

NOTICE OF 2019 ANNUAL MEETING AND PROXY STATEMENT

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To the Stockholders:

We invite you to attend our annual meeting of stockholders which is being held as follows:

Date:	**May 30, 2019**
Time:	**10:00 a.m. Eastern Time**
Location:	**IPG Photonics Corporation** **50 Old Webster Road** **Oxford. Massachusetts 01540**

At the meeting, we will ask our stockholders to:

1. elect ten directors named in the accompanying proxy statement;
2. ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for 2019; and
3. approve the IPG Photonics Corporation 2008 Employee Stock Purchase Plan, as amended and restated.

Stockholders will also transact any other business that may properly come before the meeting.

You may vote on these matters in person or by proxy. **Whether or not you plan to attend the meeting, we ask that you promptly vote your shares.** Only stockholders of record at the close of business on April 1, 2019 may vote at the meeting.

By order of the Board of Directors
IPG PHOTONICS CORPORATION



Angelo P. Lopresti
Secretary

April 5, 2019
Oxford, Massachusetts

As permitted by the rules of the United States Securities and Exchange Commission (the "SEC"), we are making this Proxy Statement and Annual Report on Form 10-K available to stockholders electronically via the Internet at: *investor.ipgphotonics.com.* On or about April 11, 2019, we will mail to most of our stockholders a notice (the "Notice") containing instructions on how to access this Proxy Statement and our Annual Report and to vote via the Internet or by telephone. Other stockholders, in accordance with their prior requests, will receive e-mail notification of how to access our proxy materials and vote via the Internet or by telephone, or will be mailed paper copies of our proxy materials and a proxy card on or about April 11, 2019.

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PROXY SUMMARY

This summary highlights information available within our proxy statement. You should consider all of the information available in the proxy statement and our Annual Report on Form 10-K for fiscal year 2018 prior to voting your shares.

2018 Highlights

2018 was a year of many milestones and highlights.

Financial Performance

We achieved record sales in 2018 and made meaningful strides in new product areas and growth initiatives.

Net Sales ($M)

17%
3 year CAGR



Operating Income ($M)

55%
Gross Margin in 2018



Achievements and Milestones

- Increased revenue by 4% despite a weaker macroeconomic environment affecting our two largest markets, China and Europe
- Leveraged our vertically-integrated production model and direct sales force to deliver strong gross margin of 54.8%
- Deepened our penetration of laser processing in the cutting, welding, ablation, cladding and drilling markets
- Continued to gain sales from other laser and non-laser technologies
- Introduced new products, systems and accessories to expand our addressable markets
- Invested $160 million in property, plant, equipment and technology and $109 million in strategic acquisitions in 2018 so that we are well-positioned for the future opportunities of our industry-leading products
- Returned $178 million to stockholders in stock buybacks

Executive Compensation Program

The guiding principles of our executive compensation philosophy are pay-for-performance, accountability for annual and long-term performance, alignment with stockholders' interests, and providing competitive pay to attract and retain executives. The 2018 compensation program for our named executive officers has three primary components: annual base salary, annual cash incentives and long-term equity incentives.

Annual Base Salary

- Following 2017, a year of 40% revenue growth, salaries were increased to a target percentile of our named peer group reflecting the increased size and complexity of the Company in 2018
- We compare our salaries to the peer group selected by the Compensation Committee in consultation with its independent compensation advisor

Annual Cash Incentives

- Financial performance fell short of target in 2018, which was reflected in payments that were less than in 2017
- Variable cash compensation opportunity is based upon annual net sales and profitability against threshold, target and maximum performance goals

Long-Term Equity Incentives

- Align interests of our executives and stockholders by motivating executive officers to increase long-term stockholder value
- Service-based equity awards vest over four years providing long-term retention and additional compensation opportunity for increased stock prices
- Performance-based stock unit awards provide additional incentives and are earned based on IPG's total stockholder return relative to a broad stock market index
- Our CEO, as the founder and a significant stockholder, has not received an equity award since the Company’s public offering in 2006 resulting in lower compensation expenses and equity burn rate for the Company

Alignment with Stockholder Interests and Performance

98%

Say-on-pay approval during last stockholder vote

- Annual cash incentives are capped and have challenging performance goals linked to key financial performance metrics
- Long-term equity incentives are aligned with long-term stockholder value creation
- Approximately 79% of non-CEO compensation in 2018 was performance-based
- Executives exceed stock ownership guidelines, aligning with interests of stockholders

See “Compensation Discussion and Analysis” beginning on page 30 for a further information on our executive compensation.

Corporate Governance Highlights

Our strong and effective corporate governance procedures and structure are an important part of our corporate culture, contributing to informed and effective decision-making and appropriate risk monitoring.

Excellence on our Board

- 70% of Board members are independent
- Presiding independent director
- Majority voting standard for uncontested elections
- Half of Audit Committee members are “financial experts”
- Average tenure of independent directors is 7 years

Progressive Stockholder Rights

- Proxy access rights allowing up to 20 stockholders owning at least 3% of shares continuously for 3 years to nominate up to 20% of the Board
- Single class of shares so all stockholders have an equal vote
- Annual election of all directors so that director terms are not staggered

Long-Term Stockholder Alignment

- Prohibition on hedging and limits on pledging by directors and officers
- Robust stock ownership guidelines for directors and executive officers
- Approximately 79% of independent director compensation was at risk, based upon stock price performance

Principled Processes

- Annual Board self-assessments
- Independent directors meet in executive session at each regular meeting
- Board regularly considers refreshment and succession planning to ensure boardroom skills are aligned with IPG’s long-term strategy

Board of Directors and Committees

Name	Age	Director Since	Principal Occupation	Independent	Committee Memberships	Experience and Skills	Other Public Company Boards
Valentin P. Gapontsev, Ph.D.	80	1990	CEO and Chm. of Bd. *IPG Photonics Corporation*	No	None	• Executive management • Technology • Markets and Applications	0
Eugene A. Scherbakov, Ph.D.	71	2000	COO *IPG Photonics Corporation* Managing Director *IPG Laser GmbH*	No	None	• Operations • Technology • Markets and Applications	0
Igor Samartsev	56	2006	Chief Technology Officer *IPG Photonics Corporation*	No	None	• Technology • Executive Management	0
Michael C. Child	64	2000	Senior Advisor *T.A. Associates, Inc.*	Yes	NCGC*	• Management and Operations • Mergers & Acquisitions • Technology Growth Companies	1
Gregory P. Dougherty	59	2019	Former CEO *Oclaro, Inc.*	Yes	Audit Compensation	• Laser and Optics Industry • Executive Management • Operations	2
Henry E. Gauthier	78	2006	Former Pres. and Chm. *Coherent, Inc.*	Yes	Audit	• Laser Industry • Executive Management • Operations	0
Catherine P. Lego	62	2016	Professional board director	Yes	Audit Compensation (Chair)	• Accounting and Finance • Financial Expert • Technology Growth Companies	2
Eric Meurice	62	2014	Former President, CEO and Chairman *ASML Holding NV*	Yes	NCGC* (Chair) Compensation	• Technology Growth Companies • International Operations • Strategy and Strategic Marketing	4 (1)
John R. Peeler	64	2012	Executive Chm. *Veeco Instruments, Inc.*	Yes	Presiding Ind. Director Compensation NCGC*	• Management and Operations • International Operations • Leadership Development	1
Thomas J. Seifert	55	2014	Chief Financial Officer *Cloudflare, Inc.*	Yes	Audit (Chair) NCGC*	• Accounting and Finance • Financial Expert • Technology Growth Companies	1

* NCGC is the Nominating and Corporate Governance Committee.

1. Includes another public company for which Mr. Meurice will not stand for re-election at its annual general meeting on May 2, 2019. See "*Board of Directors*."

Corporate Responsibility

At IPG, corporate responsibility is an important part of our mission. The major areas on which we focus include: (1) innovative and efficient products, (2) environmental stewardship, (3) health, safety and wellness programs for our employees and (4) community participation and contributions. The information below describes several of the key aspects of our corporate responsibility.

Innovative and Efficient Products

IPG is a leader in fiber lasers. Our fiber lasers have 45-50% wall-plug electrical efficiency, as compared to other types of lasers such as lamp-pumped Nd:YAG and CO_2 lasers which have approximately 2% and 7-8% wall-plug efficiencies, respectively.

We estimate that operation of IPG fiber lasers instead of other types of lasers resulted in approximately 28 billion pounds less global CO_2 emission since 2011 and 10 billion pounds less CO_2 emission in 2018 alone as a result of electricity savings.

To put these savings into perspective, 28 billion pounds of CO_2 emission approximates the annual output of six 500 megawatt coal-fired electric plants.

Environment

Aside from the positive effect that the adoption of our efficient products provides, we are committed to reducing the environmental impact from our manufacturing and increasing the sustainability of our operations.

Our new construction is built at a level higher than energy codes require. Our new facilities incorporate LED light fixtures, reducing electricity use by 75% compared to incandescent bulbs, and the most water conservative plumbing fixtures available.

We have several co-generation plants that reduce emissions by recycling waste heat from power generation to heat and cool buildings.

IPG operations are compliant with the Restriction of Hazardous Substances (RoHS) and Waste Electrical and Electronic Equipment (WEEE) Directives and the Toxic Substances Control Act (TSCA).

Employees

We provide healthy and safe working conditions to employees and contractors and ensure an inclusive hiring process and work environment. IPG is committed to a culture where all can act with integrity, promote collaboration and deliver results in all that we do.

We have reduced OSHA recordable accidents from 4% in 2010 to 1% in 2018 as a percentage of employees at our Oxford plant.

IPG manufacturing employees undergo comprehensive safety training to help reduce workplace hazards and accidents.

Communities

IPG has a long history of caring for our communities around the world, focused on building and supporting collaborative programs to create positive outcomes where we live and work. Our charitable contributions target education, community welfare, civic and social service programs and arts and culture.

Among the many contributions to our communities, IPG sponsors the Society of Women Engineers, promoting the advancement of women in the engineering field.

Also, IPG is a co-founder of the Siegman International School on Lasers, created by the Optical Society of America to expand access to laser education.

2019 Annual Meeting Information

Time and Date: 10:00 a.m. Eastern Time on Thursday, May 30, 2019
Location: IPG Photonics Corporation, 50 Old Webster Road, Oxford, Massachusetts, 01540
Record Date: April 1, 2019
Voting: Stockholders as of the record date are entitled to vote. Each share of common stock is entitled to one vote for each director nominee and one vote for each of the other proposals to be voted on.

Voting Your Shares

We encourage you to vote by proxy, even if you plan to attend the annual meeting. Your vote is important. You can vote your shares using one of the following methods:

- Completing and mailing the enclosed proxy card
- Calling (800) 652-8683
- Visiting *www.investorvote.com/ipgp*
- In person at the annual meeting

If you own shares through a bank, broker, trustee, nominee or other institution, they will provide you with our proxy statement and any other solicitation materials, as well as voting instructions.

Items of Business

Proposal	Description	Board Vote Recommendation	Page Reference
1	Elect ten directors named in the proxy statement to serve for a one-year term	FOR the election of each director nominee	27
2	Ratify Deloitte & Touche LLP as our independent registered public accounting firm for 2019	FOR	50
3	Approve the IPG Photonics Corporation 2008 Employee Stock Purchase Plan, as amended and restated (the "Stock Purchase Plan")	FOR	52

QUESTIONS AND ANSWERS ABOUT THE MEETING AND VOTING

When and Where Is the Annual Meeting?

When:	Thursday, May 30, 2019, at 10:00 a.m. Eastern Time
Where:	IPG Photonics Corporation 50 Old Webster Road Oxford, Massachusetts 01540

What is the purpose of these materials?

The Board of Directors (the "Board") of IPG Photonics Corporation is soliciting proxies from our stockholders in connection with our annual meeting of stockholders to be held on Thursday, May 30, 2019 and any and all adjournments thereof. This proxy statement and our 2018 annual report are first being made available to stockholders of record on or about April 11, 2019 at *investor.ipgphotonics.com*. Information on the website does not constitute part of this proxy statement. Unless otherwise noted, the information in this proxy statement covers our 2018 fiscal year, which ran from January 1, 2018 through December 31, 2018.

What Matters Am I Being Asked to Vote On at the Meeting and What Vote is Required to Approve Each Matter?

You are being asked to vote on three proposals.

Proposal 1 requests the election of directors named in this proxy statement. Our bylaws require that, in uncontested elections, each director be elected by the majority of votes cast with respect to such director. This means that the number of shares voted “for” a director nominee must exceed the number of votes cast “against” that nominee in order for that nominee to be elected. Only votes “for” or “against” are counted as votes cast with respect to a director. Abstentions and broker non-votes (as defined below) will have no effect on Proposal 1. To be elected in a “contested election” of directors, which our bylaws define as an election in which the number of nominees for director is greater than the number of directors to be elected, as determined as of the tenth day preceding the date the Company first mails its notice of meeting to stockholders, a director nominee must receive a plurality of the votes cast. The election of directors at the 2019 annual meeting is an uncontested election.

Proposal 2 requests the ratification of the appointment of our independent registered public accounting firm for 2019. The affirmative vote of the holders of a majority of the outstanding shares which are present at the meeting in person or by proxy, and entitled to vote thereon, is required for approval of Proposal 2. Abstentions have the same effect as voting against Proposal 2. Because Proposal 2 is considered a “routine” matter, broker non-votes are not expected to occur with respect to this Proposal.

Proposal 3 requests the approval of the Stock Purchase Plan. The affirmative vote of a majority of the shares which are present at the meeting in person or by proxy, and entitled to vote thereon, is required for approval of Proposal 3. Abstentions have the same effect as voting against Proposal 3. Broker non-votes will have no effect on Proposal 3.

No business can be conducted at the annual meeting unless a majority of all outstanding shares entitled to vote are either present in person or represented by proxy at the meeting. As far as we know, the only matters to be brought before the annual meeting are those referred to in this proxy statement. If any additional matters are presented at the annual meeting, the persons named as proxies may vote your shares in their discretion.

What happens if a director nominee fails to receive a majority vote in an uncontested election at the 2019 Annual Meeting of Stockholders?

If a nominee who currently is serving as a director does not receive the affirmative vote of at least a majority of the votes cast in an uncontested election, Delaware law provides that the director would continue to serve on the Board as a “holdover director.” However, under our bylaws, each incumbent director is required to submit a letter of resignation as a condition of becoming a nominee of the Board, with the resignation contingent upon not receiving a majority of the votes cast in an uncontested election and acceptance of the resignation by the Board. In such event, the Nominating and Corporate Governance Committee (or another committee designated by the Board) would

make a recommendation to the Board as to whether to accept or reject the tendered resignation, or whether other action should be taken. The Board would act on the tendered resignation, taking into account the committee's recommendation, and would publicly disclose its decision regarding the resignation within 90 days after the results of the election are certified. If the resignation is not accepted, the director would continue to serve until the next annual meeting of stockholders and until the director's successor is elected and qualified.

Who Is Entitled to Vote at the Meeting?

You are entitled to vote at the meeting if you owned shares of IPG Photonics (directly or in "street name," as defined below) as of the close of business on April 1, 2019, the record date for the meeting. On that date, 53,108,053 shares of our common stock were outstanding and entitled to vote and no shares of our preferred stock were outstanding. Each share of our common stock is entitled to one vote with respect to each matter on which it is entitled to vote. There is no cumulative voting with respect to any proposal.

What Do I Need to Do If I Plan to Attend the Meeting in Person?

If you plan to attend the annual meeting in person, you must provide proof of your ownership of our common stock and a form of personal identification, such as a driver's license, for admission to the meeting. If you are a stockholder of record, the top half of your proxy card is your admission ticket and will serve as proof of ownership. If you hold your shares in street name, a recent brokerage statement or a letter from your bank or broker are examples of proof of ownership. If you hold your shares in street name and you also wish to be able to vote at the meeting, you must obtain a proxy, executed in your favor, from your bank or broker.

What Is the Difference Between Holding Shares Directly as a Stockholder of Record and Holding Shares in "Street Name" at a Bank or Broker?

Most of our stockholders hold their shares directly through a broker, bank or other nominee rather than directly in their own name. As summarized below, there are differences between shares held of record and those held in "street name."

Stockholder of Record: If your shares are registered directly in your name with our transfer agent, Computershare, N.A., you are considered the stockholder of record with respect to those shares, and the proxy statement and annual report were sent directly to you. As the stockholder of record, you have the right to vote your shares as described herein.

"Street Name" Stockholder: If your shares are held by a bank, broker or other nominee on your behalf, you are considered the beneficial owner of shares held in "street name," and the proxy statement and annual report were forwarded to you by your bank, broker or other nominee who is considered the stockholder of record with respect to those shares. Your bank, broker or other nominee sent to you, as the beneficial owner, a document describing the procedure for voting your shares. You should follow the instructions provided by your bank, broker or other nominee to vote your shares. You are also invited to attend the annual meeting. However, if you wish to be able to vote at the meeting, you must obtain a proxy card, executed in your favor, from your bank, broker or other nominee.

What Does it Mean to Give a Proxy?

Your properly completed proxy/voting instruction card will appoint Valentin P. Gapontsev and Angelo P. Lopresti as proxy holders or your representatives to vote your shares in the manner directed therein by you. Dr. Gapontsev is our Chairman of the Board and Chief Executive Officer. Mr. Lopresti is our Senior Vice President, General Counsel and Secretary. Your proxy permits you to direct the proxy holders to vote "For," "Against," or "Abstain" for each of the proposals included in this proxy statement.

All of your shares entitled to vote and represented by a properly completed proxy or voting instruction received prior to the meeting and not revoked will be voted at the meeting in accordance with your instruction.

What Happens If I Sign, Date and Return My Proxy But Do Not Specify How I Want My Shares Voted on One of the Proposals?

