. This increase resulted principally from increased senior management time devoted to sales and marketing efforts.

**Research and development expenses.** Research and development expenses increased \$555,000, or 437.0%, to \$682,000 in 1998 from \$127,000 in 1997. This increase resulted from additional resources being devoted to research and development for the development of new products, fibers and components.

**General, administrative and other.** General, administrative and other expenses increased \$724,000, or 262.3%, to \$1.0 million in 1998 from \$276,000 in 1997. This increase resulted from the general expansion of the business, including additions to our senior management team in Germany and hiring additional administrative personnel.

**Interest income (expense), net.** Net interest expense increased \$89,000, or 74.8%, to \$208,000 in 1998 from \$119,000 in 1997. This increase resulted from an increase in overall borrowings.

**Other income (expense), net.** Other expense increased \$155,000 to \$47,000 in 1998 from net other income of \$108,000 in 1997, reflecting foreign currency effects.

**Provision for income taxes.** Provision for income taxes increased \$212,000 to \$234,000 in 1998 from \$22,000 in 1997, resulting in an effective tax rate of 59.7% in 1998 and 78.6% in 1997.

**Net income.** As a result of the foregoing factors, net income increased to \$154,000 in 1998 from \$6,000 in 1997.

### Liquidity and Capital Resources

From January 1, 1997 through September 30, 2000, our principal sources of funds were \$8.2 million from operations, \$6.4 million from net borrowings and \$80.0 million in gross proceeds from the sale in 2000 of our Series A and Series B preferred stock. Our working capital excluding cash was \$4.0 million and our cash on hand, net of \$12.6 million in restricted cash, was \$53.0 million at September 30, 2000. These amounts do not reflect the receipt of an additional \$20.0 million subsequent to September 30, 2000 as a result of the sale of additional shares of our Series B preferred stock.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Our liquidity requirements arise principally from the need to:

- . expand our manufacturing facilities;
- . increase our marketing and distribution activities;

29

- . increase our research and development activities; and
- . fund our working capital.

As of December 31, 2000, we had approximately \$83.0 million in cash and short term money market investments, including the amounts held in a restricted cash account pursuant to our debt agreement. We expect to raise \$112.4 million from this offering, net of underwriting discounts and commissions and offering expenses. These funds, together with any cash from operations, will serve as the principal sources to fund our capital expenditures and working capital needs based upon our current business plan.

### Cash Flow from Operating Activities

Net cash provided by operating activities totaled \$3.1 million for the nine months ended September 30, 1999 and \$1.8 for the nine months ended September 30, 2000. Net cash provided by operating activities totaled \$191,000, \$2.0 million and \$4.2 million for the years ended December 31, 1997, 1998 and 1999, respectively. Our net income before non-cash charges totaled approximately \$8.8 million in the first nine months of 2000. This amount was largely offset by a net use of cash of approximately \$7.0 million to fund working capital, reflecting an increase in accounts receivable and inventory that was offset by increases in accrued expenses and income taxes payable. In December 2000, we entered into a purchase agreement with our laser diode chip supplier requiring minimum purchases by us of approximately \$66.7 million through December 31, 2002. Depending on future production levels, this arrangement could result in higher or lower costs for these components compared to historical costs.

### Cash Flow from Investing Activities

Cash used in investing activities totaled \$3.4 million and \$9.9 million for the nine months ended September 30, 1999 and 2000, respectively. The increase resulted from expenditures on property, plant and equipment, including new manufacturing facilities. Cash used in investing activities totaled \$1.3 million, \$3.1 million and \$5.2 million for the years ended December 1997, 1998 and 1999, respectively. IPG Laser expects to acquire a 51% interest in NTO IRE-POLUS in exchange for a commitment to invest up to \$5.0 million in the company. Although we may use a portion of our cash resources to acquire additional technology or businesses that are complementary to our business, we have no current plans or commitments to do so. Based on our current business plan, we expect that our capital expenditures through the end of 2002 will consist primarily of:

- . approximately \$25.0 million for the acquisition of land and the construction of buildings in the United States and Germany;
- . approximately \$15.0 million for the automation and improvement of our manufacturing processes; and
- . approximately \$40.0 million for the acquisition of plant and equipment to furnish and fit the new facilities in the United States,

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Germany and Italy.

These amounts include \$11.8 million for the construction of a new manufacturing and administrative facility in the United States, all of which was contractually committed at September 30, 2000.

### Cash Flow from Financing Activities

Cash used in financing activities totaled \$11,000 for the nine months ended September 30, 1999, while cash provided by financing activities totaled \$60.3 million for the nine months ended September 30, 2000. Cash provided by financing activities totaled \$1.3 million, \$2.0 million, and \$585,000 for the years ended December 31, 1997, 1998 and 1999, respectively. Cash generated by financing activities in 2000 was primarily due to the gross proceeds from the sale of shares of Series A preferred stock of \$5.0 million and the gross proceeds from

30

the sale of shares of Series B preferred stock and common stock warrants of \$75.0 million through September 30, 2000. An additional \$20.0 million was raised from the sale of Series B preferred stock subsequent to September 30, 2000. As part of the restructuring of the IPG Group, we acquired IPG Laser, requiring the payment of approximately \$9.9 million to certain stockholders. As part of the initial restructuring transaction, we issued 2,300,000 shares of our common stock to one stockholder. The completion of this restructuring in October 2000 resulted in the issuance of an additional 2,806,000 shares of our common stock.

We have several construction loans and revolving credit facilities with banks in the United States and Germany. As of November 30, 2000, we owed \$12.2 million under these loans and facilities and had additional borrowing availability of \$26.9 million. Borrowings under these loans and facilities have been used principally to finance our expansion and for working capital purposes. Borrowings under these loans and credit facilities mature through 2006, are secured by substantially all of our assets and bore interest at a weighted average rate of 4.56% as of November 30, 2000. These loans and facilities cross-default to each other and contain restrictive financial and operating covenants, including covenants requiring us to maintain a specified ratio of total debt to tangible capital and a debt service coverage ratio. Most of our German loans also restrict our ability to pay dividends from IPG Laser to IPG Photonics. Based upon our current financial condition and results of operations, we do not expect that these financial ratios and restrictions will materially restrict our operations. Subsequent to September 30, 2000, we placed \$12,560,000 in a restricted overnight investment account which is available to our lender to offset our obligations under the U.S. revolving credit facilities.

We believe that the net proceeds from this offering, along with the cash raised in the third and fourth quarters of 2000 in private equity financings, our cash flows from operations and borrowings available under our credit facilities will provide us with sufficient liquidity to meet our current and anticipated financial obligations, committed capital expenditures and other liquidity needs through 2001. However, our future growth, including potential acquisitions, may require additional funding. If cash generated from operations is insufficient to satisfy our long-term liquidity requirements, we may need to raise capital through additional equity or debt financing or additional credit facilities. If additional funds are raised through the issuance of securities, these securities could have rights, preferences and privileges senior to holders of common stock, and the terms of any debt facility could impose

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

restrictions on our operations. The sale of additional equity or debt securities could result in additional dilution to our stockholders, and additional financing may not be available in amounts or on terms acceptable to us, if at all. If we are unable to obtain this additional financing, we may be required to reduce the scope of our planned product development, marketing efforts and facilities expansion which could harm our business, financial condition and operating results. For further discussion of the effect of the failure to obtain additional capital, you should read "Risk Factors--Our ability to grow may be limited if we need, but are unable to raise, additional capital to develop or enhance our products, take advantage of future opportunities or respond to competitive pressures or unanticipated requirements."

### Qualitative and Quantitative Risk Disclosures about Market Risk

#### Interest Rate Sensitivity

We currently maintain our funds primarily in money market funds. We do not have any derivative financial instruments. We plan to invest a significant portion of our existing cash, together with net proceeds from the offering, in interest bearing, investment grade securities, with maturities of less than twelve months.

Our long-term indebtedness in the United States is subject to periodic interest rate adjustments, while our debt in Germany is comprised primarily of fixed-rate instruments. The interest accruing on some of these fixed rate loans is lower than current market rates due to government subsidy programs.

We do not believe that our investments, future investments or our indebtedness, in the aggregate, will have significant exposure to interest rate risk.

31

#### Exchange Rate Sensitivity

Due to our international operations, we are subject to fluctuations based upon changes in the exchange rates between the U.S. dollar and the other currencies in which we collect revenues or pay expenses. In particular, the value of the Deutsche mark, which has an exchange rate that is fixed to the euro, the common currency of the European Union, affects our operating results. Approximately 2% of our sales and approximately 20% of our cost of sales and our operating expenses in the first nine months of 2000 were denominated in currencies other than the U.S. dollar, principally the Deutsche mark. Our cost of sales and operating expenses are not necessarily incurred in the currency in which revenue is generated. As a result, we are required from time to time to convert currencies to meet our obligations. These currency conversions are subject to exchange rate fluctuations, and changes to the value of the Deutsche mark or the euro relative to the U.S. dollar could adversely affect our business and results of operations.

In addition, IPG Laser's financial statements are prepared in Deutsche marks and translated to U.S. dollars for reporting purposes. As a result, even when foreign currency expenses substantially offset revenues in the same currency, our net income may be diminished, or net loss increased, when reported in U.S. dollars in our combined consolidated financial statements. The historical effects of foreign exchange gains and losses have been discussed above under "--Results of Operations." We do not believe that a 10% increase or decrease in the exchange rate of the U.S. dollar to the Deutsche mark or euro would have a significant impact upon our financial position or results of



operations.

We have historically not utilized any derivative instruments or other measures to protect us against foreign currency exchange rate fluctuations. 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; however, exchange rate fluctuations may adversely affect our financial results in the future.

#### Recent Accounting Pronouncements

In June 1998, the Financial Accounting Standards Board, or the FASB, issued SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities. This Statement establishes accounting and reporting standards requiring that every derivative instrument (including certain derivative instruments embedded in other contracts) be recorded in the balance sheet as either an asset or liability measured at its fair value. During June 1999, the FASB issued SFAS No. 137, Accounting for Derivative Instruments and Hedging Activities, Deferral of the Effective Date of FASB Statement No. 133, to defer the effective date of SFAS No. 133. SFAS No. 133 will now be effective for IPG Photonics beginning January 1, 2001. Because we do not utilize derivative instruments for hedging purposes or interest rate management, we believe that the adoption of SFAS No. 133 will not have a significant impact on our financial condition or results of operations.

32

## BUSINESS

We design, manufacture and sell high performance fiber amplifiers, Raman pump lasers and fiber lasers for telecommunications and industrial applications. Our proprietary technology, materials science expertise and vertically integrated manufacturing operations enable us to meet the demands of our customers for cost-effective fiber amplifiers and lasers with high power output and reliable performance. Our telecommunications products are used throughout optical communications networks. Our largest telecommunications customers in 2000 were Alcatel, Lucent, Marconi, Siemens and TeraBeam Networks. Our industrial products are used for a variety of manufacturing, medical and aerospace applications. Our largest industrial customers in 2000 were GSI Lumonics, Purup Escofot and Sunx.

#### Industry Background

Fiber optic technologies have advanced significantly over the last several years. These technologies have led to the recent development of cost-effective fiber amplifiers and fiber lasers that have enabled significant breakthroughs in telecommunications networks and industrial applications.

#### Telecommunications

The rapid growth in the worldwide volume of data, voice and video traffic is placing unprecedented stress on existing communication networks. According to Ryan, Hankin & Kent, Internet traffic is projected to increase from 0.4 million terabytes, or trillions of bytes, per month at the end of 1999 to over 15 million terabytes per month in 2003. With the increasing demands on communication networks for data transmission capacity, or bandwidth, telecommunications service providers have sought technological solutions to upgrade and expand their networks to provide greater bandwidth at reduced costs. Most existing communications networks were originally designed to convey voice traffic by means of electronic signals over copper wires. In comparison to electronic signals transmitted over copper wires, optical signals traveling

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

at the speed of light through thin glass fibers can carry a significantly higher rate of data more efficiently over far greater distances.

The fiber optic communication market can be divided into three segments, each of which requires customized equipment solutions. These are the long-haul, metropolitan and access segments. The long-haul segment of the optical network transmits data over large geographical areas, typically over 100 miles, and connects major city centers or traffic hubs. The metropolitan segment of the optical network connects telecommunications switching stations, or exchanges, which receive, identify and route incoming signals to other exchanges within a metropolitan area. The access segment of the optical network carries signals from exchanges to the junction boxes at the curbside and from there to office complexes or directly to both business and residential end-users and enables enterprises and communication providers to interconnect various network systems. The access segment consists of high density urban systems, low density suburban systems and free space optical networks. Free space optical networks typically can be used to transmit light waves from building to building over relatively short distances, typically less than three miles, without the use of optical fiber. The following graphic depicts the communication network market segments:

[We will insert here a diagram that graphically shows the long-haul, metropolitan and access segments of optical communications networks.]

Telecommunications service providers first deployed optical communication technology in the long-haul segment, and are now deploying new fiber optic technologies not only in this segment, but also in the metropolitan and access segments. Although there have been significant increases in bandwidth in the long-haul segment of the communications network, bandwidth limitations and capacity bottlenecks still exist in the metropolitan and access segments. Until recently, the adoption of fiber optic technologies in the metropolitan segment has been limited in part by the lack of low cost, high performance optical amplifiers. These amplifiers are now being offered by a number of manufacturers.

33

In fiber optic networks, optical signals are transmitted at specified wavelengths within specified ranges, or bands. Most fiber optic networks use the C band of the optical spectrum. As the need for bandwidth increases, companies in the optical communications industry are seeking to expand into new bands for use in fiber optic communications, such as the L band and the S band, as illustrated in the chart below.

[We will insert here a diagram that shows the useable portions of the optical spectrum.]

In early fiber optic systems, optical signals were transmitted over each fiber using only one wavelength. In more recent fiber optic systems, an innovative technology, called wavelength division multiplexing, or WDM, allows optical signals of different wavelengths to be transmitted simultaneously through a single fiber. As signals travel through the fiber they have a tendency to be dispersed in the fiber. To protect against multiple signals dispersing into each other, the wavelengths used to transmit signals are separated from each other by a minimum number of unused wavelengths, forming a buffer in which signals are not transmitted. Technological advances, such as dense wavelength division multiplexing, or DWDM, have led to narrower channel widths, or spacing, thereby increasing the number of signals that can be carried by each fiber. Further advances in this technology are expected. Bandwidth increases can also be generated by increasing the rate at which data

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

is transmitted, also known as modulation speed. The increasing use of DWDM, continued narrowing of channels and increases in modulation speeds have made fiber optic amplification more complex and critical.

Development of the fiber amplifier has been a critical enabler of the implementation of DWDM technology in communications networks. The distance that an optical signal can be transmitted is limited by losses in signal strength, or attenuation, caused by absorption and scattering of light in the fiber, as well as by losses to the signal as it passes through optical components in the network, or insertion loss. Prior to the invention and deployment of the fiber amplifier in optical networks, optical signal strength could only be regenerated by conversion of the optical signal to an electronic signal for amplification, followed by reconversion to an optical signal. The equipment used to convert optical signals to electronic signals, known as opto-electronic regenerators, is expensive to procure, install and maintain. On the other hand, fiber amplifiers with high power and high performance allow transmission of optical signals over longer distances without conversion. A common measurement of performance is the ratio of the strength of signals being transmitted in an optical fiber to the amount of noise, referred to as the signal to noise ratio. In addition, a fiber amplifier can handle a wide variety of transmission speeds and networking protocols, allowing for upgrades of the network without replacement of the amplifier. Fiber amplifiers are also capable of amplifying multiple wavelengths at the same time, making them far more cost-effective for DWDM applications. The two most common types of optical amplifiers are erbium-doped fiber amplifiers, or EDFAs, and Raman amplifiers.

EDFAs use the light from semiconductor laser diode modules to introduce, or pump, optical energy into doped fiber, resulting in signal amplification as the signals pass through the doped fiber. Doped fibers are fibers in which small quantities of rare earth ions and other elements are introduced. Multiclad fibers consist of layers of various glass compositions, some of which are doped with rare earth ions and other elements. Multiclad fiber is designed to optimize the absorption and transfer of energy from laser diode modules to the input signals. Ryan, Hankin & Kent estimates that revenue from the sale of erbium gain modules, the component of EDFAs in which amplification is achieved, was \$641 million in 1999 and will increase to \$4.2 billion in 2004, representing a compound annual growth rate of 45.3%.

34

Two types of laser diodes that are used in EDFAs: single mode and multimode. Compared to single mode diodes, multimode diodes have a larger surface area from which light is emitted, resulting in higher output power with lower power density, substantially improved reliability and longer lifetime expectancy. Two types of fiber are used for transmission: multimode and single mode. Multimode fiber is more efficient with a greater capacity to collect light energy than single mode fibers, while single mode fiber generally experiences less signal attenuation and distortion. These characteristics make multimode fiber significantly more efficient for long distance transmission of signals and high data transmission rates. We believe that a majority of the fiber currently deployed in communications systems is single mode fiber. Technological advances have made it possible to pump single mode fiber with multimode diodes, which we believe is optimal for many applications.

In addition to EDFAs, other significant innovations are being introduced to improve the amplification of optical signals in DWDM networks. A significant example is the introduction of Raman pump lasers, which are used to pump optical energy into the transmission fiber itself to amplify the optical signal, a process called Raman amplification. By achieving amplification throughout the transmission fiber rather than boosting the signal at one point,

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Raman amplification results in greater signal integrity. Currently, Raman technology has been deployed on a limited basis in the long-haul and ultra long-haul systems. Ryan Hankin & Kent estimates that sales of Raman gain modules will grow from approximately \$18.0 million in 2000 to approximately \$1.0 billion in 2004 representing a compound annual growth rate of 173.1%. The use of Raman amplification to complement EDFAs allows for greater spacing between amplifiers resulting in greater network efficiency. However, due to limitations in flexibility and applications, Raman amplification will continue to be a complementary technology to EDFAs rather than a disruptive one.

### Industrial

Light emitted by a laser can be harnessed for numerous industrial applications, including marking, material processing, printing, micro-machining, medicine, instrumentation, optical storage, inspection, measurement and control, bar-coding and scanning. The characteristics of industrial lasers enable manufacturers to cut, weld, etch, polish, mark and measure without physical contact in many applications, permitting higher processing speeds, greater precision and lower overall manufacturing costs than conventional manufacturing processes. Consequently, manufacturers and others have significantly increased their use of lasers for industrial and other commercial applications. The global industrial laser market had total revenues in 1999 of approximately \$1.7 billion according to Laser Focus World, a leading industry publication, and is growing at a rate of 30-35% per year.

Most industrial lasers in use today are based on gas or solid state technologies. Lasers are categorized by the different modes by which they deliver light energy. In continuous wave lasers, the laser beam has a stable average power. In pulsed beam lasers, the laser delivers short pulses of light. Historically, pulsed beam lasers have been used in industrial applications where very high peak power is required. The most common conventional industrial lasers are known as YAG lasers. Conventional lasers, however, have significant shortcomings. Integration of conventional lasers systems into industrial applications is complex and expensive, requiring free-standing cooling systems, a high power electrical supply and significant installation space. The complexity of these lasers requires specially trained personnel to operate and maintain them. Conventional lasers are large and operate from fixed positions requiring complex optics for beam delivery. In addition, limitations on the lasers themselves, such as inefficient conversion of electrical power to light, poor beam quality and limited life expectancy continue to reduce their functionality.

Many users are replacing conventional lasers with fiber lasers in industrial applications. They offer cost-effective alternatives to conventional laser technologies because of their lower operating costs, smaller size, higher reliability, greater efficiency, service-free operation and their ability to use conventional electrical outlets. For example, fiber lasers provide significantly better beam quality with precision micro-dot capability making them particularly useful for marking and other applications. In addition to these qualities, the flexible fiber delivery and portability of fiber lasers allow for their use in applications for which conventional lasers cannot be used, such as underwater welding and industrial cleaning.

### Challenges Faced by our Customers

Our customers purchase optical components and modules which allow them to focus on designing systems that satisfy the growing performance demands of telecommunications service providers, such as AT&T, WorldCom, Deutsche Telekom, Sprint and Bell South. In addition, specific technological complexities of the

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

long-haul, metropolitan and access segments require customized optical solutions.

Our telecommunications customers have the following needs:

- . Higher Power Amplifiers. In the long-haul segment, higher dense wavelength division multiplexing, or DWDM, channel counts require higher power. In the access segment, our customers require high power multiple output fiber amplifiers to power networks which bring fiber closer to the ultimate user, or fiber-to-the-curb applications, and cable television systems which use both analog digital signals with many end users. Emerging applications, such as free-space optical communications require amplifiers with greater and variable power output which can respond automatically to different weather conditions.
- . Greater Bandwidth and Transmission Rates. The high costs of building and operating new telecommunications networks provides incentive to maximize the data that can be sent through new networks as well as over existing fiber networks. Telecommunications systems integrators are continually looking for optical amplifiers that incorporate a wider range of the useable optical spectrum, operate over more narrowly spaced channels and at higher data transmission rates, or modulation speeds.
- . High Reliability. Telecommunications service providers seek more reliable optical components to decrease the likelihood of system downtime. There is a strong demand for optical amplifiers that are designed and built to operate without maintenance for a decade or longer under various climactic conditions and have a lower risk of technological obsolescence.
- . Superior Performance. Telecommunications networks must maintain high signal to noise ratios as signals pass through amplifiers to increase the distance between amplifiers and to eliminate the need to use opto-regenerators. Some telecommunications systems integrators also require polarization-maintaining amplifiers. If the components of an optical signal are not kept aligned, or polarized, these components will travel at different speeds through an optical fiber and upon arrival the optical signal will be distorted.
- . Economically-Priced Low Power Amplifiers. Telecommunications service providers seek cost-efficient, low power amplifiers to eliminate bandwidth bottlenecks in the metropolitan and access segments. Both metropolitan wavelength division multiplexing, or WDM, and networks which bring fiber inside the building to the desk of the ultimate user, or fiber-to-the-desk applications require a large number of fiber amplifiers driving the need for decreased amplifier costs.
- . Scalable and High Capacity Production. Telecommunications systems integrators demand that manufacturers of new customized optical amplification products scale their production more rapidly to deliver high volumes of quality products with shorter delivery times.

Our industrial customers have the following needs:

- . Performance. Industrial customers require lasers that generate high quality light beams at several different wavelengths and that allow for precise control of numerous operating specifications, including operating wavelength, power output, pulse rate, pulse duration and beam width.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

- . Lower Total Cost of Ownership. Industrial customers desire high power lasers that are less expensive to purchase and maintain, and have longer life and greater reliability.
- . Flexible Use and Ease of Integration. Industrial customers demand lasers that can be easily and flexibly integrated into their production processes, and that are easy to use, with no service requirements. Additionally, industrial customers require portable fiber lasers for new applications.

36

### The IPG Solution

We design, manufacture and sell high performance fiber amplifiers and Raman pump lasers for telecommunications applications and high power fiber lasers for various industrial applications. Our fiber amplifiers and Raman pump lasers cost-effectively address the needs of telecommunications customers by enabling transmission over a broader range of the useable optical spectrum with a higher signal to noise ratio and improved reliability at high power outputs. We also supply high power fiber lasers with high beam quality, high efficiency and lower device cost that can be more easily integrated into industrial production processes than conventional lasers.

The success of our solution is based upon the following key attributes:

- . Advanced Technology Platform. Our state-of-the-art products are based on our innovative proprietary technology platform. We believe that our design of critical specialty components, such as doped fibers and specialty couplers, together with our innovative approach in combining these components, allows us to cost-effectively create fiber amplifiers and fiber lasers that operate over a broader range of the optical spectrum, with higher power output, superior performance and greater reliability. For example, we have developed a pumping technology that allows us to efficiently use a greater number of diodes in our fiber amplifiers, thereby producing higher output power than achievable through traditional techniques. A key element of this technology is our ability to pump our proprietary single mode fibers with multimode diodes.
- . Materials Science Expertise. Our expertise in non-radiative energy transfer between rare earth ions in solid state materials is the basis for the proprietary doping techniques used in manufacturing our multicladd fibers for our fiber amplifiers and fiber lasers. Use of these proprietary fibers facilitates our innovative pumping technology and allows us to provide a wide variety of innovative fiber devices in numerous customizable configurations.
- . Simplified Integrated Design. The simplified integrated product design used in our fiber amplifiers and fiber lasers employs fewer components than the products of our competitors. Our multi-disciplinary scientific teams design our products to decrease the complexity and cost of manufacturing, testing time, integration and the time needed to develop new products. It also improves yield, increases product reliability and allows quicker ramp-up of new production.
- . Vertically Integrated Manufacturing. We design and manufacture a significant majority of the critical specialty components and modules used in our products. In addition, we perform all of our manufacturing and assembly in-house, including manufacturing of

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

specialty fibers, the energy source for the amplifiers, called laser diodes modules, and the components, which the amplification of the optical signal occurs, called gain blocks. These are all critical components to our products. Our in-house manufacturing helps us increase the performance, facilitates and accelerates new product development, provides us with an assured supply of the high power fiber optic components used in our products, lowers our total cost and increases product reliability. As a result of this vertically integrated manufacturing, we can better meet the needs of our telecommunications customers and industrial users by quickly providing them with new and customized fiber optic devices.

- . Quality-Driven Manufacturing. We test and qualify all of our components and assemblies, as well as our finished products, to assure reliability and performance. For example, we test our laser diodes for up to 1,000 hours under high stress conditions before we install them in our fiber amplifiers and fiber lasers and employ a testing database for assessing the operational lifetime of principal components. With a large in-house testing facility, we are able to quickly scale our production output while continuing to assure high quality for new products.

37

### The IPG Strategy

Our objective is to be the leading supplier of fiber amplifiers, Raman pump lasers and fiber lasers to our telecommunications and industrial customers. Key elements of our strategy include:

- . Extend Our Existing Technology Leadership. Dr. Valentin P. Gapontsev, our founder, leads our scientific team, more than 30 of whom hold Ph.D. degrees, in the development of new technologies to differentiate our products and extend our competitive advantage. Our multi-disciplinary technical expertise has enabled us to develop proprietary pumping techniques and multicladd fiber designs. Our key technological innovations have allowed us to become a leader in the design of fiber amplifiers, Raman pump lasers and industrial fiber lasers. For example, we believe that we are the only manufacturer of EDFAs with power output greater than five watts and we believe we sold the first commercially available Raman pump laser. We plan to extend our technological leadership through continued enhancement of our existing technologies and the development of new technologies that enable optical networks to use higher data transmission rates and a broader range of the optical spectrum to achieve increased bandwidth.
- . Expand and Enhance Our Existing Line of Products. We plan to expand and enhance our broad product line. By offering a broad array of products, we are able to serve numerous customers across all segments of the telecommunications market. Our current development efforts are focused on the introduction of cost-effective, low power fiber amplifiers for the metropolitan and access markets, the extension of our Raman technology and the introduction of fiber amplifiers that cover a broader range of the optical spectrum. We also intend to leverage our technological expertise in fiber lasers to extend our product line into new industrial applications.
- . Expand Our Manufacturing Capacity and Reduce Costs. We plan to significantly increase our manufacturing capacity in the United States, Germany and Italy over the immediate and long term. Also, we

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

intend to continue to invest in automation of component manufacturing and device assembly and testing to reduce manufacturing costs and increase product quality. Our simplified product design should allow us to employ a higher degree of automation, thereby improving productivity. We intend to manufacture additional critical components that we currently purchase from third parties in order to lower costs, ensure component quality and assure supply.

- . Expand Our Sales and Marketing Efforts. We plan to expand our sales and marketing efforts for our telecommunications and industrial products, including the hiring of marketing executives with significant experience in the fiber optics industry. We also plan to open two additional sales offices in the United States in 2001, and to increase our worldwide distributor network. We believe that we have significant opportunities to target new customers, and to strengthen our relationships and increase our sales to existing customers.
- . Provide Our Customers With a High Degree of Technical and Engineering Support for Customization. Our experienced staff of multi-disciplinary scientists and engineers works closely with our customers at the conceptual stage of the product development cycle to quickly customize our products or create new products that meet our customers' specific requirements. We will continue to utilize this knowledge and approach to respond more effectively with products that meet our customers' needs.
- . Acquire Strategic Businesses and Technologies. We intend to pursue strategic acquisitions of businesses and technologies that can provide us with key intellectual property, strategic products and highly qualified personnel to rapidly increase our technological expertise and expand the breadth of our product portfolio. Currently, we have no commitments or agreements for any material acquisition of, or investment in, any third party. We will explore joint ventures in other countries, where appropriate, to take advantage of improved cost structures and local partners who will help in developing new markets for our products.