Stockholder of Record: Your proxy will be counted as a vote "For" all of the nominees for director (Proposal 1), "For" the ratification of the appointment of our independent registered accounting firm (Proposal 2) and "For" the v approval of the "Stock Purchase Plan" (Proposal 3).

"Street Name" Stockholder: Your bank, broker or nominee may vote your shares only on those proposals on which it has discretion to vote. Under the rules of The Nasdaq Stock Market LLC ("Nasdaq"), your bank, broker or

nominee does not have discretion to vote your shares on non-routine matters such as the election of directors (Proposal 1) and approval of the Stock Purchase Plan (Proposal 3). This is called a "broker non-vote." However, your bank, broker or nominee does have discretion to vote your shares on routine matters such as the vote to ratify the appointment of our independent registered public accounting firm (Proposal 2). Accordingly, if you do not give your bank, broker or nominee specific instructions with respect to Proposal 2, your shares will be voted in such entity's discretion (but only with respect to Proposal 2). We urge you to promptly provide your bank, broker or nominee with appropriate voting instructions so that all of your shares may be voted at the meeting.

Can I Change My Vote Before the Meeting?

You can change your vote at any time before your proxy is exercised by delivering a properly executed, later-dated proxy (including an internet or telephone vote), by revoking your proxy by written notice to the Secretary of IPG Photonics, or by voting in person at the meeting. If you choose to revoke your proxy by attending the annual meeting, you must vote your shares for revocation to be effective. The method by which you vote by a proxy will in no way limit your right to vote at the meeting if you decide to attend in person.

If your shares are held in street name, please refer to the information forwarded by your bank, broker or nominee for procedures on changing your voting instructions.

Is the Proxy Statement Available on the Internet?

Yes. We are delivering our proxy statement and 2018 annual report pursuant to the Securities and Exchange Commission rules that allow companies to furnish proxy materials to their stockholders over the Internet. On or about April 11, 2019, we will mail to our stockholders a notice (the “Notice”) containing instruction on how to access this proxy statement and our annual report and to vote via the Internet or by telephone. Stockholders can view these documents on the Internet by accessing the website at *investor.ipgphotonics.com.*

What does it mean if I receive more than one Notice of Internet Availability of Proxy Materials?

You may receive more than one Notice, more than one e-mail or multiple proxy cards or voting instruction cards. For example, if you hold your shares in more than one brokerage account, you may receive a separate Notice, a separate e-mail or a separate voting instruction card for each brokerage account in which you hold shares. If you are a stockholder of record and your shares are registered in more than one name, you may receive more than one Notice, more than one e-mail or more than one proxy card.

To vote all of your shares by proxy, you must complete, sign, date and return each proxy card and voting instruction card that you receive and vote over the Internet the shares represented by each Notice that you receive (unless you have requested and received a proxy card or voting instruction card for the shares represented by one or more of those Notices).

Who Is Soliciting my Proxy and Who is Paying for the Cost of this Proxy Solicitation?

The Board of IPG Photonics is soliciting your proxy to vote at the 2019 annual meeting of stockholders. IPG Photonics will bear the expense of preparing, posting to the Internet, printing and mailing this proxy material, as well as the cost of any required solicitation. Our directors, officers or employees may solicit proxies on our behalf. We have not engaged a proxy solicitation firm to assist us in the solicitation of proxies, but we may if we deem it appropriate. In addition, we will reimburse banks, brokers and other custodians, nominees and fiduciaries for reasonable expenses incurred in forwarding proxy materials to beneficial owners of our stock and obtaining their proxies.

Who Counts the Votes?

We have engaged Computershare, N.A. as our independent agent to receive and tabulate stockholder votes. Computershare, N.A. will separately tabulate "For" and "Against" votes, abstentions and broker non-votes. Computershare, N.A. will also act as independent election inspector to certify the results, determine the existence of a quorum and the validity of proxies and ballots, and perform any other acts required under the General Corporation Law of Delaware.

How Can I Vote?

Most stockholders have a choice of voting in one of four ways:

- via the Internet,
- using a toll-free telephone number,
- completing a proxy/voting instruction card and mailing it in the postage-paid envelope provided or
- in person at the meeting.

The telephone and internet voting facilities for stockholders of record will close at 1:00 a.m. Central Time on May 30, 2019. The internet and telephone voting procedures are designed to authenticate stockholders by use of a control number and to allow you to confirm that your instructions have been properly recorded.

If you hold your shares in "street name," your bank, broker or other nominee will send you a separate package describing the procedures and options for voting your shares. Please read this information carefully. If you hold your shares in "street name," and wish to vote in person at the annual meeting, you must obtain a "legal proxy" from the organization that holds your shares. A legal proxy is a written document that will authorize you to vote your shares held in "street name" at the annual meeting. Please contact the organization that holds your shares for instructions regarding obtaining a legal proxy. You must bring a copy of the legal proxy to the annual meeting and ask for a ballot when you arrive.

What Is the Quorum Required to Transact Business?

At the close of business on April 1, 2019, the record date, there were 53,108,053 shares of our common stock outstanding. Our bylaws require that a majority of our common stock be represented, in person or by proxy, at the meeting in order to constitute the quorum we need to transact business at the meeting. We will count broker non-votes and proxies marked "abstain" as present in determining whether a quorum exists.

CORPORATE GOVERNANCE

Significant Governance Highlights

At IPG Photonics, we believe that strong and effective corporate governance procedures and practices are an extremely important part of our corporate culture. The following summarizes the structure of our Board and key elements of our corporate governance framework:

Director Independence	Tenure of Independent Directors	Average Age of Independent Directors
Seven of ten directors are independent Audit, Compensation and Nominating and Corporate Governance Committees composed entirely of independent directors	<1 year: Dougherty 2 years: Lego 5 years: Meurice and Seifert 7 years: Peeler 13 years: Gauthier 19 years: Child Average tenure: 7 years	Age: 62.4 years
Meeting of Independent Directors	**Board Meeting Attendance**	**Board Leadership and Structure**
Executive sessions of independent directors are conducted during each Board meeting	Each of our directors met the 75% attendance benchmark for board and committee meeting attendance	Elected Annually Presiding Independent Director John R. Peeler
Voting Standard for Election of Directors	**Share Ownership Guidelines**	**Board Self-Assessments**
Majority vote with director resignation policy for failure to receive a majority vote in uncontested director elections	**Directors** 3x cash retainer or 3,000 shares **CEO** 5x base salary **Other executive officers** 1x base salary or 5,000 shares Directors and officers exceed guidelines	Board and Committee self-assessments on a regular basis
Chief Executive Officer Performance	**Hedging/Pledging Transactions**	**Clawback Policy**
Annual review by independent directors Independent directors determine CEO compensation	Strict policy of no hedging of company shares and limited pledging	Robust policy
Advisory Vote on Named Executive Officer Compensation	**Stockholder Rights Plan ("Poison Pill")**	**Oversight of Risk**
98% of stockholders voted in favor of executive compensation at the 2017 annual meeting Triennial Vote	No stockholder rights plan in place	The Board as a whole exercises its oversight responsibilities with respect to material risks The Board has delegated responsibility for oversight of specific risks to Board committees

The Board recently approved enhancements to our corporate governance:

- ***Proxy Access.*** In 2019, we adopted proxy access bylaw amendments. Proxy access refers to the right of a long-term stockholder to nominate alternative board candidates on the Company's proxy card for the Company's annual meeting of stockholders and utilize the Company's proxy statement to solicit votes for the stockholder's nominees.
- ***Majority Voting for Uncontested Elections.*** In 2018, we adopted majority voting provisions to our bylaws that provide for election of directors under a majority voting standard with a director resignation policy for failure to receive a majority vote in an uncontested election of directors.

Additional information is provided below regarding these and certain other key corporate governance policies, which we believe enable us to manage our business in accordance with high standards of business practices and in the best interest of our stockholders.

Corporate Governance Guidelines

Our Board has adopted Corporate Governance Guidelines that outline, among other matters, the roles and functions of the Board, the responsibilities of various Board committees and the mission of the Board. Each of the Board committees has a written charter that sets forth the purposes, goals and responsibilities of the committees as well as qualification for committee membership, procedures for committee membership, appointment and removal, committee structure and operations and committee reporting to the entire Board.

The Corporate Governance Guidelines provide, among other things, that:

- a majority of our Board must be independent,
- the Presiding Independent Director presides over executive sessions of independent directors,
- the Board appoints all members and chairpersons of the Board committees,
- the Audit, Compensation, and Nominating and Corporate Governance Committees consist solely of independent directors,
- the independent directors meet periodically in executive sessions without the presence of the non-independent directors or members of our management,
- directors may not serve on the boards of more than three other public companies or on more than two other audit committees of public companies,
- evaluation of the Board is conducted annually, and
- the Board and key officers should have a meaningful financial stake in the Company.

The Board reviews changing legal and regulatory requirements, evolving best practices and other developments. The Board modifies the Corporate Governance Guidelines and its other corporate governance policies and practices from time to time, as appropriate. Several of our policies, including or Corporate Governance Guidelines and committee charters, may be found at *investor.ipgphotonics.com/governance/governance-documents*. Note that information on our website does not constitute part of this proxy statement.

Executive Sessions. Our independent directors meet privately, without employee directors or management present, at least four times during the year. These private sessions are generally held in conjunction with the regular quarterly Board meetings. Other private meetings of the independent directors are held as often as deemed necessary by them. The Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee meet without employee directors or management present from time to time as they deem necessary.

Director Meetings and Policy Regarding Board Attendance. It has been the practice of our Board and its committees to hold at least four in-person regular meetings each year. The Board and its committees also have telephone meetings throughout the year. See "Standing Committees and Board Membership" below for additional information regarding meetings held in 2018. In accordance with our Corporate Governance Guidelines, our directors are expected to prepare for, attend and actively participate in meetings of the Board and its committees. Our directors are expected to spend the time needed at each meeting and to meet as frequently as necessary to properly discharge their responsibilities. We encourage members of our Board to attend annual meetings of stockholders, but we do not have a formal policy requiring them to do so. In 2018, three of the directors in office attended the annual meeting of stockholders.

Stock Ownership Guidelines. The Board adopted stock ownership guidelines to more closely align the interests of our directors and executive officers with those of our long-term stockholders. Under the guidelines, the following persons are expected to maintain a minimum investment in our common stock as follows: for non-employee directors, the lesser of 3,000 shares or three times their annual cash Board retainer (excluding committee retainers); for the Chief Executive Officer, five times his annual salary; and for senior executive officers, the lesser of 5,000 shares or one times their respective annual salaries. Vested stock options and unvested restricted stock units count toward the stock ownership levels. Indirect ownership of shares through a separate legal entity counts toward fulfillment of the ownership guidelines. These ownership levels are to be achieved no later than four years after the election as a director or as an executive officer, except that prior to such time the director or officer is expected to retain a certain portion of stock issued upon exercise of stock options or vesting of restricted stock units until the minimum ownership levels are attained. All directors and executive officers were in compliance with our stock ownership guidelines as of December 31, 2018.

Board Self-Assessments. The Board conducts annual self-evaluations and its committees conduct bi-annual self-assessments to determine whether they are functioning effectively. The Nominating and Corporate Governance Committee oversees the Board and committee self-assessments. Each committee also reviews its own performance bi-annually and reports the results to the Board. Each committee reviews and reassesses the adequacy of its charter annually and recommends proposed changes to the Board.

Prohibition on Hedging; Limits on Pledging. Under our insider trading policy, no director or employee may engage in shorting shares of our common stock, or buying or selling puts, calls or derivatives related to our common stock or other Company securities, which includes equity compensation. A director or officer of the Company may not pledge shares constituting more than 20% of his or her total stock ownership. Pledges of shares constituting 20% or less of total stock ownership are subject to certain conditions.

Governance Trends and Director Education*.* The Board and its committees proactively monitor legislative and regulatory initiatives, as well as other corporate governance trends and their potential impact on the Company. Each director has access to publications and other resources that cover these matters. In addition, we reimburse relevant director education expenses.

The Board receives presentations from professionals with expertise in corporate law, governance and other related topics. These experts have specialized knowledge of regulatory actions, governance trends and various other corporate governance topics. Additionally, our directors participate in continuing education sessions to remain informed on recent trends applicable to their committee duties.

Likewise, newly elected directors attend a comprehensive director orientation program that covers, among other things, our strategy, business structure, financial performance, and competitive landscape. New committee members are also provided training on committee policies, practices and trends. As part of this program, directors are invited to participate in a tour of selected facilities of the Company. To further familiarize directors with our expanding operations, we conduct Board meetings at our major facilities from time to time.

Code of Business Conduct. We have a code of business conduct that applies to all of our directors and employees, including our Chief Executive Officer, Chief Financial Officer and other executive officers. Our code of business conduct includes provisions covering conflicts of interest, business gifts and entertainment, outside activities, compliance with laws and regulations, insider trading practices, antitrust laws, payments to government personnel, bribes or kickbacks, corporate record keeping and accounting records. The code of business conduct is posted on our website at *investor.ipgphotonics.com/governance/governance-documents.*

Procedures for Submitting Complaints. We have procedures to treat complaints regarding accounting, internal accounting controls, auditing matters, fight against bribery, banking, and financial crime, including submission of confidential and anonymous concerns regarding questionable accounting, internal accounting controls or auditing matters raised by our directors, officers and employees. These procedures are posted on our website at *investor.ipgphotonics.com/governance/governance-documents.*

Standing Committees and Board Committee Membership

The Board has a standing Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee, each composed entirely of non-employee directors determined to be independent under the listing standards of Nasdaq. Under their written charters adopted by the Board, each of these committees is authorized and assured appropriate funding to retain and consult with external advisors, consultants and counsel. The table below sets forth the directors who are currently members or chairs of each of the standing Board committees in 2018. Asterisk (*) denotes Committee Chair and their respective functions.

Committee	Function	Members
Audit	• Providing oversight of financial management, the internal auditor function and the independent auditor. • Providing oversight with respect to our internal controls including that management is maintaining an adequate system of internal control such that there is reasonable assurance that assets are safeguarded and that financial reports are properly prepared; that there is consistent application of generally accepted accounting principles; and that there is compliance with management's financial reporting policies and procedures. • Pre-approving auditing and permissible non-audit services by our independent auditor, reviewing and discussing out annual and quarterly financial statements and related disclosures, and coordinating. • Meeting periodically with the independent auditor, management and internal auditor function (including in private sessions) to review their work and confirm that they are properly discharging their respective responsibilities. • Appointing the independent auditor. For more information on Audit Committee activities in 2018, see the Audit Committee Report on page 50 of this proxy statement and "Proposal 2: Ratify Independent Registered Public Accounting Firm" on page 50.	Seifert* (1)(2) Dougherty (1)(2) Gauthier (1)(2) Lego (1)(2)
Compensation	• Reviewing and recommending to the independent directors the CEO's base salary and opportunities for annual and long-term compensation. • Reviewing and approving compensation decisions recommended by the CEO for the other executive officers, including setting base salaries, annual performance bonuses, long-term incentive awards, severance benefits and perquisites. • Setting our compensation philosophy and composition of the group of peer companies used for comparison of executive compensation. • Reviewing and recommending for approval by the Board the compensation for non-employee directors. • Administering the equity compensation plans under which we compensate our executive officers and other key employees. • Retaining an independent compensation consultant firm, Radford, a unit of Aon Hewitt ("Radford"), for matters related to executive officer and director compensation, and outside legal counsel to provide advice on compensation-related matters. • Preparing the Compensation Committee Report included in this proxy statement on page 39 and overseeing management's risk assessment of compensation for all employees and compensation-related risks as delegated by the Board.	Lego* (2) Dougherty (2) Meurice (2) Peeler (2)
Nominating and Corporate Governance	• Overseeing matters of corporate governance, including the evaluation of the performance and practices of the Board. • Developing and recommending criteria for Board membership. • Reviewing possible candidates for the Board and recommending director nominees to the Board for approval. • Overseeing the process for the performance evaluations of the Board and its committees. • Engaging in Board succession planning to ensure boardroom skills are aligned with IPG's long-term strategic plan. • Reviewing and recommending director orientation, stock ownership guidelines, delegation of authority to management, insider trading guidelines, and consider questions of possible conflict of interest, including related party transactions, as such questions arise. • Reviewing and recommending risk oversight responsibilities of the Board and its committees and of the independent directors as a group.	Meurice* Child Peeler Seifert

1. The Board has determined that each member of the Audit Committee is financially literate. The Board has designated Ms. Lego and Mr. Seifert, who are each independent directors under the Nasdaq listing standings and the SECs audit committee requirements, as “audit committee financial experts” pursuant to the SEC’s final rules implementing Section 407 of the Sarbanes-Oxley Act. Stockholders should understand that the designation of Ms. Lego and Mr. Seifert each as an “audit committee financial

expert" is an SEC disclosure requirement and that it does not impose upon them any duties, obligations, or liabilities that are greater than those imposed on them as members of the Audit Committee and the Board in the absence of such designation.

2. The Board has determined that each member of the Audit and Compensation Committees meets the independence standards specific to members of such committees under Nasdaq guidelines and SEC rules.

Copies of the charters of each of the three committees can be found on our website at *investor.ipgphotonics.com/governance/governance-documents*.

The table below sets forth the number of meetings held by each committee and the full Board in 2018. All incumbent directors attended 75% or more of the aggregate meetings of the Board and committees on which they served during 2018. We encourage directors to attend the annual meeting of stockholders, but we do not have a formal policy regarding such attendance. Last year, three of the directors in office attended the annual meeting.