38

### Products

Our products are classified in two major groups: high-performance fiber amplifiers, Raman pump lasers and fiber lasers for telecommunications applications, and high-power fiber lasers for industrial applications. These products are based upon a common technology platform and are manufactured using a set of substantially similar key components.

#### Optical Amplification Products For Telecommunications Applications

We design and manufacture a full range of fiber amplifiers and Raman pump lasers with varying output power and wavelengths that enhance data transmission in optical networks. We believe our line of fiber amplifiers and Raman pump lasers offers the best commercially available output power and performance, including wavelength range, reduced dispersion, polarization maintenance, signal to noise ratio, reliability under high stress operating conditions and electrical efficiency. The power output from the products in this line ranges from 10 milliWatts to 15 Watts. Our amplifiers operate across the C and L bands and we are testing products for the S band as well as the superwide band, which encompasses the majority of the C and L bands. Our product line of over 80 fiber amplifiers and Raman pump lasers, for use in single channel WDM and DWDM



Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

networks, are customized and optimized pursuant to the customers' price-performance criteria for a variety of telecommunications applications. The following table sets forth the various categories and specifications by which our products are defined and compared by our customers. This table demonstrates the breadth of our product line.

Markets Served	Spectral Range	Single Channel/WDM		DWDM	
		Wavelength Range	Power	Wavelength Range	Power
EDFAs					
Long-Haul	C band	1528-1567 nm	10 mW-2 W	1528-1564 nm	10 mW-1 W
	L band	1565-1620 nm	10 mW-2 W	1565-1605 nm	10 mW-1 W
	Superwide band (Testing)	1530-1610 nm	100 mW-2 W	1530-1600 nm	10 mW-500 mW
Metropolitan Access	L band	1565-1620 nm	10 mW-200 mW	N/A	N/A
	C band	1533-1567 nm	10 mW-1 W	N/A	N/A
Access-Free-Space Optical Communications	L band	1565-1620 nm	20 mW-1 W	N/A	N/A
	C band	1535-1567 nm	300 mW-15 W	1538-1567 nm	500 mW-10 W
Polarization Maintaining Amplifiers	C and L bands	1528-1620 nm	10 mW-10 W	1528-1620 nm	10 mW-10 W
		1240-1500 nm	500 mW-10 W	1240-1500 nm	500 mW-10 W
Raman Pump Lasers					
Long-Haul		1240-1500 nm	500 mW-10 W	1240-1500 nm	500 mW-10 W

Legend: nm = nanometer; mW = milliwatt; and W = Watt.

Long-Haul Networks

Our high power erbium-doped fiber amplifiers, or EDFAs, and Raman pump lasers provide the minimal signal distortion, high power output and reliability and the low power consumption needed for applications, such as submarine systems and high capacity long-haul optical communications systems. We believe that our Raman pump lasers comply with requirements established by Telcordia Technologies (formerly Bellcore), an engineering and administrative services consortium that establishes industry standards and specifications for the

telecommunications, wireless and fiber optic industries, but we have not received qualification. The Telcordia requirements relate to the environmental, electrical and optical testing for fiber optic transmitters and receivers, to ensure that they offer the high reliability required for critical applications. Our Raman pump lasers are offered in various wavelengths and output powers which may be selected by our customers. We offer products that operate across the current optical spectrum used for optical long-haul communication with high power and a high signal to noise ratio. In addition, we sell EDFAs, fiber lasers and tunable fiber lasers for designing and testing DWDM optical systems. We also produce polarization-maintaining EDFAs that offer high signal to noise ratios over greater distances.

Metropolitan Networks

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

We provide low-power EDFAs for both single channel and WDM applications for the metropolitan market segment. This market segment is growing rapidly, with emphasis shifting from single channel systems to WDM systems. The design of our products in this area as well as our manufacturing flexibility should allow us to respond to the dynamics of this market segment.

### Access Networks

We offer digital WDM EDFAs, analog EDFAs with multiple outputs and EDFAs utilizing multiple channels over multiple fibers for use in the local access segment, including hybrid analog and digital cable networks, fiber-to-the-curb and fiber-to-the-home networks that provide high speed data, voice and video transmission in one cable. Our high power EDFAs with multiple outputs provide cost-effective connectivity to a greater number of end-users reducing the number of amplifiers previously needed to supply high bandwidth requirements in access networks.

### Free-Space Optical Networks

We provide products for building to building data transmission up to 10 gigabits per second over distances of up to three miles without the use of a fiber optic cable connecting the buildings. We provide eye-safe high power EDFAs, transmitters and subsystems for deployment in both point-to-point and point-to-multipoint free-space optical networks. Our products offer a wide range of power outputs that automatically adjust to ensure reliable signal transmission through adverse weather conditions, such as fog and rain. In addition, free space optical technology has potential applications for satellite-based communications. In this regard, we have developed polarization-maintaining fiber amplifiers that can be used in sophisticated optical satellite networks.

40

### High-Power Fiber Lasers for Industrial Applications

We design and manufacture high power, continuous wave and pulsed fiber lasers for industrial applications. This product line includes lasers with a high pulse repetition rate, high electrical efficiency, low cost, small size, a mobile and flexible delivery system and reliable service-free operation. We believe that we are the sole manufacturer of many kinds of commercially available fiber lasers for numerous industrial applications. Our products are customized and optimized pursuant to the customers' price/performance criteria. The following table sets forth the various categories and specifications by which our products are defined and compared by our customers.

Markets Served	Product	Pulsed/Continuous Wave (CW)	Spectral Range	Power
Marking	Ytterbium-doped fiber laser	Both	1.04 um-1.15 um	5 W-50 W
High Speed Printing	Ytterbium-doped fiber laser	Both	1.07 um-1.10 um	10 W-20 W
Material Processing	Ytterbium-doped fiber laser	Both	1.06 um-1.12 um	5 W-100 W
	Erbium-doped fiber laser	CW	1.54 um-1.57 um	1 W-50 W
Micromachining	Ytterbium-doped fiber laser	Both	1.05 um-1.12 um	1 W-10 W
	Erbium-doped fiber laser	CW	1.54 um-1.57 um	1 W-10 W
Optical Sensory/	Raman fiber lasers	Pulsed	1.10 um-1.25 um	1 W-5 W
	Tunable Erbium-doped fiber	CW	1.53 um-1.61 um	100 mW-10 W

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Measurement	laser				
	Tunable Ytterbium-doped fiber laser	CW	1.04 um-1.10 um	100 mW-10 W	
Laboratory/Medical	Single-frequency Ytterbium-doped fiber laser	CW	1.05 um-1.10 um	1 W-5 W	
	Ytterbium-doped fiber laser	Both	1.02 um-1.12 um	500 mW-50 W	
	Erbium-doped fiber laser	Both	1.53 um-1.62 um	20 mW-10 W	
	Raman fiber laser	CW	1.15 um-1.50 um	500 mW-10 W	
	Fiber-pigtailed laser diode systems	CW	0.97 um	5 W-20 W	

-----  
 Legend: um = micrometer; W = Watt; mW = milliWatt; and MOPFA = master oscillator power fiber amplifier.

### Marking

Lasers are used to precisely mark a wide variety of surfaces at high speed without contact by changing the surface structure of the material. We produce high-energy pulsed ytterbium-doped fiber lasers, as well as continuous wave fiber lasers with external modulation, that are substantially faster, more precise, more reliable, smaller and more cost-effective than conventional gas and solid state lasers. Our fiber lasers have high beam quality and micro-dot marking capability that enables accurate identification and retrieval of marked items in automated assembly lines.

41

### High-Speed Printing

High-speed laser plate and film writing systems enable printers to write high-resolution color images directly from computer files onto a printing press plate or onto film, thus resulting in significant time and cost savings for commercial printers. We believe our product is the first to provide operating modulation bandwidth of up to 200 MHz. Our ytterbium-doped fiber lasers also offer features such as high beam quality, electro-optical efficiency, compact size, durability and ease of integration in new or existing printing systems where the laser component can be easily replaced.

### Material Processing

Lasers are used in a variety of material processing applications, including welding, cutting, drilling, soldering and heat treating. Our fiber lasers offer the high-power and portability necessary for complex tasks such as diamond cutting and underwater repair of pipelines, hulls of ships or other marine installations, and, we believe, enable several new applications.

### Micromachining

Our fiber lasers are used in systems by semiconductor manufacturers to repair defective or redundant circuits in memory chips with precise laser pulses. Our lasers can also be used for micromachining for the precise trimming of components in printed circuit boards and in the manufacture of semiconductors. Our fiber lasers provide a wide range of operating wavelengths, high levels of precision, high power and reliability needed for these applications.

### Optical Sensory and Measurement

We sell fiber lasers for light detection and ranging, known as lidar, tunable lasers, single frequency lasers and specialty lasers for various

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

sensory and measurement applications. These applications include obstacle-warning, 3-D optical radar, range finding, imaging and sensing for the aviation industry and pollution and atmospheric data measurement, data on road traffic flow, velocity control and security installations.

### Laboratory and Medical Applications

We provide a wide range of fiber lasers and other optical products for use in various medical applications, such as medical imaging, surgery, microsurgery, therapy and dentistry. We believe our fiber lasers outperform conventional lasers for medical applications, combining a wide choice of operating wavelengths, compact size, flexible fiber delivery, precise control and tunability. Another benefit of these lasers is ease of use by doctors and reduced patient trauma.

### Research and Development

We have assembled a team of scientists and engineers with specialized experience and extensive knowledge in fiber optic amplifiers and fiber lasers, and in manufacturing process design. Our research and development team includes over 30 scientists who hold Ph.D. degrees and over 50 additional scientists and engineers. We undertake research and development at our facilities in Sturbridge, Massachusetts and Burbach, Germany and through a contractual relationship with NTO IRE-POLUS in Fryazino, Russia.

We are developing new lines of fiber amplifiers using fibers doped principally with rare earth ions other than erbium. Some of these are currently being tested. Other products under development include Raman amplifiers, and a variety of industrial lasers such as green lasers and picosecond lasers among others. Our future success depends on our ability to continue to extend our existing technological leadership and to develop new products that maintain technological competitiveness. We work closely with our telecommunications and

42

industrial customers to monitor changes in the marketplace and to develop new products to address their needs. For example, our fiber amplifiers and free-space optical transmitters are the only products of their kind to be qualified for use by Bosch Telecom and Motorola after extensive tests for Teledesic, a global satellite project, which is currently awaiting funding. We plan to focus our product development activities on improving our existing products, customizing products to client specifications and developing innovative new products. We plan to direct part of our resources to fundamental research in related fields to maintain our technological leadership.

We have entered into an Assignment, Research and Development Agreement with NTO IRE-POLUS to assist in the development of fiber amplifiers, fiber lasers and other associated products. Under this agreement, NTO IRE-POLUS performs research and development related to these products exclusively for us and has agreed not to perform services involving the development of intellectual property relating to the products listed in the agreement for any other person or entity other than IPG Photonics, IPG Laser or IPG Fibertech. NTO IRE-POLUS has a limited, non-exclusive right to use the developed products as well as the technology and intellectual property resulting from these products for products not involving telecommunications or products sold exclusively to the other parties to this agreement, in the countries that comprised the former Soviet Union. This agreement terminates upon the mutual agreement of us and NTO IRE-POLUS. NTO IRE-POLUS is affiliated with us via common ownership. For more information, see "--Transactions with Related Parties--Transactions with NTO IRE-POLUS."

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

### Customers

We sell our products to customers located in the U.S., Europe and Asia. The following is a list of customers who have purchased more than \$100,000 of our products from us or our distributors from January 1, 2000 through November 30, 2000 broken down by telecommunications and industrial customers in alphabetical order:

- . Telecommunications: ADC, Agilent, Alcatel, Antares Laser, Calient, Corning, Corvis, Hughes Space and Communications, JDS Uniphase, Lucent, Marconi, MIT Lincoln Labs, Nortel, Optical Crossing, Siemens, T.E.M. and TeraBeam.
- . Industrial: Baasel Scheel Lasergraphics, DaimlerChrysler Aerospace, GSI Lumonics, L.O.T. Oriel, Molecular OptoElectronics, Purup Escofot and Sunx.

In 1999, Marconi and Alcatel were our only customers that accounted for 10% or more of our total net revenues, with 40% and 10%, respectively. In the nine months ended September 30, 2000, TeraBeam Networks and Marconi were the sole customers who accounted for more than 10% of our sales, representing approximately 40% and 20%, respectively. From time to time, we may in the future provide exclusivity for our products to our customers.

### Manufacturing

We manufacture our products and components at our facilities in the United States, Germany and Italy. Further, we source certain components from NTO IRE-POLUS. Our Oxford, Massachusetts facility, due to be completed in the first quarter of 2001, will manufacture our entire range of products. We produce the majority of our critical specialty components internally, such as, specialty fiber couplers, isolaters, spectral filters, polarizers, collimators and optical terminators. Additionally, our vertically integrated manufacturing operations include pre-form doping, specialty fiber drawing, laser diode module production and gain block assembly. We also manufacture our own test instruments, diode test racks, assembly tools and machines according to our own designs.

43

### Facilities

In the United States, we rent a 25,000 square foot facility that is used for sales and administration, manufacturing and research and development and contains 9,000 square feet of dust-free work environment. The lease is renewable in June 2001 for a period of one year. In the first quarter of 2001 we expect to complete the first phase of our new facility in Oxford, Massachusetts, which will consist of two buildings aggregating 72,000 square feet located on a 76 acre campus. Within these two buildings 10,000 square feet will be class 10,000 clean rooms and 32,000 square feet will be dust-free manufacturing rooms. The second phase of the Oxford facility includes an additional 120,000 square feet and we expect to commence its construction in 2001 shortly after completion of the first phase. A portion of the proceeds of this offering will be used to fund this second phase. When completed, the Oxford facility will become our world headquarters.

In Germany, we own a facility with approximately 23,000 square feet of manufacturing and research and development space. We are currently expanding the manufacturing capacity of our German facilities to add 24,000 square feet. This facility is expected to be completed in the first quarter of 2001. We are currently seeking land in Burbach to build additional facilities over the next

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

several years. A portion of the proceeds of this offering will be used to expand this facility.

In Italy, we rent a 3,000 square foot facility used for product assembly, manufacturing and testing and we plan to lease up to an additional 15,000 square feet of space in 2001. Our current lease for this facility expires on December 31, 2002.

Our facilities in the United States and Germany are subject to security interests held by our lenders. We believe that our existing facilities and those nearing completion are adequate to meet our needs for the foreseeable future.

### Quality

We test and qualify 100% of our internally manufactured and purchased components and finished goods and we plan to maintain this standard going forward. We currently have in-house testing facilities that use our internally manufactured testing equipment for assessing the operational lifetime of laser diodes. We test each laser diode upon receipt from the manufacturer for up to 1,000 hours, under the high stress conditions of elevated temperature and output optical power. We assign each laser diode to an appropriate application based on its performance during the test. We maintain a database and history of each laser diode chip and module tested. Currently, this database includes 40,000,000 real-time device hours of laser diode test data. We test all finished products for 200 hours for various performance criteria. In addition, we manufacture a substantial majority of our critical components in our various facilities in order to closely monitor our quality standards. We expect that increased automation will also contribute to an increase in the quality of our products.

We have established a quality management system to assure that the products we manufacture meet or exceed industry standards. This system is based on ISO 9000 standards. Our German facility has been ISO 9001 certified since July 2000.

### Supply

Various outside suppliers provide us with raw materials and components. For some of these raw materials and components, we depend on a single or limited number of suppliers, but we are seeking additional suppliers in order to prevent interruptions or delays. We cannot assure you that we will obtain any additional sources of supply. We attempt to maintain surplus inventory to overcome shipping delays or supply interruptions and, to date, we have generally been able to obtain sufficient supplies in a timely manner.

44

Pursuant to a non-exclusive purchase agreement with SDL that terminates on December 31, 2002, we have agreed to purchase \$66.7 million of laser diode chips that meet our specifications. We have agreed to pay SDL specified amounts if we fail to purchase required amounts each quarter and over the life of the contract to compensate SDL for its investment in equipment needed to meet our quantity requirements for laser diode chips. Other than our agreement with SDL, we do not have long-term agreements with our suppliers for any components.

### Sales, Marketing and Technical Support

We have one U.S. and two European sales offices. We plan to increase our sales and marketing staff and open two more offices in the U.S. and one in the

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

U.K. within the next twelve months. In this regard, Dr. Vincent Au-Yeung joined us as our Executive Vice President of Strategic Marketing in January 2001. We are continuing to seek marketing executives with significant experience in the fiber optic industry.

In the telecommunications industry, our product specialists and engineers work with our customers to customize our products to their needs. Because the telecommunications industry is primarily comprised of a small number of large companies, our senior management has been responsible for our sales and marketing effort to these customers. Typically, these customers purchase a small quantity of our products on a trial basis for six to nine months before they place larger orders. Compared to orders for our telecommunications products, orders for our industrial products tend to be smaller and the sales cycle tends to be faster. We currently use a number of distributors worldwide to help expand our sales and market penetration for both telecommunications and industrial customers. In addition, we believe the high level of technical support we offer provides us with a competitive advantage. We derive approximately 5% of our revenue from sales made through distributors and 95% from direct sales.

Our marketing efforts are focused on increasing awareness of our products and our brand name through our participation in major world trade fairs, conferences and exhibitions. We also publish papers in scientific journals and industry publications from time to time.

### Competition

Our markets are highly competitive. In the telecommunications industry, we believe that our principal competitors are major manufacturers of fiber amplifiers, fiber lasers and related components. These manufacturers include Alcatel Optronics, Corning, JDS Uniphase, Lucent Microelectronics, Nortel, SDL, MPB, and Furakawa. JDS Uniphase and SDL have recently announced their agreement to merge. Our principal competitors in the industrial laser area include Coherent, SDL, Spectra-Physics and Optocom.

Most of our competitors have substantially greater financial, engineering and manufacturing resources as well as greater name recognition. Some of our customers compete with us and some may begin to compete with us. In addition, some of our customers have been or could be acquired by, or enter into strategic relations with, our competitors. We anticipate that further consolidation will occur in our industry, thereby possibly increasing competition in our target markets.

We believe the principal competitive factors of the markets in which we operate are:

- . product price, features, functionality and reliability;
  - . performance characteristics;
  - . introduction of new and enhanced products before competitors;
  - . product line breadth;
  - . compliance with emerging industry trends and standards;
- 45
- . service and support;
  - . manufacturing capacity and reliance upon outside suppliers;

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

- . ability to respond to emerging technologies;
- . brand recognition; and
- . access to new customers.

We believe we compete favorably with our competitors with respect to the foregoing factors. However, we cannot assure you that we will be able to compete successfully in the future.

### Regulatory Matters

In most countries where our products are sold, our products must comply with the regulations of one or more governmental entities. These regulations often are complex and vary from country to country. Depending upon the country and the relevant product, the applicable regulations may require product testing, approval, registration, marking, operating specifications and safety features. All of these countries control exports of certain lasers and laser-based items, including both physical commodities and technology. Depending upon the technical specifications of the item and the country of destination, the export may require the issuance of a license by the relevant government or may be authorized without a license under general regulations.

Most of our current products can be exported to most destinations without the need for a license. This situation may change as we develop new and more sophisticated products or if one or more countries in which we operate alter their export control regulations.

In particular, some of our products are subject to U.S., German, Italian and Russian export control laws and regulations governing the export of products and components and the disclosure of technical information to foreign countries and citizens. These laws and regulations require licenses for the export of some of these products to, and disclosure of our technology in, some countries, including Russia. In addition, in some countries, including the United States, these laws and regulations require licenses for the disclosure of our technology to some of our employees who are not citizens of those respective countries. We believe that we have the necessary licenses to conduct our business as presently conducted. However, these laws and regulations could change with little or no advance notice, such that items not now requiring licenses could thereafter require licenses. We have determined what we believe to be the proper classifications for all goods and technology that we export from the United States and elsewhere and believe them to be reasonable and proper. There always is the possibility, however, that if the U.S. government were to review these classifications, the U.S. government could determine that some or all are incorrect and would require export licensing for items that the company believes not to require licenses. Such action on the part of the U.S. government could prevent transfers of goods and technology while licenses are applied for and obtained, in some cases prevent specified transfers altogether, and result in penalties for past exports of misclassified items. If any or all of our classifications were not honored by the U.S. government, our manufacturing operations may be impaired, and we may face additional adverse consequences due to these laws and regulations.

In addition, our fiber lasers and other optical products are sometimes incorporated into medical devices that are subject to approval or oversight by the Food and Drug Administration and comparable regulatory bodies in other jurisdictions. Typically, our customer, the medical device manufacturer, has the responsibility to obtain required FDA and similar approval.

### Environmental Regulations



## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

We are subject to a variety of national and local laws and regulations concerning the storage, use, discharge and disposal of toxic, volatile, or otherwise hazardous or regulated chemicals or materials used in our

46

manufacturing and assembly processes. Further, we are subject to other safety, labeling and training regulations as required by local, state and federal law. We believe that we are in substantial compliance with these regulatory requirements.

### Intellectual Property

We rely on a combination of trade secret law, contractual restrictions, trademark law and copyright law to establish and protect our proprietary rights in our technology and intellectual property. Historically, we have chosen to rely upon trade secrets and contractual restrictions, as opposed to patents, to protect our rights because of our limited resources. However, with the additional resources from this offering, we intend to reevaluate our strategy with respect to protecting our intellectual property portfolio and analyze whether we will use our additional resources to pursue patent applications. If we do, we believe that the related expense should not be material. We require our key employees and consultants to execute non-disclosure and proprietary rights agreements. These agreements acknowledge our exclusive ownership of all intellectual property developed by the individual during the course of his or her work with us and require that all proprietary information disclosed to the individual remain confidential. We believe that our design and manufacturing processes make it difficult and expensive, although not impossible, for others to reverse engineer our products. We have applied for registration of our IPG, IPG Photonics and IPG Laser names and marks in the Patent and Trademark Office and will apply in trademark offices elsewhere in jurisdictions where we have facilities. We intend, where appropriate, to enforce our intellectual property rights if infringement or misappropriation occurs.

The steps taken by us to protect our intellectual property may not prove sufficient to prevent misappropriation of our technology, deter independent third-party development of similar technologies or prevent reverse engineering of our products. In addition, we may have no legal recourse against those who successfully reverse engineer our products without misappropriation of our technology or violation of contractual or other legal prohibitions. The loss of the ability to use our technology could require us to obtain the rights to use substitute technology, which could be more expensive or offer lower quality or performance, and therefore could harm our business. In some cases, we may not be able to obtain such rights. Moreover, the fiber optic components and fiber laser industries are characterized by the existence of a large number of patents and frequent litigation based on allegations of patent infringement. Third-parties could claim infringement by us with respect to current or future technology.

### Employees

As of December 31, 2000, we had 202 full-time employees. A total of 72 employees were in the U.S. and the remainder are employed in Europe. None of our employees are represented by a labor union. We have not experienced any work stoppages and we consider our relations with our employees to be good.

### Legal Proceedings

We are not currently involved in any material legal proceedings, nor do we know of any pending material legal proceedings in which we may be involved.

MANAGEMENT

Directors, Executive Officers and Key Employees

Our directors, executive officers and key employees are:

Name ----	Age ---	Positions with IPG -----
Valentin P. Gapontsev, Ph.D. ..	61	Chairman of the Board of Directors and Chief Executive Officer
Hon. John H. Dalton.....	58	President and Director
Eugene Shcherbakov, Ph.D. ....	53	Managing Director of IPG Laser and Director
Vincent Au-Yueng, Ph.D. ....	47	Executive Vice President, Strategic Marketing
Timothy P. V. Mammen.....	31	Chief Financial Officer and Vice President
Angelo P. Lopresti.....	37	Vice President, General Counsel and Secretary
John Geagea.....	46	Chief Operating Officer
Benjamin Peng-Chih Li.....	38	Chief Technology Officer
Denis Gapontsev, Ph.D. ....	28	Vice President, Research and Development and Director
Dennis Leonard.....	38	Director of Manufacturing
Stefano Cecchi, Ph.D. ....	44	Managing Director of IPG Fibertech
Peter V. Mammen.....	68	Treasurer
Paolo Sinni.....	49	Controller
Valentin Fomine, Ph.D. ....	45	Department Head of IPG Laser
Igor Samartsev.....	37	Director of Research and Development of IPG Laser
Nicholai Platonov, Ph.D. ....	44	Principal Scientist, Department Head of IPG Photonics
Robert A. Blair.....	54	Vice Chairman of the Board of Directors
Michael C. Child.....	46	Director
William F. Krupke, Ph.D. ....	63	Director

VALENTIN P. GAPONTSEV, Ph.D. has been our Chief Executive Officer and

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Chairman of the Board of Directors since inception. Dr. Gapontsev founded the IPG Group with the creation of NTO IRE-POLUS, and has been President and Managing Director since its inception. Dr. Gapontsev has over thirty years of experience in the field of non-radiative energy transfer in rare earth ions and solid state materials and is the author of numerous scientific articles. In 1994, he founded IPG Laser, and in 1997, he founded IPG Fibertech. Dr. Gapontsev holds a Ph.D. degree in Physics from the Moscow Institute of Physics and Technology.

HON. JOHN H. DALTON has served as our President and as a member of our Board of Directors since September 2000. Mr. Dalton was appointed Secretary of the Navy by President Clinton in 1993 and served in that capacity until 1998. He served as Chairman of the Board of Directors and Chief Executive Officer of EPCAD Systems, a metal technology firm, from October 1999 until June 2000. He has been a member of the Boards of Directors of Transtechnology Corporation since April 1999; Fresh Del Monte Produce Inc. since May 1999; and Niagara Mohawk Holdings Inc. since June 1999. Mr. Dalton graduated with distinction from the U.S. Naval Academy and earned an M.B.A degree from the Wharton School of the University of Pennsylvania. He holds an honorary Doctor of Laws degree from Trinity College.

EUGENE SHCHERBAKOV, Ph.D. has served as the Managing Director of IPG Laser since August 2000 and has been a member of our Board of Directors since September 2000. Dr. Shcherbakov served as the Technical Director of IPG Laser from 1995 to August 2000. From 1983 to 1995, Dr. Shcherbakov was a senior scientist in fiber optics and head of the optical communications laboratory at the General Physics Institute, Russian Academy of Science in Moscow. Dr. Shcherbakov graduated from the Moscow Physics and

48

Technology Institute with an M.S. in Physics. In addition, Dr. Shcherbakov attended the Russian Academy of Science in Moscow, where he received a Ph.D. in Quantum Electronics from its Lebedev Physics Institute and a Dr.Sci. degree in Laser Physics from its General Physics Institute.

VINCENT AU-YEUNG, Ph.D. has been our Vice President of Strategic Marketing since January 2001. Prior to joining us, Dr. Au-Yeung was the Vice President of E-Tek Dynamics Inc., a company involved in the design and manufacture of passive components and modules for fiber optic systems, and served as the General Manager of its E-Tek Kaifa Business Unit since August 1999. He had been the President of Kaifa Technology, Inc., a company he founded in 1985 that focused on the production of fiber optic components, until its acquisition by E-Tek Dynamics Inc. in 1999. Dr. Au-Yeung received his Ph.D. degree in Engineering from Princeton University and his M.B.A. degree from the University of Santa Clara.

TIMOTHY P. V. MAMMEN has been our Chief Financial Officer since July 2000 and a Vice President since November 2000. Previously, Mr. Mammen served as the Group Finance Director and General Manager of UK Operations for IP Fibre Devices Ltd. since May 1999. Mr. Mammen was Finance Director and General Manager of United Partners Plc, a commodities trading firm, from 1995 to 1999. Mr. Mammen received an Upper Second B.Sc. Honours degree in International Trade and Development from the London School of Economics and Political Science and is a Chartered Accountant and a member of the Institute of Chartered Accountants Scotland.

ANGELO P. LOPRESTI has been our General Counsel, Secretary and one of our Vice Presidents since January 2001. Prior to joining us, Mr. Lopresti was a partner at Winston & Strawn, a law firm, from 1999 to 2001, where he focused his practice in securities and technology law, and mergers and acquisitions. He

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

was also a partner at Hertzog, Calamari & Gleason, a law firm, from 1998 to 1999 and an associate from 1991 to 1998. Mr. Lopresti holds a B.A. in Economics from Trinity College and a J.D. from the New York University School of Law.