	Board of Directors	Audit	Compensation	Nominating and Corporate Governance
Meetings held in 2018	6	7	8	6
Written consents in 2018	3	0	0	0

Nomination of Directors

Director Selection Guidelines. The Nominating and Corporate Governance Committee has approved guidelines for selecting directors. Criteria considered in the selection of directors include:

- the extent that the director/potential director has demonstrated excellence, leadership and significant experience in a field of endeavor;
- whether the director/potential director assists in achieving a collective membership on the Board with a broad spectrum of experience and expertise;
- diverse professional experience, substantive expertise, skills and background, as well as diversity in personal characteristics, such as age, ethnicity, gender and race;
- whether the director/potential director can read and understand financial statement fundamentals and is committed to representing the long-term interests of the Company's stockholders, while keeping in perspective the interests of the Company's customers, employees and the public;
- the needs of the Company at the time of nomination to the Board and the fit of a particular individual's skills and personality with those of the other directors in building a Board that is effective and responsive to the needs of the Company; and
- whether the director/potential director meets the independence requirements of the listing standards of the Nasdaq and SEC rules (where independence is desired).

No potential director (excluding any incumbent director) with an age less than 21 years or greater than 72 years is eligible for election as a Board member. Each director/potential director must comply with the limits on other board memberships in our Corporate Governance Guidelines.

The Nominating and Corporate Governance Committee does not assign specific weights to particular criteria and no particular criterion is necessarily applicable to all prospective nominees. The Nominating and Corporate Governance Committee seeks a Board that reflects diversity, in experience, age, ethnicity, national origin, gender and race, although it does not have formal objective criteria for determining the degree of diversity desired on the Board.

In the last few years, the Board has taken an active approach to refreshing its members in order to increase the effectiveness of the Board, including by increasing its focus on Board diversity. For example, the Board has added a female director and two directors born in Europe with significant international business experience. In 2019, we added a director with experience in photonics and optical components businesses. Of these newer directors, two were under 60 years old when they joined our Board. We typically seek candidates with experience on public company boards as such candidates understand the role and duties of directors and individually who add different sets of experience and skills that are important to the Company. Based on this criterion, we have added directors with photonics, electronics and semiconductor equipment industry backgrounds, larger company and

entrepreneurial experience, European and Asia experience, as well as experience in positions associated with accounting, finance and information technology, all of which contribute to the quality of the review and oversight by the Board, Board-management discussions and IPG's long-term strategy.

Director Nomination Process. The Nominating and Corporate Governance Committee identifies potential director nominees through contacts of the Board, executives and a variety of other sources. The committee has retained and may in the future retain a search firm or utilize third-party database search tools to identify director nominees.

The Nominating and Corporate Governance Committee considers several factors prior to nominating a candidate. Generally, the committee considers the existing size, future requirements of the Board, composition skills and diversity of the Board, evaluates biographical information and other background material and interviews each candidate selected. The Nominating and Corporate Governance Committee applies director selection criteria adopted by it based on the circumstances at the time and the criteria set forth in our Corporate Governance Guidelines.

The Nominating and Corporate Governance Committee considers all director candidates identified through the processes described above and evaluates each of them, including incumbents, based on the same criteria. If based on the committee's initial evaluation, a director candidate continues to be of interest to the Nominating and Corporate Governance Committee, the chair of such committee and other committee members will interview the candidate and communicate the evaluation to the committee and executive management. Additional interviews are conducted and all members of the Board may interview the final candidates. Ultimately, the Nominating and Corporate Governance Committee will meet to finalize its list of recommended candidates for the Board's consideration.

The Nominating and Corporate Governance Committee also considers candidates for nomination as a director submitted by stockholders. The Nominating and Corporate Governance Committee's evaluation process and criteria does not vary based upon whether a candidate is recommended by a stockholder. However, the procedural requirements set forth in our bylaws and the procedures described under "*Other Matters - 2020 Annual Meeting and Nominations*" must be met.

Proxy Access Bylaw. In 2019, we adopted a proxy access provision in our bylaws. It permits a stockholder, or group of up to 20 eligible stockholders, that has maintained continuous ownership of three percent or more of our common stock continuously for at least three years to include in our proxy materials for an annual meeting of stockholders a number of director nominees constituting up to the greater of two director nominees or 20 percent of the number of directors up for election as of the last day on which a notice of proxy access nomination may be delivered to the Company.

The proponent is required to provide the information about itself and the proposed nominee(s) that is specified in the proxy access provision of our bylaws. The required information must be in writing and provided to the Secretary of the Company not less than 120 days nor more than 150 days prior to the anniversary of the date that the Company first distributed its proxy statement to stockholders for the immediately preceding annual meeting of stockholders. We are not required to include any proxy access nominee in our proxy statement if the nomination does not comply with the proxy access requirements of our bylaws. Any stockholder considering utilizing proxy access should refer to the specific requirements set forth in our bylaws.

Board Leadership Structure

As of the date of this proxy statement, the positions of Chairman of the Board and Presiding Independent Director are held by two different individuals. Dr. Gapontsev, our Chief Executive Officer, also serves as the Chairman of the Board. Our independent directors determined several years ago that, for effective Board governance, it is important to have a presiding independent director. Mr. Peeler has been selected as the Presiding Independent Director for the term ending May 2019.

Dr. Gapontsev became our Chief Executive Officer and Chairman in 1998. His dual role was created when the Board was first established in 2000. Our directors believe that each of the possible leadership structures for a board has its particular benefits and drawbacks which must be considered in the context of the specific circumstances, culture and challenges facing a company, and that such consideration is the responsibility of a company's board that has a diversity of views and experiences. Our directors come from a variety of organizational backgrounds and have direct experience with a wide range of leadership and management structures. The makeup of our Board puts it in a strong position to evaluate the pros and cons of the various types of board leadership structures and to ultimately decide which form is in the best interests of our stockholders. The independent directors believe that having

Dr. Gapontsev serve in both capacities is in the best interest of the Company and its stockholders because it allows Dr. Gapontsev to more effectively execute the Company's strategic initiatives and business plans. He is the founder of the Company and beneficially owns approximately 14% of the Company's common stock. The duality of Dr. Gapontsev's roles as Chairman and Chief Executive Officer creates clear and unambiguous authority, which is essential to effective management. The Board and management can respond more effectively to a distinct line of authority. Further, given that he is closer to the Company's business than any other Board member and he has the benefit of over twenty-five years of operations, technology, strategy and executive management experience within the Company, Dr. Gapontsev is best-positioned to set the Board's agenda and provide leadership. Dr. Gapontsev's extensive scientific and business experience also gives him vast industry knowledge, which the Board believes is critical for the chairman of the board of a company that operates in a highly technical industry. The combined Chairman/Chief Executive structure is a leadership model that has served our stockholders well for many years.

The Board also recognizes the importance of having in place, and building upon, a counterbalancing structure to ensure that it functions in an appropriately independent manner. As a result, the Board enhanced its governance structure several years ago by creating the position of Presiding Independent Director with leadership authority and responsibilities. The duties and responsibilities of the Presiding Independent Director include: setting the agenda for and leading executive sessions of the independent directors; providing consolidated feedback from those meetings to the Chairman and Chief Executive Officer; providing input on the agenda for Board meetings; periodically providing feedback on the quality and quantity of information flow from management; having the authority to call meetings of the independent directors; facilitating discussions outside of scheduled Board meetings among the independent directors on key issues as required; serving as a non-exclusive liaison with the Chairman and Chief Executive Officer in consultation with the other independent directors; interviewing Board candidates as appropriate; and leading the determination of the goals and objectives for the Chairman and Chief Executive Officer with the input of the independent directors and the annual performance evaluation for him with the input of the independent directors. In the event of a crisis, the Presiding Independent Director would have an increased role in crisis management oversight. The independent directors of our Board elected Mr. Peeler as the Presiding Independent Director for the term ending May 2019, and this position is voted upon annually by our independent directors.

The independent directors as a group determine the CEO’s base salary and opportunities for annual and long-term compensation based upon recommendations of the Compensation Committee. Each year, the independent directors also determine the annual goals and objectives for the CEO, assess the CEO’s attainment of them and decide the CEO’s individual performance award under the Company’s annual incentive plan.

The Board believes that the position and responsibilities of the Presiding Independent Director and the regular use of executive sessions of the independent directors without the CEO or other executive officers present, along with the Company's strong committee system and substantial majority of independent directors, allow the Board to maintain effective oversight.

Risk Oversight

The Board and management recognize that effectively monitoring and managing risk are essential to the successful execution of the Company's strategy. The Board reviews strategy regularly with management and provides input to management. As part of its oversight of operations, the entire Board reviews and discusses the performance of the Company and the principal risks involved in the operations and management of the Company. The Board allocates risk oversight responsibility among the full Board, the independent directors acting as a group and the three standing committees of the Board. The Nominating and Corporate Governance Committee periodically reviews risk oversight matters and responsibilities, then makes recommendations to the Board to allocate risk oversight responsibilities.

The Board as a whole reviews risk management practices and a number of significant risks in the course of its reviews of corporate strategy, management reports and other presentations. The independent directors as a group, the Audit Committee and the Compensation Committee all participate in senior executive succession and resource planning. The standing committees also contribute to succession and resource planning oversight for management. The Audit Committee oversees certain financial risks and recommends guidelines to monitor and control such exposures. The Compensation Committee reviews the Company's executive compensation programs, their effectiveness at both linking executive pay to performance and aligning the interests of our executives and our stockholders, and oversees an entity-wide compensation risk assessment. The Nominating and Corporate Governance Committee reviews significant related person transactions with directors, executives and managers and may conduct negotiations on behalf of the Company in connection with related person transactions and retain independent advisors to assist it. The Board's risk oversight role is independent from the Company's day-to-day

management, as more than two-thirds of the current directors are independent and therefore have no conflicts that might discourage critical review of the Company's risks.

Communication with our Board of Directors

Interested parties wishing to write to the Board, a specified director or a committee of the Board should send correspondence to the Office of the Secretary, IPG Photonics Corporation, 50 Old Webster Road, Oxford, Massachusetts 01540. All written communications received in such manner from stockholders of the Company will be forwarded to the members or committee of the Board to whom the communication is directed or, if the communication is not directed to any particular member(s) or committee(s) of the Board, the communication shall be forwarded to all members of the Board.

RELATED PERSON TRANSACTIONS

The Board adopted a related person transaction policy that requires the Company's executive officers, directors, nominees for director and owners of more than 5% of the Company's shares to promptly notify the Secretary in writing of any transaction in which (i) the amount exceeds $100,000, (ii) the Company is, was or is proposed to be a participant and (iii) such person or such person's immediate family members ("Related Persons") has, had or may have a direct or indirect material interest (a "Related Person Transaction"). Subject to certain exceptions in the policy, Related Person Transactions must be brought to the attention of the Nominating and Corporate Governance Committee for an assessment of whether the transaction or proposed transaction should be permitted. In deciding whether to approve or ratify the Related Person Transaction, the Nominating and Corporate Governance Committee considers relevant facts and circumstances. If the Nominating and Corporate Governance Committee determines that a Related Person has a direct or indirect material interest in any such transaction, the Committee must review and approve, ratify or disapprove the Related Person Transaction.

Pursuant to our Corporate Governance Guidelines, we expect each of our directors to ensure that other existing and future commitments do not conflict with or materially interfere with his or her service as a director. Directors are expected to avoid any action, position or interest that conflicts with our interests or gives the appearance of a conflict. In addition, directors are required to inform the chairman of our Nominating and Corporate Governance Committee prior to joining the Board of another public company to ensure that any potential conflicts, excessive time demands or other issues are carefully considered.

The Nominating and Corporate Governance Committee reviewed and approved the following Related Person Transactions which were conducted on an "arm's length" basis with the Company. Members of the Nominating and Corporate Governance Committee having an interest in a transaction excuse themselves for the consideration and approval of the transaction in which they have an interest.

In 2018, the Company purchased from Veeco Instruments Inc. various equipment, parts and services amounting to approximately $947,325 Mr. Peeler, a non-employee member of our Board, is the Executive Chairman of Veeco Instruments Inc. For several years before Mr. Peeler was elected to our Board, Veeco Instruments Inc. was a provider of equipment, parts and services to the Company.

Dr. Gapontsev leases the annual right to use 25% of the Company's corporate aircraft under an October 2014 lease (the "2014 Lease"), which was superseded by a new lease signed in July 2017 (the "2017 Lease") in connection with the purchase of a different aircraft. The 2017 Lease expires in July 2022. The annual lease rate under the 2017 Lease is $924,700 and future rent payments are adjusted annually. Dr. Gapontsev paid the Company $924,721 in 2018 for use of the aircraft, and in addition directly paid an unrelated flight management firm for the operating costs of his private use, including pilot fees, fuel and other costs.

BOARD OF DIRECTORS

Nominees for Director

The Board currently has set the number of directors at ten. The following table sets forth certain information as of the date of this proxy statement regarding the director nominees. Each of our incumbent directors has been nominated by the Board for election at our 2019 annual meeting.

Valentin P. Gapontsev, Ph.D.

Director since 1998
Chief Executive Officer and Chairman of the Board
Age 80

Dr. Gapontsev has been the Chief Executive Officer and Chairman of the Board of IPG since our inception. Prior to founding the company in 1990, Dr. Gapontsev served as senior scientist in laser material physics and head of the laboratory at the Soviet Academy of Science's Institute of Radio Engineering and Electronics in Moscow. In 2006 he was awarded the Ernst & Young® Entrepreneur of the Year Award for Industrial Products and Services in New England and in 2009, he was awarded the Arthur L. Schawlow Award by the Laser Institute of America. In 2011 he received the Russian Federation National Award in Science and Technology, and he was selected as a Fellow of the Optical Society of America. Dr. Gapontsev holds a Ph.D. in Laser Materials from the Moscow Institute of Physics and Technology.

Key Attributes, Experience and Skills
Dr. Gapontsev is the founder of the Company and has successfully led the Company and the Board since the Company was formed. In the roles of Chief Executive Officer and Chairman of the Board, he has been responsible for formulation and execution of IPG's strategy and providing leadership and oversight of IPG's business during a period of rapid and profitable growth, as well as business contractions. He has over thirty years of academic research experience in the fields of solid state laser materials, laser spectroscopy and non-radiative energy transfer between rare earth ions and is the author of many scientific publications and several international patents. His strategic foresight and entrepreneurial spirit along with his deep scientific understanding has guided the Company's continued growth and technology leadership. Under Dr. Gapontsev's leadership, the Company continues to generate strong revenue and earnings growth.

Eugene A. Scherbakov, Ph.D.

Director since 2000
Chief Operating Officer, Managing Director of IPG Laser GmbH and Senior Vice President of Europe
Age 71

Dr. Scherbakov has served as Chief Operating Officer since February 2017, Managing Director of IPG Laser GmbH, our German subsidiary, since August 2000 and Senior Vice President-Europe since 2013. He served as the Technical Director of IPG Laser from 1995 to August 2000. From 1983 to 1995, Dr. Scherbakov 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. Scherbakov graduated from the Moscow Physics and Technology Institute with an M.S. in Physics. In addition, Dr. Scherbakov 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.

Key Attributes, Experience and Skills
Dr. Scherbakov has extensive knowledge of the Company's business as Managing Director of IPG Laser GmbH, which produces a large volume of our products and is the source of many developments in products, technology and applications. The leadership and operational expertise of Dr. Scherbakov have contributed to IPG increasing production, lowering manufacturing costs and maintaining high margins compared to our industry peers.

He also has extensive technological knowledge of fiber lasers, their components and the manufacturing process. His service as an executive officer of the Company provides the Board with a detailed understanding of the Company's operations, sales and customers.

Igor Samartsev

Director since 2006
Chief Technology Officer
Age 56

Since 2011, Mr. Samartsev has served as our Chief Technology Officer and since 2005, he was the Deputy General Manager of our Russian subsidiary, NTO IRE-Polus. Prior to that time, he served in technical leadership roles at NTO IRE-Polus. Mr. Samartsev holds an M.S. in Physics from the Moscow Institute of Physics and Technology.

Key Attributes, Experience and Skills
Mr. Samartsev is one of the founders of the Company and has a significant management role in the Company as Chief Technology Officer. As one of the key developers of the technology platform of the Company and leader in the development of many new optical technologies and products that form part of the Company's strategic plan, the Board values Mr. Samartsev's understanding of technology developments at our company.

Michael C. Child

Director since 2000
Independent Director
Age 64
Nominating and Corporate Governance Committee
Directorship at Other Public Company: Finisar Corporation

Since July 1982, Mr. Child has been employed by TA Associates, Inc., a private equity investment firm, where he currently serves as Senior Advisor and, prior to January 2011, he was Managing Director. Mr. Child holds a B.S. in Electrical Engineering from the University of California at Davis and an M.B.A. from the Stanford University Graduate School of Business. From September 2011 until December 2015, Mr. Child was a Lecturer at the Stanford University Graduate School of Business.

Key Attributes, Experience and Skills
Mr. Child is an established and experienced investor, including in technology companies, from his three decades of experience at TA Associates, Inc., a private equity investment firm. Over the course of his career, he has overseen numerous investments and sales of portfolio companies, and served on the boards of public and private companies. Since June 2010, he has served on the board of Finisar Corporation, a developer and manufacturer of optical subsystems and components for networks. Through his experiences, he has gained valuable knowledge in the management, operations and finance of technology growth companies.