JOHN GEAGEA has been our Chief Operating Officer since June 2000. From 1987 to 2000, Mr. Geagea worked for Italtel S.p.a., a telecommunications company, in various capacities, including as Director of Russian Operations from 1994 to 1996, Director of the Socrates Project from 1996 to 1998, Director of International Industrial Activities from 1998 to 1999 and Director of Contracts Management from 1999 to 2000. Mr. Geagea holds a B.S. in Computer Engineering from the University of Illinois (Urbana-Champaign) and an M.S. in Electrical Engineering from the Illinois Institute of Technology.

BENJAMIN PENG-CHIH LI has been our Chief Technology Officer since July 2000. From 1991 to 1999, Mr. Li served as a Section Manager at SDL, Inc., a manufacturer of fiber optic components. He holds an M.S. in Electrical Engineering from the State University of New York at Stony Brook.

DENIS GAPONTSEV, Ph.D. has been our Vice President of Research and Development since August 2000 and has been a member of our Board of Directors since September 2000. From 1994 to 1996, Dr. Gapontsev worked as a scientist at NTO IRE-POLUS. He worked at IP Fibre Devices Ltd. from 1996 to 1998 and at IPG Laser GmbH from 1999 to 2000. In these positions he researched fiber lasers and Raman fiber lasers. Dr. Gapontsev holds a B.S. and an M.S. in Physics from the Moscow Physics and Technology Institute and a Ph.D. from the University of London.

DENNIS LEONARD has been our Director of Manufacturing since March 2000. Mr. Leonard was the Director of Manufacturing of Specialty Optics at Lucent Technologies (formerly SpecTran Specialty Optics Company), a corporation that produces fibers for communication, from 1997 to 2000. From 1993 to 1997, Mr. Leonard was the Director of Manufacturing of Laser Imaging Equipment at Gerber Systems Corporation, a corporation that develops and manufactures laser imaging systems. He holds a B.S. degree in Mechanical Engineering from Worcester Polytechnic Institute and an M.B.A. degree from Rensselaer Polytechnic Institute.

STEFANO CECCHI, Ph.D. has been the Managing Director of IPG Fibertech since its inception in December 1997. From 1992 to 1997, Dr. Cecchi managed the development and production of optical amplifiers

49

and conducted research projects on components for fiber optic communications at Italtel S.p.a. He holds a Ph.D. degree in Quantum Optics from the National Institute of Optics of the University of Florence and conducted post doctoral scientific research on lasers and non-linear spectroscopy in Italy and abroad.

PETER V. MAMMEN has been our Treasurer since December 1998 and has been an adviser to the IPG Group since 1996. From 1989 to 1996, Mr. Mammen was Marketing Consultant to Francis Shaw & Company of Manchester, U.K. He holds a B.A. in Humanities from the University of Madras.

PAOLO SINNI has been our Secretary since August 2000 and our Controller since January 1999. He was the Controller of Technical Communications Corporation from 1993 to 1996, of Melles Griot, Inc. from 1996 to 1997 and of SpecTran Specialty Optics Company from 1997 to 1999. Each of these companies is in the fiber optics industry. Mr. Sinni holds a B.S.B.A. in Accounting from Nichols College.

VALENTIN FOMINE, Ph.D. has been a Department Head of IPG Laser since 1998

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

and previously as an Optical Engineer at NTO IRE-POLUS since 1990. Dr. Fomine received his Ph.D. specializing in radiophysics from the Institute of Radio Engineering and Electronics at the Russian Academy of Sciences. He received his undergraduate education at the Department of General Physics of Saratov State University, Russia.

IGOR SAMARTSEV has been the Director of Research and Development of IPG Laser since 1997 and has been employed as a scientist with NTO IRE-POLUS since 1990. He is a graduate of Chelyabinsk Physical Mathematical School and received a First Class degree from the Moscow Physical Technical Institute.

NICHOLAI PLATONOV, Ph.D. has been our Principal Scientist of IPG Photonics since October 2000. Dr. Platonov served as a scientist at IPG Laser from 1998 to 2000 and at NTO IRE-POLUS from 1996 to 1998. Dr. Platonov was a research scientist at the Institute of Radio Engineering and Electronics of the Russian Academy of Sciences from 1979 to 1996. He received his Ph.D. from the Institute of Radio Engineering and Electronics of the Russian Academy of Sciences and received his undergraduate degree from the Moscow Physical Technical Institute.

ROBERT A. BLAIR has been Vice Chairman of our Board of Directors since September 2000 and Chairman of our National Advisory Board since February 2000. He is currently the President of the Blair Law Firm P.C. Mr. Blair was an equity partner at Manatt, Phelps & Phillips, a law firm, from 1995 to 1999. He is a trustee under Winkler Trusts, which are the primary source of equity for, and owners of, real estate ventures developed by The Mark Winkler Company. Mr. Blair is managing partner of several real estate partnerships and has been a manager/principal in cellular telephone ventures. Mr. Blair holds a B.A. in Mathematics from The College of William and Mary and a J.D. from the University of Virginia School of Law.

MICHAEL C. CHILD has been a member of our Board of Directors since September 2000. Mr. Child has been employed by TA Associates, Inc., a venture capital investment firm, since July 1982 where he currently serves as a Managing Director. In addition, he has served as a member of the Board of Directors of Finisar Corporation, a producer of fiber optic subsystems and network performance test systems, since November 1998 and Fargo Electronics Inc., a developer, manufacturer and supplier of plastic card printers, since July 2000. Mr. Child holds a B.S. in Electrical Engineering from the University of California at Davis and an M.B.A. from the Stanford Graduate School of Business.

WILLIAM F. KRUPKE, Ph.D. has been a member of our Board of Directors since November 2000. Since May 2000, Dr. Krupke has been the President of Applied Lasers, a company which provides consulting services related to laser technology and applications, and he has served as a consultant to various companies that concentrate in those fields. From 1972 to 1999, Dr. Krupke served as Technical Manager for Lawrence Livermore National Laboratories, which provides research and development for the United States Department of Energy, and Deputy Associate Director of the laboratory's Laser Directorate. He received a B.S. degree in Physics from Rensselaer Polytechnic Institute and M.S. and Ph.D. degrees in Physics from the University of California at Los Angeles.

Our Chief Executive Officer, President, Chief Financial Officer, Treasurer and Secretary are elected by the Board of Directors. All other executive officers are elected by the Board of Directors or appointed by the Chief Executive Officer and all officers serve at the discretion of the Board of Directors. Each of our officers and directors, other than non-employee

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

directors, devotes his full time to the affairs of IPG Photonics.

Our Chairman of the Board and Chief Executive Officer, Dr. Valentin P. Gapontsev, is the father of Dr. Denis Gapontsev, our Vice President of Research and Development and a director. Our Treasurer, Peter V. Mammen, is the father of our Chief Financial Officer, Timothy P.V. Mammen. There are no other family relationships among any of our directors, officers or key employees.

### Composition of our Board Of Directors

Our Board of Directors is currently fixed at seven directors. Michael Child was elected to serve on our Board of Directors pursuant to an agreement entered into in August 2000 in connection with the sale of our Series B preferred stock. This agreement will terminate upon the closing of this offering. At each annual meeting of stockholders, the successors to directors whose terms are to expire will be elected to serve from the time of election and qualification until the next annual meeting following their election. Our nonemployee directors devote such time to our affairs as is necessary to discharge their duties.

### Board Committee

The audit committee of our Board of Directors recommends the appointment of our independent auditors, reviews our internal accounting procedures and financial statements and consults with and reviews the services provided by our independent auditors, including the results and scope of their audit. The audit committee currently consists of Messrs. Blair and Child, and Dr. Krupke.

### Compensation Committee Interlocks and Insider Participation

Our entire Board of Directors determines executive compensation. The following directors are also executive officers and participated in deliberations of the Board of Directors concerning executive compensation: Drs. Valentin Gapontsev, Eugene Shcherbakov and Denis Gapontsev, and Mr. Dalton. Dr. Valentin Gapontsev served as managing director of IP Fibre Devices and NTO IRE-POLUS. For more information, please see "Transactions With Related Parties--Intercompany Transactions", "--Other Transactions with NTO IRE-POLUS" and "--Other Transactions with IP Fibre Devices."

### Director Compensation

Our directors are reimbursed for expenses incurred in connection with attending board and committee meetings but are not compensated for their services as board or committee members. In November 2000, we granted options to purchase 100,000 shares of common stock to each of Dr. Krupke and Mr. Child under our 2000 stock incentive plan at an exercise price of \$3.75 per share. The options vest equally over a period of four years. For more information, see "--Stock Option Plan."

### National Advisory Board

The National Advisory Board, or NAB, of the Company is currently composed of eight individuals. The purpose of the NAB is to provide us with advice on our business and strategy. The NAB meets from three to four times a year. Members of the NAB are reimbursed for travel and other expenses incurred in attending meetings, but are not compensated for attending meetings or for advisory services that they provide to us. Hon. John H. Dalton, Robert Blair and Dr. William Krupke are members of the NAB, and Mr. Blair is its Chairman. Each individual was granted options to purchase 100,000 shares of common stock having an exercise price of \$0.50 per share. Messrs. Dalton, Blair and Krupke joined the NAB prior to becoming an officer or director of IPG Photonics, and Messrs. Dalton and Blair exercised their options in full in 2000. Dr. Krupke

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

exercised his option for 30,000 shares in 2000.

Executive Compensation

Summary Compensation Table

The following table sets forth information regarding compensation received during the years ended December 31, 1999 and 2000 by our Chairman of the Board and Chief Executive Officer and each of our four other executive officers whose total salary and bonus earned during the Company's last fiscal year exceeded \$100,000.

Name and Principal Position	Year	Annual Compensation		Long Term Compensation	
		Salary	Bonus	Securities Underlying Options	Other Compensation
Dr. Valentin P. Gapontsev Chairman of the Board and Chief Executive Officer....	2000	\$397,039 (1)	\$100,000	--	--
	1999	\$229,280 (1)	\$88,023	--	--
Hon. John H. Dalton President (2).....	2000	\$73,077	--	800,000	\$1,731 (3)
Dr. Eugene Shcherbakov Managing Director of IPG Laser.....	2000	\$164,068 (4)	--	--	--
	1999	\$124,993	--	--	--
Timothy P. V. Mammen Chief Financial Officer and Vice President (5).....	2000	\$138,500	--	100,000	--
John Geagea Chief Operating Officer (6).....	2000	\$100,000	--	800,000	\$28,737 (7)

(1) Includes \$10,000 and \$5,872 paid to Dr. Gapontsev by NTO IRE-POLUS during the years ended December 31, 2000 and 1999, respectively.

(2) Hon. John H. Dalton joined as our President in September 2000. Includes options for 100,000 shares granted prior to Mr. Dalton's employment for service on the National Advisory Board. For a description of the National Advisory Board, please see "Management--National Advisory Board."

(3) Represents our contribution to Mr. Dalton's 401(k) plan account.

(4) Includes \$2,900 paid to Dr. Shcherbakov by NTO IRE-POLUS during the year ended December 31, 2000.

(5) Mr. Mammen was hired as our Chief Financial Officer in July 2000, but his salary includes compensation paid by IP Fibre Devices Ltd. during 2000 for services performed on behalf of our business.

(6) Mr. Geagea was hired as our Chief Operating Officer in June 2000.

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

(7) Represents our \$2,769 contribution to Mr. Geagea's 401(k) plan account and a relocation allowance of \$25,968.

52

Option Grants in the Last Fiscal Year

The following table contains information regarding the number and value of stock options granted during the fiscal year ended December 31, 2000 to our five most highly compensated executive officers set forth in the Summary Compensation Table above. Neither Dr. Gapontsev nor Dr. Shcherbakov was granted stock options during that fiscal year.

Name	Number of Securities Underlying Options Granted	% of Total Options Granted to Employees During Period (1)	Exercise Price per Share (2)	Expiration Date	Potential Realization Value at Assumed Annual Rates of Stock Appreciation for Option Term (3)	
					5%	10%
Hon. John H. Dalton.....	100,000	2.05%	\$0.50	03/17/10	2,403,000	3,841,000
	600,000	12.31%	\$1.00	08/01/10	14,118,000	22,746,000
	100,000	2.05%	\$3.75	11/28/10	2,078,000	3,516,000
Timothy P. V. Mammen....	100,000	2.05%	\$3.75	11/28/10	2,078,000	3,516,000
John Geagea.....	800,000	16.42%	\$0.50	06/18/10	19,224,000	30,728,000

(1) The percentage of total options granted is based on an aggregate of 4,870,000 options granted by us during the year ended December 31, 2000.

(2) The options were granted at an exercise price equal to the fair market value of our common stock determined in good faith by our Board of Directors. The options granted to Messrs. Mammen and Geagea, and 100,000 of the options granted to Mr. Dalton, fall under our 2000 incentive compensation plan, vest 25% approximately one year from the date of grant and 25% on each anniversary of the first vesting date thereafter. We granted 600,000 options granted to Mr. Dalton under our 2000 incentive compensation plan which vested 25% upon the date of grant and the remainder vest in the following proportions on each anniversary of the date of grant, respectively: 25%, 20%, 20% and 10%. We granted 100,000 options granted to Mr. Dalton outside of our 2000 incentive compensation plan for his service on the National Advisory Board which vested immediately upon the date of grant.

(3) The potential realizable value is based on the assumption that our common stock appreciates at specified annual rates, compounded annually, from the date of grant until the expiration of the ten-year term. These numbers are calculated based on Securities and Exchange Commission requirements and do not reflect our projections or estimates of future stock price growth. Potential realizable values are computed by:

--multiplying the number of shares of common stock underlying each option by the assumed initial public offering price of \$15.00 per share;

--assuming that the aggregate stock value derived from that calculation



Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

compounds at the annual specified rate shown in the table until the expiration of the options; and

--subtracting from that result the aggregate option exercise price.

Actual gains, if any, on stock option exercises and common stock holdings are dependent on the time of such exercise and the future performance of our common stock.

53

Aggregated Option Exercises in the Last Fiscal Year and Fiscal Year End Option Values

The following table provides summary information with respect to our five most highly compensated executive officers set forth in the Summary Compensation Table above and who hold stock options. As of December 31, 2000, all options granted to such officers were granted under our 2000 incentive compensation plan with the exception of 100,000 options granted to Hon. John H. Dalton on March 17, 2000 for his service on the National Advisory Board. Neither Dr. Gapontsev nor Dr. Shcherbakov hold stock options.

Name	Shares Acquired		Number of Securities Underlying Unexercized Options/SARs at Fiscal Year-End		Value of Un-
	Upon Exercise	Value Realized (1)	Exercisable	Unexercisable	the-Money O Fiscal Y
Hon. John H. Dalton.....	100,000	1,450,000	--	--	--
	150,000	2,100,000	--	450,000	--
	--	--	--	100,000	--
Timothy P. V. Mammen....	--	--	25,000	575,000	362,500
John Geagea.....	--	--	--	800,000	--

(1) There was no public trading market for our common stock as of December 31, 2000. Accordingly, these values have been calculated on the basis of the assumed initial public offering price of \$15.00 per share, less the applicable exercise price.

Employment Agreements

On September 1, 1995, IPG Laser entered into an employment contract with Dr. Valentin P. Gapontsev, our Chief Executive Officer and Chairman of the Board of Directors. The agreement provides for Dr. Gapontsev's employment, for no specific term, as Managing Director of IPG Laser. Under the current terms of the agreement, Dr. Gapontsev receives annual compensation of DM 476,000, or approximately \$229,000 at December 31, 2000, as well as use of a company car and company housing. In 2000, Dr. Gapontsev received an additional \$250,000 in compensation from IPG Photonics.

Our employment agreement with Hon. John H. Dalton provides for his employment from September 1, 2000 to August 31, 2004 as our President at a base annual salary of \$250,000 per year, subject to an annual increase at our discretion. The agreement provides that during his employment with us and for a

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

period of two years after, Mr. Dalton will not enter into any business activity that is competitive with any of our business activities. Pursuant to his agreement, we granted Mr. Dalton options to purchase 600,000 shares of our common stock, at an exercise price of \$1.00 per share, vesting over a four-year period. The agreement automatically renews for successive one-year periods if not terminated thirty days before the end of its current term. In the event of our termination of Mr. Dalton's employment on or after September 1, 2001 other than for cause, Mr. Dalton is entitled to the equivalent of twelve month's salary and benefits. In the event of such a termination, all of Mr. Dalton's options that are scheduled to vest on the next anniversary date following notice of termination will vest upon termination.

Under the current terms of our agreement with Dr. Shcherbakov, he receives an annual salary of DM 392,000, or approximately \$189,000 at December 31, 2000. Either IPG or Dr. Shcherbakov may terminate the agreement after the third year of the term upon six months notice.

Our employment agreement with John Geagea provides for his employment from June 1, 2000 to June 1, 2002 as our Chief Operating Officer at a base annual salary of \$200,000 per year, subject to an annual increase at our discretion. In addition, we granted Mr. Geagea options to purchase 800,000 shares of our

54

common stock at an exercise price of \$0.50 per share, vesting over a four-year period. The agreement automatically renews for successive one-year periods if not terminated thirty days before the end of its current term. In the event of our termination of Mr. Geagea's employment with less than 180 days notice, other than for cause, Mr. Geagea is entitled to the equivalent of 180 days of salary and benefits continuation.

In November 2000, we entered into an employment agreement with Vincent Au-Yeung that provides for his at-will employment as our Executive Vice President for Strategic Marketing at a base annual salary of \$200,000 and an annual bonus of up to 25% of this annual salary. Pursuant to the agreement, Dr. Au-Yeung purchased 1,000,000 shares of our common stock at \$0.50 per share. Dr. Au-Yeung borrowed \$1,157,000 from us to pay applicable taxes in connection with his purchase of 1,000,000 shares of our common stock. The loan bears interest at 5.6%, is full recourse to Dr. Au-Yeung and is secured by 1,000,000 shares of common stock. The note is to be repaid with the proceeds from the sales of any of the 1,000,000 shares purchased by him. This loan matures in January 2006 and must be repaid sooner if he terminates employment. We have the right to repurchase these shares if Dr. Au-Yeung terminates his employment prior to July 19, 2001. We have also granted to Dr. Au-Yeung an option to purchase 500,000 shares of our common stock at an exercise price of \$1.50 per share. The option vests on the earlier of October 1, 2001 or the date on which we first achieve \$200,000,000 of gross revenue. We have also granted Dr. Au-Yeung an additional option for 1,500,000 shares at an exercise price of \$1.50 per share, which vests monthly in equal installments over thirty-six months and vests entirely on the date we first achieve \$400,000,000 of gross revenue. In the event of our termination of Dr. Au-Yeung's employment with less than 180 days notice, other than for cause, Dr. Au-Yeung is entitled to the equivalent of 180 days of salary and benefits continuation.

### Non-Competition Agreements

In connection with the sale of our Series B preferred stock in August 2000, we entered into non-competition agreements with Drs. Valentin P. Gapontsev, Denis Gapontsev, Eugene Shcherbakov and other scientists. We intend

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

to execute similar non-competition agreements with our scientific personnel in the future. The agreements prohibit the employees from engaging in any way with or in a business that is competitive with any member of the IPG Group for one year from termination of employment with us. The agreements also provide that the employee may not solicit other employees from IPG Photonics, IPG Laser or IPG Fibertech within the later of 18 months after termination of employment or two years after signing and also provide for assignment of all inventions and nondisclosure of proprietary information.

### Stock Option Plan

Our 2000 Incentive Compensation Plan was adopted by the Board of Directors and approved by the stockholders in April 2000. As amended in November 2000, the plan authorizes us to issue up to 15,000,000 shares of common stock. The Board of Directors currently administers the plan, but may transfer its administration to the Compensation Committee. The plan allows grants of incentive stock options to our employees, including officers and employee directors, and employees of our "affiliates" within the meaning of Section 424 of the Internal Revenue Code of 1986. In addition, the plan allows grants of nonstatutory stock options, restricted stock, stock appreciation rights, performance shares and units, and cash awards to our employees, nonemployee directors, and independent contractors, and also to employees, nonemployee directors and independent contractors of IPG Photonics or other entities deemed affiliated with IPG Photonics by the Board of Directors. The plan has a term of ten years, unless terminated sooner by the Board of Directors.

The plan provides the exercise price of incentive stock options granted under the plan must not be less than the fair market value of a share of the common stock on the date of grant, and imposes certain additional statutory requirements. In the case of nonstatutory stock options and other awards, the exercise price (or issuance price) must generally not be less than the fair market value of a share of the common stock on the date of grant, unless the Board of Directors in its sole discretion and due to special circumstances determines otherwise on the date of grant. A maximum of 4,000,000 shares of common stock may be awarded under the

55

plan to any one individual in any calendar year. The Board of Directors has the discretion to determine vesting schedules, exercise requirements and potential forfeiture of all awards granted under the plan. The plan provides that in connection with a "change in control" (as defined in the plan), the Board of Directors may, in its sole discretion, provide that an award may be assumed by the entity taking control or may be substituted by a similar award under such entity's compensation plan. Alternatively, in connection with a change in control, the plan allows the Board of Directors to accelerate the vesting of outstanding options or other awards or to cash out outstanding options and other awards, subject to certain limitations.

As of December 2000, nonstatutory stock options had been granted and restricted stock issued to employees of IPG Photonics and affiliated entities under the plan. As of December 2000 under the plan, (i) 694,868 shares of common stock had been issued upon exercise of nonstatutory stock options, (ii) 500,000 shares of restricted common stock had been issued and (iii) nonstatutory stock options to purchase 5,126,532 shares of common stock, with a weighted average exercise price of \$0.99, were outstanding. In November 2000, we increased the size of the plan from 7,500,000 shares to 15,000,000 shares and as of December 2000 5,525,600 shares of common stock remained available for future grants.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

### 401(k) Plan

The IPG Photonics Corporation 401(k) Retirement Plan became effective on March 1, 1999 and covers all of our eligible employees. Our 401(k) plan is intended to be a qualified retirement plan under the Internal Revenue Code. All contributions to the plan by eligible employees or by us, and the investment earnings thereon, are not taxable to such employees until withdrawn, and any contributions we may make are expected to be deductible by us when made. Our eligible employees may elect to reduce their current compensation and have the amount of such reduction contributed to our plan. We make matching contributions in an amount equal to 50% of each employee's contribution to the 401(k) plan, subject to a maximum of 6% of such employee's annual compensation.

56

### TRANSACTIONS WITH RELATED PARTIES

Other than the compensation agreements and other arrangements described in "Management," and the transactions described below, for the last three full fiscal years there has not been, nor is there currently proposed, any transaction or series of similar transactions to which we are or will be a party:

- . in which the amount involved exceeded or will exceed \$60,000, and
- . in which any director, executive officer, holder of more than 5% of our common stock on an as-converted basis or any member of their immediate family has or will have a direct or indirect material interest.

We believe that each of the transactions described below are on terms no less favorable than could have been obtained from unaffiliated third parties. All future transactions between us and any director or executive officer will be subject to approval by a majority of the disinterested members of our board of directors.

### History of IPG Photonics and Restructuring

In November 1994, our founding shareholder, Dr. Valentin Gapontsev, formed a new company in Germany, IPG Laser GmbH. He also subsequently formed IPG Fibertech S.r.l. in Italy. We were incorporated as a Delaware corporation on December 2, 1998 and began operations in the United States in 1999. Prior to August 2000, IPG Laser, IPG Fibertech and our company were operated under the common control and management of Dr. Gapontsev. Fifty-percent of IPG Laser was owned by IP Fibre Devices, an affiliate of Dr. Valentin Gapontsev, and 50% was owned directly by Dr. Gapontsev. IPG Laser owned 80% of IPG Fibertech.

We entered into three agreements as of August 24, 2000 in connection with the restructuring of IPG Laser and IPG Fibertech. The restructuring was undertaken to streamline and simplify our organizational structure, to make our operations more easily financeable and to consolidate the ownership of our material property and technology under our direct control. The restructuring was also a condition to the Series B preferred stock financing. As a result of the restructuring, IPG Laser and IPG Fibertech became our subsidiaries under our direct control.

The first agreement relating to the restructuring was between IPG Photonics and IP Fibre Devices, in which IP Fibre Devices sold 50% of the total issued and outstanding shares of IPG Laser to IPG Photonics in exchange for \$7.5 million in cash and 2,300,000 shares of our common stock. Dr. Gapontsev is the Managing Director and majority shareholder of IP Fibre Devices. The second

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

agreement was between IPG Photonics and Dr. Gapontsev, in which Dr. Gapontsev sold 4% of the total issued and outstanding shares of IPG Laser to IPG Photonics in exchange for \$2.4 million in cash. The third agreement was an option agreement in which Dr. Gapontsev granted IPG Photonics the option to purchase the remaining 46% of the total issued and outstanding share capital of IPG Laser from Dr. Gapontsev in exchange for 2,806,000 shares of our common stock. On October 4, 2000, we exercised this option and now own 100% of the issued and outstanding shares of IPG Laser. We also indirectly control IPG Laser's 80%-held subsidiary, IPG Fibertech. The remaining 20% of IPG Fibertech is owned by Stefano Cecchi, its Managing Director.

IPG Photonics and IPG Laser, focus on the design, manufacture and sale of high performance fiber amplifiers, Raman pump lasers and fiber lasers for telecommunications and industrial applications. IP Fibre Devices is a holding company with no significant operations and served as a distributor of our products in the United Kingdom until December 31, 2000. Our operations have remained substantially unchanged as a result of the restructuring, however, the expansion of our U.S. operations since 1999 has helped expand our sales and customer base.

Following the restructuring, IPG Laser reached an agreement in principle to acquire a 51% interest in NTO IRE-POLUS, a Russian affiliate of Dr. Gapontsev that provides us with research and development services. NTO IRE-POLUS is expected to add to our research and development capabilities. See "-- Other Transactions with NTO IRE-POLUS."

57

Dr. Valentin Gapontsev is our Chairman of the Board and Chief Executive Officer and, as of December 31, 2000, directly owned 45.6% of our common stock. As of this date, IP Fibre Devices directly owned 28.1% of our common stock and Dr. Valentin Gapontsev directly owned 53.0% of IP Fibre Devices' ordinary shares. Based on these shareholdings, Dr. Gapontsev beneficially owned in the aggregate 72.5% of our shares of common stock directly through his ownership of IPG Photonics and indirectly through his control of IP Fibre Devices, excluding shares held by his son, Dr. Denis Gapontsev. The following chart presents the overlap in ownership of IPG Photonics, its subsidiaries and affiliated parties by common members of management at December 31, 2000, without giving effect to the offering, and giving effect to the closing of the proposed investment by IPG Laser in NTO IRE-POLUS:

[FLOW CHART]

<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 70%;">Dr. Valentin Gapontsev</td><td style="text-align: right;">47.6%</td></tr> <tr><td>Dr. Denis Gapontsev</td><td style="text-align: right;">6.3%</td></tr> <tr><td>Dr. Eugene Shcherbakov</td><td style="text-align: right;">0.8%</td></tr> <tr><td>Dr. Valentin Fomine</td><td style="text-align: right;">0.8%</td></tr> <tr><td>Dr. Igor Samartsev</td><td style="text-align: right;">1.3%</td></tr> <tr><td>Dr. Nikolai Platonov</td><td style="text-align: right;">0.8%</td></tr> </table>	Dr. Valentin Gapontsev	47.6%	Dr. Denis Gapontsev	6.3%	Dr. Eugene Shcherbakov	0.8%	Dr. Valentin Fomine	0.8%	Dr. Igor Samartsev	1.3%	Dr. Nikolai Platonov	0.8%	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 70%;">Dr. Valentin Gapontsev</td><td style="text-align: right;">53.0%</td></tr> <tr><td>Dr. Denis Gapontsev</td><td style="text-align: right;">15.0%</td></tr> <tr><td>Dr. Eugene Shcherbakov</td><td style="text-align: right;">8.0%</td></tr> <tr><td>Dr. Igor Samartsev</td><td style="text-align: right;">8.0%</td></tr> <tr><td>Dr. Nikolai Platonov</td><td style="text-align: right;">8.0%</td></tr> <tr><td>Others</td><td style="text-align: right;">8.0%</td></tr> </table>	Dr. Valentin Gapontsev	53.0%	Dr. Denis Gapontsev	15.0%	Dr. Eugene Shcherbakov	8.0%	Dr. Igor Samartsev	8.0%	Dr. Nikolai Platonov	8.0%	Others	8.0%
Dr. Valentin Gapontsev	47.6%																								
Dr. Denis Gapontsev	6.3%																								
Dr. Eugene Shcherbakov	0.8%																								
Dr. Valentin Fomine	0.8%																								
Dr. Igor Samartsev	1.3%																								
Dr. Nikolai Platonov	0.8%																								
Dr. Valentin Gapontsev	53.0%																								
Dr. Denis Gapontsev	15.0%																								
Dr. Eugene Shcherbakov	8.0%																								
Dr. Igor Samartsev	8.0%																								
Dr. Nikolai Platonov	8.0%																								
Others	8.0%																								
<p style="margin: 0;"> </p> <p style="margin: 0;"> </p> <p style="margin: 0;"> </p> <p style="margin: 0;"> </p> <p style="margin: 0;">57.6%</p>	<p style="margin: 0;"> 100.0%</p> <hr style="border: 0.5px dashed black;"/> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%; text-align: center;">IP Fibre Devices Ltd.</td> <td style="width: 30%; text-align: center;">Others</td> </tr> <tr> <td style="text-align: center;">28.1%</td> <td style="text-align: center;">14.3%</td> </tr> </table>	IP Fibre Devices Ltd.	Others	28.1%	14.3%																				
IP Fibre Devices Ltd.	Others																								
28.1%	14.3%																								

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

IPG Photonics Corporation	Dr. Valentin Gapontsev 27.0%
	Dr. Igor Samartsev 5.0%
	Dr. Nikolai Platonov 1.0%
	Others 17.0%
100%	 49%
IPG Laser GmbH	51%
	NTO IRE-PLOUS
80%	
IPG Fibertech S.R.L.	