Gregory P. Dougherty

Director since 2019
Independent Director
Age 59
Audit Committee
Compensation Committee
Directorship at Other Public Company: Infinera Corporation, Fabrinet

Mr. Dougherty served as Chief Executive Officer of Oclaro, Inc., a maker of optical components and modules for the long-haul, metro and data center markets, from June 2013 and has served as a director of Oclaro from April 2009, until its December 2018 acquisition. Mr. Dougherty in January 2019 joined the board of Infinera Corporation, a provider of optical transport networking equipment, software and services to telecommunications service providers and others, and in February 2019 joined the board of Fabrinet, a provider of advanced optical packaging and precision optical, electro-mechanical, and electronic manufacturing services to OEMs of complex products. Prior to Oclaro, Mr. Dougherty served as a director of Avanex Corporation ("Avanex"), a leading global provider of intelligent photonic solutions, from April 2005 to April 2009, when Avanex and Bookham merged to create Oclaro. Mr. Dougherty also served as a director of Picarro, Inc., a manufacturer of ultra-sensitive gas spectroscopy equipment

using laser-based technology, from October 2002 to August 2013, and as its Interim Chief Executive Officer from January 2002 to April 2004. From February 2001 until September 2002, Mr. Dougherty was the Chief Operating Officer at JDS Uniphase Corporation ("JDS"), an optical technology company. Prior to JDS he was the Chief Operating Officer of SDL, Inc., a maker of laser diodes, from March 1997 to February 2001 when they were acquired by JDS. Mr. Dougherty earned a B.S. in optics from the University of Rochester.

Key Attributes, Experience and Skills
Mr. Dougherty contributes to the Board significant leadership, operations, sales, marketing and general management experience in optics and components. For over three decades, Mr. Dougherty has worked in the optical and components industry and can provide the Board with insight into the industry and conditions in which the Company operates. Having been recently a CEO at a publicly-held company, he is familiar with a large range of management, corporate and board responsibilities and brings valuable perspectives to the board as an independent director.

Henry E. Gauthier

Director since 2006
Independent Director
Age 78
Audit Committee

Mr. Gauthier served as Chairman of the board of directors of Coherent, Inc., a manufacturer of photonics products, from February 1997 to October 2002 and was its President from 1983 to 1996. Mr. Gauthier served as Vice Chairman of the board of directors of Coherent, Inc. from October 2002 to March 2006. Mr. Gauthier was President from February 2005 to May 2005, consultant from January 2004 to February 2005 and June 2005 to December 2006, and Chairman of the board of directors from May 2005 to December 2008, of Reliant Technologies, Inc., which was acquired in December 2008 by Solta Medical, Inc., a manufacturer of medical laser systems. Since July 1996, Mr. Gauthier has served as a principal at Gauthier Consulting. Mr. Gauthier attended the United States Coast Guard Academy, San Jose State University, and the Executive Institute of the Stanford University Graduate Business School.

Key Attributes, Experience and Skills
Mr. Gauthier has extensive management and operational experience in the laser industry from over two decades as an executive of a large publicly-held laser company, Coherent, Inc., as well as emerging growth companies such as Reliant Technologies, Inc. He has obtained an in-depth knowledge of operations, manufacturing, sales and markets, and finances through his CEO positions at these laser-related companies. Having been a past member of the audit, compensation, and nominating and corporate governance committees of public and private company boards in the technology field, Mr. Gauthier is familiar with a full range of corporate and board functions and lends this experience to the Company's Board as an independent director.

Catherine P. Lego

Director since 2016
Independent Director
Age 62
Audit Committee - Audit Committee Financial Expert
Compensation Committee (Chair)
Directorship at Other Public Companies: Lam Research Corporation and Cypress Semiconductor Corporation

Ms. Lego is a professional board member and also provides consulting services to early-stage technology companies. From 1999 to 2009 Ms. Lego served as the general partner of The Photonics Fund, LLP, a venture capital investment firm focused on early stage investing in component, module and systems companies in the fiber optic telecommunications market. She served as the director of finance and investment analyst at Oak Investment Partners from 1981 to 1984, and as a general partner from 1985 to 1992. Ms. Lego serves on the boards of directors of Lam Research Corporation, a semiconductor equipment company, and Cypress Semiconductor Corporation, a maker of microcontrollers,integrated circuits and memory devices. Ms. Lego holds a B.A. in Economics and Biology from Williams College and an M.S. in Accounting from the New York University Stern Graduate School of Business.

Key Attributes, Experience and Skills
Ms. Lego has extensive experience working with advanced technology and semiconductor companies.

From her current and prior service on the boards of several technology companies as well as her memberships of other audit, compensation and nominating and corporate governance committees, she is familiar with the issues faced and the processes that boards use to manage growth, risk, accounting, acquisitions, due diligence and integration, compensation and investor relations. In addition, she is a frequent speaker on board governance, ethics and audit quality at directors' colleges and events, including the E&Y Tapestry and KPMG audit committee round tables. Ms. Lego is a member of the NACD's Audit Committee Advisory Council. She brings valuable perspectives on the latest developments in audit, compensation and other matters to the Board.

Eric Meurice

Director since 2014
Independent Director
Age 62
Nominating and Corporate Governance Committee (Chair)
Compensation Committee
Directorship at Other Public Companies: Meyer Burger Technology AG, NXP Semiconductor N.V., SOITEC S.A. and UMICORE S.A.

Mr. Meurice was President and Chief Executive Officer of ASML Holding NV, a provider of semiconductor manufacturing equipment and technology, from October 2004 to June 2013, and Chairman until March 2014. From 2001 to 2004, he was Executive Vice President of the Thomson Television Division of Thomson, SA, an electronics manufacturer. From 1995 to 2001, he served as head of Dell Computer's Western, Eastern Europe and EMEA emerging market businesses. Before 1995, he gained significant technology experience at ITT Semiconductors and at Intel Corporation. Mr. Meurice served on the boards of Verigy Ltd. (a manufacturer of semiconductor test equipment), until its acquisition by Advantest Corporation in 2011, and ARM Holdings plc (a semiconductor intellectual property supplier) from July 2013 to March 2014. He has been on the board of NXP Semiconductors N.V. (a semiconductor company) since April 2014, of UMICORE S.A. (a recycling and materials company), since April 2015, and of SOITEC S.A. (a semiconductor materials manufacturer) since July 2018. He will not stand for re-election at the May 2, 2019 annual general meeting of Meyer Burger Technology AG (an operating mechanical engineering company) where he was a member from May 2018. Mr. Meurice earned a Master's degree in mechanics and energy generation at the Ecole Centrale de Paris, a Master's degree in Economics from la Sorbonne University, Paris, and an M.B.A. from the Stanford University Graduate School of Business.

Key Attributes, Experience and Skills
Mr. Meurice has extensive skills and experience as a manager of several rapidly-growing, complex and global businesses in the capital equipment and electronics fields with several billions of dollars in revenues, most recently as former President and Chief Executive Officer of ASML. He has experience managing a publicly-held company as well as experience on serving on several public company boards in the equipment and technology fields, such as NXP Semiconductor N.V., UMICORE, Verigy, Ltd. and ARM Holdings plc. Mr. Meurice also has a record of proven leadership as a strategic thinker, operator and marketer at the businesses he managed.

John R. Peeler

Director since 2012
Presiding Independent Director
Age 64
Compensation Committee
Nominating and Corporate Governance Committee
Directorship at Other Public Company: Veeco Instruments Inc.

Mr. Peeler was Chief Executive Officer of Veeco Instruments Inc. ("Veeco") from July 2007 until September 2018, and Chairman of its Board of the Directors since May 2012. He has served as Executive Chairman of Veeco since October 2018. Veeco is a developer and manufacturer of MOCVD, molecular beam epitaxy, ion beam and other advanced thin film processes equipment. He was Executive Vice President of JDS Uniphase Corp. ("JDSU") and President of the Communications Test & Measurement Group of JDSU, which he joined upon the closing of JDSU's

merger with Acterna, Inc. ("Acterna") in August 2005. Before joining JDSU, Mr. Peeler served as President and Chief Executive Officer of Acterna. He has a B.S. and M.E. in Electrical Engineering from the University of Virginia.

Key Attributes, Experience and Skills
Over the course of his career, Mr. Peeler has managed several high-growth technology companies. In addition, he has developed managerial leadership skills through his former position as Chief Executive Officer of Veeco, a publicly-traded company with substantial international operations. His managerial positions have provided him with in-depth knowledge of the service needs of customers in demanding markets, including semiconductor capital equipment, various manufacturing models, marketing and sales. In these roles, he has also been responsible for attracting and incentivizing executives on his team. These experiences have provided him important insights in support of his positions as Presiding Independent Director and a member of the Compensation Committee and the Nominating and Corporate Governance Committee.

Thomas J. Seifert

Director since 2014
Independent Director
Age 55
Audit Committee (Chair) - Audit Committee Financial Expert
Nominating and Corporate Governance Committee
Directorship at Other Public Company: CompuGroup Medical, SE

Mr. Seifert is Chief Financial Officer of Cloudflare, Inc., an internet performance and security provider, from June 2017 to the present. Since February 2018, he is a member of the board of CompuGroup Medical SE, a publicly held company in Germany, which provides software to support medical and organization activities in medical offices and facilities. Mr. Seifert was the Executive Vice President and Chief Financial Officer of Symantec Corporation, a provider of security, backup and availability solutions, from March 2014 to December 2016. Mr. Seifert served as Executive Vice President and Chief Financial Officer of Brightstar Corporation, a wireless distribution and services company, from December 2012 to March 2014. He was Senior Vice President and Chief Financial Officer at Advanced Micro Devices Inc., a semiconductor company, from October 2009 to August 2012, and served as Interim Chief Executive Officer from January 2011 to September 2012. From October 2008 to August 2009, Mr. Seifert served as Chief Operating Officer and Chief Financial Officer of Qimonda AG, a German memory chip manufacturer, and as Chief Operating Officer from June 2004 to October 2008. He also held executive positions at Infineon AG, White Oak Semiconductor, including the position as Chief Executive Officer, and Altis Semiconductor. Mr. Seifert has a Bachelor's degree and a Master's degree in Business Administration from Friedrich Alexander University and a Master's degree in Mathematics and Economics from Wayne State University.

Key Attributes, Experience and Skills
Mr. Seifert has extensive experience as both an operating executive and chief financial officer of large publicly-held international technology businesses, such as Symantec and Advanced Micro Devices. In these and other senior positions, he developed deep financial and accounting knowledge, as well as managerial leadership skills, in larger organizations. With his background in accounting, finance and management, Mr. Seifert brings broad skills and knowledge to the Board, the Audit Committee, and the Nominating and Corporate Governance Committee including internal controls, mergers and acquisitions and integrations.

Director Independence

Seven of our ten current directors are independent as defined by Nasdaq and SEC rules. A predominantly independent Board ensures that the Board is acting objectively and in the best interests of our stockholders. The independent directors also bring expertise and a diversity of perspectives to the Board. The culture of the Board enables directors to openly express their opinions in the boardroom and to raise challenges. The Nasdaq listing standards governing independence require that a majority of the members of the Board be independent as defined by Nasdaq. The Board conducted its annual review of director independence in March 2019. During this review, the Board examined all direct and indirect transactions or relationships between the Company or any of its subsidiaries and each current director and any immediate family member of the director and determined that no material relationships with the Company existed during 2018. On the basis of this review, the Board determined that each of the following directors qualifies as an independent director as defined in the Nasdaq guidelines and SEC rules: Michael C. Child, Gregory P. Dougherty, Henry E. Gauthier, Catherine P. Lego, Eric Meurice, John R. Peeler and Thomas J. Seifert. The Board had previously determined that Mr. William Hurley, who served on the Board during 2018, was independent. Additionally, the Board has determined that each member of the Audit Committee and the Compensation Committee meets the independence standards specific for members of such committees under Nasdaq guidelines and SEC rules.

Compensation Committee Interlocks and Insider Participation

No member of our Compensation Committee (Ms. Lego and Messrs. Dougherty, Meurice and Peeler) is or has been an officer or employee of our Company or any of our subsidiaries. None of our executive officers served as a member of:

- the compensation committee of another entity in which one of the executive officers of such entity served on our Compensation Committee;
- the compensation committee of another entity in which one of the executive officers of such entity served as a member of our Board; or
- the board of directors of another entity, one of whose executive officers served on our Compensation Committee.

Director Tenure

Since 2012, IPG has undertaken a significant “refresh” of its independent directors. Now, over 70% of our independent directors have seven years or less of service with IPG:



As of June 2019

The average tenure of our independent directors is seven years and the average age of our independent directors is 62 years. Fourteen percent of our independent directors represent gender diversity.

In determining whether to recommend a director for re-election, the Nominating and Corporate Governance Committee considers the director’s skills and expertise, participation in and contributions to the activities of the Board.

We believe that the tenure spectrum of our directors provides an effective mix of deep knowledge and new perspectives. The Board does not believe in a specific limit for the overall length of time an independent director may serve. Directors who have served on the Board for an extended period can provide valuable insight into the operations and future of the Company based on their experience with, and understanding of, the Company’s culture, history and objectives. Our Corporate Governance Guidelines provide that a director is expected to retire at the conclusion of the Board meeting immediately prior to a director’s 72nd birthday. The Board considered the

valuable continuing contribution of Mr. Gauthier and determined that he should remain on the Board in 2019. Mr. Gauthier, the former CEO of a large publicly-held laser developer and manufacturer, and Mr. Child, a former partner of a private equity fund, both have longer service on the Board. We see a strategic advantage from their senior-in-service status. Not only do they bring industry, acquisition and financial experiences, deep institutional knowledge, and historical context to the vitality and growth of IPG, they serve as seasoned and trusted advisors to Dr. Gapontsev and our executives.

Different tenures coupled with an independent and objective Board have served our stockholders well for many years.

PROPOSAL 1: ELECTION OF DIRECTORS

The Nominating and Corporate Governance Committee is responsible for identifying and evaluating nominees for director and for recommending to the Board a slate of nominees for election at the Annual Meeting. The Nominating and Corporate Governance Committee has recommended, and the Board has approved, the persons named as nominees for terms expiring in 2020 and, unless otherwise marked, a proxy will be voted for such nominees.

The stockholders are being asked to elect Dr. Gapontsev, Dr. Scherbakov, Mr. Samartsev, Mr. Child, Mr. Dougherty, Mr. Gauthier, Ms. Lego, Mr. Meurice, Mr. Peeler and Mr. Seifert to terms ending with the annual meeting to be held in 2020, until a successor is elected and qualified or until his or her earlier death, resignation or removal. All of the director nominees set forth in our proxy card have consented to being named in this proxy statement and to serving if elected. For more information regarding the nominees for director, see *"Board of Directors."*

In considering each director nominee and the composition of the Board as a whole, the Nominating and Corporate Governance Committee considers a diverse group of experiences, qualifications, attributes and skills, including diversity in age, gender, national origin, ethnicity and race, which the Nominating and Corporate Governance Committee believes enables a director nominee to make significant contributions to the Board, IPG and our stockholders.

The current-serving directors, including the nominees, collectively have a mix of various skills and qualifications, some of which are listed in the table below. These collective attributes enable the Board to provide insightful leadership as it strives to advance our strategies and deliver returns to stockholders.

Global Business Experience Experience working outside the United States and/or with global operations	**Mergers & Acquisitions Experience** Experience working on M&A transactions, which provides insight into developing and implementing strategies for our growing businesses
Financial Experience Experience with finance, accounting and/or financial reporting to help drive business strategy, growth and performance, and create stockholder value	**Public Company CEO Experience** Experience as a public company CEO to help us drive business strategy, growth and performance, and create stockholder value
Public Company Board Experience Experience working with publicly-traded companies and corporate governance issues to help us oversee an ever-changing mix of strategic, operational and compliance-related matters	**Capital Allocation Experience** Experience with capital allocation decision-making to help us allocate capital efficiently
Strategy Development Experience with the development and oversight of long-term planning	**Manufacturing and Industry Experience** Experience with manufacturing operations and optics/laser industry to help us drive operating performance

The Board does not contemplate that any of the nominees will be unable to stand for election, but should any nominee become unable to serve or for good cause will not serve, all proxies (except proxies marked to the contrary) will be voted for the election of a substitute nominee nominated by the Board.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE

"FOR" ALL OF THE NOMINEES FOR DIRECTOR

COMMON STOCK OWNERSHIP

The following table provides information about the beneficial ownership of our common stock as of April 1, 2019 by:

- each Named Executive Officer,
- each person who is a director or nominee,
- all executive officers and directors as a group and
- each person or entity known by us to own beneficially more than five percent of our common stock.

Percentage of beneficial ownership is based on 53,108,053 shares of common stock outstanding as of April 1, 2019.

Named Executive Officers and Directors (1)	Shares Owned	Right to Acquire Shares within 60 Days	Total Beneficial Ownership (2)	Percent
Michael C. Child (3)	28,483	42,360	70,843	*
Gregory P. Dougherty	—	—	—	*
Valentin P. Gapontsev, Ph.D. (4)	7,203,935	—	7,203,935	13.6%
Henry E. Gauthier	15,104	9,359	24,463	*
Catherine P. Lego	5,691	8,356	14,047	*
Angelo P. Lopresti (5)	16,471,612	45,647	16,517,259	31.1%
Timothy P.V. Mammen	27,026	35,087	62,113	*
Eric Meurice	7,813	18,782	26,595	*
Alexander Ovtchinnikov, Ph.D. (5)	16,506,119	23,155	16,529,274	31.1%
John R. Peeler	7,004	22,359	29,363	*
Igor Samartsev (6)(7)	907,569	12,037	919,606	1.7%
Eugene Scherbakov, Ph.D. (5)(6)	16,448,854	37,446	16,486,300	31.0%
Thomas J. Seifert	6,331	6,458	12,789	*
All executive officers and directors as a group (15 persons)	17,763,627	328,978	18,092,605	33.9%
Other >5% Stockholders				
Valentin Gapontsev Trust I (1)(2)(8)	14,580,003	—	14,580,003	27.5%
IP Fibre Devices (UK) Ltd. (1)(2)(9)	7,014,004	—	7,014,004	13.2%
The Vanguard Group (10)	3,707,827	—	3,707,827	7.0%

* Less than 1.0%

1. The contact address for each person or entity is in care of IPG Photonics Corporation, 50 Old Webster Road, Oxford, Massachusetts 01540.
2. In accordance with SEC rules, beneficial ownership includes any shares for which a person or entity has sole or shared voting power or investment power and any shares for which the person or entity has the right to acquire beneficial ownership within 60 days after April 1, 2019 through the exercise of any option or the vesting of a restricted stock unit.
3. Includes 3,274 shares held in the name of Jewell Partners LLC, in which Mr. Child is partial owner and Managing Member.
4. Includes 7,014,004 shares beneficially owned by IP Fibre Devices (UK) Ltd. (“IPFD”), of which Dr. Gapontsev is the sole managing director. Dr. Gapontsev has sole voting and investment power with respect to the shares held of record by IPFD and has a 3% economic interest in IPFD.
5. Includes (a) 7,565,999 shares owned of record by Valentin Gapontsev Trust I (“Gapontsev Trust I”), (b) 7,014,004 shares owned of record by IPFD which may be deemed to be beneficially owned by Gapontsev Trust I (see notes 8 and 9 below), (c) 900,451 shares beneficially owned by Valentin Gapontsev Trust II ("Gapontsev Trust II"), and (d) 956,950 shares beneficially owned by Valentin Gapontsev Trust III ("Gapontsev Trust III"), because such person is a trustee of each trust. Gapontsev Trust I, Gapontsev Trust II and Gapontsev Trust III were formed by CEO Valentin Gapontsev.
6. Each such person has an 8% economic interest in IPFD but does not possess voting or investment power with respect to such interest. Each such person disclaims beneficial ownership of the shares held by IPFD except to the extent of his economic interest therein.
7. Includes 549,650 shares held by the spouse of Mr. Samartsev and family trusts formed by her and 10,000 shares held by the mother of Mr. Samartsev's spouse. Mr. Samartsev disclaims beneficial ownership of such shares.
8. Includes 7,014,004 shares beneficially owned by IPFD, in which Gapontsev Trust I has a 48% economic interest. Gapontsev Trust I disclaims beneficial ownership of the shares held by IPFD except to the extent of its economic interest therein. See note 9 below.
9. Dr. Gapontsev has sole voting and investment power with respect to the shares held of record by IPFD. The following officers and directors of the Company or related parties have economic interests in IPFD: Gapontsev Trust I (48%), Dr. Gapontsev (3%), Mr. Samartsev (8%), Dr. Scherbakov (8%) and Gapontsev Trust III (2%). Each such person and entity (other than Dr. Gapontsev) does not possess voting or investment power with respect to such interest and each disclaims beneficial ownership of the shares held by IPFD except to the extent of his or its economic interest therein.
10. The address of The Vanguard Group is 100 Vanguard Boulevard, Malvern, PA 19355. Based solely on a Schedule 13G filed with the SEC on February 13, 2019.

EXECUTIVE OFFICERS

The following table sets forth certain information regarding our executive officers as of April 5, 2019.

Name	Age	Position
Valentin P. Gapontsev, Ph.D.	80	Chief Executive Officer and Chairman of the Board
Eugene A. Scherbakov, Ph.D.	71	Chief Operating Officer, Managing Director of IPG Laser GmbH, Senior Vice President, Europe and Director
Timothy P.V. Mammen	49	Chief Financial Officer and Senior Vice President
Angelo P. Lopresti	55	General Counsel, Secretary and Senior Vice President
Alexander Ovtchinnikov, Ph.D.	58	Senior Vice President, Components
Trevor D. Ness	46	Senior Vice President, World Wide Sales and Marketing
Igor Samartsev	56	Chief Technology Officer and Director
Felix Stukalin	57	Senior Vice President, North America Operations

The biographies of Dr. Gapontsev, Dr. Scherbakov and Mr. Samartsev are presented on pages 20 and 21 of this proxy statement. The biographies of our other executive officers are presented below.

Timothy P.V. Mammen has served as our Chief Financial Officer since July 2000 and as Vice President since November 2000. He was promoted to Senior Vice President in February 2013. Between May 1999 and July 2000, Mr. Mammen served as the Group Finance Director and General Manager of the United Kingdom operations for IPFD. Mr. Mammen was Finance Director and General Manager of United Partners Plc, a commodities trading firm, from 1995 to 1999 and, prior to that, he worked in the finance department of E.I. du Pont de Nemours and Company. Mr. Mammen holds an Upper Second B.Sc. Honours degree in International Trade and Development from the London School of Economics and Political Science. He is a Chartered Accountant and a member of the Institute of Chartered Accountants of Scotland.

Angelo P. Lopresti has served as our General Counsel and Secretary and one of our Vice Presidents since February 2001. He was promoted to Senior Vice President in February 2013. Prior to joining us, Mr. Lopresti was a partner at the law firm of Winston & Strawn LLP from 1999 to 2001. He was a partner at the law firm of Hertzog, Calamari & Gleason from 1998 to 1999 and an associate there from 1991 to 1998. He is on the board of Coastway Bancorp, Inc., the holding company of Coastway Community Bank. Mr. Lopresti holds a B.A. in Economics from Trinity College and a J.D. from the New York University School of Law.

Alexander Ovtchinnikov, Ph.D., has served as our Vice President, Components, since September 2005 and as Director of Material Sciences from October 2001 to September 2005. He was promoted to Senior Vice President in February 2013. Prior to joining us, Dr. Ovtchinnikov was Material Science Manager of Lasertel, Inc., a maker of high-power semiconductor lasers, from 1999 to 2001. For 15 years prior to joining Lasertel, Inc., he worked on the development and commercialization of high power diode pump technology at the Ioffe Institute, Tampere University of Technology, Coherent, Inc. and Spectra-Physics Corporation. He holds an M.S. in Electrical Engineering from the Electrotechnical University of St. Petersburg, Russia, and a Ph.D. from Ioffe Institute of the Russian Academy of Sciences.

Trevor D. Ness has served as our Senior Vice President, World Wide Sales and Marketing since February 2013. From January 2011 until February 2013, he served as our Vice President-Asian Operations. Prior to joining us, Mr. Ness was Director of GSI Precision Technologies China from May 2005 to December 2010 and prior to that he held technical sales management roles with GSI Group, Inc. and Cobham Plc, located in UK, Japan and Taiwan. Mr. Ness holds a B.S. in Geology from Imperial College, a H.N.C. from Bournemouth University and an M.B.A. from The Open University.

Felix Stukalin has served as our Senior Vice President, North America Operations since February 2013. From March 2009 until February 2013, he served as our Vice President, Devices. Prior to joining us, he was Vice President, Business Development of GSI Group Inc. from April 2002 to September 2008, and from March 2000 to April 2002 he was Vice President of Components and President of the Wave Precision divisions of GSI Lumonics, Mr. Stukalin holds a B.S. in Mechanical Engineering from the University of Rochester and he is a graduate of the Harvard Business School General Management Program.

COMPENSATION DISCUSSION AND ANALYSIS

This Compensation Discussion and Analysis provides a review of our executive compensation philosophy and program, and Compensation Committee decisions for fiscal 2018. The discussion in this section focuses on the compensation of the "Named Executive Officers" or "NEOs" for fiscal 2018, who were:

- Valentin P. Gapontsev, Ph.D., our Chairman and Chief Executive Officer
- Eugene Scherbakov, Ph.D., our Chief Operating Officer, the Managing Director of IPG Laser GmbH, our subsidiary, and Senior Vice President, Europe
- Timothy P.V. Mammen, our Senior Vice President and Chief Financial Officer
- Angelo P. Lopresti, our Senior Vice President, General Counsel and Secretary
- Alexander Ovtchinnikov, Ph.D., our Senior Vice President, Components

Summary of Executive Compensation Pay Practices

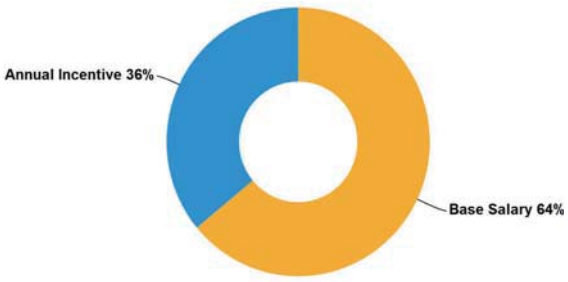
The guiding principles of our executive compensation philosophy and practice continue to be pay-for-performance, accountability for annual and long-term performance, alignment to stockholders' interests, and providing competitive pay to attract and retain executives. We believe our compensation program strikes the appropriate balance between utilizing responsible, measured pay practices and effectively incentivizing our executives to dedicate themselves fully to value creation for our stockholders.

Executive Compensation Design

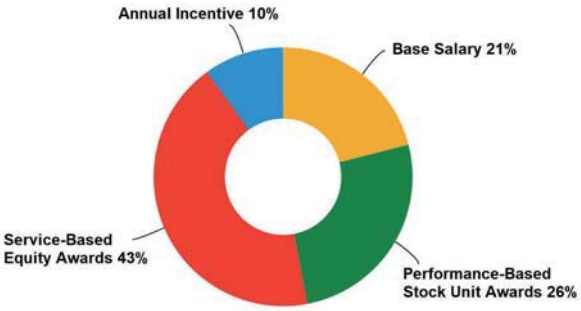
Our executive compensation program is designed to focus executive officers on both annual and long-term financial and operational performance, without encouraging unnecessary risk. The following graphs show approximately 36 percent of the CEO's total direct compensation and approximately 79 percent of the average total direct compensation of all of the other NEOs' compensation, as reflected in the 2018 column of the Summary Compensation Table, is at risk.

Our CEO, the Company's founder, does not receive long-term incentives because of his significant level of common stock ownership, which the independent directors believe provides him sufficient incentives to act in the best long-term interest of our stockholders. As a result, a smaller percentage of his total compensation is performance-based as compared to the chief executives of our peer companies who typically receive additional compensation in the form of substantial long-term incentives.

CEO



Other NEOs



The performance-based stock unit awards in the chart above are presented at target based upon grant date fair value.

The following provides details on the components of our executive compensation program:

Compensation Element	Objective
Base Salary	• Provide a competitive fixed component of cash compensation to attract and retain talented and experienced executives with the knowledge and skills necessary to achieve the Company's strategic business objectives. • The Compensation Committee uses the services of an independent compensation consultant to assess the base salaries as compared to a competitive target range of the Company's peer group. • The Compensation Committee considers these factors when setting base salaries of the executive officers: scope of the executive's responsibilities, contributions, skills, knowledge, experience, seniority and annual and long-term Company performance.
Annual Incentive Plan	• Offer a variable cash compensation opportunity earned based upon the level of achievement of challenging corporate goals, with additional compensation opportunity based upon individual performance. • Foster a shared commitment among executives through establishment of uniform Company financial goals. • Award payouts are subject to a cap of 225% of target in a performance period.
Long-Term Incentives	• Align interests of our executives and stockholders by motivating executive officers to increase long-term stockholder value. • Service-based equity awards include stock options and restricted stock units. They offer certainty and long-term retention while providing additional compensation opportunity based upon increased stock price levels. Stock options further align executives with the long-term growth of stockholder value. • Performance-based stock units provide additional incentive to our NEOs (other than the CEO) and are earned based on IPG's total stockholder return relative to a broad stock market index. • Enhance retention with vesting over four years.
401(k) Retirement Savings Plan	• Provides participants the opportunity to defer a portion of their compensation and receive a company match of 50% of deferrals subject to a maximum of 6% of eligible compensation. • The plan is available to all eligible U.S. employees.
Pension Plan	• We provide no pension plan or deferred compensation plan.
Perquisites	• Perquisites are limited.

Say-On-Pay

At our 2017 annual meeting of stockholders, our stockholders overwhelmingly approved our executive compensation structure in a "say-on-pay" advisory vote, voting 98% percent in favor of our executive compensation structure. At our stockholders meeting in 2017, the advisory proposal to hold "say-on-pay" advisory votes every three years received the greatest amount of votes and, therefore, we elected to submit the advisory "say-on-pay" proposal to our stockholders on a triennial basis. Accordingly, the next "say on pay" advisory vote is being held at our annual meeting of stockholders to be held in 2020.

2018 Base Salaries

We provide base salary to our NEOs and other employees to compensate them for services rendered on a day-to-day basis during the fiscal year. Unlike annual cash incentives and long-term equity incentives, base salary is not subject to performance risk. The Compensation Committee reviews information provided by its compensation consultant and considers the experience, skills, seniority, knowledge and responsibilities of the executive and the individual's performance assessment provided by the CEO to assist it in evaluating base salary for each NEO. With respect to the CEO, the Compensation Committee additionally considers the performance of the Company as a whole in its recommendation to the independent directors, who set CEO compensation.

In 2018, the Compensation Committee evaluated the base salaries and total cash compensation for the NEOs with the assistance of Radford. The Compensation Committee reviewed Radford's assessment in connection with positioning the midpoint of the Company's target total cash compensation range near the 65th percentile of our peer group. Following 2017, a year of 40% revenue growth, salaries were increased in 2018, reflecting the larger size and complexity of the Company in 2018. Dr. Gapontsev received an increase in base salary of 12% bringing his base salary in line with the market 65th percentile of our peer group, which also factored in the fact that the Compensation Committee does not grant any equity awards to Dr. Gapontsev. Likewise, the salary of Dr.

Scherbakov increased approximately 26% to €550,900 (which was then equivalent to $679,400), which also factored in his additional management responsibilities related to his appointment as Chief Operating Officer in February 2018. Finally, the Compensation Committee approved merit increases of 5% for the base salaries of Messrs. Mammen, Ovtchinnikov and Lopresti.

2019 Update. In light of challenging macroeconomic conditions continuing into 2019, the independent directors accepted the Compensation Committee's recommendation to not increase the base salary of the CEO and the Compensation Committee concurred with the CEO's recommendation to not increase the base salaries of the other NEOs in 2019.

2018 Cash Incentive Awards

To focus each executive on the importance of the Company's performance, a significant portion of the individual's potential short-term compensation is in the form of annual cash incentive pay that is tied to the achievement of goals set by the Compensation Committee. Our NEOs participate in our Senior Executive Annual Incentive Plan (the "AIP") administered by the Compensation Committee. The Compensation Committee determines who is eligible to receive awards under the AIP, defines performance goals and objectives for executives, establishes target awards for each participant for the relevant performance period, and determines the percentage of the target award that should be allocated to the achievement of each of the chosen performance goals in consultation with the CEO with respect to other executives. The target award percentages established by the Compensation Committee are chosen with input from the compensation assessment conducted by Radford and the seniority level of the executive.

Consistent with prior years, in 2018 the Compensation Committee identified two financial performance measures: net sales and adjusted EBIT and assigned a 50% weighting factor to each financial performance goal. Non-GAAP "Adjusted EBIT" is an internally defined performance measure that is derived from GAAP net income by adding back the provision for income taxes, interest expense and stock-based compensation expenses and deducting interest income. Adjusted EBIT excludes stock-based compensation expenses as they can vary substantially from period to period due to changes in the stock price, compensation practice and structure as well as the number of equity grants in the year, which are variables that are not under the control of the executives. We believe the use of non-GAAP Adjusted EBIT is a useful measure allowing the Compensation Committee to compare and reward operational performance on a more consistent basis without significant variations arising from income taxes, interest income or expense and stock-based compensation. The Compensation Committee intentionally focused on net sales growth and pretax profits so that our executives would be incentivized to deliver the types of growth that benefit our stockholders, namely increasing sales and profits.

Under the 2018 AIP, the NEOs could receive cash incentive payments in the table below as a percentage of base salaries based upon achievement of the minimum to maximum objectives for both financial performance measures and individual performance. If the financial performance exceeds one or more of the stretch objectives the incentive payments to the NEOs would be limited at 200% of the financial performance target payout. If both minimum financial objectives established by the Compensation Committee in 2018 are not met, the Compensation Committee has the discretion to grant an award for individual performance. The Compensation Committee also has the discretion to reduce the payments for attainment of revenue targets and individual performance measures if the Company incurs earnings losses. The individual goals and objectives for the CEO include operational and strategic targets determined by the independent directors.

The overall target awards in the table below are a percentage of the respective base salaries. The company-wide financial objectives are the same for all executive officers in order to foster a shared commitment among them.

Name	Target as % of Base Salary	Financial Performance Minimum	Financial Performance Maximum	Individual Performance Maximum	Maximum Award Payout (1)	Target Award ($)(2)	Actual Payout ($)
Valentin P. Gapontsev, Ph.D.	110%	20.63%	220.0%	27.50%	225%	1,023,000	568,000
Eugene A. Scherbakov, Ph.D.	100%	18.75%	200.0%	25.00%	225%	679,400	351,800
Timothy P.V. Mammen	80%	15.00%	160.0%	20.00%	225%	384,960	213,700
Angelo P. Lopresti	80%	15.00%	160.0%	20.00%	225%	353,680	196,400
Alexander Ovtchinnikov	80%	15.00%	160.0%	20.00%	225%	350,480	194,600

1. Maximum award payout includes both financial and individual payouts presented as a percentage of the financial target award.
2. Target award includes both financial and individual performance targets.

While financial performance targets were intended to be achievable by the Company, a maximum bonus would require very high levels of Company performance. The Compensation Committee excluded the acquisition of

Genesis Systems Group, LLC and other acquisitions occurring in 2018 and significant unbudgeted legal expenses from the calculation of the 2018 bonus. The target levels for net sales and Adjusted EBIT were $1,619 million and $649 million, respectively, representing 15% and 9% increases, respectively, from prior year levels. The Compensation Committee's adjusted minimum and stretch targets for net sales were $1,409 million and $1,832 million, and for Adjusted EBIT were $521 million and $733 million.