Intercompany Transactions

Prior to the restructuring, we entered into various transactions with other companies under the common control and management of Dr. Valentin Gapontsev. These companies included IP Fibre Devices, IPC Inc., IP Fibre Optics Ltd., VPG Laser Components GmbH and NTO IRE-POLUS. Historically, our transactions with these companies occurred in the ordinary course of business and consisted primarily of intercompany sales and purchases of raw materials and components included in our cost of sales. The following is a table summarizing these transactions for the years ended December 31, 1997, 1998 and 1999, and for the nine months ended September 30, 2000 (in thousands). Amounts reported as operating expenses represent management charges from IP Fibre Devices. Interest expense represents amounts incurred on intercompany borrowings.

58

	Years ended December 31,			Nine months ended
	1997	1998	1999	September 30, 2000
	-----	-----	-----	-----
Net sales.....	\$ 811	\$ 1,103	\$ 655	\$ 789
Purchases.....	1,533	2,133	2,095	3,108
Operating expenses.....	--	32	106	138
Interest income				
(expense), net.....	(10)	(10)	(17)	--

Other Transactions with NTO IRE-POLUS

In connection with our restructuring in August 2000, we entered into an agreement regarding intellectual property with NTO IRE-POLUS. Pursuant to the agreement, NTO IRE-POLUS has agreed to provide us and our subsidiaries, on an exclusive basis, with research and development services relating to fiber amplifiers, fiber lasers and other associated products as well as all intellectual property incorporated in or relating to these products. Under this agreement, we are required to pay NTO IRE-POLUS's direct and overhead costs,

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

plus a fee of 10%, for its research and development services. For a complete description of this arrangement, see "Business--Research and Development."

On October 3, 2000, we agreed to loan \$1,000,000 to NTO IRE-POLUS. These funds will be used for working capital and capital expenditures to assist NTO IRE-POLUS in providing us components and equipment. This loan bears interest at an annual rate of 7.0% and has a term of six months from the date the money is transferred to NTO IRE-POLUS.

IPG Laser has agreed in principle to acquire a 51% interest in NTO IRE-POLUS in exchange for IPG's commitment to invest up to \$5.0 million in NTO IRE-POLUS, subject to and in accordance with NTO IRE-POLUS's future business plans. The proceeds of the investment are to be used by NTO IRE-POLUS solely for equipment purchases and the development of additional manufacturing capacity. The transaction is subject to satisfaction of usual and customary closing conditions, as well as the approval of the Russian Ministry for Anti-Monopoly Policy. While we believe that these conditions will be satisfied and the acquisition will be consummated in the first half of 2001, we cannot assure you that the acquisition will be completed on the terms currently contemplated or at all.

### Other Transactions with IP Fibre Devices

In the past, we have sold products to IP Fibre Devices which resells those products to its customers in the United Kingdom. Effective January 1, 2001, we terminated our distribution relationship with IP Fibre Devices and we now sell our products directly to customers in the United Kingdom through a wholly-owned subsidiary that was recently formed. Currently, we sublease office space from, and share general and administrative expenses with, IP Fibre Devices at an aggregate estimated annual expense to us of approximately \$250,000.

### TeraBeam Agreements

We sell a significant amount of our products to TeraBeam. In April 1998, IP Fibre Devices entered into an agreement with TeraBeam providing for the sale of free-space optical point-to-multipoint fiber amplifiers with an output power of one Watt or greater. From July 1998 to August 1998, IPG Laser sold \$185,370 worth of products to TeraBeam in exchange for \$135,370 in cash and 571,428 shares of TeraBeam common stock. Pursuant to a partnering agreement executed with TeraBeam in April 1998, TeraBeam issued in August 1998 1,561,144 shares of its common stock to IP Fibre Devices in consideration of a discount on products sold to TeraBeam. This partnering agreement terminated in 1999. From November 1999 to February 2000, we sold an aggregate of \$2.0 million of our products to TeraBeam. TeraBeam paid us \$1.6 million in cash and issued 865,924 shares of TeraBeam common stock to IP Fibre Devices. In connection with this transaction, IP Fibre Devices issued a note to us in the principal amount of \$396,656. This note was repaid with accrued interest, totaling \$32,000, in October 2000. In connection with the 1998 agreement with TeraBeam, TeraBeam granted

59

Dr. Valentin Gapontsev options to purchase 100,000 shares of common stock of TeraBeam for his services on the Technical Advisory Board of TeraBeam. All of such options have been exercised. In February 2000, Peter V. Mammen, our treasurer, purchased 120,000 shares of TeraBeam at an aggregate purchase price of \$60,000. We and our affiliates own approximately 2.1% of the outstanding common stock TeraBeam.

### Intercompany Loans

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

In January 1999, we issued IP Fibre Devices a note in the principal amount of \$175,000 that accrued interest at the rate of 5% per annum. IPG Photonics entered into an agreement with IP Fibre Devices in which IP Fibre Devices agreed to pay an additional \$18,000 to us and convert the note and accrued interest, totaling \$182,000, into 20,000,000 shares of our common stock. The total consideration paid by IP Fibre Devices was \$200,000, or approximately \$0.01 per common share. The common stock was issued to IP Fibre Devices in January 2000. Because of the elements of common control, the shares of common stock were not recorded at fair value and have been treated as founders shares.

In November 1997, IPG Laser issued IP Fibre Devices a note in the principal amount of DM 156,000, or \$70,100, which accrued interest at 5% per annum. The note and accrued interest were repaid in full to IP Fibre Devices in March 2000.

Dr. Valentin Gapontsev

On August 13, 2000, Dr. Valentin Gapontsev borrowed DM 200,000, or approximately \$94,000, from IPG Laser, at an annual interest rate of 8%. This loan was repaid in full on November 30, 2000. Dr. Gapontsev has personally guaranteed \$5.2 million of our outstanding obligations as of September 30, 2000. In connection with one guaranty, Dr. Gapontsev granted a security interest in all of his securities and accounts held by one of the lenders. Dr. Gapontsev, as our principal stockholder, provided these guarantees without any compensation.

Dr. Denis Gapontsev

On May 30, 2000, IPG Laser agreed to purchase land and a house adjacent to our Burbach facility from Dr. Denis Gapontsev, one of our directors and our Vice President of Research and Development. IPG Laser assumed the mortgages on the land having a value of DM 900,000, or \$404,500, and paid Dr. Gapontsev DM 184,000, or \$82,700. Prior to the sale, IPG Laser had been leasing the land and house from Dr. Gapontsev since December 28, 1998 for DM 9,000, or \$4,000, per month.

Robert A. Blair

As of October 4, 1999, we entered into an agreement with Robert A. Blair, our Vice Chairman of the Board of Directors, for legal services and non-legal consulting services in connection with strategic business advice and other matters. Pursuant to this agreement, Mr. Blair received options to purchase 400,000 shares of our common stock at an exercise price of \$0.50 per share and the right to purchase, as of March 2000, 500,000 shares of our common stock at a price of \$0.50 per share. We also entered into an agreement with Mr. Blair as of February 3, 2000 for him to serve as Chairman of our National Advisory Board. Pursuant to this agreement, he received options to purchase 100,000 shares of our common stock at a price of \$0.50 per share. In March 2000, Mr. Blair transferred options to purchase 20,000 shares to family members and exercised the remainder of his 480,000 options. He subsequently also acquired the 500,000 shares of our common stock at a purchase price of \$0.50 per share. He purchased these shares by payment of \$50,000 cash and promissory notes with face amounts totaling \$440,000. The first note bears interest at an annual rate of 6.8% and the second note bears interest at 6.01%. These notes become payable in March 2005 and November 2005, respectively.



## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

### Series A and Series B Stock Purchase Agreements

On March 30, 2000, Hon. John Dalton, our President, purchased an aggregate of 10,000 shares of our Series A preferred stock for an aggregate purchase price of \$100,000. Mr. Dalton purchased these shares prior to becoming our president and on the same terms as other unrelated parties. Holders of Series A preferred stock are entitled to certain registration rights. See "Description of Capital Stock--Preferred Stock" and "Description of Capital Stock--Registration Rights" for a description of our Series A preferred stock and its rights and preferences. Upon completion of this offering, the 10,000 shares of Series A preferred stock held by Mr. Dalton will convert into 20,000 shares of our common stock.

On August 30, 2000 and August 31, 2000, TA Associates Inc., together with affiliated entities, purchased an aggregate of 2,000,000 shares of our Series B preferred stock and related warrants to purchase 1,666,667 shares of our common stock at an exercise price of \$7.50 per share the aggregate purchase price for the warrants and shares was \$50,000,000. Holders of Series B preferred stock are entitled to elect a director to our board of directors as well as redemption rights not enjoyed by holders of common stock or Series A preferred stock. Mr. Child, one of our directors, is Managing Director of TA Associates, Inc. Please see "Description of Capital Stock--Preferred Stock" and "Description of Capital Stock--Registration Rights" for a description of our Series B preferred stock and its rights. For a description of the warrants we sold to TA Associates and its affiliates, please see "Description of Capital Stock--Warrants." Upon completion of this offering, the 2,000,000 shares of Series B preferred stock held by TA Associates and its affiliates will convert into 5,833,333 shares of our common stock, assuming an offering price of \$15.00 per share.

### Indemnification

We have entered into indemnification agreements with each of our directors. Such indemnification agreements require us to indemnify our directors to the fullest extent permitted by Delaware law. For a description of the limitation of our directors' liability and our indemnification of officers, see "Indemnification of Directors and Executive Officers and Limitation of Liability."

### Employment Agreements

We have entered into employment arrangements, compensation arrangements and severance arrangements with certain of our executive officers. For more information regarding these arrangements, see "Management--Employment Agreements" and "--Executive Compensation." For information regarding stock options, see "Management--Stock Option Plan."

61

### INDEMNIFICATION OF DIRECTORS AND EXECUTIVE OFFICERS AND LIMITATION OF LIABILITY

As permitted by the Delaware General Corporation Law, we have adopted provisions in our certificate of incorporation which provide that our directors shall not be personally liable for monetary damages to IPG Photonics or its stockholders for a breach of fiduciary duty as a director, except liability for:

- . a breach of the director's duty of loyalty to us or our stockholders;
- . acts or omissions not in good faith or which involve intentional

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

misconduct or a known violation of law;

- . an act related to our unlawful stock repurchase or payment of a dividend under Section 174 of the Delaware General Corporation Law; or
- . transactions from which the director derived an improper personal benefit.

These limitations of liability do not apply to liabilities arising under the federal securities laws and do not affect the availability of equitable remedies such as injunctive relief or rescission. Our certificate of incorporation also authorizes us to indemnify our officers, directors and other agents to the fullest extent permitted under the Delaware General Corporation Law.

As permitted by the Delaware General Corporation Law, our bylaws provide that:

- . we are required to indemnify our directors and officers to the fullest extent permitted by the Delaware General Corporation Law, subject to limited exceptions;
- . we are required to advance expenses, as incurred, to our directors and officers in connection with a legal proceeding to the fullest extent permitted by the Delaware General Corporation Law, subject to limited exceptions; and
- . the rights provided in the bylaws are not exclusive.

We have entered into separate indemnification agreements with each of our directors which are broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements require us, among other things, to indemnify our directors against liabilities that may arise by reason of their status or service as directors, other than liabilities arising from willful misconduct. These indemnification agreements also require us to advance any expenses incurred by the directors as a result of any proceeding against them as to which they could be indemnified and to obtain directors' and officers' insurance.

At present, there is no pending litigation or proceeding involving any of our directors, officers, employees or agents where indemnification by us is sought. In addition, we are not aware of any threatened litigation or proceeding which may result in a claim for indemnification.

We intend to maintain directors' and officers' liability insurance if available on reasonable terms.

62

### PRINCIPAL STOCKHOLDERS

The following table sets forth information known to us regarding the beneficial ownership of our common stock as of December 31, 2000, and as adjusted to reflect the sale of the common stock offered hereby, by:

- . each stockholder who is known by us to beneficially own more than 5% of common stock;
- . our Chairman and our four other most highly compensated executive officers;

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

- . each of our directors; and
- . all of our executive officers and directors as a group.

Stockholder -----	Beneficial Ownership Prior to Offering(1)	Percent Owned Prior to Offering	Percent Owned After Offering
-----	-----	-----	-----
Dr. Valentin P. Gapontsev (2).....	60,106,000	73%	66%
Hon. John H. Dalton.....	270,000	*	*
Dr. Eugene Shcherbakov (3).....	600,000	*	*
Timothy P. V. Mammen (4).....	125,500	*	*
John Geagea.....	0	*	*
Dr. Denis Gapontsev (5).....	5,000,000	6	5
Dr. William F. Krupke (6).....	25,000	*	*
Robert A. Blair.....	980,000	1	1
Michael C. Child (7).....	13,087	*	*
Vincent Au-Yeung.....			
IP Fibre Devices Ltd.....	22,300,000	27	24
Entities affiliated with TA Associates, Inc (8).....	7,499,987	9	8
All directors and executive officers as a group (9 persons).....	76,619,877	90	80

-----

\* represents less than 1%

- (1) The number of shares beneficially owned and the percentage of share outstanding are based on (a) 82,884,201 shares outstanding as of December 31, 2000 and assuming the conversion of 4,300,000 shares of our Series A and Series B preferred stock based upon an assumed offering price of \$15.00 and (b) 91,084,201 shares outstanding after completion of this offering, assuming no exercise of the underwriters' over-allotment option. Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. All shares of common stock subject to options and warrants exercisable within 60 days following December 31, 2000 are deemed to be outstanding and beneficially owned by the person holding those options for the purpose of computing the number of shares beneficially owned and the percentage of ownership of that person. They are not, however, deemed to be outstanding and beneficially owned for the purpose of computing the percentage ownership of any other person. Except as indicated in the other footnotes to the table and subject to applicable community property laws, based on information provided by the persons named in the table, these persons have sole voting and investment power with respect to all shares of the common stock shown as beneficially owned by them. Unless otherwise noted below, the address of each of the individuals named above is c/o IPG Photonics Corporation, P.O. Box 519, 660 Main Street, Sturbridge, MA 01566.
- (2) Excludes shares beneficially owned by Dr. Denis Gapontsev, for which Dr. Valentin Gapontsev disclaims beneficial ownership. Includes all shares beneficially owned by IP Fibre Devices, of which Dr. Valentin Gapontsev owns 53% of its ordinary shares.
- (3) Excludes shares beneficially owned by IP Fibre Devices of which Dr. Shcherbakov owns 8% of its ordinary shares, for which he disclaims beneficial ownership.

- (4) Includes 125,000 shares of common stock issuable upon exercise of options that are exercisable within sixty days of September 30, 2000. Excludes shares beneficially owned by Peter Mammen, for which Timothy Mammen disclaims beneficial ownership.
- (5) Excludes shares beneficially owned by Dr. Valentin Gapontsev, for which Dr. Denis Gapontsev disclaims beneficial ownership. Excludes shares beneficially owned by IP Fibre Devices of which Dr. Denis Gapontsev owns 15% of its ordinary shares, for which he disclaims beneficial ownership.
- (6) Includes 25,000 shares of common stock beneficially owned by Dr. Krupke under a stock option granted to him for service as a member of our National Advisory Board.
- (7) Mr. Child disclaims beneficial ownership of all shares held by affiliates of TA Associates, Inc. of which Mr. Child is a Managing Director, except to the extent of 13,086 shares of common stock in which he has an ownership interest through TA Investors LLC.
- (8) Includes 2,998,326 shares held, and 856,667 shares beneficially owned under a warrant issued to, by TA IX, L.P., 1,399,997 shares held, and 400,000 shares beneficially owned under a warrant issued to, by TA/Advent VIII L.P., 1,296,397 shares, and 370,400 shares of common stock beneficially owned under a warrant issued to, held by TA/Atlantic and Pacific IV L.P., 50,633 shares held, and 14,467 shares beneficially owned under a warrant issued to, by TA Executives Fund, LLC and 87,966 shares held, and 25,133 shares beneficially owned under a warrant issued to, by TA Investors LLC. TA IX, L.P., TA/Advent VIII L.P., TA/Atlantic and Pacific IV L.P., TA Executives Fund LLC and TA Investors LLC are part of an affiliated group of investment partnerships. The general partner of TA/Advent VIII L.P. is TA Associates VIII LLC. In such capacity, TA Associates, Inc., through an executive committee, exercises sole voting and investment power with respect to all shares held of record by the named investment partnerships; individually, no stockholder, director or officer of TA Associates, Inc., is deemed to have or share such voting or investment power. The address of TA Associates, Inc. is 125 High Street, High Street Tower, Suite 2500, Boston, MA 02110.

64

#### DESCRIPTION OF CAPITAL STOCK

Presently we are authorized to issue 100,000,000 shares of common stock and 5,000,000 shares of preferred stock. Upon the commencement of this offering, we will be authorized to issue 505,000,000 shares, \$0.0001 par value per share comprised of 500,000,000 shares of common stock and 5,000,000 shares of preferred stock.

The following description of the material terms of our capital stock is only a summary. You should refer to our certificate of incorporation and bylaws as in effect upon the closing of this offering, which are included as exhibits to the registration statement of which this prospectus forms a part.

#### Common Stock

As of December 31, 2000, and assuming the conversion of all outstanding shares of preferred stock into common stock, there were 82,884,201 shares of common stock outstanding which were held of record by approximately 80 stockholders. There will be 91,084,201 shares of common stock outstanding

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

(assuming no exercise of the underwriters' over-allotment option and no exercise of outstanding options after September 30, 2000) after giving effect to the sale of our common stock in this offering. We currently have reserved 15,000,000 shares of stock under our 2000 stock incentive plan of which there were outstanding options to purchase 5,126,532 shares of common stock as of December 31, 2000. See "Management--Stock Option Plan" for a description of our stock plan.

The holders of our common stock are entitled to one vote per share held of record on matters submitted to a vote of the stockholders. Our amended and restated certificate of incorporation does not provide for cumulative voting in the election of directors. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by our board of directors out of funds legally available for that purpose. In the event of our liquidation, holders of our common stock are entitled to share ratably in our remaining net assets, subject to payment or provision for payment of our debts and other liabilities and prior distribution rights of preferred stock, if any, then outstanding. Holders of our common stock have no preemptive or other subscription or conversion rights. There are no redemption or sinking fund provisions applicable to our common stock. All outstanding shares of common stock are fully paid and non-assessable and the shares of common stock to be issued upon the completion of this offering will be fully paid and non-assessable.

### Preferred Stock

Upon the closing of this offering, all 500,000 shares of our Series A preferred stock outstanding will be converted on a two-for-one basis into an aggregate of 1,000,000 shares of common stock. Upon the closing of this offering, all 3,800,000 shares of our Series B preferred stock will convert into common stock at a conversion price based upon the initial public offering price (after underwriting commissions and discounts) in the offering. If such price meets or exceeds (i) \$21.88 per share, in the case of an offering which closes on or after January 1, 2001 and prior to March 31, 2001, (ii) \$25.00 per share, in the case of an offering which closes after April 1, 2001 and prior to December 31, 2001, (iii) \$28.13 per share, in the case of an offering which closes after January 1, 2002 and prior to August 31, 2002 or (iv) \$31.25 per share in the case of an offering which closes after August 31, 2002, each share of Series B preferred stock converts into two shares of common stock. If the initial offering price (after underwriting commissions and discounts) is less than the amounts specified above, then the Series B preferred stock will convert at a conversion price equal to the initial public offering price divided by (i) 1.75, in the case of an offering which closes on or after January 1, 2001 and prior to March 31, 2001, (ii) 2.00, in the case of an offering which closes after April 1, 2001 and prior to December 31, 2001, and (iii) 2.25, in the case of an offering which closes after August 31, 2002; provided that in no event will the conversion price be reduced to less than \$5.00 per share. Based upon an assumed offering price of \$15.00 per share, the 3,800,000 shares of Series B preferred stock convert into 11,083,333 shares of common stock.

Our board of directors has the authority, without action by the stockholders, to provide for the designation and issuance of preferred stock in one or more series, to establish the number of shares to be included in each such series and to fix the designations, powers, preferences and rights of the shares of each such series and any qualifications, limitations or restrictions of each such series. The rights, preferences and privileges of each series of

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

preferred stock may be greater than the rights of our common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of our common stock until the board of directors determines the specific rights of the holders of any preferred stock that may be issued. However, the effects might include, among other things:

- . restricting dividends on the common stock;
- . diluting the voting power of the common stock;
- . impairing the liquidation rights of the common stock; and
- . delaying or preventing a change in our control without further action by the stockholders.

We have no present plans to issue any additional shares of preferred stock.

### Warrants

There are outstanding warrants to purchase an aggregate of 3,166,667 shares of common stock assuming an offering price of \$15.00 per share. These warrants were granted in August, October and December 2000 to a group of private investors in connection with the sale of our Series B preferred stock. These warrants entitle the holders to purchase an aggregate of \$23.8 million worth of our common stock. The exercise price will equal 50% of the public offering price or \$7.50, assuming an offering price of \$15.00. They are exercisable upon the sale of all of our assets or stock or an underwritten initial public offering of our common stock. The warrants expire on August 30, 2007, unless earlier exercised.

### Registration Rights

Under our two agreements regarding registration rights with holders of shares of our convertible preferred stock (12,083,333 shares assuming conversion of all outstanding shares of Series A and Series B preferred stock), the holders of these shares are entitled to certain registration rights regarding these shares. The registration rights provide that if we propose to register any securities under the Securities Act of 1933, either for our own account or for the account of other security holders exercising registration rights, such holders are entitled to notice of the registration and are entitled to include shares of their common stock in the registration. This right is subject to conditions and limitations, including the right of the underwriters in an offering to limit the number of shares included in the registration. The holders of Series A preferred stock may require us to file one, and holders of Series B preferred stock may require us to file up to two, registration statements under the Securities Act at our expense with respect to their shares. We are required to use our commercially reasonable best efforts to effect the registrations, subject to conditions and limitations. Furthermore, the holders of shares of our Series B preferred stock that will convert into common stock upon completion of the offering may require us to file additional registration statements on Form S-3, subject to conditions and limitations.

### Delaware Anti-Takeover Law And Certain Charter And Bylaw Provisions

Certain provisions of Delaware law and our amended and restated certificate of incorporation and bylaws could make more difficult the acquisition of our company by means of a tender offer, a proxy contest or otherwise and the removal of incumbent officers and directors. These provisions, summarized below, may discourage certain types of coercive takeover practices and inadequate takeover bids and encourage persons seeking to acquire control of our company to first negotiate with our company. We believe that the

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

benefits of increased protection of our company's potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our company outweigh the disadvantages of discouraging such

66

proposals because, among other things, negotiation of such proposals could result in an improvement of their terms.

We will be subject to Section 203 of the Delaware General Corporation Law regulating corporate takeovers which prohibits a Delaware corporation from engaging in any business combination with an "interested stockholder," unless:

- . prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- . the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding (a) shares owned by persons who are directors and also officers, and (b) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- . on or subsequent to the date of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Except as otherwise specified in Section 203, an "interested stockholder" is defined to include (a) any person that is the owner of 15% or more of the outstanding voting securities of the corporation, or is an affiliate or associate of the corporation and was the owner of 15% or more of the outstanding voting stock of the corporation at any time within three years immediately prior to the date of determination and (b) the affiliates and associates of any such person.

Our certificate of incorporation and bylaws do not provide for cumulative voting in the election of directors. The authorization of undesignated preferred stock makes it possible for the board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of our company. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of our company.

Transfer Agent And Registrar

The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company.

### SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has not been a public market for our common stock. Future sales of substantial amounts of our common stock in the public market, or the possibility of these sales could adversely affect the trading price of the common stock.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Upon completion of this offering, we will have outstanding 92,084,201 shares of common stock, assuming no exercise of the underwriters' over-allotment option and no exercise of outstanding options to purchase common stock after September 30, 2000. Of these shares, the 8,200,000 shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by our "affiliates," as defined in Rule 144 under the Securities Act, which would be subject to the limitations and restrictions described below.

67

The remaining 83,884,201 shares of common stock outstanding upon completion of this offering will be "restricted securities" as defined in Rule 144. These securities may be sold in the public market only if registered or if they qualify for an exemption from registration under Rules 144 or 701 under the Securities Act, which are summarized below. Sales of these restricted securities in the public market, or the availability of these shares for sale, could adversely affect the trading price of our common stock.

Holders of approximately of these restricted securities, including all of our officers and directors and the entities affiliated with them and all of our significant stockholders, have entered into lock-up agreements providing that, subject to limited exceptions, they will not sell, directly or indirectly, any common stock without the prior consent of Merrill Lynch, Pierce, Fenner & Smith Incorporated for a period of 180 days from the date of this prospectus.

All of these restricted securities will be eligible for sale in the public market, subject in some cases to the volume limitations and other restrictions of Rule 144, beginning 180 days after the date of this prospectus upon expiration of the lock-up agreements described above.

Shares issued upon exercise of options granted by us prior to the date of this prospectus will be available for sale in the public market under Rule 701 of the Securities Act. Rule 701 permits resales of these shares in reliance upon Rule 144 but without compliance with various restrictions, including the holding period requirement, imposed under Rule 144. In general, under Rule 144, beginning 90 days after the date of this prospectus, a person (or persons whose shares are aggregated) who has beneficially owned restricted securities for at least one year would be entitled to sell within any three-month period a number of shares not to exceed the greater of (1) one percent of the then outstanding shares of common stock or (2) the average weekly trading volume of our common stock during the four calendar weeks preceding the filing of a Form 144 with respect to the sale. Sales under Rule 144 are also subject to manner of sale and notice requirements, as well as to the availability of current public information about us. Under Rule 144(k), a person who is not deemed to have been an affiliate at any time during the 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least two years is entitled to sell the shares without complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144.

Upon consummation of this offering, we will have reserved an aggregate of 15,000,000 shares of common stock for issuance pursuant to our 2000 stock incentive plan. As of December 31, 2000, options to purchase an aggregate of 5,126,532 shares of common stock were outstanding under our stock option plan. We intend to file registration statements on Form S-8 under the Securities Act approximately 90 days after the date of this prospectus to register all of such reserved shares of common stock issued or reserved for issuance under our stock option plan. Such common stock issued under the foregoing plans, after the



## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

filing of related registration statements, will be freely tradable in the public market, subject in the case of the holders to the Rule 144 limitations applicable to our affiliates, lock-up agreements with the underwriters and vesting restrictions imposed by us.

68

### SUMMARY OF FEDERAL INCOME AND ESTATE TAX CONSEQUENCES OF OWNERSHIP AND DISPOSITION OF COMMON STOCK BY NON-U.S. HOLDERS

The following is a summary of certain United States federal income and estate tax consequences of the ownership and disposition of our common stock by non-U.S. holders. As used herein, "non-U.S. holder" means any person or entity that holds our common stock, other than:

- . an individual citizen or resident of the U.S.;
- . a corporation or partnership created or organized in or under the laws of the U.S., or of any state of the U.S. or the District of Columbia, other than any partnership treated as foreign under U.S. Treasury Regulations;
- . an estate the income of which is includable in gross income for U.S. federal income tax purposes regardless of its source; or
- . in general, a trust if a court within the U.S. is able to exercise primary supervision over the administration of the trust and if one or more U.S. persons have the authority to control all substantial decisions of the trust.