After adjustments, the Company achieved net sales of $1,449 million and Adjusted EBIT of $550 million. These results represented a 3% increase in net sales and a 9% decrease in Adjusted EBIT from 2017 levels. Following the high growth of 2017, the Company faced a challenging macroeconomic environment in 2018, affecting our two largest regions, Europe and China, exacerbated by the U.S.-China trade conflict, escalating tariffs and increased customer uncertainty. During the year, the Company continued to invest in future development and infrastructure which, together with the impact of increased price competition, lowered margins and earnings. Both net sales and Adjusted EBIT were below target levels but above threshold levels set by the Compensation Committee. The independent directors set the individual goals and objectives for the CEO in 2018 and reviewed the CEO's attainment of the goals. As a result of this process, the independent directors awarded the CEO 27.5% of his base salary for his individual performance during 2018. The Compensation Committee, with input from the CEO, awarded the Chief Operating Officer 25.0% of his base salary and the other NEOs 20% of their respective base salaries for their individual performances in 2018.

The Compensation Committee may award discretionary bonuses to executives for exceptional performance. For 2018, the Compensation Committee did not exercise this right.

2019 Update. In February 2019, the Committee approved annual financial targets and incentive payouts to the NEOs for the fiscal year 2019 AIP. The financial performance targets have changed for the 2019 AIP, but the incentive payout targets as a percentage of salary have not changed from the 2018 AIP.

Equity-Based Incentives Granted in 2018

The goal of our equity-based award program is to provide employees and executives with the perspective of an owner with a long-term financial stake in our success, further increasing alignment with stockholders. Our equity-based incentives align the interests of our executives and stockholders by motivating executives to increase long-term stockholder value.

In 2018, our equity-based award program for executives included service-based stock options (33%), service-based restricted stock units (33%), and performance-based stock units (at target, 33%). The type and proportion of the equity grants reflected a 2018 review by our Compensation Committee with the assistance of Radford of grant practices at peer companies. The value of stock options, restricted stock units and performance-based stock units are tied to the Company stock price which links pay to performance.

Consistent with our pay-for-performance philosophy, the service-based stock option awards have no value unless our stock price increases after the grant date. Another reason why we use service-based stock options is because it fosters an innovative environment focused on long-term growth of the Company and creation of increased stockholder value.

In 2018, the Compensation Committee decided to compare performance of the Company's stock to the Russell 3000 Index, which includes the Company. This directly aligns executives' compensation with stockholders interest because the number of shares earned depends upon performance against the Russell 3000 Index and the value of the shares fluctuates based on the stock price. For each 1% that IPG's common stock exceeds the performance of the Russell 3000 Index for the trailing 60 trading days from the end of the performance measurement period (March 1, 2021) against the comparable period from the beginning of the performance measurement period (March 1, 2018), the grant recipient would receive a 2% increase in the number of shares above target (up to a maximum share cap of 200% of the target award).

For each 1% below the Russell 3000 Index's performance, the grant recipient would receive a 2% decrease in the number of shares (down to zero). In addition, NEOs cannot receive a number of shares that exceeds 600% of the value of the target award on the date of grant. The vesting date is March 1, 2021, should any performance-based stock units vest at all.

In 2018, the Compensation Committee targeted granting equity compensation near the 65th percentile of the target compensation of our peer group, balancing the perspective of delivering competitive compensation based upon Black-Scholes option pricing values and Monte Carlo simulations for performance-based stock units. The Compensation Committee analyzed several aspects of the equity grant program, including (i) the "in the money" value, the degree to which executives have incentives to remain employed by the Company through unvested option values, and (ii) the aggregate equity usage in terms of (a) annual usage, typically called burn rate, and (b) cumulative equity delivery, typically called overhang, to determine the dilutive effect of equity awards on

investors. The majority of outstanding equity award holdings of the executives were allocated to unvested shares in the aggregate, and all such executives had a minimum of two years' worth of annual award values in unvested equity value. Based upon this information, Radford advised the Compensation Committee that our equity program provides strong retention incentives.

Since the Company's initial public offering in 2006, the Compensation Committee has not granted the CEO any equity compensation awards. As the Company's founder and the beneficial owner of a large number of our shares, he has the perspective of an owner with a significant financial stake in the Company's success and a long-term outlook. This practice has resulted in substantially lower total compensation earned by our CEO as compared to the chief executives of our named peers despite our outstanding business and earnings growth. In addition, this practice results in a lower compensation expense and lower equity burn rate for the Company.

The table below provides information on grants of service-based stock options, service-based restricted stock units and performance-based stock units to the NEOs in 2018. All awards in the table below vest 25% on each anniversary of March 1, 2018, except for the performance-based stock units which vest on March 1, 2021.

Name	Service-Based Stock Options (#)	Exercise Price ($)	Service-Based Restricted Stock Units (#)	Performance-Based Stock Units (at Target) (#)	Performance-Based Stock Units Range (Based upon Achievement) (#)
Valentin P. Gapontsev, Ph.D.	—	—	—	—	—
Eugene A. Scherbakov, Ph.D.	13,744	239.72	4,014	4,014	0 - 8,028
Timothy P.V. Mammen	6,642	239.72	1,940	1,940	0 - 3,880
Angelo P. Lopresti	5,786	239.72	1,690	1,690	0 - 3,380
Alexander Ovtchinnikov	5,734	239.72	1,674	1,674	0 - 3,348

The Compensation Committee believes that vesting of awards of service-based options and restricted stock units over four years provides a strong incentive for executives to remain employed by us and to focus on increasing our financial performance over the long-term, while discouraging excessive short-term risk taking. The Compensation Committee believes that performance-based stock units should vest over three years, rather than four years, because having a four-year performance period would reduce the utility of the performance award and not properly align pay with performance. Service-based restricted stock units granted in 2018 may be entitled to dividends, should any be paid, at the discretion of the Compensation Committee. Any dividends on shares underlying the performance-based stock units do not vest until the performance-based stock units vest.

2019 Update. The Compensation Committee approved the grant of service-based stock options and restricted stock units and performance-based stock units to the NEOs (other than the CEO) in February 2019. All equity awards in the table below vest as follows: service-based stock options and restricted stock units vest 25% on each anniversary of March 1, 2019 and performance-based stock units vest on March 1, 2022, the last day of the performance period which is three years after the start of the performance period. The Compensation Committee also changed the index against which the relative performance of the Company’s stock is measured for the 2019 and future awards. The Committee considered the analysis of Radford for the current peer index, the Russell 3000, and other peer index alternatives. The Committee selected the S&P Composite 1500 Electronic Equipment, Instrument and Components index as the 2019 relative stock index for the performance-based stock units because, among other reasons, it has a higher overall correlation among constituents with the Company, and the Company’s market cap, revenue and volatility are in line with the range of such measures in the index. IPG is a member of the index.

Name	Service-Based Stock Options (#)	Exercise Price ($)	Service-Based Restricted Stock Units (#)	Performance-Based Stock Units (at Target) (#)	Performance-Based Stock Units Range (Based upon Achievement) (#)
Valentin P. Gapontsev, Ph.D.	—	—	—	—	—
Eugene A. Scherbakov, Ph.D.	17,908	154.88	6,214	6,214	0 - 12,428
Timothy P.V. Mammen	8,654	154.88	3,003	3,003	0 - 6,006
Angelo P. Lopresti	7,540	154.88	2,616	2,616	0 - 5,232
Alexander Ovtchinnikov	7,472	154.88	2,592	2,592	0 - 5,184

All Other Compensation

Severance Benefits. The severance benefits we offer assist us in recruiting and retaining talented individuals and are consistent with the range of severance benefits offered by our peer group. The severance provisions of our employment agreements are summarized below in the section titled "*Potential Payments upon Termination or Change in Control."*

Retirement Benefits. We do not offer an executive retirement plan or a non-qualified deferred compensation plan. Executives in the United States are eligible to participate in our 401(k) retirement savings plan on the same terms as all other U.S. employees. Our 401(k) retirement savings plan is a tax-qualified plan and therefore is subject to certain Internal Revenue Code limitations on the dollar amounts of deferrals and Company contributions that can be made to plan accounts. These limitations apply to our more highly-compensated employees (including the NEOs). We made matching contributions to our employees at a rate of 50% of deferrals subject to a maximum of 6% of eligible compensation under the 401(k) retirement savings plan, including the NEOs, who participate in the plan as set forth in the Summary Compensation Table. Dr. Scherbakov, who resides in Germany, participates in a government-sponsored retirement program.

Personal Benefits. Our executives are eligible to participate in employee benefit plans, including medical, dental, life and disability insurance and vacation plans as well as an employee stock purchase plan, which is intended to be qualified under Section 423 of the Code. The employee stock purchase plan allows participants to purchase Company shares at a price equal to 85% of the lesser of the fair market value at the first day or last day of the six month offering period, subject to limitations on the amount of shares. These plans generally are available to all salaried employees and do not discriminate in favor of executives. Benefits are intended to be competitive with the overall market in order to facilitate attraction and retention of high-quality employees.

The Compensation Committee compared the Company's executive perquisites policies against the 2018 peer group and made no changes. The Company provides the use of a corporate aircraft to the CEO and other executives for business travel integral to the performance of their duties. Executives are encouraged to use the aircraft for efficiency, safety and security. However, executives are not allowed to use the aircraft for personal use that has not been paid for, except that family and other guests may accompany executives on the aircraft for business travel. The Company provides the CEO with a car and driver in the United States so that he may use his travel time for company purposes. The Company also provides Dr. Scherbakov use of an automobile, as it does for other high-ranking employees in Germany.

Role of Compensation Committee

The Compensation Committee determines, approves and administers the compensation programs for our executive officers, including our NEOs. The Compensation Committee recommends to the independent directors the CEO's annual base salary, annual incentive opportunity and long-term incentive opportunity. The independent directors approve the CEO's compensation and our Compensation Committee approves the compensation for other executive officers in consultation with our CEO. Our Compensation Committee is also responsible for making recommendations to the Board with respect to the adoption of equity plans and certain other benefit plans.

The Compensation Committee may delegate authority whenever it deems appropriate. In 2018 the Compensation Committee delegated authority to grant equity awards for non-executives to the CEO subject to certain conditions including amounts of awards and review of awards by the Compensation Committee.

Our Compensation Committee's policy is to set executive pay in accordance with the objectives of the Company's compensation programs as described above. In the Compensation Committee's view, the Company's executive compensation program provides an overall level of compensation opportunity that is competitive with peer companies. Actual compensation levels may be greater or less than target compensation levels provided by similar companies based upon annual and long-term Company performance, as well as individual performance, contributions, skills, seniority, knowledge, experience and responsibilities.

Role of Management

The CEO participates in the establishment of the compensation targets and payout levels for the other NEOs. He assesses the performance of all NEOs and recommends to the Compensation Committee the overall levels of achievement, and personal performance in the year. Upon request, the NEOs provide supplemental material to the Compensation Committee to assist in the determination and implementation of compensation, policies and practices. The CEO is not involved in decisions regarding the setting of any component of his compensation. The CEO and other members of senior management attend Compensation Committee meetings at the invitation of the Compensation Committee.

Role of Independent Consultant

The Compensation Committee engaged Radford, an independent compensation consultant, to conduct a comprehensive review and analysis of our executive and non-employee director compensation programs and to make recommendations for compensation related to 2018. The consultation included non-executive compensation data and valuation services for equity incentives. Radford's parent company does not perform any other work for the Company. The Compensation Committee reviews the independence of Radford in light of SEC rules and Nasdaq listing standards regarding compensation consultants. The Compensation Committee believes that there were no actual or potential conflicts of interest with Radford in 2018.

Pay Positioning Strategy

Consistent with prior years, the Compensation Committee in 2018 set the market 65th percentile as its target for base salary, target annual bonus, long-term incentives and total direct compensation (the sum of the three compensation elements). Also, competitive target ranges for the elements and target total direct compensation were established. Within the comparative framework, the primary data was the named peer group of specific peers discussed below and the secondary data was broader, size-appropriate comparisons in the high technology industry using Radford High Technology Survey Data. In 2018, the midpoint of the Company's target total cash compensation range was near the 65th percentile. An individual's actual compensation may fall below or above the target positions based on the individual's experience, seniority, skills, knowledge, performance, responsibilities and contributions as well as the Company's performance.

These factors are weighed by the Compensation Committee in its judgment, and no single factor takes precedence over others nor is any formula used in making these decisions.

In analyzing our executive compensation program relative to this target market positioning, the Compensation Committee utilizes a comparative analysis of the compensation of our executives measured against a group of peer companies selected by the Compensation Committee. The peer companies are companies in the laser source and photonics industry, as well as a broader group of technology companies of comparable size and complexity with international scope that experience growth.

For 2018, the peer companies were:

Arista Networks, Inc.	Barnes Group, Inc.	Cognex Corporation
Coherent, Inc.	Dolby Laboratories, Inc.	Donaldson Company, Inc.
Entegris, Inc.	FLIR Systems, Inc.	Graco, Inc.
IDEX Corporation	II-VI Incorporated	ITT, Inc.
MKS Instruments, Inc.	National Instruments, Inc.	Nordson Corporation
Teradyne, Inc.	Trimble Navigation Limited	Waters Corporation
Zebra Technologies, Inc.		

The Compensation Committee reviews this peer group annually with input from Radford to ensure that the comparisons are meaningful. In this review, the Compensation Committee considers several factors in developing a peer group: it considers the current peer group to determine appropriateness, the peers used by institutional governance advisors, the companies that list our company as peer to understand crossover peers and broader research based upon established selection criteria to identify potential future peers. The Committee then develops criteria for business sector, market capitalization, revenue and headcount. Radford also supplements its peer analysis with the data from a broader list of high-technology public company participants in the AON Radford Executive Technology Survey targeting technology companies with comparable revenue levels. Companies that are no longer publicly traded have been omitted from the peer group. Based upon the process and applying the criteria above, the Compensation Committee (i) added Arista Networks, Inc., Donaldson Company, Inc. and Waters Corporation to the peer group and (ii) removed Fabrinet and OSI Systems, Inc. from the peer group.

2019 Update. For 2019 compensation determinations, the Compensation Committee applied the methodology above and determined the historical peer group continues to be appropriate for 2019.

Other Factors Affecting Compensation

Tax Deductibility under Section 162(m). Section 162(m) of the Internal Revenue Code ("Section 162(m)") limits the deductibility for federal income tax purposes of certain compensation paid in any year by a publicly held corporation to its "covered employees" as defined by Section 162(m) (generally, our current and former NEOs) to $1 million per executive (the "$1 million cap"). Prior to the enactment of the Tax Cuts and Jobs Act (“TCJA”), Section 162(m) provided an exception from this deduction limitation for certain forms of “performance-based compensation,” which included annual incentive payments, the gain recognized by NEOs upon the exercise of stock options and the income recognized on the vesting of performance share awards. Due to the TCJA, the "performance-based" compensation exception to the $1 million cap does not apply for tax years after 2017, unless certain limited transition relief is met. The Compensation Committee retains the discretion to grant or pay compensation that may exceed the $1 million cap or may not qualify for the performance-based compensation exception to Section 162(m). The Compensation Committee believes it is appropriate to retain the flexibility to authorize payments of compensation that may not qualify for deductibility if, in the Compensation Committee's judgment, it is in the Company’s best interest to do so. In the past, the Compensation Committee generally sought to structure performance-based compensation for our covered employees, and to undertake the required ministerial actions, in a manner that complies with Section 162(m) in order to provide for the deductibility of such compensation to the extent possible. We generally will continue to emphasize performance-based compensation, even though it may no longer be deductible.

Accounting Considerations. We consider the accounting implications of our executive compensation program. In addition, accounting treatment is just one of many factors impacting plan design and pay determinations. Our executive compensation program is designed to achieve a favorable accounting and tax treatment as long as doing so does not conflict with the intended plan design or program objectives.

Compensation Risk

Management conducts an annual risk assessment of the Company's compensation policies and practices for all employees, including non-executives, and reports its findings to the Compensation Committee. In 2018, management concluded that the Company's compensation policies and practices are balanced and do not motivate imprudent risk taking. Management believes that IPG’s compensation policies do not create risks that are reasonably likely to have a material adverse effect on IPG.

In reaching this conclusion, they considered the following factors:

- our compensation program is designed to provide a mix of both fixed and variable incentive compensation;
- our senior executives are subject to stock ownership guidelines, which we believe incentivize our executives to consider the long-term interests of the Company and our stockholders and discourage excessive risk-taking that could negatively impact our stock price;
- our senior executives are subject to compensation recovery policy, which discourages excessive risk-taking that could negatively affect our stock price;
- our incentive compensation programs are designed with vesting terms that are relatively consistent, spread out over several years, and do not contain steep payout "cliffs" that might encourage short-term business decisions in order to meet a vesting or payout threshold; and
- our senior executive incentive compensation program caps the amounts that may be paid for performance above target level.

Other Policies

Anti-Hedging and Limitations on Pledging of Company Stock. The Board adopted policies prohibiting hedging transactions and limiting the pledging of our common stock. Under our insider trading policy, no director or employee may engage in shorting shares of our common stock or any type of securities that we may issue, or buying or selling puts, calls or derivatives related to our common stock. A director or officer of the Company may not pledge shares constituting more than 20% of his or her total stock ownership. Pledges of shares constituting 20% or less of total stock ownership are subject to certain conditions.

Stock Ownership Guidelines. The Board adopted stock ownership guidelines to closely align the interests of our executives with those of our long-term stockholders. Under the guidelines, the CEO is expected to maintain a minimum investment on our common stock of five times his annual salary and other senior executives are expected to maintain a minimum investment on our common stock of the lesser of 5,000 shares or one times their respective

annual salaries. All of our senior executives substantially exceed the ownership requirements under our stock ownership guidelines. These ownership levels are to be achieved no later than four years after the election as an executive officer, except that prior to such time the officer is expected to retain a certain portion of stock issued upon exercise of stock options or vesting of restricted stock awards until the minimum ownership levels are attained. For more information, see *"Corporate Governance - Stock Ownership Guidelines."*

Clawback Policies. In 2015, the Compensation Committee approved a compensation recovery policy that allows the Company to recapture performance-based compensation from executives if the amount of the award was based upon achieving certain financial results that were later restated due to the participant's misconduct. In addition, all equity awarded to employees since 2007 contain a provision under which employees may be required to forfeit equity awards or profit from equity awards if they engage in certain conduct, including competing against the Company, disclosing confidential information, or soliciting its employees or customers.

COMPENSATION COMMITTEE REPORT

The Compensation Committee of the Board of Directors has reviewed and discussed with management the Compensation Discussion and Analysis included in this proxy statement. Based on this review and discussion, the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in the Company's proxy statement for the Company's 2019 annual meeting of stockholders and in the Company's Annual Report on Form 10-K for the year ended December 31, 2018.

COMPENSATION COMMITTEE

Catherine P. Lego, *Chair*
Gregory P. Dougherty
Eric Meurice
John R. Peeler

March 19, 2019

The information in the Compensation Committee Report shall not be considered "soliciting material" or "filed" with the SEC, nor shall this information be incorporated by reference into any previous or future filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that the Company incorporates it by specific reference.

EXECUTIVE COMPENSATION TABLES

Summary Compensation Table

The following table provides information regarding compensation earned by our Chief Executive Officer, our Chief Financial Officer and our three other most highly compensated executives for the fiscal years indicated below:

Name and Principal Position	Year	Salary ($)	Bonus ($)	Stock Awards ($)(1)	Option Awards ($)(1)	Non-Equity Incentive Plan Compensation ($)(2)	All Other Compensation ($)(3)	Total ($)
Valentin P. Gapontsev, Ph.D. Chief Executive Officer and Chairman of the Board(4)	2018	1,004,585	—	—	—	568,000	81,411	1,653,996
	2017	832,000	—	—	—	1,399,100	53,583	2,284,683
	2016	735,400	—	—	—	709,044	36,953	1,481,397
Eugene Scherbakov, Ph.D., Chief Operating Officer, Managing Director of IPG Laser GmbH, Senior Vice President, Europe and Director(4)	2018	673,694		2,095,549	924,421	351,800	23,472	4,068,936
	2017	510,000	—	899,514	340,038	769,300	23,028	2,541,880
	2016	510,677	—	643,031	228,899	361,928	30,138	1,774,672
Timothy P.V. Mammen, Chief Financial Officer and Senior Vice President	2018	481,200	—	1,012,796	446,741	213,700	9,060	2,163,497
	2017	458,300	—	763,578	288,607	577,000	8,910	2,096,396
	2016	436,025	—	643,031	228,899	315,694	8,760	1,632,409
Angelo P. Lopresti, Senior Vice President, General Counsel and Secretary	2018	442,100		882,281	389,166	196,400	10,572	1,920,519
	2017	421,000	—	623,394	235,635	530,000	9,342	1,819,371
	2016	408,256	—	496,333	176,709	263,042	9,192	1,353,532
Alexander Ovtchinnikov, Ph.D. Senior Vice President, Components	2018	438,100		873,928	685,669	194,600	10,572	1,902,870
	2017	417,200	—	617,553	233,503	478,200	10,422	1,756,878
	2016	396,868	—	541,562	192,799	255,706	10,272	1,397,187

1. Valuation based on the fair value of such award as of the grant date determined pursuant to Financial Accounting Standards Board Accounting Standards Codification Topic 718 ("ASC Topic 718"). The assumptions that we used with respect to the valuation of service-based restricted stock units, performance-based stock units and stock option awards are set forth in Note 12 to our Consolidated Financial Statements in our Annual Report on Form 10-K filed with the SEC on February 27, 2019. The amounts in the Stock Awards column reflect service-based restricted stock units and performance-based stock units granted in 2018. The value of the performance-based stock units is based on the probable outcome of the performance conditions (at the grant date) in accordance with ASC Topic 718 assuming no forfeiture. The values of performance-based stock units at the grant date assuming the highest level of performance conditions will be achieved are $5,773,416, $2,790,341, $2,430,761 and $2,407,748 for Dr. Scherbakov, Messrs. Mammen and Lopresti and Dr. Ovtchinnikov respectively. There is no assurance that any of the performance targets will be achieved, that the service-based awards will vest or that the any of the recipients will realize the values listed above. Stock option awards and restricted stock units vest over four years, beginning on the first anniversary of the award date. Stock option awards have a term of ten years. Performance-based stock units cliff vest after 3 years, if at all.
2. Represents amounts earned under our AIP for services rendered in 2018, 2017 and 2016, respectively.
3. The amount in 2018 for Dr. Gapontsev consists of premiums paid for group life insurance, the incremental cost for non-employee guests accompanying him on the Company's aircraft and the cost of a car and driver ($43,080) at the Company's headquarters. The amount in 2018 for Dr. Scherbakov is the expense of an automobile provided by us.
4. Portions of the amounts paid to Dr. Gapontsev and Dr. Scherbakov were denominated in Euros and Rubles. Dr. Scherbakov's 2018 salary was approved in Euro. Amounts paid in foreign currencies were translated into U.S. Dollars at the average daily exchange rates for the full years. The average daily rates in 2018, 2017 and 2016, for the Euro were 0.84, 0.89 and 0.90, respectively, and for the Ruble were 62.69, 58.3.0 and 67.0, respectively. As a result of compensation being paid in one or more currencies that fluctuate against the U.S. Dollar, the amount of salary paid may vary slightly from the salary stated in an employment agreement or approved by the Compensation Committee.

Employment Agreements

The Company has entered into employment agreements with each of the above-named executives, effective through December 31, 2019. Upon expiration, the employment agreements will automatically renew for successive one year periods, unless the Company or a Named Executive Officer provides written notice of non-renewal at least six months prior to the end of the then current term. In the event of a change in control, the agreements would extend through the second anniversary of the change in control.

The employment agreements set the annual base salaries and stipulate that the Compensation Committee may adjust the salaries annually, as noted in the above "*Compensation Discussion and Analysis - 2018 Base Salaries"* section. The agreements entitle these executive officers to participate in bonus plans, standard insurance plans such as life, short-term disability and long-term disability insurance and retirement benefits, such as the 401(k) retirement savings plan and equity award plans described above, on similar terms and on a similar basis as such benefits are available to executives at similar levels within the Company. Each of these executive

officers also entered into a separate restrictive covenant agreement with the Company that prohibits each of them from competing with the Company for a period of one year after the termination of his employment with the Company for any reason and from hiring or attempting to hire the Company's employees or soliciting customers or suppliers of the Company for a period ending eighteen months following the termination of his employment for any reason. Each of the officers is entitled to receive his base salary for the period during which the Company enforces the non-competition provisions of the agreement but not for more than one year following the termination of his employment. The severance provisions of the agreements are summarized below in the section titled "*Potential Payments upon Termination or Change in Control.*"

2018 Grants of Plan-Based Awards

Name	Grant Date	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards ($)(1)			Estimated Future Payouts Under Equity Incentive Plan Awards (#)(2)			All Other Stock Awards: Number of Shares of Stock or Units (#)(3)	Option Awards Number of Securities Underlying Options (#)(3)	Exercise or Base Price of Option Awards ($/Share)	Grant Date Fair Value of Stock and Option Awards ($)(4)
		Threshold	Target	Maximum	Threshold	Target	Maximum				
Valentin P. Gapontsev	2/22/2018	447,563	1,023,000	2,301,750	—	—	—	—	—	—	—
Eugene Scherbakov	2/22/2018	297,238	679,400	1,528,650	—	—	—	—	—	—	—
	2/22/2018	—	—	—	2,007	4,014	8,028	—	—	—	1,143,107
	2/22/2018	—	—	—	—	—	—	4,014	—	—	952,442
	2/22/2018	—	—	—	—	—	—	—	13,744	239.72	924,421
Timothy P.V. Mammen	2/22/2018	168,420	384,960	866,160	—	—	—	—	—	—	—
	2/22/2018	—	—	—	970	1,940	3,880	—	—	—	552,473
	2/22/2018	—	—	—	—	—	—	1,940	—	—	460,323
	2/22/2018	—	—	—	—	—	—	—	6,642	239.72	446,741
Angelo P. Lopresti	2/22/2018	154,740	353,680	795,780	—	—	—	—	—	—	—
	2/22/2018	—	—	—	845	1,690	3,380	—	—	—	481,278
	2/22/2018	—	—	—	—	—	—	1,690	—	—	401,003
	2/22/2018	—	—	—	—	—	—	—	5,786	239.72	389,166
Alexander Ovtchinnikov	2/22/2018	153,340	350,480	788,580	—	—	—	—	—	—	—
	2/22/2018	—	—	—	837	1,674	3,348	—	—	—	476,722
	2/22/2018	—	—	—	—	—	—	1,670	—	—	397,207
	2/22/2018	—	—	—	—	—	—	—	5,734	239.72	385,669

1. Amounts shown include the payouts under the AIP for 2018 financial performance at the three goals plus individual performance at maximum for each. The performance goals used in determining AIP payments are discussed in the above *Compensation Discussion and Analysis* above. Actual amounts paid for 2018 performance are shown in the "Non-Equity Incentive Plan Compensation" column in the Summary Compensation Table above.
2. For a description of the performance-based stock units, see *Compensation Discussion and Analysis-Equity-Based Incentives Granted in 2018*.
3. The amounts listed reflect service-based restricted stock units and stock options granted under our 2006 Incentive Compensation Plan and are described in the Outstanding Equity Awards Table below.
4. The awards are reported based on the fair value of such award as of the grant date determined pursuant to ASC Topic 718. The assumptions that we used with respect to the valuation of equity awards are set forth in Note 12 to our Consolidated Financial Statements in our Annual Report on Form 10-K filed with the SEC on February 27, 2019. The option exercise price has not been deducted from the amounts indicated above and we disregard an estimate of forfeitures. Regardless of the value placed on an equity award on the grant date, the actual value of the equity award will depend on the market value of our common stock at such date in the future when the restricted stock unit vests or the stock option is exercised, and the performance of our common stock in relation to the Russell 3000 stock index on the measurement date with respect to the performance-based stock unit. For informational purposes, if the maximum level of performance were achieved for the performance-based stock units, the values as limited by the 600% value cap are $5,773,416, $2,790,341, $2,430,761 and $2,407,748 for Dr. Scherbakov, Messrs. Mammen and Lopresti and Dr. Ovtchinnikov, respectively.

2018 Outstanding Equity Awards at Fiscal Year-End

		Option Awards (1)				Stock Awards (1)			
Name	Year of Grant	Securities Underlying Unexercised Options Exercisable (#)	Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price ($)(2)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)(3)	Equity incentive plan awards: Number of unearned shares, units or other rights that have not vested (#)(1)(4)	Equity incentive plan awards: Market or payout value of unearned shares, units or other rights that have not vested ($)(4)
Valentin P. Gapontsev	—	—	—	—	—	—	—	—	—
Eugene Scherbakov	2/26/2010	1,000	—	15.82	2/25/2020	—	—	—	—
	3/1/2011	3,000	—	53.76	2/28/2021	—	—	—	—
	2/14/2012	1,500	—	58.65	2/13/2022	—	—	—	—
	3/1/2013	3,000	—	60.11	2/28/2023	—	—	—	—
	2/28/2014	13,000	—	71.77	2/27/2024	—	—	—	—
	2/25/2015	—	7,326	97.65	2/24/2025	3,663	414,981	5,864	664,330
	2/18/2016	—	7,592	81.89	2/17/2026	3,796	430,049	7,592	1,243,420
	2/17/2017	2,592	7,775	119.50	2/16/2027	2,541	287,870	6,776	1,619,460
	2/22/2018	—	13,774	239.72	2/21/2028	4,014	454,746	8,028	5,773,416
Timothy P.V. Mammen	3/1/2013	7,500	—	60.11	2/28/2023	—	—	—	—
	2/28/2014	14,200	—	71.77	2/27/2024	—	—	—	—
	2/25/2015	—	7,326	97.65	2/24/2025	3,663	414,981	5,864	664,330
	2/18/2016	—	7,592	81.89	2/17/2026	3,796	430,049	7,592	1,243,420
	2/17/2017	2,200	6,599	119.50	2/26/2027	2,157	244,367	5,750	1,374,728
	2/22/2018	—	6,642	239.72	2/21/2028	1,940	219,783	3,880	2,790,341
Angelo P. Lopresti	3/1/2011	9,500	—	53.76	2/28/2021	—	—	—	—
	3/1/2013	13,000	—	60.11	2/28/2023	—	—	—	—
	2/28/2014	11,000	—	71.77	2/27/2024	—	—	—	—
	2/25/2015	—	5,661	97.65	2/24/2025	2,831	320,724	4,532	513,430
	2/18/2016	—	5,861	81.89	2/17/2026	2,930	331,940	5,860	959,750
	2/17/2017	1,796	5,388	119.50	2/16/2027	1,761	199,504	4,696	1,122,340
	2/22/2018	—	5,786	239.72	2/21/2028	1,690	191,460	3,380	2,430,760
Alexander Ovtchinnikov	2/28/2014	12,000	—	71.77	2/27/2024	—	—	—	—
	2/25/2015		6,161	97.65	2/24/2025	3,080	348,933	4,931	558,633
	2/18/2016		6,394	81.89	2/17/2026	3,197	632,188	6,394	1,047,209
	2/17/2017	1,780	5,339	119.50	2/16/2027	1,744	197,578	4,650	1,111,830
	2/22/2018	—	5,734	239.72	2/21/2028	1,674	189,647	3,350	2,407,750

1. The vesting dates assume the continued service of the Named Executive Officer. All awards granted in 2015 and 2016 vest in one installment on March 1, 2019 and 2020, respectively. Service-based stock options and restricted stock units granted in 2017 and 2018 vest in four annual installments commencing on March 1, 2018 and March 1, 2019, respectively. Performance-based stock units granted in 2017 and 2018 vest in one installment on March 1, 2020 and March 1, 2021, respectively.
2. Represents the closing common stock price of a share on the grant date.
3. Based upon the closing common stock price on December 31, 2018, which was $113.29 per share.
4. The performance-based stock unit performance determination dates are March 1, 2018, 2019, 2020 and 2021 for units granted in 2015, 2016, 2017 and 2018 respectively. The numbers of unearned awards range from 0% to 200% based upon achievement of performance metrics and assumes attainment of the maximum performance levels not limited by dollar value cap. The dollar payout values represent estimated values assuming attainment of maximum performance levels as limited by the dollar value cap of 400% of target values on the dates of grant for awards granted in 2015, 2016 and 2017, and 600% of target values on the date of grant for those awarded in 2018.

Option Exercises and Stock Vested in 2018

	Option Awards		Stock Awards	
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($)(1)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)(2)
Valentin P. Gapontsev	—	—	—	—
Eugene A. Scherbakov	9,500	1,933,301	2,847	694,554
Timothy P.V. Mammen	20,000	3,774,835	2,919	712,119
Angelo P. Lopresti	9,500	1,973,414	2,387	582,333
Alexander Ovtchinnikov	—	—	2,482	605,509

1. The value realized is based on the difference between the reported closing common stock price on the date of exercise and the exercise price of the stock option.

2. The value realized is based on the reported closing common stock prices on the vesting dates of the service-based restricted stock units.

Potential Payments upon Termination or Change in Control

If the Company terminates the employment of any of the Named Executive Officers without cause (as defined in the respective employment agreements) or any of the Named Executive Officers terminates his employment for good reason (as defined in the respective employment agreements) ("cause" and "good reason" are referred to below as "Involuntary Terminations"), then the officer would receive:

(a) continuation of salary for eighteen months, except in the case of Dr. Gapontsev, who would receive continuation of salary for thirty-six months;

(b) a portion of the annual bonus that the executive would have received had he remained employed through the end of the applicable bonus period, based on actual performance, including the individual performance element (the portion based upon the percentage of the year that he was employed by the Company);

(c) cash reimbursement for continuation of health benefits for up to eighteen months, except in the case of Dr. Gapontsev, who would receive continuation of health benefits by payment of the officer's COBRA premiums for thirty-six-months; and

(d) accelerated vesting of equity compensation awards that otherwise would have vested within twelve months of termination of employment.

Upon an Involuntary Termination within twenty-four months following a change in control of the Company, the Named Executive Officer would be entitled to continuation of salary and reimbursement of COBRA premiums for health benefits for twenty-four months, the pro-rated bonus for the year of termination plus a payment of two times the average annual bonus paid to the Named Executive Officer for the three full years preceding the year of termination. In the case of the Chief Executive Officer, he would be entitled to continuation of salary and health benefits for thirty-six months, the pro-rated bonus for the year of termination plus a payment of three times the average annual bonus paid to him for the three full years preceding the termination. Under the employment agreements, all equity awards vest fully if a change in control occurs followed within two years by an Involuntary Termination. Upon a change in control, the officers' employment periods under the agreements would automatically be extended to the second anniversary of the change in control if such date is later than expiration of the current term.

If the total value of all payments and benefits, including any equity vesting ("total payments"), made to a Named Executive Officer following a change in control would result in an excise tax under the provisions of Internal Revenue Code Section 4999 (the "golden parachute tax"), the total payments will be reduced so that the maximum amount of total payments (after reduction) is $1.00 less than the amount that would cause the total payments to be subject to the golden parachute tax; provided, however, that the total payments will only be reduced to the extent that the after-tax value of amounts received by the officer after application of the above reduction would exceed the after-tax value of the total payments received without application of such reduction (so called "best after-tax treatment").

If the employment period of any of the Named Executive Officers terminates and the Company does not offer such officer continued employment in the same or a substantially similar position or in a higher position than the officer's position at the end of the employment period and at a compensation level that is the same or substantially similar to the compensation level in effect at the end of the employment period, then such officer may resign from employment and would receive continuation of salary and health benefits for twelve months, except for the Chief Executive Officer who would receive the same for twenty-four months, plus a pro-rated bonus for the year of termination.