The summary is based on provisions of the U.S. Internal Revenue Code of 1986, as amended, existing, temporary and proposed U.S. Treasury Regulations promulgated thereunder and administrative and judicial interpretations of each, all as of the date hereof and all of which are subject to change, possibly on a retroactive basis. This summary is for general information only. It does not address aspects of U.S. federal taxation other than income and estate taxation. This summary does not discuss all the tax consequences that may be relevant to a non-U.S. holder in light of the holder's particular circumstances, for instance, insurance companies, tax-exempt organizations, pension funds, broker-dealers, and financial institutions. In addition, this summary does not address any state, local, or foreign tax considerations that may be relevant to a non-U.S. holder's decision to purchase shares of our common stock.

PROSPECTIVE PURCHASERS ARE URGED TO CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR U.S. FEDERAL INCOME AND ESTATE TAX CONSEQUENCES, AS WELL AS OTHER U.S. FEDERAL, STATE, AND LOCAL TAX CONSEQUENCES, AND THE NON-U.S. TAX CONSEQUENCES, TO THEM OF OWNING AND DISPOSING OF SHARES OF OUR COMMON STOCK.

Income Tax

Dividends

We do not have a present intention to pay dividends on shares of our common stock. If we were to pay dividends, however, dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. income tax at the rate of 30% of the gross amount of the dividend, or such lower rate as may be prescribed by an applicable income tax treaty.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

If dividends we pay are effectively connected with a non-U.S. holder's conduct of a trade or business in the U.S., the 30% withholding tax generally will not apply, and the non-U.S. holder generally will be subject to tax on such dividends on a net basis (the gross amount less allowable deductions) in the same manner as holders who are U.S. persons, provided the non-U.S. holder files appropriate IRS forms with us. If an income tax treaty applies, dividends which are effectively connected with the holder's conduct of a U.S. trade or business must also be attributable to such holder's U.S. permanent establishment or fixed base in order to be taxable on a net basis. An additional branch profits tax of 30%, or such lower rate as may be prescribed by an applicable income tax treaty, may apply if the non-U.S. holder is a corporation.

69

Under current U.S. Treasury Regulations, in determining whether a holder is eligible for the benefits of an income tax treaty, dividends paid to an address in a foreign country are presumed to be paid to a resident of that country, absent knowledge to the contrary. However, under new U.S. Treasury Regulations generally effective for dividend payments made after December 31, 2000, a non-U.S. holder desiring to claim the benefits of an applicable tax treaty must satisfy certification and other requirements and must provide us with a taxpayer identification number unless an exception applies. In addition, under these new Treasury Regulations, in the case of common stock held by a foreign partnership, this certification requirement may be applied to the partners, and not the partnership, and the partnership must provide certain information, including a U.S. taxpayer identification number. These new regulations also provide look-through rules for tiered partnerships. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax pursuant to a tax treaty may obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the IRS.

### Disposition of Our Common Stock

Generally, non-U.S. holders will not be subject to U.S. federal income tax, or withholding thereof, in respect of gain recognized on a disposition of our common stock unless:

- . the gain is effectively connected with the holder's conduct of a trade or business within the U.S., or if a tax treaty applies, is attributable to a permanent establishment or fixed base of the holder in the U.S.; in any such case gain will be subject to regular graduated U.S. income tax rates and the branch profits tax described above may also apply if the non-U.S. holder is a corporation;
- . in the case of a non-U.S. holder who is a non-resident alien individual and holds our common stock as a capital asset, the holder is present in the U.S. for 183 or more days in the taxable year of the sale and other conditions are met;
- . we are or have been a "United States real property holding corporation" for U.S. federal income tax purposes and certain other conditions are met; we do not believe we are or have been a United States real property holding corporation and do not expect to become one in the future; or
- . the holder is subject to tax pursuant to U.S. federal income tax

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

provisions applicable to certain U.S. expatriates.

### Estate Tax

If an individual non-U.S. holder owns, or is treated as owning, our common stock at the time of his or her death, such stock would generally be includable in the individual's gross estate for U.S. federal estate tax purposes. In such case, our common stock may be subject to U.S. federal estate tax imposed on the estates of nonresident aliens, in the absence of a contrary provision contained in an applicable estate tax treaty.

### Backup Withholding and Information Reporting

#### Dividends

Generally, we must report annually to the IRS and to each non-U.S. holder the amount of dividends that we paid to a holder, and the amount of tax that we withheld on those dividends. This information may also be made available to the tax authorities of a country in which the non-U.S. holder resides or is established.

Under current law, dividends paid on our common stock to a non-U.S. holder at an address outside the U.S. are generally exempt from backup withholding tax, imposed at a 31% rate, and U.S. information reporting requirements, but not from regular withholding tax as discussed above. Backup withholding tax and information reporting generally will apply to dividends paid to a non-U.S. holder at an address in the U.S. if the holder fails to establish an exemption or to furnish other information. Under the Treasury Regulations that are applicable to dividends paid after December 31, 2000, a non-U.S. person must generally provide proper

70

documentation establishing the person's non-U.S. status to a withholding agent in order to avoid backup withholding tax.

#### Broker Sales

Payments of proceeds from the sale of our common stock by a non-U.S. holder made to or through a U.S. office of a broker are generally subject to both information reporting and backup withholding tax unless the holder certifies its non-U.S. status under penalties of perjury or otherwise establishes entitlement to an exemption. Payments of proceeds from the sale of our common stock by a non-U.S. holder made to or through a non-U.S. office of a broker generally will not be subject to information reporting or backup withholding. However, payments made to or through certain non-U.S. offices, including the non-U.S. offices of a U.S. broker and foreign brokers with certain types of relationships to the U.S., are generally subject to information reporting, but not backup withholding, unless the holder certifies its non-U.S. status under penalties of perjury or otherwise establishes entitlement to an exemption.

Backup withholding is not an additional tax. A non-U.S. holder may obtain a refund of any excess amounts withheld under the backup withholding rules by filing an appropriate claim for refund with the IRS.

Non-U.S. holders should consult their tax advisors regarding the application of information reporting and backup withholding in their particular situation, including the availability of an exemption from such requirements and the procedures for obtaining such an exemption, as well as the effect of

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

the new Treasury Regulations generally effective for payments made after December 31, 2000.

UNDERWRITING

General

We intend to offer the shares in the U.S. and Canada through the U.S. underwriters and elsewhere through the international managers. Merrill Lynch, Pierce, Fenner & Smith Incorporated, Robertson Stephens, Inc., CIBC World Markets Corp., U.S. Bancorp Piper Jaffray Inc. and Wit SoundView Corporation are acting as U.S. representatives of the U.S. underwriters named below. Subject to the terms and conditions described in a U.S. purchase agreement among us and the U.S. underwriters, and concurrently with the sale of shares to the international managers, we have agreed to sell to the U.S. underwriters, and the U.S. underwriters severally have agreed to purchase from us, the number of shares listed opposite their names below.

U.S. Underwriters -----	Number of Shares -----
Merrill Lynch, Pierce, Fenner & Smith Incorporated.....	
Robertson Stephens, Inc. ....	
CIBC World Markets Corp.....	
U.S. Bancorp Piper Jaffray Inc.....	
Wit SoundView Corporation.....	
	-----
Total.....	=====

We have also entered into an international purchase agreement with the international managers for sale of the shares outside the U.S. and Canada for whom Merrill Lynch International, Robertson Stephens, Inc., CIBC World Markets Corp., U.S. Bancorp Piper Jaffray Inc. and Wit SoundView Corporation are acting as lead managers. Subject to the terms and conditions in the international purchase agreement, and concurrently with the sale of shares to the U.S. underwriters pursuant to the U.S. purchase agreement, we have agreed to sell shares to the international managers, and the international managers severally have agreed to purchase shares from us. The initial public offering price per share and the total underwriting discount per share are identical under the U.S. purchase agreement and the international purchase agreement.

The U.S. underwriters and the international managers have agreed to purchase all of the shares sold under the U.S. and international purchase agreements if any of these shares are purchased. If an underwriter defaults on its obligations under the U.S. or international purchase agreement, the U.S. and international purchase agreements provide that the purchase commitments of the nondefaulting underwriters may be increased or the purchase agreements may be terminated. The closings for the sale of shares to be purchased by the U.S. underwriters and the international managers are conditioned on one another. We have agreed to indemnify the U.S. underwriters and international managers against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the U.S. underwriters and international managers may

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the purchase agreements, such as the receipt by the underwriters of officer's certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

### Commissions and Discounts

The U.S. representatives have advised us that the U.S. underwriters propose initially to offer the shares to the public at the initial public offering price on the cover page of this prospectus and to dealers at that price

72

less a concession not in excess of \$ per share. The U.S. underwriters may allow, and dealers may reallow, a discount not in excess of \$ per share to other dealers. After the initial public offering, the public offering price, concession and discount may be changed.

The following table shows the public offering price, underwriting discount and proceeds before expenses to us. The information assumes either no exercise or full exercise by the U.S. underwriters and international managers of their over-allotment options.

	Per Share Without	Option	With Option
	-----	-----	-----
Public offering price.....	\$	\$	\$
Underwriting discount.....	\$	\$	\$
Proceeds, before expenses, to IPG Photonics.....	\$	\$	\$

The expenses of the offering, not including the underwriting discount, are estimated at \$1,000,000 and are payable by us.

### Over-Allotment Options

We have granted options to the U.S. underwriters to purchase up to additional shares at the public offering price less the underwriting discount. The U.S. underwriters may exercise these options for 30 days from the date of this prospectus solely to cover any over-allotments. If the U.S. underwriters exercise these options, each will be obligated, subject to conditions contained in the purchase agreements, to purchase a number of additional shares proportionate to that U.S. underwriter's initial amount reflected in the above table.

We have also granted options to the international managers, exercisable for 30 days from the date of this prospectus, to purchase up to additional shares to cover any over-allotments on terms similar to those granted to the U.S. underwriters.

### Intersyndicate Agreement

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

The U.S. underwriters and the international managers have entered into an intersyndicate agreement that provides for the coordination of their activities. Under the intersyndicate agreement, the U.S. underwriters and the international managers may sell shares to each other for purposes of resale at the initial public offering price, less an amount not greater than the selling concession. Under the intersyndicate agreement, the U.S. underwriters and any dealer to whom they sell shares will not offer to sell or sell shares to persons who are non-U.S. or non-Canadian persons or to persons they believe intend to resell to persons who are non-U.S. or non-Canadian persons, except in the case of transactions under the intersyndicate agreement. Similarly, the international managers and any dealer to whom they sell shares will not offer to sell or sell shares to U.S. persons or Canadian persons or to persons they believe intend to resell to U.S. or Canadian persons, except in the case of transactions under the intersyndicate agreement.

### Reserved Shares

At our request, the underwriters have reserved for sale, at the initial public offering price, up to ten percent of the shares offered by this prospectus for sale to some of our employees and business associates. If these persons purchase reserved shares, this will reduce the number of shares available for sale to the general public. Any reserved shares that are not orally confirmed for purchase within one day of the pricing of this offering will be offered by the underwriters to the general public on the same terms as the other shares offered by this prospectus.

73

### No Sales of Similar Securities

We and our executive officers and directors and all of our significant stockholders have agreed, with exceptions, not to sell or transfer any common stock for 180 days after the date of this prospectus without first obtaining the written consent of Merrill Lynch. Specifically, we and these other individuals have agreed not to directly or indirectly:

- . offer, pledge, sell or contract to sell any common stock;
- . sell any option or contract to purchase any common stock;
- . purchase any option or contract to sell any common stock;
- . grant any option, right or warrant for the sale of any common stock;
- . lend or otherwise dispose of or transfer any common stock;
- . request or demand that we file a registration statement related to the common stock; or
- . enter into any swap or other agreement that transfers, in whole or in part, the economic consequence of ownership of any common stock, whether any such swap or transaction is to be settled by delivery of shares or other securities, in cash or otherwise.

This lockup provision applies to common stock and to securities convertible into or exchangeable or exercisable for or repayable with common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Quotation on the Nasdaq National Market

We expect the shares to be approved for quotation on the Nasdaq National Market, subject to notice of issuance, under the symbol "IPGP."

Before this offering, there has been no public market for our common stock. The initial public offering price will be determined through negotiations between us and the U.S. representatives and lead managers. In addition to prevailing market conditions, the factors to be considered in determining the initial public offering price are:

- . the valuation multiples of publicly traded companies that the U.S. representatives and the lead managers believe to be comparable to us;
- . our financial information;
- . the history of, and the prospects for, our company and the industry in which we compete;
- . an assessment of our management, its past and present operations, and the prospects for, and timing of, our future revenues;
- . the present state of our development; and
- . the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

74

The underwriters do not expect to sell more than 5% of the shares being offered in this offering to accounts over which they exercise discretionary authority.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is completed, SEC rules may limit the underwriters and selling group members from bidding for or purchasing our common stock. However, the U.S. representatives may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with the offering, the underwriters may make short sales of the common stock. Short sales involve the sale by the underwriters at the time of the offering of a greater number of shares than they are required to purchase in the offering. Covered short sales are sales made in an amount not greater than the over-allotment options. The U.S. representatives may close out any covered short position by either exercising the over-allotment options or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the U.S. representatives will consider, among other things, the price of shares available for purchase in the open market as compared to the public offering price at which they may purchase the shares through the over-allotment option. Naked short sales are sales in excess of the over-allotment option. The U.S. representatives must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the U.S. representatives are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

offering. Similar to other purchase transactions, the purchases by the U.S. representatives to cover syndicate short positions may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock. As a result, the price of the common stock may be higher than it would otherwise be in the absence of these transactions.

The U.S. representatives may also impose a penalty bid on underwriters and selling group members. This means that if the U.S. representatives purchase shares in the open market to reduce the underwriters' short position or to stabilize the price of such shares, they may reclaim the amount of the selling concession from the underwriters and selling group members who sold those shares. The imposition of a penalty bid may also affect the price of the shares in that it discourages resales of those shares.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common stock. In addition, neither we nor any of the underwriters make any representation that the U.S. representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

### Electronic Distribution

Neither we nor the U.S. underwriters will rely on third party providers to comply with the prospectus delivery requirements. All purchasers will receive a printed version of the final prospectus.

Merrill Lynch will be facilitating Internet distribution for this offering to certain of its Internet subscription clients. Merrill Lynch intends to allocate a limited number of shares for sale to its online brokerage clients. An electronic prospectus is available on the web site maintained by Merrill Lynch. Other than the prospectus in electronic format, the information on the Merrill Lynch web site relating to this offering is not a part of this prospectus.

A prospectus in electronic format is being made available on an Internet web site maintained by Wit SoundView Corporation's strategic partner, E\*Trade Securities, Inc. Other than the prospectus in electronic format, the information on any U.S. underwriter's web site and any information contained in any other web site

75

maintained by an U.S. underwriter is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or any U.S. underwriter in its capacity as underwriter and should not be relied upon by investors.

### Other Relationships

Merrill Lynch KECALP L.P. 1999, KECALP Inc., KECALP Inc., as Nominee for Merrill Lynch KECALP International L.P. 1999, ML IBK Positions, Inc. and Merrill Lynch Taurus 2000 Fund L.P., entities which are affiliated with Merrill Lynch, Pierce, Fenner & Smith Incorporated, one of the underwriters, beneficially own an aggregate of 600,000 shares of Series B preferred stock, which convert into 1,749,996 shares of common stock and warrants to purchase 500,000 shares of common stock assuming an offering price of \$15.00.

Bayview 2000, L.P., an entity which is affiliated with Robertson Stephens, one of the underwriters, beneficially owns an aggregate of 80,000



## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

shares of Series B preferred stock, which convert into 233,333 shares of common stock, and warrants to purchase 66,667 shares of common stock assuming an offering price of \$15.00.

### LEGAL MATTERS

Selected legal matters in connection with the offering of common stock are being passed upon for us by Winston & Strawn, New York, New York. Selected legal matters in connection with the offering are being passed upon for the underwriters by Brown & Wood llp, New York, New York.

### EXPERTS

The combined consolidated financial statements of IPG Photonics and related companies as of and for the year ended December 31, 1999, included in this prospectus have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report appearing in this prospectus and have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

The consolidated financial statements of IPG Laser as of December 31, 1998 and for each of the two years in the period ended December 31, 1998, included in this prospectus have been audited by Deloitte & Touche GmbH, independent auditors, as stated in their report appearing in this prospectus and have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

76

### WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act, with respect to the shares to be sold in this offering. This prospectus does not contain all of the information set forth in the registration statement, certain parts of which are omitted in accordance with the rules and regulations of the SEC. For further information about us and the shares to be sold in this offering, please refer to the registration statement. Statements contained in this prospectus as to the contents of any contract, agreement or other document referred to, are not necessarily complete, and in each instance please refer to the copy of the contract, agreement or other document filed as an exhibit to the registration statement, each statement being qualified in all respects by this reference.

You may read and copy all or any portion of the registration statement or any reports, statements or other information we file with the SEC at the public reference facilities maintained by the SEC at Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, DC 20549, and at the Regional Offices of the SEC located at Suite 1400, Northwestern Atrium Center, 500 West Madison Street, Chicago, Illinois 60661-2551 and Room 1400, 13th Floor, 7 World Trade Center, New York, New York 10048. Copies of such material are also available by mail from the Public Reference Branch of the SEC at 450 Fifth Street, N.W., Washington, DC 20549 at prescribed rates.

Please call the SEC at 1-800-SEC-0330 for more information on the public reference rooms. You can also find our SEC filings at the SEC's website at <http://www.sec.gov>.

77

### INDEX TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

	Page
	----
Report of Independent Auditors.....	F-2
Report of Independent Auditors.....	F-3
Combined Consolidated Balance Sheets as of December 31, 1998 and 1999 and September 2000 (unaudited).....	F-4
Combined Consolidated Statements of Operations for the years ended December 31, 1997, 1998 and 1999 and for the nine months ended September 30, 1999 and 2000 (unaudited).....	F-5
Combined Consolidated Statements of Shareholders' Equity for the years ended December 31, 1997, 1998 and 1999 and for the nine months ended September 30, 2000 (unaudited).....	F-6
Combined Consolidated Statements of Cash Flows for the years ended December 31, 1997, 1998 and 1999 and for the nine months ended September 30, 1999 and 2000 (unaudited).....	F-7
Notes to Combined Consolidated Financial Statements.....	F-8

F-1

REPORT OF INDEPENDENT AUDITORS

The accompanying combined consolidated financial statements give effect to the completion of a 2-for-1 stock split described in the last paragraph of Note 7 which will take place prior to the effective date of the offering. The following report is in the form which will be furnished by Deloitte & Touche LLP upon the completion of the stock split and assuming that no other material events have occurred that would affect the accompanying combined consolidated financial statements or require disclosure therein.

"To the Board of Directors and Shareholders of IPG Photonics Corporation:

We have audited the accompanying combined consolidated balance sheet of IPG Photonics Corporation and related companies as of December 31, 1999, and the related combined consolidated statements of operations, shareholders' equity and cash flows for the year then ended. The combined consolidated financial statements include the accounts of IPG Photonics Corporation and two related companies, IPG Laser GmbH and IPG Fibertech S.r.l. These companies are under common ownership and common management. These financial statements are the responsibility of the companies' management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the combined consolidated financial position of IPG Photonics Corporation and related companies as of December 31, 1999, and the results of their combined consolidated operations and their combined consolidated cash flows for the year then ended, in conformity with accounting

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

principles generally accepted in the United States of America.

Boston, Massachusetts

December 6, 2000 ( , 2001 as to the last paragraph of Note 7) "

Deloitte & Touche LLP

Boston, Massachusetts

January 24, 2001

F-2

REPORT OF INDEPENDENT AUDITORS

The accompanying consolidated financial statements give effect to the completion of a 2-for-1 stock split described in the last paragraph of Note 7 which will take place prior to the effective date of the offering. The following report is in the form which will be furnished by Deloitte & Touche GmbH upon the completion of the stock split and assuming that no other material events have occurred that would affect the accompanying consolidated financial statements or require disclosure therein.

"To the Board of Directors and Shareholders of IPG Laser GmbH:

We have audited the accompanying consolidated balance sheet of IPG Laser GmbH and subsidiary (a German corporation) as of December 31, 1998, and the related consolidated statements of operations, shareholders' equity and cash flows for each of the two years in the period ended December 31, 1998. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of IPG Laser GmbH and subsidiary as of December 31, 1998, and the results of their consolidated operations and their consolidated cash flows for each of the two years in the period ended December 31, 1998, in conformity with accounting principles generally accepted in the United States of America.

Duesseldorf, Germany

December 6, 2000 ( , 2001 as to the last paragraph of Note 7) "

Deloitte & Touche GmbH

Duesseldorf, Germany

January 24, 2001

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

F-3

COMBINED CONSOLIDATED BALANCE SHEETS  
(In thousands, except share data)

	December 31, Dec 1998	Predecessor
	-----	-----
Assets:		
Current assets:		
Cash and cash equivalents.....	\$1,181	\$
Accounts receivable, net of allowances of \$18, \$10 and \$117.....	1,763	
Due from affiliates.....	463	
Inventories.....	467	
Deferred tax assets.....	--	
Prepaid expenses and other assets.....	355	
	-----	
Total current assets.....	4,229	
Restricted cash.....		
Non-marketable investment securities.....	50	
Deferred tax assets.....	52	
Property, plant and equipment, net.....	4,488	
Other assets.....	--	
	-----	
Total assets.....	\$8,819	\$
	=====	=
Liabilities and shareholders' equity:		
Current liabilities:		
Current portion of long-term debt.....	\$ 21	\$
Accounts payable.....	2,210	
Due to affiliates.....	946	
Accrued expenses and other liabilities.....	315	
Income taxes payable.....	145	
Deferred tax liabilities.....	45	
	-----	
Total current liabilities.....	3,682	
	-----	
Long-term debt.....	4,695	
	-----	
Deferred income taxes.....	--	
	-----	
Commitments and contingencies (See Note 9).....	--	
Minority interest.....	7	
	-----	
Convertible redeemable preferred stock--Series B, \$0.0001 par value; 3,800,000 shares authorized, 3,000,000 shares issued and outstanding at September 30, 2000 actual; no shares issued or outstanding at September 30, 2000 pro forma.....	--	
	-----	
Shareholders' equity:		
Preferred stock--\$0.0001 par value; 700,000 shares authorized, no shares issued or outstanding.....	--	
Convertible preferred stock--Series A, \$0.0001 par value; 500,000 shares authorized, 500,000 shares issued and outstanding at September 30, 2000		

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

actual; no shares issued or outstanding on a pro forma basis at September 30, 2000.....	--
Common stock, \$.0001par value, 100,000,000 shares authorized, 43,600,000 shares issued and outstanding at December 31, 1999; 67,961,868 shares issued and outstanding at September 30, 2000 actual; 100,000,000 shares authorized, 77,711,868 shares issued and outstanding at September 30, 2000 pro forma.....	--
Additional paid-in capital.....	312
Warrants to issue common stock.....	--
Notes receivable from shareholders.....	--
Deferred compensation.....	--
Retained earnings (accumulated deficit).....	135
Accumulated other comprehensive (loss).....	(12)
<hr/>	<hr/>
Total shareholders' equity.....	435
<hr/>	<hr/>
Total liabilities and shareholders' equity.....	\$8,819
<hr/>	<hr/>
	=====

See notes to combined consolidated financial statements.

F-4

COMBINED CONSOLIDATED STATEMENTS OF OPERATIONS  
(In thousands, except share and per share data)

	For the year			For the nine months	
	ended December 31,			ended September 30,	
	1997	1998	1999	1999	2000
	Predecessor			(unaudited)	
	-----	-----	-----	-----	-----
Net sales.....	\$3,097	\$8,263	\$18,640	\$14,823	\$32,689
Cost of sales(1).....	2,436	5,560	9,688	6,882	12,610
Gross profit(1).....	661	2,703	8,952	7,941	20,079
Operating expenses:					
Sales and marketing(2).....	219	374	677	619	1,049
Research and development(3).....	127	682	1,477	1,036	1,127
General, administrative and other(4).....	276	1,000	2,712	2,006	3,946
Equity-based compensation.....	--	--	--	--	12,035
Total operating expenses.....	622	2,056	4,866	3,661	18,157
Operating income.....	39	647	4,086	4,280	1,922
Interest income (expense), net.....	(119)	(208)	(303)	(231)	(77)
Other income (expense), net.....	108	(47)	273	40	475
Income before provision for income taxes and minority interests.....	28	392	4,056	4,089	2,320
Provision for income taxes.....	22	234	2,102	2,178	5,828
Minority interest.....	--	(4)	(3)	(5)	--

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Net income (loss).....	6	154	1,951	1,906	(3,508)
Accretion of preferred stock.....	--	--	--	--	(169)
	-----	-----	-----	-----	-----
Net income (loss) available to common shareholders.....	\$ 6	\$ 154	\$ 1,951	\$ 1,906	\$ (3,677)
	=====	=====	=====	=====	=====
Net income (loss) per share:					
Basic.....	--	--	\$ 0.03	\$ 0.03	\$ (0.06)
			=====	=====	=====
Diluted.....	--	--	\$ 0.03	\$ 0.03	\$ (0.06)
			=====	=====	=====
Pro forma net loss per share--basic and diluted.....	--	--	--	--	\$ (0.05)
					=====

- 
- (1) Excludes \$677 of equity-based compensation for the nine months ended September 30, 2000.
  - (2) Excludes \$166 of equity-based compensation for the nine months ended September 30, 2000.
  - (3) Excludes \$184 of equity-based compensation for the nine months ended September 30, 2000.
  - (4) Excludes \$11,008 of equity-based compensation for the nine months ended September 30, 2000.

See notes to combined consolidated financial statements.

F-5

COMBINED CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY  
(In thousands, except share and per share data)

	Convertible Preferred Stock Series A		Common Stock		Additional	Warrants to Issue	Notes Receivable	Deferred
	Number of Shares	Value	Number of Shares	Par Value	Paid-in Capital	Common Stock	from Shareholders	Compensatio
	-----	-----	-----	-----	-----	-----	-----	-----
Balance at January 1, 1997 (Predecessor)...	--	\$ --	--	\$--	\$ 183	\$ --	\$ --	\$ --
Contributions from shareholders....	--	--	--	--	129	--	--	--
Comprehensive income:								
Net income.....	--	--	--	--	--	--	--	--
Translation adjustments.....	--	--	--	--	--	--	--	--
Total comprehensive loss.....	--	--	--	--	--	--	--	--
	-----	-----	-----	-----	-----	-----	-----	-----
Balance at December 31, 1997								

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

(Predecessor)...	--	--	--	--	312	--	--	--
Comprehensive income:								
Net income.....	--	--	--	--	--	--	--	--
Translation adjustments.....	--	--	--	--	--	--	--	--
Total comprehensive income .....	--	--	--	--	--	--	--	--
	-----	-----	-----	-----	-----	-----	-----	-----
Balance at December 31, 1998								
(Predecessor)...	--	--	--	--	312	--	--	--
Comprehensive income:								
Net income.....	--	--	--	--	--	--	--	--
Translation adjustments.....	--	--	--	--	--	--	--	--
Total comprehensive income.....	--	--	--	--	--	--	--	--
Common stock issued.....	--	--	43,600,000	4	(2)	--	--	--
	-----	-----	-----	-----	-----	-----	-----	-----
Balance at December 31, 1999.....	--	--	43,600,000	4	310	--	--	--
Comprehensive income:								
Net loss.....	--	--	--	--	--	--	--	--
Translation adjustments.....	--	--	--	--	--	--	--	--
Total comprehensive loss.....	--	--	--	--	--	--	--	--
Common stock issued to IP Fibre Devices Ltd. In satisfaction of \$200,000 note payable and accrued interest.....	--	--	20,000,000	2	198	--	--	--
Common stock issued for notes receivable from stockholders at \$0.50 per share.....	--	--	880,000	1	439	--	(440)	--
Issuance of Series A shares at \$10.00 per share, net of issuance costs totaling \$63....	500,000	4,937	--	--	--	--	--	--
Warrants to issue common stock attached to Series B preferred								

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

stock.....	--	--	--	--	--	12,400	--	--
Accretion of Series A Preferred Stock.....	--	17	--	--	(17)	--	--	--
Accretion of Series B Preferred Stock.....	--	--	--	--	(152)	--	--	--
Distributions to shareholders....	--	--	2,300,000	--	--	--	--	--
Equity-based compensation awarded.....	--	--	--	--	29,487	--	--	(29,487)
Amortization of equity-based compensation....	--	--	--	--	--	--	--	12,035
Cash proceeds from exercise of stock options...	--	--	1,181,868	--	669	--	--	--
	-----	-----	-----	-----	-----	-----	-----	-----
Balance at September 30, 2000 (unaudited).....	500,000	\$4,954	67,961,868	\$ 7	\$30,934	\$12,400	\$ (440)	\$ (17,452)
	=====	=====	=====	=====	=====	=====	=====	=====

	Total	Other Comprehensive Income (Loss)
	-----	-----
Balance at January 1, 1997 (Predecessor)...	\$ 145	
Contributions from shareholders....	129	
Comprehensive income:		
Net income.....	6	\$ 6
Translation adjustments.....	(24)	(24)
		-----
Total comprehensive loss.....	--	\$ (18)
	-----	=====
Balance at December 31, 1997 (Predecessor)...	256	
Comprehensive income:		
Net income.....	154	\$ 154
Translation adjustments.....	25	25
		-----
Total comprehensive income .....	--	\$ 179
	-----	=====



Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Balance at December 31, 1998			
(Predecessor)...	435		
Comprehensive income:			
Net income.....	1,951	\$ 1,951	
Translation adjustments.....	(172)	(172)	
		-----	
Total comprehensive income.....	--	\$ 1,779	
		=====	
Common stock issued.....	2		
	-----		
Balance at December 31, 1999.....	2,216		
Comprehensive income:			
Net loss.....	(3,508)	\$ (3,508)	
Translation adjustments.....	(503)	(503)	
		-----	
Total comprehensive loss.....	--	\$ (4,011)	
		=====	
Common stock issued to IP Fibre Devices Ltd. In satisfaction of \$200,000 note payable and accrued interest.....	200		
Common stock issued for notes receivable from stockholders at \$0.50 per share.....	--		
Issuance of Series A shares at \$10.00 per share, net of issuance costs totaling \$63....	4,937		
Warrants to issue common stock attached to Series B preferred stock.....	12,400		
Accretion of Series A Preferred Stock.....	--		
Accretion of			

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Series B Preferred Stock.....	(152)
Distributions to shareholders....	(9,940)
Equity-based compensation awarded.....	--
Amortization of equity-based compensation....	12,035
Cash proceeds from exercise of stock options...	669
	-----
Balance at September 30, 2000 (unaudited).....	\$18,354
	=====

See notes to combined consolidated financial statements.

F-6

COMBINED CONSOLIDATED STATEMENTS OF CASH FLOWS  
(In thousands)

	For the year ended December 31,			For the nine months ended September 30,	
	1997	1998	1999	1999	2000
	Predecessor			(unaudited)	
	-----	-----	-----	-----	-----
Cash flows from operating activities:					
Net income (loss).....	\$ 6	\$ 154	\$ 1,951	\$ 1,906	\$ (3,508)
Adjustment to reconcile net income (loss) to net cash provided by operating activities:					
Depreciation and amortization.....	250	716	1,518	1,015	1,524
Deferred income taxes.....	(4)	43	(29)	(27)	(1,244)
Equity-based compensation...	--	--	--	--	12,035
Minority interest.....	--	4	3	5	--
Changes in assets and liabilities that provided (used) cash:					
Accounts receivable.....	(751)	(852)	(55)	(1,025)	(10,568)
Due to (from) affiliates, net.....	483	234	(439)	(374)	(346)
Inventories.....	(19)	(296)	(1,982)	(1,666)	(5,427)
Prepaid expenses and other assets.....	83	(218)	(20)	(61)	(1,088)
Accounts payable.....	143	1,848	1,401	677	1,592
Accrued expenses and other					

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

liabilities.....	(8)	268	211	581	1,568
Income taxes payable.....	8	109	1,645	2,096	7,219
	-----	-----	-----	-----	-----
Net cash provided by operating activities.....	191	2,010	4,204	3,127	1,757
	-----	-----	-----	-----	-----
Cash flows from investing activities:					
Purchase of property, plant and equipment.....	(1,292)	(3,080)	(5,135)	(3,391)	(9,898)
Other.....	--	2	--	--	--
	-----	-----	-----	-----	-----
Net cash used in investing activities.....	(1,292)	(3,078)	(5,135)	(3,391)	(9,898)
	-----	-----	-----	-----	-----
Cash flows from financing activities:					
Proceeds from long-term borrowings.....	1,151	2,049	600	--	1,822
Principal payments on borrowings.....	(13)	(81)	(15)	(11)	(832)
Cash placed into restricted investment account.....	--	--	--	--	(12,560)
Net proceeds from line of credit agreements.....	--	--	--	--	1,750
Capital contributions from shareholders.....	129	--	--	--	--
Proceeds from Series A preferred stock, net.....	--	--	--	--	4,737
Proceeds from Series B preferred stock, net.....	--	--	--	--	74,635
Distributions to shareholders.....	--	--	--	--	(9,940)
Proceeds from exercise of stock options.....	--	--	--	--	669
	-----	-----	-----	-----	-----
Net cash provided by (used in) financing activities....	1,267	1,968	585	(11)	60,281
	-----	-----	-----	-----	-----
Effect of changes in exchange rates on cash.....	(16)	59	(129)	(97)	153
	-----	-----	-----	-----	-----
Net increase (decrease) in cash and cash equivalents...	150	959	(475)	(372)	52,293
Cash and cash equivalents, beginning of the year.....	72	222	1,181	1,181	706
	-----	-----	-----	-----	-----
Cash and cash equivalents, end of the year.....	\$ 222	\$ 1,181	\$ 706	\$ 809	\$ 52,999
	-----	-----	-----	-----	-----
Supplemental disclosures of cash flow information:					
Cash paid for interest, net of amounts capitalized....	\$ 122	\$ 195	\$ 299	\$ 177	\$ 125
Cash paid for taxes.....	\$ 3	\$ 69	\$ 492	\$ 134	\$ 372
Noncash transactions:					
Conversion of payable to Fibre for 20,000,000 shares of common stock.....	--	--	--	--	\$ 200
Accounts receivable paid with nonmarketable securities.....	--	\$ 46	--	--	--

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Common stock issued for notes receivable from shareholders.....	--	--	\$ 2	\$ 2	\$ 440
Preferred stock issued for property, plant and equipment.....	--	--	--	--	\$ 200
Real estate acquired from shareholder through assumption of mortgage payable.....	--	--	--	--	\$ 345
Common stock issued to Fibre in connection with the 2000 Reorganization, 2,300,000 shares at par value.....	--	--	--	--	--

See notes to combined consolidated financial statements.

F-7

### NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS

(Information as of and for the nine months ended September 30, 1999 and 2000 is unaudited)

#### 1. Description of Business and Basis of Presentation

IPG Photonics Corporation (the "Company") was incorporated as a Delaware corporation in December 1998. Since inception, the Company has been affiliated by common ownership with several entities, including NTO IRE-POLUS, Russia; IPG Laser GmbH, Germany ("Laser"); IPG Fibertech S.r.l., Italy ("Fibertech"); and IP Fibre Devices Ltd., United Kingdom ("Fibre"). The accompanying combined consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America and include the accounts of the Company, Laser and Fibertech (collectively, "IPG"). For purposes of presentation of the accompanying combined financial statements for the years ended December 31, 1997 and 1998, Laser and Laser's 80% owned subsidiary, Fibertech, are referred to as the "Predecessor." All intercompany transactions and balances have been eliminated.

Since inception of the entities comprising IPG, the Company's majority shareholder has maintained majority ownership of all these entities. During August 2000, the ownership of the Company and several affiliated companies was reorganized (the "2000 Reorganization"). The 2000 Reorganization was completed through several transactions. The Company initially purchased 50% of the shares of Laser from Fibre for \$7.5 million in cash plus 2,300,000 common shares of the Company. In addition, the Company purchased an additional 4% of the shares of Laser from the Company's majority shareholder for \$2.4 million in cash. Concurrently with these purchases, the Company was provided an option to purchase the remaining 46% of Laser from the Company's majority shareholder. On October 4, 2000, the Company exercised this option and obtained the remaining 46% ownership interest in Laser in exchange for 2,806,000 common shares of the Company. Through this series of transactions, Laser and its 80% owned subsidiary, Fibertech, became a wholly owned subsidiary of the Company. Because all of these entities have been under common managerial, operational and shareholder control since inception, the transfers of interest are accounted for in the combined consolidated financial statements as a reorganization of companies under common control in a manner similar to a pooling of interests.

IPG has agreed in principle to invest \$5.0 million in NTO IRE-POLUS for a 51% ownership interest subject to satisfaction of usual and customary closing conditions, as well as the approval of the Russian Ministry for Anti-Monopoly

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Policy. The Company anticipates that this transaction will close in the first quarter of 2001. The proceeds of the investment are to be used by NTO IRE-POLUS solely for equipment purchases and the development of additional manufacturing capacity. Similar to the 2000 Reorganization, NTO IRE-POLUS and the Company are under common control, and the transaction will be accounted for as a reorganization of companies under common control in a manner similar to a pooling of interests. This transaction will not have a significant impact upon IPG's financial condition or results of operations.

IPG designs, manufactures and sells high-power fiber amplifiers, Raman pump lasers and fiber lasers for telecommunications and industrial applications. IPG's telecommunications products are used in the long-haul, metropolitan and access sectors of optical communications networks. IPG's industrial products are used for marking, printing, material processing, micro-machining, optical sensing and measurement and laboratory and medical equipment. IPG's administrative and manufacturing facilities in the United States are presently located in Sturbridge, Massachusetts, and European operations are located in Burbach, Germany, and Milan, Italy. Manufacturing activities and research and development are conducted by NTO IRE-POLUS in Fryazino, Russia.

Interim financial data--The interim combined consolidated financial information at September 30, 2000 and for the nine months ended September 30, 1999 and 2000 is unaudited but, in the opinion of management, includes all adjustments, which management considers necessary for a fair presentation of the combined consolidated financial position and results of operations for the interim periods. The results of operations for the nine months ended September 30, 2000 are not necessarily indicative of the results to be expected for the full fiscal year.

F-8

### NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

#### 2. Summary of Significant Accounting Policies

Use of estimates--The preparation of the combined consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the combined consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Foreign currency translation--The U.S. dollar has been adopted as the reporting currency for all periods presented. The financial information for entities outside the United States is measured using local currencies as the functional currency. Assets and liabilities are translated into U.S. dollars at the exchange rate in effect on the respective balance sheet dates. Income and expenses are translated into U.S. dollars based on the average rate of exchange for the corresponding period. Exchange rate differences resulting from translation adjustments are accounted for directly as a component of accumulated other comprehensive income. Exchange rate differences due to transactions in foreign currencies are reflected in the consolidated statements of operations.

Cash and cash equivalents--Cash and cash equivalents consist primarily of highly liquid investments, such as bank deposits, with insignificant interest rate risk and original maturities of three months or less at the date of acquisition. Restricted cash includes cash restricted under certain Company

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

debt agreements (See Note 6).

Inventories--Inventories are stated at the lower of cost or market on a first-in, first-out basis. IPG's inventories include parts and components that may be specialized in nature and subject to rapid obsolescence. Additionally, our quality assurance standards result in the rejection of a portion of our purchased components without recourse to the supplier. The costs associated with obsolescence or component rejection are charged to cost of sales as incurred. While IPG considers obsolescence and component rejection in estimating required allowances to reduce recorded amounts to the lower of cost or market values, such estimates could change in the future.

Property, plant and equipment--Property, plant and equipment is stated at cost less accumulated depreciation. Depreciation is calculated using the straight-line method based on the estimated useful lives of the related assets. In the case of leasehold improvements, the estimated useful lives of the related assets do not exceed the remaining term of the corresponding lease. The following table presents the assigned economic useful lives of IPG's property, plant and equipment:

Category -----	Economic useful life -----
Buildings.....	30 years
Machinery and equipment.....	3-5 years
Office furniture and fixtures.....	3-5 years
Other assets.....	3-5 years

Expenditures for maintenance and repairs are charged to operations. Cost includes capitalized interest associated with significant capital projects. For the years ended December 31, 1997, 1998 and 1999, IPG capitalized interest totaling \$16,000, \$70,000 and \$0, respectively. For the nine months ended September 30, 1999 and 2000, IPG capitalized interest totaling \$0 and \$152,000, respectively.

Revenue recognition--Revenue on product sales is recognized at the point in time when persuasive evidence of an arrangement exists, the price is fixed and final, delivery has occurred and there is a reasonable assurance of collection of the sales proceeds. IPG generally obtains oral or written purchase authorizations from its customers for a specified amount of product at a specified price and considers delivery to have occurred at

F-9

### NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

the point of shipment. IPG has no obligation to provide upgrades, enhancements or customer support subsequent to the sale. IPG's products carry a warranty against defect for a period of one or two years, depending upon the product type. The expected cost associated with these warranty obligations is recorded when the revenue is recognized.

Impairment of long-lived assets--Long-lived assets, which are comprised primarily of property, plant and equipment, are reviewed by management for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. In cases where undiscounted expected future cash flows are less than the carrying value, an impairment loss is recognized equal to an amount by which the carrying value exceeds the fair

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

value of assets. No impairment provisions have been recognized to date.

Advertising expense--The cost of advertising is expensed as incurred. IPG conducts substantially all of its sales and marketing efforts through trade shows and professional and technical conferences. IPG's advertising costs for the years ended December 31, 1997, 1998, and 1999, and for the nine months ended September 30, 1999 and 2000 were not significant.

Research and development--Internal research and development costs are expensed as incurred.

Income taxes--IPG accounts for income taxes under the provisions of Statement of Financial Accounting Standards ("SFAS") No. 109, Accounting for Income Taxes. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences of temporary differences between the carrying amounts and tax bases of assets and liabilities and net operating loss carryforwards using enacted rates. Valuation allowances are provided against assets that are not likely to be realized.

Equity-based compensation--SFAS No. 123, Accounting for Stock-Based Compensation, encourages but does not require companies to record compensation cost for stock-based employee compensation plans at fair value. As permitted by SFAS No. 123, IPG has elected to account for stock-based compensation using the intrinsic value method prescribed in Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees, and related interpretations including Financial Accounting Standards Board ("FASB") Interpretation No. 44, Accounting for Certain Transactions Involving Stock Compensation--an Interpretation of APB Opinion No. 25, and has adopted the disclosure-only provisions of SFAS No. 123. Accordingly, for financial reporting purposes, compensation cost for stock options is measured as the excess, if any, of the estimated fair market value of the Company's stock at the date of the grant over the amount an employee must pay to acquire the stock. Equity instruments issued to nonemployees are accounted for in accordance with SFAS No. 123 and EITF 96-18, Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling Goods or Services.

Concentration of credit risk--Financial instruments that potentially subject IPG to credit risk consist primarily of cash and cash equivalents and accounts receivable. IPG maintains substantially all of its cash in a single financial institution, which is believed to be a high-credit, quality financial institution. IPG grants credit to customers in the ordinary course of business and provides a reserve for potential credit losses. Such losses have been within management's expectations. See discussion related to significant customers in Note 13.

Fair value of financial instruments--IPG's financial instruments consist of accounts receivable, accounts payable, and notes payable. The current carrying amounts of such instruments are considered reasonable estimates of their fair market value, due to the short maturity of these instruments or as a result of the competitive market interest rates, which have been negotiated. The fair value ascribed to the warrants issued in connection with the Series B Preferred Stock has been determined from an independent appraisal.

Comprehensive income--SFAS No. 130, Reporting Comprehensive Income, established standards for reporting and displaying comprehensive income and its components within the financial statements. Comprehensive income includes charges and credits to equity that are not the result of transactions with

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

shareholders. Included in other comprehensive income for IPG is the cumulative translation adjustments related to the net assets of the operations in Germany and Italy. These adjustments are accumulated within the statement of shareholders' equity under the caption, accumulated other comprehensive income (loss).

Segment information--SFAS No. 131, Disclosures about Segments of an Enterprise and Related Information, was adopted by IPG in 1998 and established standards for the reporting of information about operating segments in annual and interim financial statements. Operating segments are defined as components of an enterprise for which separate financial information is available that is evaluated regularly by the chief operating decision makers in deciding how to allocate resources and in assessing performance. SFAS No. 131 also requires disclosures about products and services, geographic areas and major customers. The adoption of SFAS No. 131 did not affect results of operations or financial position but did affect the disclosure of segment information.

Recently issued accounting standards--In June 1998, the FASB issued SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities. This statement establishes accounting and reporting standards requiring that derivative instruments (including certain derivative instruments embedded in other contracts) be recorded in the balance sheet as either an asset or liability measured at its fair value. In June 1999, the FASB issued SFAS No. 137, Accounting for Derivative Instruments and Hedging Activities, Deferral of the Effective Date of FASB Statement No. 133, to defer the effective date of SFAS No. 133. SFAS No. 133, as amended, is effective for IPG beginning January 1, 2001. Because IPG has not utilized derivative instruments for hedging purposes or interest rate management, management does not believe that the adoption of this statement will have a significant impact on operations or financial condition.

### 3. Net Income (Loss) Per Share and Pro Forma Financial Data

Net income (loss) per share--Basic net income (loss) per share amounts for the year ended December 31, 1999 and for the nine months ended September 30, 1999 and 2000 are computed by dividing net income (loss) available to common shareholders by the weighted-average common shares of the Company outstanding during those periods. For purposes of computing net income (loss) per share, the common stock that was issued to the founders, the common stock issued to Fibre in satisfaction of certain liabilities and the stock issued to Fibre in connection with the 2000 Reorganization are considered nominal issuances and have been treated in a manner similar to a stock split or stock dividend. Diluted net income per share reflects the potential dilution that could occur if (i) the Series A and Series B preferred stock is converted to common stock, and (ii) options issued under the Company's stock compensation plan and the common stock warrants attached to the Series B preferred stock were exercised. Due to the net loss recorded for the nine months ended September 30, 2000, the calculation of diluted net loss per share excludes 5,597,060 common equivalent shares as their effects would be antidilutive. Net income per share amounts for the Predecessor have not been reported for the years ended December 31, 1997 and 1998 due to the closely held nature of these entities, and as such, per share amounts would not be meaningful.

A summary of the weighted-average number of common shares and weighted-average number of common shares and common equivalent shares follows:

	Nine months ended September 30,
Year ended	-----



Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

	December 31, 1999	1999	2000
	-----	-----	-----
Basic weighted-average ordinary common shares outstanding.....	65,900,000	65,900,000	67,271,715
Weighted-average common equivalent shares.....	1,595,000	1,450,000	--
	-----	-----	-----
Diluted weighted-average common shares outstanding.....	67,495,000	67,350,000	67,271,715
	=====	=====	=====

F-11

NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

Pro forma financial data--The Board of Directors has authorized the filing of a registration statement with the Securities and Exchange Commission that would permit the Company to sell shares of the Company's common stock in connection with a proposed initial public offering ("IPO"). If the offering is consummated under the terms presently anticipated, the 500,000 outstanding shares of Series A Preferred Stock and the 3,000,000 outstanding shares of Series B Preferred Stock will automatically convert into 1,000,000 shares and 8,750,000 shares, respectively, of common stock upon the closing of the IPO. The conversion of the preferred stock has been reflected in the accompanying unaudited pro forma combined consolidated balance sheet. The Series B Preferred Stock convert to the Company's common stock subject to adjustment pursuant to the amended and restated certificate of incorporation as discussed in Note 7. Pro forma basic and diluted net loss per share data has been calculated assuming conversion of the Series A and Series B preferred stock into shares of common stock from the date of original issuance of the preferred stock. In addition, no effect is given to accretion of the preferred stock for purposes of this computation. Shares used in computing pro forma basic and diluted net loss per share aggregated 68,935,635 for the nine months ended September 30, 2000.

4. Inventories

Inventories consist of the following (in thousands):

	December 31,		September 30,
	-----	-----	-----
	1998	1999	2000
	-----	-----	-----
Components and raw materials.....	\$424	\$2,116	\$6,523
Work in process.....	43	225	661
	-----	-----	-----
Total.....	\$467	\$2,341	\$7,184
	=====	=====	=====

5. Property, Plant and Equipment

Property, plant and equipment consists of the following (in thousands):

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

	December 31,		September 30, 2000
	1998	1999	
Land.....	\$ 72	\$ 1,030	\$ 1,184
Buildings.....	2,618	2,490	2,452
Machinery and equipment.....	2,426	5,151	6,954
Office furniture and fixtures.....	248	523	714
Construction in progress.....	295	420	7,236
	-----	-----	-----
	5,659	9,614	18,540
Accumulated depreciation.....	(1,171)	(2,407)	(3,363)
	-----	-----	-----
Total.....	\$ 4,488	\$ 7,207	\$15,177
	=====	=====	=====

F-12

NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

6. Debt

Debt consists of the following (in thousands):

	December 31,		September 30, 2000
	1998	1999	
U.S. demand line of credit, collateralized by substantially all assets of the Company and the personal guarantee of the majority shareholder.....	\$ --	\$ --	\$ 1,750
U.S. construction loan, collateralized by substantially all assets of the Company..	--	--	531
U.S. dollar mortgage note payable, collateralized by land, 10% fixed rate, maturing November 2001 (paid in March 2000).....	--	600	--
Euro credit facility, collateralized by substantially all assets of Laser and the personal guaranty of the majority shareholder, 5.25% fixed rate, maturing September 2010.....	--	--	1,349
Deutsche mark note payable, collateralized by guaranty of majority shareholder, 6% adjustable not to exceed 10%, maturing September 2006.....	2,028	1,746	1,528
Deutsche mark note payable, collateralized by property, plant and equipment, 4.5% fixed rate, maturing semi-annually through March 2008.....	2,147	1,848	1,517
Deutsche mark notes and mortgages payable, collateralized by property, plant and			

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

equipment ranging from 4.7% to 6.25% at fixed rates and variable rates, maturing monthly through January 2019.....	443	363	624
Deutsche mark overdraft facility.....	--	--	--
Related party note payable to Fibre, unsecured, 6.0% fixed rate, due March 2000.....	98	89	--
	-----	-----	-----
Total debt.....	4,716	4,646	7,299
Less current portion.....	(21)	(225)	(1,982)
	-----	-----	-----
Long-term debt.....	\$4,695	\$4,421	\$ 5,317
	=====	=====	=====

Principal maturities of long-term debt as of December 31, 1999 are as follows (in thousands):

2000.....	\$ 225
2001.....	252
2002.....	254
2003.....	256
2004.....	258
2005 and thereafter.....	3,401
	-----
Total.....	\$4,646
	=====

U.S. demand line of credit--In March 2000, the Company negotiated a demand line of credit facility with available principal totaling \$4.0 million, expiring May 31, 2001. Outstanding principal on this facility bears interest at a monthly adjustable rate of London Interbank Offering Rate ("LIBOR") plus 2.75% (9.4% at September 30, 2000). This facility is collateralized by substantially all the assets of the Company, a guaranty from Fibre, and a personal guaranty of the Company's majority shareholder.

F-13

NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

U.S. construction loan--In April 2000, the Company entered into a \$6.5 million construction loan facility to finance construction of new administrative and manufacturing facilities in Massachusetts. The construction loan has an initial term of nine months, during which time interest-only payments are due monthly. After the construction period, principal payments are due for five years, after which time the remaining outstanding balance is due. During the construction period the construction loan bears interest at LIBOR plus 3% (9.6% at September 30, 2000) and at a fixed rate equal to the Five-Year Treasury Rate plus 3% for the five-year term following the construction period. This facility is collateralized by substantially all the assets of the Company, including the related real estate and building construction. Subsequent to September 30, 2000, the Company placed \$12,560,000 in a restricted overnight investment account which is available to the bank to offset the Company's obligations under the facilities.

The demand line of credit and the construction loans contain cross-defaults and certain covenants, including maintenance of specific financial ratios which are not considered restrictive to the Company's operations. The

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

most restrictive provisions of the Company's borrowing arrangements are as follows: a ratio of total debt to tangible capital of no more than 3.4 to 1 at December 31, 2000, and the debt service coverage ratio should not be below 2.0 to 1 for the year ending December 31, 2000.

Euro construction loan--During 2000, Laser entered into a financing agreement with a syndicate of banks. The syndicate has provided available credit of (Euro)10.0 million (or \$8.8 million) to finance construction of a new manufacturing facility in Germany and to meet the working capital needs of Laser. Principal payments are due semiannually beginning in September 2002 through September 2010. Interest accrues at 5.25%. A portion of this loan is personally guaranteed by IPG's majority shareholder.

Deutsche mark ("DM") overdraft facility--In March 2000, Laser negotiated a syndicated overdraft facility with available principal of DM 4.7 million (or \$2.1 million). This facility bears interest at market rates that vary depending upon the principal outstanding (from 9.125% to 10.5% at September 30, 2000). The facility is payable upon demand. No principal was outstanding at September 30, 2000. This facility and the Euro construction loan are collateralized by a common pool of the assets of Laser. A portion of this loan is partially guaranteed by IPG's majority shareholder.

### 7. Shareholders' Equity

#### Predecessor equity

Laser has authorized capital totaling DM 500,000, all of which was outstanding at December 31, 1998, 1999 and September 30, 2000. The equity of the Predecessor entities has been reported as additional paid-in capital in the combined consolidated financial statements.

#### Common stock

The Company was incorporated in December 1998 at which time 20,000 common shares (par value \$0.01) were authorized. On December 28, 1999, total authorized shares were increased to 100 million and the par value was changed to \$0.0001 per share. The founding shareholders subscribed for 43,600,000 shares for total consideration of \$2,000, after giving effect to the increase in authorized shares.

In January 2000, at the direction of the majority shareholder, Fibre paid \$18,000 in cash to the Company and converted an intercompany note payable and related accrued interest totaling \$182,000 into 20,000,000 shares of common stock.

#### Reserved shares

In addition to the shares of common stock reserved for issuance under the Company's stock option plan, the Company has reserved a sufficient number of shares of common stock for potential conversion of the Series A and Series B preferred stock and for the exercise of outstanding common stock warrants.

F-14

NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

#### Preferred stock

The Company has authorized 5,000,000 shares of preferred stock, par value of \$0.0001, of which 500,000 shares have been designated as Series A

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

convertible preferred stock (the "Series A Preferred Stock"); 3,800,000 shares have been designated as Series B redeemable convertible preferred stock (the "Series B Preferred Stock").

On March 31, 2000, the Company issued 500,000 shares of Series A Preferred Stock for total consideration of \$5.0 million. Issuance costs of \$63,000 are being accreted to the liquidation value of the Series A Preferred Stock through March 31, 2002, the first conversion date.

In August 2000, the Company issued 3,000,000 shares of Series B Preferred Stock and warrants to purchase shares of the Company's common stock (the "Series B Warrants") for total consideration of \$75.0 million. Issuance costs totaled \$363,000. The Series B warrants issued in connection with the sale of the Series B preferred stock have been valued at \$12.4 million. The Series B Preferred Stock is being accreted to redemption value over the period to the Series B Preferred Stock's scheduled redemption dates of August 25, 2006, 2007 and 2008.

Subsequent to September 30, 2000, the Company issued an additional 800,000 shares of Series B Preferred Stock and Series B Warrants for total consideration of \$20.0 million. The Series B Warrants have been valued at \$3.3 million.

Activity with respect to the Series B Preferred Stock through September 30, 2000 is as follows:

	Number of Shares Outstanding	Amount (in thousands)
	-----	-----
Balance, January 1, 2000.....	--	--
Proceeds from sale of Series B Preferred Stock, net of issuance costs.....	3,000,000	\$62,237
Accretion related to issuance cost and Series B Warrants.....		152
	-----	-----
Balance, September 30, 2000.....	3,000,000	\$62,389
	=====	=====

The rights and preferences of the Series A and Series B Preferred Stock are as follows:

**Dividends**--The holders of the Series A and Series B Preferred Stock are entitled to receive cumulative dividends at the rate paid on the common shares.

**Liquidation**--In the event of any voluntary or involuntary liquidation, dissolution or merger of the Company, each holder of the Series A and Series B Preferred Stock will be entitled to be paid, before any distributions are made to the common shareholders, a liquidation preference. The holders of the Series A Preferred Stock will be entitled to be paid an amount equal to the preference value of \$10.00 per share plus accrued dividends, and the holders of the Series B Preferred Stock will be entitled to be paid an amount equal to the preference value of \$12.50 per share plus accrued dividends. After such distributions, the holders of the Series A Preferred Stock do not participate in any further distributions. The holders of the Series B Preferred Stock participate in further available distributions in the amount that would have been payable per share if the holders of the Series B Preferred Stock had been

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

converted to common shares. If the total payout under the investors participation rights exceeds \$50.00 per share, the preference amount declines linearly from \$12.50 per share to \$0 as the participation amount payout increases from \$50.00 to \$62.50. If the assets are not sufficient to generate cash sufficient to pay in full the Series A and Series B Preferred Stock preference values, then the holders of the Series A and Series B Preferred Stock will be entitled to share ratably in any distribution of cash generated by assets in accordance with the respective amounts that would have been payable in such

F-15

### NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

distribution if the amounts to which the holders of the Series A and Series B Preferred Stock are paid in full. All assets remaining after distribution to the holders of Series A and Series B Preferred Stock are available for distribution to the holders of the Company's common shares.

Voting Rights--The holders of the Series A Preferred Stock, except with respect to the matters regarding the rights and preferences of their own shares, are not entitled to vote on any matter. The holders of the Series B Preferred Stock are entitled to a number of votes equal to the number of shares of common stock into which such Series B Preferred Stock are then convertible, and voting together as a separate class, are entitled to elect one director of the Company. In addition, without approval of the majority of the Series B shareholders, the Company is restricted from issuing convertible debt, altering the Company's certificate of incorporation or bylaws with the effect of altering the rights of the Series B Preferred Stock, increasing the authorized shares of Series B Preferred Stock or, with certain exceptions, reclassifying and declaring or paying dividends or making distributions of the Company's property.

Redemption--At the election of the holders of the Series B Preferred Stock, the Company is obligated to redeem up to 33.3% after August 25, 2006, up to 66.7% after August 25, 2007 and up to 100% after August 25, 2008 of the outstanding Series B Preferred Stock at a redemption price equal to \$12.50 per share plus accrued and unpaid dividends. In the event that the Company has insufficient funds to redeem the shares, the Series B Preferred Stock will accrue interest at a rate equal to the prime rate plus 3%.

Conversion--The Series A Preferred Stock has a preference value of \$5.00 per share and is convertible at the option of the holder at any time subsequent to March 31, 2002 into the number of shares of common stock of the Company as is determined by dividing the preference value by the conversion price then in effect. Immediately following a qualifying initial public offering or consummation of a sale or merger of the Company, all Series A Preferred Stock shall automatically convert into the number of common shares of the Company as is determined by dividing the preference value by the conversion price then in effect. For the purposes of the conversion of the Series A preferred stock, a qualified public offering is the sale of the common stock of IPG to the public in a firm commitment public offering that generates gross proceeds to IPG of at least \$35,000,000 at a pre-money valuation of at least \$500,000,000.

The Series B Preferred Stock has a preference value of \$25.00 per share and is convertible at the option of the holder into the number of common shares of the Company as is determined by dividing the preference value by the conversion price then in effect. All Series B Preferred Stock automatically converts into the number of common shares of the Company as is determined by dividing the preference value by the conversion price then in effect upon the completion of a qualified public offering. A qualified public offering is

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

defined as an offer of the Company's common stock (i) registered under the Securities Act of 1933, as amended, (ii) with net proceeds (after underwriting commissions and discounts) in excess of \$100.0 million, (iii) in which such common stock is listed for trading on the New York Stock Exchange or the NASDAQ National Market, and (iv) at a specified offering price, after underwriting commissions and discounts, which graduates from (i) \$21.88 per share, in the case of an offering which closes from January 1, 2001 to March 31, 2001, (ii) \$25.00 per share in the case of an offering which closes from April 1, 2001 to December 31, 2001, (iii) \$28.13 per share, in the case of an offering which closes from January 1, 2002 to August 31, 2002 or (iv) \$31.25 per share in the case of an offering which closes after August 31, 2002. An offering which does not meet the offering price targets will continue to be a qualified offering, however, the conversion price will be adjusted downward such that the adjusted conversion price will be equal to the initial public offering price per share divided by a factor which increases from (i) 1.75, in the case of an offering which closes from January 1, 2001 to March 31, 2001, (ii) 2.00, in the case of an offering which closes from April 1, 2001 to December 31, 2001, (iii) 2.25, in the case of an offering which closes from January 1, 2002 to August 31, 2002 or (iv) 2.50, in the case of an offering which closes after August 31, 2002; provided that in no event will the conversion price be reduced to less than \$5.00 per share. The conversion ratio was 1 for 1 on the date the Series B Preferred Stock was issued.

F-16

### NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

Assuming an offering price of \$15.00 per common share in an offering completed prior to March 31, 2001 each share of Series B Preferred Stock will convert to 2.91666 shares of common stock.

The holders of Series A and Series B Preferred Stock have certain tag-along and drag-along rights, as described in the articles of incorporation.

Registration Rights--If the Company at any time proposes to register any of its common shares under the Securities Act of 1933, the holders of the Series B Preferred Stock are entitled to participate in such registration. In addition, the holders of the Series A Preferred Stock may require the Company to file one, and the holders of the Series B Preferred Stock may require the Company to file up to two, registration statements under the Securities Act of 1933 at the expense of the Company with respect to their shares (the "Demand Registration Rights"). These Demand Registration Rights become effective if a registration has not occurred prior to March 31, 2003 for the Series A Preferred Stock or August 31, 2003 for the Series B Preferred Stock. The holders of the Series B Preferred Stock who convert their preferred stock to common stock in connection with an IPO may also require the Company to file additional registration statements.

### Warrants

In connection with the issuance of the Series B Preferred Stock, the Company issued Series B Warrants to purchase, in the aggregate, \$18.8 million of the Company's common shares at an equivalent per share price of 50% of the fair value on the date of an initial public offering of such shares. The fair value of the Series B Warrants, approximating \$12.4 million, was deducted from the proceeds of the Series B Preferred Stock and was allocated to the Series B Warrants. The Series B Warrants are exercisable upon the completion of an IPO or sale of a significant portion of the Company's assets and are being accreted to the carrying value of the Series B Preferred Stock through the scheduled redemption dates of the Series B Preferred Stock. These warrants expire in August 2007. In connection with the Series B Preferred Stock that was issued

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

subsequent to September 30, 2000, the Company issued Series B Warrants to purchase, in the aggregate, \$5.0 million of the Company's common stock at an equivalent per share price of 50% of the fair value of such shares. The fair value of the Series B Warrants related to the issuance of Series B Preferred Stock subsequent to September 30, 2000 approximates \$3.3 million.

### Notes receivable from sales of shares

The Company has received notes from an individual who subsequently became a Company director in connection with this individual's exercise of 380,000 nonqualified stock options in March 2000 as well as the issuance of 500,000 shares of common stock under a professional services contract. The notes receivable have principal balances of \$190,000 and \$250,000 and are full recourse promissory notes bearing interest at 6.8% and 6.0% and are collateralized by the shares of the Company's common stock held by this individual. Principal is due through November 2005. The notes receivable are presented on the combined consolidated balance sheet as a reduction to shareholders' equity.

Additionally, the Company issued 43,600,000 shares of common stock to the founding shareholders in January 1999 in exchange for notes aggregating \$2,000. These shares were fully paid in October 2000 and have been reported as current assets and shareholders' equity at December 31, 1999 and at September 30, 2000.

### Minority interest

Minority interest reported in the accompanying combined consolidated financial statements consists of the 20% of Fibertech held by the management of Fibertech.

F-17

## NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

### Stock Split

On           , 2001, the Company's board of directors declared a 2-for-1 split of the common shares of the Company. All share and per share amounts in the accompanying combined consolidated financial statements have been retroactively adjusted to reflect the stock split.

### 8. Related Party Transactions

The Company and the other members comprising IPG have entered into certain transactions with other entities affiliated with IPG. These entities which have not been combined or consolidated in the accompanying financial statements include NTO IRE-POLUS, Fibre, IP Fibre Optics Ltd., IPC Inc., and VPG Laser Components GmbH (the "Non-Group Affiliates"). The related party transactions included in the accompanying financial statements are primarily comprised of intercompany sales of IPG's products in which the Non-Group Affiliates are acting as a distributor of IPG's products or IPG is purchasing raw materials and components from the Non-Group Affiliates. Additionally, effective January 1, 2000, the Company entered into a one year management agreement with Fibre, under which Fibre provides accounting advice and consulting services for a monthly fee of \$7,500 plus expenses. Upon expiration, the agreement was not renewed.

The transactions with Non-Group Affiliates are included in the combined consolidated statements of operations as follows (in thousands):



Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

	Years ended December 31,			Nine months ended September 30,	
	1997	1998	1999	1999	2000
Net sales.....	\$ 811	\$ 1,103	\$ 655	\$ 524	\$ 789
Purchases included in cost of sales.....	1,533	2,133	2,095	1,610	3,108
Operating expenses.....	--	32	106	32	138
Interest income (expense), net.....	(10)	(10)	(17)	(7)	--

Amounts included in the combined consolidated balance sheets are as follows (in thousands):

	December 31,		September 30, 2000
	1998	1999	
Amounts due from Non-Group Affiliates:			
IP Fibre Devices Ltd. ....	\$ 70	\$221	\$560
IPC Inc. ....	345	--	--
NTO IRE-POLUS.....	48	--	193
Total.....	\$463	\$221	\$753
Amounts due to Non-Group Affiliates:			
IP Fibre Devices Ltd. ....	\$--	\$309	\$--
IPC Inc. ....	665	12	--
VPG Laser Components GmbH.....	70	33	--
NTO IRE-POLUS.....	211	109	471
Total.....	\$946	\$463	\$471

In May 2000, Laser entered into an agreement with a shareholder holding more than 5% of the Company's common stock to purchase real estate located in Burbach, Germany, in exchange for assuming the outstanding mortgage on the real estate and a payment of approximately \$84,000, which approximated the fair market value of the real estate. Prior to purchasing the real estate, Laser had been renting the Burbach real estate from the shareholder for approximately \$4,000 per month.

F-18

NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

In October 1999, the Company awarded an individual who subsequently became a Company director 500,000 shares of the Company's common stock for a purchase price of \$0.50 per share, its estimated fair value on the date of the award, in exchange for future legal and advisory services. In March 2000, such legal and advisory services had been performed and this individual purchased 500,000 shares of the Company's common stock with an estimated fair market

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

value of \$2.00 per share in exchange for a \$250,000 note receivable. The Company has recognized \$750,000 in equity-based compensation in respect of this agreement.

This individual had also been granted options to purchase 400,000 shares of the Company's common stock at \$0.50 per share in exchange for continued advisory services to the Company through January 1, 2002. These options have a term of ten years and vested upon issuance. The Company is accounting for these shares under variable plan accounting and, accordingly, recognized \$3.3 million in equity-based compensation during the nine months ended September 30, 2000. The individual exercised the option in exchange for \$10,000 in cash and a note receivable of \$190,000, discussed in Note 7. In the event of nonperformance, these shares are subject to repurchase by the Company.

In August 2000, a shareholder holding more than 5% of IPG's common stock borrowed approximately \$90,000 from Laser, at an annual interest rate of 8%. This loan was repaid in full on November 30, 2000. This note is reported in other current assets at September 30, 2000.

In connection with the 2000 Reorganization, IPG entered into an agreement with NTO IRE-POLUS regarding intellectual property. Under this agreement, NTO IRE-POLUS provides research and development exclusively for IPG in exchange for payment of all direct and overhead costs plus a fee of 10%. No amounts were incurred under this agreement during the nine months ended September 30, 2000.

In October 2000, IPG agreed to loan \$1.0 million to NTO IRE-POLUS. These funds will be used for working capital and capital expenditures. This loan bears interest at an annual rate of 7.0% and has a term of six months from the date the money is transferred to NTO IRE-POLUS.

During 1999, IPG purchased capital equipment from NTO IRE-POLUS in the aggregate amounts of \$176,000. For the nine-month period ended September 30, 2000, NTO IRE-POLUS purchased equipment from IPG in the aggregate amount of \$187,000.

IPG sells products to Fibre which resells those products to Fibre's customers in the United Kingdom. These sales are included in the table above. Effective January 1, 2001, IPG plans to terminate that distribution relationship and intends to sell directly to customers in the United Kingdom through a wholly-owned subsidiary to be formed. Consequently, IPG plans to sublease office space from, and share general and administrative expenses of, Fibre at an aggregate estimated annual amount of approximately \$250,000.

In 1998, Fibre entered into a supplier agreement to provide certain products to a significant customer for a period of 36 months. Pursuant to this agreement, the customer issued 1,561,144 shares of its common stock to Fibre in consideration of a discount on products to be delivered under the supply agreement. Additionally, a shareholder holding more than 5% of IPG's common stock was granted options to purchase 100,000 shares of the customer's common stock in exchange for serving on the customer's advisory board. All of such options have been exercised. During 1998, Laser sold amplifiers totaling approximately \$185,000 to this customer in exchange for cash and 571,428 shares of this customer's common stock. The fair value of these shares, estimated to be approximately \$46,000, became the cost basis of Laser's investment in these non-marketable securities, and Laser continues to carry this investment at cost. During 1999 and 2000, IPG sold approximately \$2.0 million of products to this customer under the terms of the supplier agreement. The customer paid IPG approximately \$1.6 million (or 75% of the invoice price) in cash and issued 865,924 shares of the customer's common stock, valued at approximately \$400,000, to Fibre. In connection with this transaction, Fibre issued a note to IPG for approximately \$400,000. This note along with accrued interest, totaling approximately \$32,000, was repaid in October 2000.

NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

9. Commitments and Contingencies

Operating leases

IPG leases its current facility in the United States under a noncancelable operating lease agreement which expires during 2001. Rental expense under this lease agreement for the year ended December 31, 1999, and for the nine months ended September 30, 1999 and 2000 was approximately \$121,000, \$60,000 and \$172,000, respectively. Future minimum lease payments under noncancelable leases as of December 31, 1999 are approximately \$225,000 and \$113,000 for the years ending December 31, 2000 and 2001, respectively.

Firm purchase commitments

In December 2000, IPG entered into a purchase agreement with a component supplier requiring minimum purchases by IPG of approximately \$66.7 million through December 31, 2002.

IPG has a variety of commitments with suppliers for the purchase of raw materials and components for delivery in future years at prevailing market prices.

Capital expenditures

In 2000, the Board of Directors authorized expenditures on the construction of a new manufacturing and administrative facility in the United States with a total projected cost of \$11.8 million, all of which has been contractually committed at September 30, 2000. As of September 30, 2000, approximately \$3.2 million has been paid under these contracts. This project is expected to be completed in the first quarter of 2001.

Employment agreements

IPG has entered into employment agreements with certain members of senior management. The terms of these agreements range from one to five years and include noncompete and nondisclosure provisions as well as provide for defined severance payments in the event of termination.

Litigation

IPG is not currently subject to any material legal proceedings, nor does IPG know of any pending material legal proceedings.

10. Employee Benefit Plans

Profit Sharing Plan

IPG maintains a 401(k) profit-sharing plan covering substantially all U.S. employees. Employees are eligible for a discretionary contribution from IPG based on each employee's total contribution, not to exceed 6% of an employee's compensation. Compensation expense related to this plan for the years ended December 31, 1999 and for the nine months ended September 30, 1999 and 2000 approximated \$18,000, \$9,000 and \$46,000, respectively.

Employee Stock Option Plan

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Beginning in 1999, IPG's majority shareholder and sole member of the Board of Directors, at that time, granted stock options to certain employees, officers and advisors. In March 2000, the shareholders approved the IPG 2000 Incentive Compensation Plan (the "Plan"). At September 30, 2000, 7,500,000 common

F-20

### NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

shares had been reserved for grant under the Plan. Subsequent to September 30, 2000, the Board of Directors increased the number of shares reserved under the Plan to 15,000,000. At December 31, 2000, after giving effect to the increase in the number of reserved shares an additional 5,525,600 shares were issuable under the Plan. Options are subject to the vesting provisions associated with each grant, generally vesting on a straight-line basis over four years. All options expire ten years from the date of grant.

In addition to the Plan, IPG has issued 700,000 options to purchase IPG's common stock to the members of its National Advisory Board and 400,000 options to an IPG director for legal and advisory services. These options were issued with an exercise price of \$0.50 per share. A total of 900,000 of these options were exercised during 2000. These options have similar terms to those options issued under the terms of the Plan; however, these options generally vested immediately. In accordance with SFAS No. 123 and EITF 96-18, IPG measured these awards at fair value, using the Black-Scholes valuation model. These options provide IPG with the right to repurchase a specified amount of any shares acquired should the optionees not fulfill the terms of their contract. Under EITF 96-18, this creates variable plan accounting. As such, IPG will continue to remeasure the fair value of these options at each reporting date until a performance commitment date has been achieved or the right to repurchase the options has expired. The fair value of each option at September 30, 2000 was estimated at \$12.06 per share. For the nine months ended September 30, 2000, IPG recognized approximately \$8.7 million in respect of these options.

The following table presents a summary of the share option activity and related information:

	Number of Options	Weighted-Average Exercise Price
	-----	-----
Outstanding, January 1, 1999.....	--	
Granted.....	2,600,000	\$0.50
Exercised.....	--	
Forfeited.....	--	
	-----	
Outstanding, December 31, 1999.....	2,600,000	0.50
Granted.....	3,918,600	0.60
Exercised.....	(1,561,868)	0.60
Forfeited.....	(1,200)	0.50
	-----	
Outstanding, September 30, 2000.....	4,955,532	\$0.57
	=====	

The weighted-average minimum fair value of the options granted to employees was \$0.08 in 1999 and \$2.77 in 2000.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Additional information regarding options outstanding at September 30, 2000 is as follows:

Exercise Price	Options Outstanding		Number Exercisable	
	Number Outstanding	Weighted-Average Contractual Life (years)	Remaining December 31, 1999	September 30, 2000
\$0.50	4,363,632	9.02	--	358,100
\$1.00	500,500	9.84	--	--
\$1.50	91,400	9.86	--	10,000
	4,955,532		--	368,100
	4,955,532		--	368,100

Compensation related to options awarded during the nine months ended September 30, 2000 (approximately \$29.5 million) has been deferred for financial reporting purposes and is generally being amortized on a straight-line basis over the vesting period of the related options for fixed awards. Options which

F-21

### NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

require variable plan accounting are being amortized using the methodologies prescribed by FASB Interpretation No. 28, Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans.

IPG has adopted the disclosure requirements of SFAS 123. SFAS 123 requires that the fair value of stock-based awards to employees be calculated through the use of option pricing models, even though such models were developed to estimate the fair value of freely tradable, fully transferable options without vesting restrictions, which significantly differ from IPG's stock option awards. These models also require subjective assumptions, which greatly affect the calculated values. IPG's calculations were made using the minimum value method with the following weighted average assumptions: expected life, 4 years; stock volatility of 0%; risk-free interest rate of 6.5%; and no dividend payments during the expected term. Forfeitures are recognized as they occur.

IPG has utilized the Black-Scholes option-pricing model in determining the fair value of the options granted to non-employees or outside of the Plan. In addition to the aforementioned assumptions, IPG used a volatility factor of 60% in the Black-Scholes option-pricing model.

If the computed minimum values of the options awarded to employees had been amortized to expense over the vesting period of the awards, net income and related pro forma basic and diluted per share amounts would have been reduced to the pro forma amounts indicated below:

	For the nine
For the year ended	months ended
December 31, 1999	September 30, 2000

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

-----		
Net income (loss) available to common shareholders (in thousands):		
As reported.....	\$1,951	\$(3,677)
Pro forma.....	1,906	(4,174)
Basic and diluted net income (loss) per share:		
As reported.....	\$ 0.03	\$ (0.06)
Pro forma.....	0.03	(0.06)

Subsequent to September 30, 2000, IPG entered into an employment agreement which granted an employee 1,000,000 shares of common stock at the price of \$0.50 per share, subject to certain repurchase rights by IPG. IPG also granted this employee options to purchase (i) 500,000 shares of common stock at \$1.50 per share, which will vest on the earlier of October 1, 2001 or the date that IPG first recognizes \$200.0 million of gross sales at \$1.50 per share, and (ii) 1,500,000 shares at \$1.50 per share which vest monthly for thirty-six months and will all vest immediately on the date IPG first recognizes \$400.0 million of gross sales. Additionally, subsequent to September 30, 2000, IPG issued options to purchase 1,607,000 shares of common stock to employees and members of the Board of Directors at a weighted-average exercise price of \$3.25 per share.

11. Income Taxes

Income before minority interest and income taxes consisted of (in thousands):

	Years ended December 31,		
	1997	1998	1999
	-----	-----	-----
Domestic.....	\$--	\$--	\$ 375
Foreign.....	28	392	3,681
	-----	-----	-----
Total.....	\$ 28	\$392	\$4,056
	=====	=====	=====

F-22

NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

IPG's provision for income taxes consisted of the following (in thousands):

	Years ended December 31,		
	1997	1998	1999
	-----	-----	-----

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Current:			
Federal.....	\$--	\$--	\$ 151
State.....	--	--	46
Foreign.....	26	191	1,934
Deferred:			
Federal.....	--	--	(29)
State.....	--	--	(9)
Foreign.....	(4)	43	9
	----	----	-----
Total.....	\$ 22	\$234	\$2,102
	=====	=====	=====

The provision for income taxes is different from that which would be obtained by applying the statutory federal income tax rate to income before income taxes. The principal items causing this difference are as follows (in thousands):

	Years ended December 31,			September 30,	
	1997	1998	1999	1999	2000
Tax expense at statutory rate..	\$ 10	\$ 133	\$ 1,379	\$1,390	\$ 789
State and local taxes.....	--	--	23	(3)	253
Differences in federal and foreign tax rates.....	2	79	657	679	1,352
Nondeductible equity-based compensation.....	--	--	--	--	3,303
Tax credits.....	--	--	--	--	(58)
Nondeductible items and other..	10	22	43	112	189
	-----	-----	-----	-----	-----
Total.....	\$ 22	\$ 234	\$ 2,102	\$2,178	\$5,828
	=====	=====	=====	=====	=====

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities are as follows (in thousands):

	December 31,		September 30,
	1998	1999	2000
Current deferred tax assets (liabilities):			
Deferred revenues.....	\$ (45)	\$ --	\$ --
Allowances and accrued liabilities.....		86	163
	----	----	-----
Net current deferred tax assets (liabilities).....	\$ (45)	\$ 86	\$ 163
	----	----	-----
Long-term deferred tax assets (liabilities):			
Property, plant and equipment.....	\$ 52	\$ (50)	\$ (103)
Deferred compensation.....			1,220
	----	----	-----
Net long-term deferred tax assets			

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

(liabilities)..... \$ 52 \$ (50) \$1,117  
 =====

F-23

NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

12. Geographic and Segment Information

IPG markets and sells its products throughout the world through both direct sales and distribution channels. IPG has adopted SFAS No. 131, Disclosures about Segments of an Enterprise and Related Information, and applies those criteria in reporting segment information. IPG currently manages its business as two segments: U.S.A. and Germany. The segments are considered to share similar economic characteristics and similarities in product, types of customers and methods of distribution. Accounting policies of the segments are the same as those described in the Summary of Significant Accounting Policies in Note 2. All intercompany transactions between segments have been eliminated. The following table summarizes net sales, operating expenses, net income (loss), identifiable assets, current liabilities and capital expenditures of IPG in its segments (in thousands):

	U.S.A.	Germany	Intercompany Eliminations	Total
	-----	-----	-----	-----
September 30, 2000:				
Net revenues.....	\$29,756	\$21,149	\$ (18,216)	\$ 32,689
Operating expenses.....	15,333	2,824	--	18,157
Net income (loss).....	(6,328)	3,245	(425)	(3,508)
Assets.....	87,227	18,683	(2,933)	102,977
Current liabilities.....	10,540	8,720	(2,353)	16,907
Capital expenditures.....	4,971	4,927	--	9,898
December 31:				
1999:				
Net revenues.....	\$ 9,763	\$16,535	\$ (7,658)	\$ 18,640
Operating expenses.....	1,498	3,368	--	4,866
Net income (loss).....	215	1,898	(162)	1,951
Assets.....	6,001	10,103	(3,304)	12,800
Current liabilities.....	5,135	4,110	(3,142)	6,103
Capital expenditures.....	2,863	2,272	--	5,135
1998:				
Net revenues.....	\$ --	\$ 8,263	\$ --	\$ 8,263
Operating expenses.....	--	2,056	--	2,056
Net income.....	--	154	--	154
Assets.....	--	8,819	--	8,819
Current liabilities.....	--	3,682	--	3,682
Capital expenditures.....	--	3,080	--	3,080
1997:				
Net revenues.....	\$ --	\$ 3,097	\$ --	\$ 3,097
Operating expenses.....	--	622	--	622
Net income.....	--	6	--	6
Assets.....	--	3,456	--	3,456
Current liabilities.....	--	801	--	801



Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Capital expenditures..... -- 1,292 -- 1,292

F-24

NOTES TO COMBINED CONSOLIDATED FINANCIAL STATEMENTS--(Continued)

The geographic sources of IPG's revenues, based on billing addresses of IPG's customers, are as follows (in thousands):

	Years ended December 31,			Nine months ended September 30,	
	1997	1998	1999	1999	2000
United States and other North America....	\$1,581	\$5,369	\$11,455	\$ 9,219	\$23,261
Europe:					
Germany.....	260	853	3,796	2,865	3,518
United Kingdom.....	798	769	564	449	672
Other.....	202	380	969	513	1,257
Asia:					
Japan.....	256	892	1,830	1,777	3,920
Other.....	--	--	26	--	61
Total.....	\$3,097	\$8,263	\$18,640	\$14,823	\$32,689

Through September 30, 2000, IPG has derived revenues from two product lines: fiber amplifiers and Raman pump lasers for telecommunications applications and fiber lasers for industrial applications. While complete financial information for these product lines is not available, IPG has identified its historic net sales for these product lines as follows (in thousands):

	Years ended December 31,			Nine months ended September 30,	
	1997	1998	1999	1999	2000
Telecommunications.....	\$1,898	\$5,957	\$14,383	\$11,394	\$25,106
Industrial applications.....	1,199	2,306	4,257	3,429	7,583
Total.....	\$3,097	\$8,263	\$18,640	\$14,823	\$32,689

13. Significant Customers

IPG's largest customers are national and international telecommunications companies. IPG has five customers that individually comprised more than 10% of net sales. The following table presents the percentage of net sales that these

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

customers represent during each period:

Customer -----	Years ended December 31,			Nine months ended September 30,	
	1997	1998	1999	1999	2000
A.....	--	2%	9%	2%	40%
B.....	15%	43%	40%	50%	20%
C.....	27%	2%	--	--	--
D.....	25%	9%	2%	3%	--
E.....	--	--	10%	12%	3%
Total.....	67%	56%	61%	67%	63%
	===	===	===	===	===

Accounts receivable related to these five customers totaled approximately 69% of the September 30, 2000 accounts receivable balance.

As discussed in Note 8, in September 1999, Fibre entered into a supplier agreement with Customer A. Fibre, Laser and certain shareholders maintain an insignificant ownership interest in Customer A.

F-25

Inside Back Cover Page:

Along the top edge of the page is the caption: "Fiber Lasers for Industrial Applications".

Under the top edge caption and in the upper left-hand corner of the page is a photograph of medical professionals performing surgery with the word "Medical" above the photograph, illustrating the use of fiber lasers in medical applications.

Under the top edge caption and in the upper right-hand corner of the page is a photograph of [an aerospace setting] with the word "Aerospace" above the photograph, illustrating the use of fiber lasers in aerospace applications.

In the center of the page is a photograph of several of the registrant's fiber lasers for industrial applications.

In the lower left-hand corner of the page is a photograph of [a product being micromachine] with the word "Micromachining" below the photograph, illustrating the use of fiber lasers in micromachining applications.

In the lower right-hand corner of the page is a photograph of [a product being printed] with the word "Printing" below the photograph, illustrating the use of fiber lasers in printing applications.

-----  
-----

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Through and including , 2001 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

8,200,000 Shares

IPG Photonics Corporation

[LOGO]

Common Stock

-----

PROSPECTUS

-----

Merrill Lynch & Co.

Robertson Stevens

CIBC World Markets

U.S. Bancorp Piper Jaffray

Wit SoundView

, 2001

-----  
-----

++++  
+The information in this prospectus is not complete and may be changed. We may +  
+not sell these securities until the registration statement filed with the +  
+Securities and Exchange Commission is effective. This prospectus is not an +  
+offer to sell these securities and it is not soliciting an offer to buy these +  
+securities in any state where the offer or sale is not permitted. +  
++++

[ALTERNATE PAGE]

Subject to Completion

Preliminary Prospectus Dated February 2, 2001

PROSPECTUS

8,200,000 Shares

[IPG LOGO]

Common Stock

-----

This is IPG Photonics Corporation's initial public offering of common stock. IPG Photonics Corporation is selling all of the shares. The U.S. international managers are offering shares outside the U.S. and Canada and

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

the U.S. underwriters are offering \_\_\_\_\_ shares in the U.S. and Canada.

We expect the public offering price to be between \$14.00 and \$16.00 per share. Currently, no public market exists for the shares. After pricing of this offering, we expect that the common stock will trade on the Nasdaq National Market under the symbol "IPGP."

Investing in the common stock involves risks that are described in the "Risk Factors" section beginning on page 6 of this prospectus.

-----

	Per Share	Total
	-----	-----
Public offering price.....	\$	\$
Underwriting discount.....	\$	\$
Proceeds, before expenses, to IPG Photonics.....	\$	\$

The international managers may also purchase up to an additional \_\_\_\_\_ shares from us at the public offering price, less the underwriting discount, within 30 days from the date of this prospectus to cover over-allotments. The U.S. underwriters may similarly purchase up to an additional \_\_\_\_\_ shares from us.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The shares will be ready for delivery in New York, New York on or about \_\_\_\_\_, 2001.

-----

Merrill Lynch International  
 Robertson Stephens  
 CIBC World Markets  
 U.S. Bancorp Piper Jaffray  
 Wit SoundView

-----

The date of this prospectus is \_\_\_\_\_, 2001.

[ALTERNATE PAGE]

UNDERWRITING

General

We intend to offer the shares outside the U.S. and Canada through the international managers and in the U.S. and Canada through the U.S. underwriters. Merrill Lynch International, Robertson Stephens, Inc., CIBC World Markets Corp., U.S. Bancorp Piper Jaffray Inc. and Wit SoundView Corporation, are acting as lead managers for the international managers named below. Subject to the terms and conditions described in an international purchase agreement among us and the international managers, and concurrently with the sale of shares to the U.S. underwriters, we have agreed to sell to the international

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

managers, and the international managers severally have agreed to purchase from us, the number of shares listed opposite its name below.

International Managers	Number of Shares
Merrill Lynch International.....	
Robertson Stephens, Inc.....	
CIBC World Markets Corp. ....	
U.S. Bancorp Piper Jaffray Inc. ....	
Wit SoundView Corporation.....	
Total.....	

We have also entered into a U.S. purchase agreement with the U.S. underwriters for sale of the shares in the U.S. and Canada for whom Merrill Lynch, Pierce, Fenner & Smith Incorporated, Robertson Stephens, Inc., CIBC World Markets Corp., U.S. Bancorp Piper Jaffray Inc. and Wit SoundView Corporation are acting as U.S. representatives. Subject to the terms and conditions in the U.S. purchase agreement, and concurrently with the sale of shares to the international managers pursuant to the international purchase agreement, we have agreed to sell shares to the U.S. underwriters, and the U.S. underwriters severally have agreed to purchase shares from us. The initial public offering price per share and the total underwriting discount per share are identical under the international purchase agreement and the U.S. purchase agreement.

The international managers and the U.S. underwriters have agreed to purchase all of the shares sold under the international and U.S. purchase agreements if any of these shares are purchased. If an underwriter defaults on its obligations under the international or U.S. purchase agreements, the international and U.S. purchase agreements provide that the purchase commitments of the nondefaulting underwriters may be increased or the purchase agreements may be terminated. The closings for the sale of shares to be purchased by the international managers and the U.S. underwriters are conditioned on one another. We have agreed to indemnify the international managers and the U.S. underwriters against certain liabilities, including liabilities under the Securities Act, and to contribute to payments the international managers and U.S. underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the purchase agreements, such as the receipt by the underwriters of officer's certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

### Commissions and Discounts

The lead managers have advised us that the international managers propose initially to offer the shares to the public at the initial public offering price on the cover page of this prospectus, and to dealers at that price less a concession not in excess of \$ per share. The international managers may allow, and the dealers may reallocate, a discount not in excess of \$ per share to other dealers. After the initial public offering, the public offering price, concession and discount may be changed.

[ALTERNATE PAGE]

The following table shows the public offering price, underwriting discount and proceeds before expenses to us. The information assumes either no exercise or full exercise by the international managers and the U.S. underwriters of their over-allotment options.

	Per Share Without Option With Option		
	-----	-----	-----
Public offering price.....	\$	\$	\$
Underwriting discount.....	\$	\$	\$
Proceeds, before expenses, to IPG Photonics.....	\$	\$	\$

The expenses of the offering, not including the underwriting discount, are estimated at \$1,000,000 and are payable by us.

Over-Allotment Options

We have granted options to the international managers to purchase up to additional shares at the public offering price less the underwriting discount. The international managers may exercise these options for 30 days from the date of this prospectus solely to cover any over-allotments. If the international managers exercise these options, each international manager will be obligated, subject to conditions contained in the purchase agreements, to purchase a number of additional shares proportionate to that international manager's initial amount reflected in the above table.

We have also granted options to the U.S. underwriters, exercisable for 30 days from the date of this prospectus, to purchase up to additional shares to cover any over-allotments on terms similar to those granted to the international managers.

Intersyndicate Agreement

The international managers and the U.S. underwriters have entered into an intersyndicate agreement that provides for the coordination of their activities. Under the intersyndicate agreement, the international managers and the U.S. underwriters may sell shares to each other for purposes of resale at the initial public offering price, less an amount not greater than the selling concession. Under the intersyndicate agreement, the international managers and any dealer to whom they sell shares will not offer to sell or sell shares to U.S. or Canadian persons or to persons they believe intend to resell to U.S. or Canadian persons, except in the case of transactions under the intersyndicate agreement. Similarly, the U.S. underwriters and any dealer to whom they sell shares will not offer to sell or sell shares to persons who are non-U.S. or non-Canadian persons or to persons they believe intend to resell to persons who are non-U.S. or non-Canadian persons, except in the case of transactions under the intersyndicate agreement.

Reserved Shares

At our request, the underwriters have reserved for sale, at the initial public offering price, up to % of the shares offered by this prospectus for sale to some of our employees and business associates. If these persons

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

purchase reserved shares, this will reduce the number of shares available for sale to the general public. Any reserved shares that are not orally confirmed for purchase within one day of the pricing of this offering will be offered by the underwriters to the general public on the same terms as the other shares offered by this prospectus.

### No Sales of Similar Securities

We and our executive officers and directors and substantially all other stockholders have agreed, with exceptions, not to sell or transfer any common stock for 180 days after the date of this prospectus without first obtaining the written consent of Merrill Lynch. Specifically, we and these other individuals have agreed not to directly or indirectly:

- . offer, pledge, sell or contract to sell any common stock;

67

[ALTERNATE PAGE]

- . sell any option or contract to purchase any common stock;
- . purchase any option or contract to sell any common stock;
- . grant any option, right or warrant for the sale of any common stock;
- . lend or otherwise dispose of or transfer any common stock;
- . request or demand that we file a registration statement related to the common stock; or
- . enter into any swap or other agreement that transfers, in whole or in part, the economic consequence of ownership of any common stock, whether any such swap or transaction is to be settled by delivery of shares or other securities, in cash or otherwise.

This lockup provision applies to common stock and to securities convertible into or exchangeable or exercisable for or repayable with common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition.

### Quotation on the Nasdaq National Market

We expect the shares to be approved for quotation on the Nasdaq National Market, subject to notice of issuance, under the symbol "IPGP."

Before this offering, there has been no public market for our common stock. The initial public offering price will be determined through negotiations between us and the U.S. representatives and the lead managers. In addition to prevailing market conditions, the factors to be considered in determining the initial public offering price are:

- . the valuation multiples of publicly traded companies that the U.S. representatives and the lead managers believe to be comparable to us;
- . our financial information;
- . the history of, and the prospects for, our company and the industry in which we compete;

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

- . an assessment of our management, its past and present operations, and the prospects for, and timing of, our future revenues;
- . the present state of our development; and
- . the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

The underwriters do not expect to sell more than 5% of the shares being offered in this offering to accounts over which they exercise discretionary authority.

### Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is completed, SEC rules may limit the underwriters and selling group members from bidding for or purchasing our common stock. However, the U.S. representatives may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with the offering, the underwriters may make short sales of the common stock. Short sales involve the sale by the underwriters at the time of the offering of a greater number of shares than they are

68

[ALTERNATE PAGE]

required to purchase in the offering. Covered short sales are sales made in an amount not greater than the over-allotment options. The U.S. representatives may close out any covered short position by either exercising the over-allotment options or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the U.S. representatives will consider, among other things, the price of shares available for purchase in the open market as compared to the public offering price at which they may purchase the shares through the over-allotment option. Naked short sales are sales in excess of the over-allotment option. The U.S. representatives must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the U.S. representatives are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering. Similar to other purchase transactions, the purchases by the U.S. representatives to cover syndicate short positions may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock. As a result, the price of the common stock may be higher than it would otherwise be in the absence of these transactions.

The U.S. representatives may also impose a penalty bid on underwriters and selling group members. This means that if the U.S. representatives purchase shares in the open market to reduce the underwriters' short position or to stabilize the price of such shares, they may reclaim the amount of the selling concession from the underwriters and selling group members who sold those shares. The imposition of a penalty bid may also affect the price of the shares in that it discourages resales of those shares.



## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common stock. In addition, neither we nor any of the underwriters make any representation that the U.S. representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

### UK Selling Restrictions

Each international manager has agreed that

- . it has not offered or sold and will not offer or sell any shares of common stock to persons in the United Kingdom, except to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or otherwise in circumstances which do not constitute an offer to the public in the United Kingdom within the meaning of the Public Offers of Securities Regulations 1995;
- . it has complied and will comply with all applicable provisions of the Financial Services Act 1986 with respect to anything done by it in relation to the common stock in, from or otherwise involving the United Kingdom; and
- . it has only issued or passed on and will only issue or pass on in the United Kingdom any document received by it in connection with the issuance of common stock to a person who is kind described in Article 11(3) of the Financial Services Act 1986 (Investment Advertisements) (Exemptions) Order 1996 as amended by the Financial Services Act 1986 (Investment Advertisements) (Exemptions) Order 1997 or is a person to whom such document may otherwise lawfully be issued or passed on.

### [No Public Offering Outside the United States

No action has been or will be taken in any jurisdiction (except in the United States) that would permit a public offering of the shares of common stock, or the possession, circulation or distribution of this prospectus or any other material relating to our company or shares of our common stock in any jurisdiction where action for that purpose is required. Accordingly, the shares of our common stock may not be offered or sold, directly or indirectly, and neither this prospectus nor any other offering material or advertisements in connection with

69

[ALTERNATE PAGE]

the shares of common stock may be distributed or published, in or from any country or jurisdiction except in compliance with any applicable rules and regulations of any such country or jurisdiction.

Purchasers of the shares offered by this prospectus may be required to pay stamp taxes and other charges in accordance with the laws and practices of the country of purchase in addition to the offering price on the cover page of this prospectus.

### Other Relationships

Merrill Lynch KECALP L.P. 1999, KECALP Inc., KECALP Inc., as Nominee for Merrill Lynch KECALP International L.P. 1999, ML IBK Positions, Inc. and Merrill Lynch Taurus 2000 Fund L.P., entities which are affiliated with Merrill

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

Lynch, Pierce, Fenner & Smith Incorporated, one of the underwriters, beneficially own an aggregate of 600,000 shares of Series B preferred stock, which convert into 1,749,999 shares of common stock, and warrants to purchase 500,000 shares of common stock assuming an offering price of \$15.00.

Bayview 2000, L.P., an entity which is affiliated with Robertson Stephens, one of the underwriters, beneficially owns an aggregate of 80,000 shares of Series B preferred stock, which convert into 233,333 shares of common stock, and warrants to purchase 66,667 shares of common stock assuming an offering price of \$15.00 per share.

70

-----  
-----  
[ALTERNATE PAGE]

Through and including , 2001 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

8,200,000 Shares

IPG Photonics Corporation

[LOGO]

Common Stock

-----  
PROSPECTUS  
-----

Merrill Lynch & Co.

Robertson Stevens

CIBC World Markets

U.S. Bancorp Piper Jaffray

Wit SoundView

, 2001  
-----  
-----

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

The following are the estimated expenses to be incurred in connection with the issuance and distribution of the securities registered under this Registration Statement, other than underwriting discounts and commissions. All amounts shown are estimates except the Securities and Exchange Commission registration fee and the National Association of Securities Dealers, Inc. filing fee. The following expenses will be borne solely by the Registrant.

Securities and Exchange Commission Registration Fees.....	\$ 39,600
National Association of Securities Dealers, Inc. Filing Fee...	15,500
NASDAQ Listing Fee.....	95,000
Blue Sky Fees and Expenses.....	10,000
Printing and Engraving Expenses.....	500,000
Legal Fees and Expenses.....	1,000,000
Accounting Fees and Expenses.....	375,000
Transfer Agent and Registrar Fees.....	10,000
Miscellaneous.....	54,900
	-----
Total.....	\$2,100,000
	=====

-----  
\* To be supplied by amendment.

### Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law permits a corporation to include in its charter documents, and in agreements between the corporation and its directors and officers, provisions expanding the scope of indemnification beyond that specifically provided by the current law.

The Registrant's certificate of incorporation provides for the indemnification of directors to the fullest extent permissible under Delaware law. The Registrant's bylaws provide for the indemnification to the fullest extent as required or permitted by Delaware law of officers and directors acting on behalf of the Registrant with respect to any criminal action or proceeding.

We have entered into an indemnification agreement with each of our directors which requires us, among other things, to indemnify them against certain liabilities which may arise by reason of his status or service as a director (other than liabilities arising from willful misconduct of a culpable nature). We also intend to maintain director and officer liability insurance, if available on reasonable terms.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling the Registrant pursuant to the foregoing provisions, the Registrant has been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

### Item 15. Recent Sales of Unregistered Securities.

Since incorporation, the Registrant has issued the following securities that were not registered under the Securities Act as summarized below:

None of these transactions involved any underwriters, underwriting discounts or commissions, or any public offering, and the Registrant believes that each transaction was exempt from the registration requirements

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

of the Securities Act by virtue of Section 4(2) thereof, Rule 506 of Regulation D promulgated thereunder or Rule 701 promulgated under from 3(b) of the Securities Act pursuant to compensatory benefit plans and contracts relating to compensation as provided under such Rule 701. The recipients of securities in each such transaction represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were affixed to the stock certificates and instruments issued in such transactions. All recipients either received adequate information or had access, through their employment or other relationships with the Registrant, to such information about the Registrant. For additional information regarding these equity investment transactions, see the section entitled "Transactions with Related Parties" in the Prospectus.

### (a) Issuances of Capital Stock.

1. In January 1999, the Registrant issued and sold an aggregate of 43,600,000 shares of common stock to individuals who founded the Registrant for an aggregate purchase price of \$2,180.
2. On January 15, 2000, the Registrant issued and sold 20,000,000 shares of common stock to IP Fibre Devices Ltd. in satisfaction of \$182,000 of intercompany debt and accrued interest and a cash payment of \$18,000.
3. On March 31, 2000, the Registrant issued and sold an aggregate of 1,000,000 shares of its Series A preferred stock to a group of private investors for an aggregate purchase price of \$5,000,000.
4. Between August 30, 2000 and December 6, 2000, the Registrant issued and sold an aggregate of 7,600,000 shares of its Series B preferred stock to a group of private investors for an aggregate purchase price of \$95,000,000.
5. On August 24, 2000, the Registrant issued 2,300,000 shares of its common stock and paid \$7,500,000 to IP Fibre Devices Ltd. to purchase 51% of IPG Laser GmbH.
6. On October 4, 2000, we exercised our rights under a Contribution and Exchange Agreement, dated August 24, 2000, between us and Dr. Valentin P. Gapontsev, our Chairman of the Board of Directors and Chief Executive Officer, under which we received the remaining 46% of the total issued and outstanding interest in IPG Laser GmbH from Dr. Valentin P. Gapontsev in exchange for an aggregate of 2,806,000 shares of our common stock.
7. On January 22, 2001, the Registrant issued and sold 1,000,000 shares of our common stock to an executive officer of the Registrant for an aggregate purchase price of \$500,000 in connection with his employment agreement with the Registrant.

### (b) Certain Grants of Warrants to Purchase Common Stock

1. Between August 30 and December 8, 2000, the Registrant granted warrants to purchase an aggregate of 3,166,667 shares of its common stock to a group of private investors in connection with the sale of the Registrant's Series B preferred stock, assuming an offering price of \$15.00.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

### (c) Certain Grants and Exercises of Stock Options and Warrants

1. From incorporation through January 22, 2001, the Registrant granted stock options to purchase 9,372,600 shares of common stock at exercise prices ranging from \$0.50 to \$3.75 per share to employees, consultants and directors pursuant to its 2000 stock incentive plan. Of such options, 694,868 have been exercised through December 31, 2000 at prices ranging from \$0.50 to \$1.00 per share.

II-2

2. On February 3, 2000, the Registrant granted options to an individual to purchase 400,000 shares of the Registrant's common stock at \$0.50 per share. The individual exercised these options immediately upon grant contemporaneously assigning an aggregate of 20,000 such options to three family members. Subsequently, the Registrant issued and sold 500,000 restricted shares of its common stock to the same individual for an aggregate purchase price of \$250,000. In March 2000, the Registrant issued and sold 500,000 shares of restricted common stock to the same individual for an aggregate purchase price of \$250,000.
3. On February 3, 2000, the Registrant granted options to purchase 500,000 shares of common stock outside of its 2000 stock incentive plan at an exercise price of \$0.50 per share to members of its National Advisory Board, and 500,000 of such options were exercised on March 17, 2000 for an aggregate purchase price of \$250,000. Also on February 3, 2000, the Registrant granted options to purchase 100,000 shares of common stock under its 2000 stock incentive plan at an exercise price of \$0.50 per share to two other members of its National Advisory Board. Of these options, 30,000 were exercised in December 2000 for an aggregate purchase price of \$15,000. On November 28, 2000 the Registrant granted options to purchase 50,000 shares of common stock under its 2000 incentive compensation plan at an exercise price of \$3.75 per share to an additional member of its National Advisory Board.

II-3

### Item 16. Exhibits and Financial Statement Schedules.

Exhibit Number	Description
-----	-----
1.1	Form of Underwriting Agreement
3.1*	Amended and Restated Certificate of Incorporation of the Registrant, as amended
3.2*	Bylaws of the Registrant, as amended
4.1	Specimen certificate representing the common stock
4.2*	Form of Warrant to Purchase Common Stock of the Registrant
4.3*	Series A Preferred Stockholders Agreement, dated as of March 31, 2000, among the Registrant and the owners of Series A Preferred Stock of the Company listed on Schedule I attached thereto
4.4*	Registration Rights Agreement, dated as of August 30, 2000, by and

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

- between the Registrant and the Investors named therein
- 5.1\*\* Form of Opinion of Winston & Strawn
  - 10.1\* 2000 Stock Incentive Plan, as amended
  - 10.2\* \$6,500,000.00 Construction Loan Furnished by Family Bank, FSB to the Registrant, Guaranteed by IP Fibre Devices Ltd. and Dr. Valentin P. Gapontsev, dated April 28, 2000
  - 10.3\* Assignment, Research and Development Agreement, dated as of August, 30, 2000, by and among the Registrant, IPG Laser GmbH, IPG Fibertech S.r.l and NTO IRE-POLUS
  - 10.4\* Purchase and Sales Agreement, dated October 6, 1999, by and between the Registrant and Daniel Prouty and Melvin Glickman as trustees for Elmar Realty Trust
  - 10.5\* Employment Agreement, entered into as of June 19, 2000, by and between the Registrant and John Geagea
  - 10.6\* Employment Agreement, entered into as of August 9, 2000, by and between the Registrant and Hon. John H. Dalton
  - 10.7 Employment Contract between IPG Laser and Its Managing Director, Dr. Valentin P. Gapontsev, dated August 25, 1995
  - 10.8 Employment Agreement, dated November 29, 2000, by and between the Registrant and Vincent Au-Yeung
  - 10.9\* Form of Indemnification Agreement by and between the Registrant and its Directors
  - 10.10\* Design and Building Agreement, dated March 10, 2000, by and between the Registrant and AHO Construction, Inc.
  - 10.11 Contribution and Exchange Agreement, dated August 24, 2000, by and between the Registrant and Dr. Valentin P. Gapontsev
  - 10.12 Purchase Agreement, dated August 24, 2000, by and between the Registrant and IP Fibre Devices U.K. (Limited)
  - 10.13 Purchase Agreement, dated August 24, 2000, by and between the Registrant and Dr. Valentin P. Gapontsev
  - 10.14 Loan Agreement No. LA-201003/01, made October 3, 2000, by and between the Registrant and NTO IRE-POLUS
  - 10.15 Form of Non-Competition and Confirmatory Assignment Agreement
  - 10.16 Employment Contract, effective September 18, 2000, between IPG Laser GbmH and Dr. Eugene Shcherbakov
  - 10.17 Agreements between Registrant and Robert A. Blair
  - 10.18+ IPG Photonics Corporation Purchase and Sales Agreement No. 1/99, dated May 14, 1999, between the Registrant and SDL, Inc., as amended
  - 10.19 Stock Issuance Agreement, effective as of January 22, 2001, by and between the Registrant and Vincent Au-Yeung
  - 10.20 Services Agreement between IP Fibre Devices Ltd. and new IPG Photonics (UK) Ltd., dated as of January 1, 2001
  - 21.1\* List of Subsidiaries
  - 23.1\*\* Consent of Winston & Strawn (See Exhibit 5.1)
  - 23.2 Consent of Deloitte & Touche GmbH
  - 23.3 Consent of Deloitte & Touche LLP
  - 27.1 Financial Data Schedule

-----  
(\* ) Previously filed.

(\*\* ) To be filed by amendment.

(+ ) Portions of this exhibit have been omitted pursuant to a request for confidential treatment.

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

The undersigned Registrant hereby undertakes to provide to the Underwriters at the closing specified in the Underwriting Agreement certificates in such denominations and registered in such names as required by the Underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification by the Registrant for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions described under Item 14 of this Registration Statement or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act, and is therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered hereunder, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of Prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective; and

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of Prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at the time shall be deemed to be the initial bona fide offering thereof.

II-5

### SIGNATURES

Pursuant to the requirements of the Securities Act of 1933 (the "Securities Act"), the Company certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-1 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Sturbridge, Massachusetts on February 2, 2001.

IPG Photonics Corporation

/s/ Dr. Valentin P. Gapontsev

By: \_\_\_\_\_  
Name: Dr. Valentin P. Gapontsev  
Title: Chairman of the Board of  
Directors and Chief Executive  
Officer

Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Dr. Valentin P. Gapontsev and Hon. John H. Dalton, and each of them acting individually, as his true and lawful attorneys-in-fact and agents, each with full power of substitution, for him in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments or any abbreviated registration statement and any amendments thereto filed pursuant to Rule 462(b) increasing the number of securities for which registration is sought), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, with full power of each to act alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in their capacities on the dates indicated below.

Signature -----	Title -----	Date ----
/s/ Dr. Valentin P. Gapontsev Dr. Valentin P. Gapontsev	Chairman of the Board of Directors and Chief Executive Officer (Principal Executive Officer)	February 2, 2001
/s/ Hon. John H. Dalton Hon. John H. Dalton	President and Director	February 2, 2001
/s/ Dr. Eugene Shcherbakov Dr. Eugene Shcherbakov	Director	February 2, 2001
/s/ Timothy P.V. Mammen Timothy P.V. Mammen	Chief Financial Officer and Vice President  (Principal Accounting Officer)	February 2, 2001

II-6

Signature -----	Title -----	Date ----
/s/ Dr. Denis Gapontsev Dr. Denis Gapontsev	Vice President of Research and Development and Director	February 2, 2001



Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

/s/ Robert A. Blair	Vice Chairman of the Board of Directors	February 2, 2001
<hr/>		
Robert A. Blair		
/s/ Michael C. Child	Director	February 2, 2001
<hr/>		
Michael C. Child		
/s/ Dr. William F. Krupke	Director	February 2, 2001
<hr/>		
Dr. William F. Krupke		

II-7

Index to Exhibits

Exhibit Number	Description
-----	-----
1.1	Form of Underwriting Agreement
3.1*	Amended and Restated Certificate of Incorporation of the Registrant, as amended
3.2*	Bylaws of the Registrant, as amended
4.1	Specimen certificate representing the common stock
4.2*	Form of Warrant to Purchase Common Stock of the Registrant
4.3*	Series A Preferred Stockholders Agreement, dated as of March 31, 2000, among the Registrant and the owners of Series A Preferred Stock of the Company listed on Schedule I attached thereto
4.4*	Registration Rights Agreement, dated as of August 30, 2000, by and between the Registrant and the Investors named therein
5.1**	Form of Opinion of Winston & Strawn
10.1*	2000 Stock Incentive Plan, as amended
10.2*	\$6,500,000.00 Construction Loan Furnished by Family Bank, FSB to the Registrant, Guaranteed by IP Fibre Devices Ltd. and Dr. Valentin P. Gapontsev, dated April 28, 2000
10.3*	Assignment, Research and Development Agreement, dated as of August, 30, 2000, by and among the Registrant, IPG Laser GmbH, IPG Fibertech S.r.l and NTO IRE-POLUS
10.4*	Purchase and Sales Agreement, dated October 6, 1999, by and between the Registrant and Daniel Prouty and Melvin Glickman as trustees for Elmar Realty Trust
10.5*	Employment Agreement, entered into as of June 19, 2000, by and between the Registrant and John Geagea
10.6*	Employment Agreement, entered into as of August 9, 2000, by and between the Registrant and Hon. John H. Dalton
10.7	Employment Contract between IPG Laser and Its Managing Director, Dr. Valentin P. Gapontsev, dated August 25, 1995
10.8	Employment Agreement, dated November 29, 2000, by and between the Registrant and Vincent Au-Yeung
10.9*	Form of Indemnification Agreement by and between the Registrant and its Directors
10.10*	Design and Building Agreement, dated March 10, 2000, by and between the Registrant and AHO Construction, Inc.
10.11	Contribution and Exchange Agreement, dated August 24, 2000, by and between the Registrant and Dr. Valentin P. Gapontsev
10.12	Purchase Agreement, dated August 24, 2000, by and between the

## Edgar Filing: IPG PHOTONICS CORP - Form S-1/A

- Registrant and IP Fibre Devices U.K. (Limited)
- 10.13 Purchase Agreement, dated August 24, 2000, by and between the Registrant and Dr. Valentin P. Gapontsev
  - 10.14 Loan Agreement No. LA-201003/01, made October 3, 2000, by and between the Registrant and NTO IRE-POLUS
  - 10.15 Form of Non-Competition and Confirmatory Assignment Agreement
  - 10.16 Employment Contract, effective September 18, 2000, between IPG Laser GbmH and Dr. Eugene Shcherbakov
  - 10.17 Agreements between the Registrant and Robert A. Blair
  - 10.18+ IPG Photonics Corporation Purchase and Sales Agreement No. 1/99, dated May 14, 1999, between the Registrant and SDL, Inc., as amended
  - 10.19 Stock Issuance Agreement, effective as of January 22, 2001, by and between the Registrant and Vincent Au-Yeung
  - 10.20 Services Agreement between IP Fibre Devices Ltd. and new IPG Photonics (UK) Ltd., dated as of January 1, 2001
  - 21.1\* List of Subsidiaries
  - 23.1\*\* Consent of Winston & Strawn (See Exhibit 5.1)
  - 23.2 Consent of Deloitte & Touche GmbH
  - 23.3 Consent of Deloitte & Touche LLP
  - 27.1 Financial Data Schedule

-----

(\*) Previously filed.

(\*\*) To be filed by amendment.

(+) Portions of this exhibit have been omitted pursuant to a request for confidential treatment.