If a Named Executive Officer's employment is terminated by death or disability, the officer would receive a pro-rated bonus for the year of termination. Under the employment agreements, the Company would not be obligated to make any cash payments if employment were terminated by the Company for cause or by the executive not for good reason. Additionally, if the officer's employment is terminated due to death, the non-vested portions of stock options, service-based restricted stock units and performance-based stock units would immediately vest.

Severance payments to the officers are conditioned upon the release of claims by the Named Executive Officer in favor of the Company. Each of the Named Executive Officers also has an agreement with the Company that prohibits him from competing with the Company for a period of one year after the termination of his employment with the Company for any reason and from hiring or attempting to hire the Company's employees or soliciting customers or suppliers of the Company for a period ending eighteen months following the termination of his employment for any reason. Each of the Named Executive Officers is entitled to receive his base salary for the

period during which the Company enforces the non-competition provisions of the agreement but not for more than one year following termination of his employment.

The following table provides information regarding compensation and benefits that would be payable to our Named Executive Officers as of December 31, 2018, upon an Involuntary Termination absent a change in control and preceded by a change in control and upon terminations in other circumstances. The incentive plan severance was calculated using the actual amount awarded under the 2018 AIP. There can be no assurance that the event triggering payments would produce the same or similar results as those described below if such event occurs on any other date or at any other price, or if any other assumption used to estimate the potential payments and benefits is incorrect. Any actual payments and benefits may be different due to a number of factors that affect the nature and amount of any potential payments or benefits.

Name	Benefit	Termination Without Cause or For Good Reason ($)	Termination Without Cause or For Good Reason Following a Change in Control ($)	Termination following Death ($)	Termination following Disability ($)	Termination following Non-Renewal ($)
Valentin P. Gapontsev	Salary Severance and Benefits Continuation	2,835,360	2,539,380	—	—	1,890,240
	Incentive Plan Severance	1,399,100	3,431,510	568,000	568,000	568,000
	Equity Acceleration	—	—	—	—	—
	Total	3,938,480	5,970,890	568,000	568,000	2,458,240
Eugene A. Scherbakov	Salary Severance and Benefits Continuation	958,080	1,277,441	—	—	638,720
	Incentive Plan Severance	351,800	1,340,485	351,800	351,800	351,800
	Equity Acceleration	1,403,536	5,142,189	5,142,189	—	—
	Total	2,713,416	7,760,115	5,493,989	351,800	990,520
Timothy P.V. Mammen	Salary Severance and Benefits Continuation	755,816	1,007,755	—	—	503,878
	Incentive Plan Severance	213,700	951,296	213,700	213,700	213,700
	Equity Acceleration	1,330,294	4,277,560	4,277,560	—	—
	Total	2,299,810	6,236,611	4,491,260	213,700	990,520
Angelo P. Lopresti	Salary Severance and Benefits Continuation	663,150	884,200	—	—	442,100
	Incentive Plan Severance	196,400	856,028	196,400	196,400	196,400
	Equity Acceleration	1,037,059	3,408,441	3,408,441	—	—
	Total	1,896,609	5,148,669	3,604,841	196,400	638,500
Alexander Ovtchinnikov	Salary Severance and Benefits Continuation	677,324	903,009	—	—	451,550
	Incentive Plan Severance	194,600	813,537	194,600	196,400	194,600
	Equity Acceleration	1,117,195	3,584,805	3,584,805	—	—
	Total	1,989,120	5,301,442	3,779,405	196,400	646,149

1. Equity acceleration is calculated using the full value of service-based restricted stock units and the maximum amount of shares for performance-based stock units based upon the closing sale price of our common stock on December 31, 2018, of $113.29 per share and the aggregate difference between the exercise prices of outstanding stock options and the closing sale price of our common stock on December 31, 2018.

CEO PAY RATIO

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 402(u) of Regulation S-K, we are providing the following information on the relationship of the annual total compensation of our employees and the annual total compensation of Dr. Valentin P. Gapontsev, our Chief Executive Officer.

Determining our Median Employee: As permitted by SEC rules, the Company has determined to use the same median employee in our pay ratio calculation as was used in the proxy statement for the 2018 annual meeting of stockholder because there has been no change in our employee population or employee compensation arrangements that we believe would significantly impact the pay ratio disclosure. Please see the description in the proxy statement for the 2018 annual meeting for additional information regarding the process the Company undertook to identify the median employee.

Calculating the Pay Ratio: As required by the SEC rules, we calculated our median employee's total annual compensation in accordance with the requirements of Item 402(c)(2)(x) of Regulation S-K (which is the calculation method for reporting CEO compensation in the Summary Compensation Table).

The total compensation of our median employee was $49,703. Our CEO's total compensation as reported in the Summary Compensation Table for 2018 was $1,653,996. Therefore, our CEO to median employee pay ratio in 2018 was approximately 33.3:1.

The pay ratio included in this information is a reasonable estimate calculated in a manner consistent with rules promulgated by the SEC. This information is being provided solely for compliance purposes. The Compensation Committee does not consider this ratio when evaluating compensation arrangements.

DIRECTOR COMPENSATION

Objectives of Director Compensation

Quality non-employee directors are critical to our success. We believe that the two primary duties of non-employee directors are to effectively represent the long-term interests of our stockholders and to provide guidance to management. As such our compensation program for non-employee directors is designed to meet several key objectives:

- Adequately compensate directors for their responsibilities and time commitments and for the personal liabilities and risks that they face as directors of a public company;
- Attract the highest caliber non-employee directors by offering a compensation program consistent with those at companies of similar size, complexity and business character;
- Align the interests of directors with our stockholders by providing a significant portion of compensation in equity and requiring directors to own our stock; and
- Provide compensation that is simple and transparent to stockholders and reflects corporate governance best practices.

We also believe in aligning director compensation with stockholder interests. In 2018, approximately 79% of independent director compensation was at risk by being subject to stock price performance.

Elements of Director Compensation

We believe that the following components of our director compensation program support the objectives above:

- We provide cash compensation through retainers for Board and committee service, as well as additional cash retainers to the Presiding Independent Director and chairs of our standing Board committees. We do not provide Board and committee meeting fees. Compensating our directors in this manner simplifies the administration of our program and creates greater equality in rewarding service on committees of the Board. The additional retainers compensate directors for the additional responsibilities and time commitments involved with chairperson responsibilities;
- We pay for, provide, or reimburse directors for expenses incurred to attend Board and committee meetings and director education programs;
- Directors do not have a retirement plan but are afforded business travel; and
- Directors who are our employees receive no additional compensation for service on the Board.

Determining Director Compensation

Our Compensation Committee reviews our director compensation program periodically to confirm that the program remains appropriate and competitive and recommends any changes to our full Board for consideration and approval.

In 2017, the Compensation Committee engaged independent compensation consultant firm, Radford, to provide a comprehensive review of compensation for non-employee directors in comparison to the same compensation peer group used for the Company's executive compensation analysis. The compensation our non-employee Directors received in 2018 reflects Radford’s recommendations and is provided in the table below.

2019 Update. The Compensation Committee engaged Radford for another comprehensive review of non-employee director compensation in 2019. Based upon its review, the Compensation Committee believed that the director compensation described below continues to be appropriate.

Cash Compensation. Our non-employee directors receive the following annual retainers from us:

	Amount
Board Retainer	$ 40,000
Presiding Independent Director Retainer	$ 20,000
Audit Committee Retainers	
Chair	$ 25,000
Non-Chair	$ 12,500
Compensation Committee Retainers	
Chair	$ 22,500
Non-Chair	$ 10,000
Nominating and Corporate Governance Committee Retainers	
Chair	$ 17,500
Non-Chair	$ 7,500

Equity Compensation. Each non-employee director continuing in office after the annual meeting of stockholders receives a dollar value annual grant of equity totaling $250,000 (determined pursuant to ASC Topic 718). Of this award, one-third is service-based stock options and two-thirds are service-based restricted stock units. The annual awards vest in a single installment on the earlier of the one-year anniversary of the date of grant or the next annual meeting of stockholders. Upon initial election to the Board, each new non-employee director receives a grant (determined pursuant to ASC Topic 718) of $125,000 in stock options and $125,000 in restricted stock units vesting on the first anniversary of the date of grant subject to the director's continued service on the Board. The exercise price of each of the stock options is the closing market price of our common stock on the date of grant. Any director who retires after at least eight years of service on the Board will be entitled to full vesting of all options and restricted stock units then held by the director.

Director Compensation Table

The following table summarizes the compensation of each of our non-employee directors for 2018:

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($)(1)	Option Awards ($)(1)	Total ($)
Michael C. Child	47,500	164,637	87,539	299,676
Henry E. Gauthier	52,500	164,637	87,539	304,676
William S. Hurley (2)	26,042	—	—	26,042
Catherine P. Lego	75,000	164,637	87,539	327,176
Eric Meurice	67,500	164,637	87,539	319,676
John R. Peeler	77,500	164,637	87,539	329,676
Thomas J. Seifert	72,500	164,637	87,539	324,676

1. Valuation based on the fair value of the restricted stock unit and stock option awards as of the grant date determined pursuant to ASC Topic 718 with respect to 2018. The assumptions that we used with respect to the valuation of restricted stock unit and stock option awards are set forth in Note 12 to our Consolidated Financial Statements in our Annual Report on Form 10-K filed with the SEC on February 27, 2019. On June 5, 2018, each continuing director serving on the Board was granted restricted stock units for 650 shares of common stock and options to purchase 1,113 shares of common stock at an exercise price of $256.25 per share. Both restricted stock units and options vest in a single installment on May 30, 2019.
2. Mr. Hurley served on the Board through June 5, 2018.

Outstanding Equity Awards Table

The following table provides information regarding unexercised stock options and unvested restricted stock units held by each of our non-employee directors on December 31, 2018:

Name	Unvested Restricted Stock Units (#)	Total Option Awards Held (#)	Exercisable Option Awards (#)
Michael C. Child	650	48,377	47,264
Henry E. Gauthier	650	8,709	7,596
William S. Hurley (1)	—	—	—
Catherine P. Lego	2,156	11,960	6,593
Eric Meurice	650	18,132	17,019
John R. Peeler	650	21,709	20,596
Thomas J. Seifert	650	5,808	4,695

1. Mr. Hurley served on the Board through June 5, 2018.

We also reimburse directors for all reasonable out-of-pocket expenses incurred for attending Board and committee meetings and director education programs. Non-employee directors do not receive any additional payments or perquisites.

Our certificate of incorporation limits the dollar amount of personal liability of our directors for breaches by them of their fiduciary duties. Our certificate of incorporation requires us to indemnify our directors to the fullest extent permitted by the Delaware General Corporation Law. We have also entered into indemnification agreements with all of our directors and we have purchased directors' and officers' liability insurance.

AUDIT COMMITTEE REPORT

The primary role of the Audit Committee is to assist the Board of Directors in fulfilling its oversight responsibilities by reviewing the financial information proposed to be provided to stockholders and others, the adequacy of the system of internal control over financial reporting and disclosure controls and procedures established by management and the Board, and the audit process and the independent registered public accounting firm's qualifications, independence and performance.

Management has primary responsibility for the financial statements and is responsible for establishing and maintaining the Company's system of internal controls over preparation of the Company's financial statements. The Company's independent registered public accounting firm, Deloitte & Touche LLP, is responsible for performing an integrated audit of the Company's consolidated financial statements and the effectiveness of internal controls over financial reporting in accordance with standards of the Public Company Accounting Oversight Board (United States) (PCAOB) and issuing an opinion on the financial statements and the effectiveness of internal controls over financial reporting. The Audit Committee also employs an international auditing firm to conduct internal audits throughout the Company of various financial, operational and information technology areas as selected each year by the Audit Committee. The Audit Committee periodically met and held separate discussions with the internal auditors and the Company's independent registered public accounting firm, with and without management present, to review the adequacy of the Company's internal controls, financial reporting practices and audit process.

The Audit Committee has reviewed and discussed the Company's audited consolidated financial statements for the year ended December 31, 2018 with management and the independent registered public accounting firm. As part of this review, the Audit Committee discussed with Deloitte & Touche LLP the required communications described in Auditing Standard No. 1301, *Communication with Audit Committees,* and those matters required to be reviewed pursuant to Rule 2-07 of Regulation S-X as well as the results of their audit of the effectiveness of internal controls over financial reporting.

The Audit Committee has received from Deloitte & Touche LLP a written statement describing all relationships between Deloitte & Touche LLP, the member firms of Deloitte Touche Tohmatsu Limited, and their related entities and the Company and its affiliates or persons in financial reporting oversight roles at the Company and its affiliates that might bear on their independence, consistent with PCAOB Ethics and Independence Rule 3526, *Communications with Audit Committees Concerning Independence.* The Audit Committee has discussed the written statement with the independent registered public accounting firm and has considered whether its provision of any other non-attest services to the Company is compatible with maintaining the auditors' independence.

Based on the above-mentioned reviews and discussions, the Audit Committee recommended to the Board of Directors that the Company's audited consolidated financial statements be included in its Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC.

AUDIT COMMITTEE

Thomas J. Seifert, *Chair*
Gregory P. Dougherty
Henry E. Gauthier
Catherine P. Lego

March 19, 2019

The information in the Audit Committee Report shall not be considered "soliciting material" or "filed" with the SEC, nor shall this information be incorporated by reference into any previous or future filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that the Company incorporated it by specific reference.

PROPOSAL 2: RATIFY DELOITTE & TOUCHE LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR 2019

Deloitte & Touche LLP currently serves as our independent registered public accounting firm and audited our consolidated financial statements for the year ended December 31, 2018. Our Audit Committee has appointed Deloitte & Touche LLP to serve as our independent registered public accounting firm for 2019, and to conduct an integrated audit of our consolidated financial statements for the year ending December 31, 2019 and of our internal control over financial reporting as of December 31, 2019. Deloitte & Touche LLP has served as the Company's auditor since 1999.

The Audit Committee is solely responsible for the appointment, retention, termination and oversight of the work of our independent registered public accounting firm, including the approval of all engagement fees, terms, and the annual audit plan. In determining whether to reappoint Deloitte & Touche LLP as the Company's independent external auditor, the Audit Committee took into consideration several factors, including an assessment of the professional qualifications and past performance of the lead audit partner and the Deloitte & Touche LLP team, the quality and level of transparency of the Audit Committee's relationship and communications with Deloitte & Touche LLP. The Audit Committee considered, among other things, the knowledge and skills of Deloitte & Touche LLP's auditing experts that would be providing services to the Company, international scope and knowledge of the Company and its operations. After its assessment, the Audit Committee concluded that the best course of action was to reappoint Deloitte & Touche LLP as the Company's independent external auditor for 2019.

Lead and concurring audit partners are subject to rotation requirements that limit the number of consecutive years an individual partner may provide services. The maximum number of consecutive years of service in that capacity is five years and 2019 is a year of lead audit partner rotation. The process for rotation of the Company's lead audit partner involves an inquiry into the backgrounds and experiences of several potential lead partners from Deloitte & Touche LLP, a narrowing of the list to one or more, a meeting between the candidate or candidates for the role with the Chair of the Audit Committee, as well as with management. This is accompanied by several discussions with and a final approval by the entire Audit Committee. The Company and Audit Committee followed this process in the 2019 selection of the lead audit partner from Deloitte & Touche LLP.

Fees Paid to Deloitte & Touche. The fees for services provided by Deloitte & Touche LLP, member firm of Deloitte Touche Tohmatsu, and their respective affiliates, to the Company were:

	Fees	
Fee Category	**2018**	**2017**
Audit fees	$ 2,051,757	$ 1,873,535
Audit-related fees	$ 170,470	$ 212,072
Tax fees	$ 111,000	$ 95,200
All other fees	$ —	$ —
Total Fees	$ 2,333,227	$ 2,180,807

Audit fees. These fees comprise fees for professional services rendered in connection with the audit of the Company's consolidated financial statements that are customary under auditing standards generally accepted in the United States. Audit fees also include fees for consents and reviews related to SEC filings and quarterly services with respect to the preparation of our unaudited quarterly financial statements. The increase in audit fees relates to increases in audit hours and audit scope with the growth of the Company, and increases in hourly rates.

Audit-related fees. These fees comprise fees for services that are reasonably related to the performance of the audit or review of the Company's financial statements.

Tax fees. Fees for tax services consist of fees for tax compliance services and tax planning and advice services. Tax compliance services are services rendered based upon facts already in existence or transactions that have already occurred to document, compute and obtain government approval for amounts to be included in tax filings. Tax planning and advice are services rendered with respect to proposed transactions or that alter a transaction to obtain a particular tax result.

All other fees. These are fees for any services not included in the other three categories.

Policy on Pre-Approval of Audit and Permissible Non-Audit Services. The Audit Committee pre-approves all audit and permissible non-audit services provided by the independent registered public accounting firm. These services may include audit services, audit-related services and tax services as well as specifically designated non-audit services that, in the opinion of the Audit Committee, will not impair the independence of the independent registered public accounting firm. Pre-approval is generally provided for each fiscal year, and any pre-approval is detailed as to the particular service or category of services and is generally subject to a specific budget. The independent registered public accounting firm and our management are required to periodically report to the Audit Committee regarding the extent of services provided by the independent registered public accounting firm in accordance with the pre-approval, including the fees for the services performed to date. In addition, the Audit Committee also may pre-approve particular services on a case-by-case basis, as required.

Our Audit Committee is solely responsible for selecting and appointing our independent registered public accounting firm, and this appointment is not required to be ratified by our stockholders. However, our Audit Committee has recommended that the Board submit this matter to the stockholders in a non-binding advisory vote as a matter of good corporate practice. If the stockholders fail to ratify the appointment, the Audit Committee will reconsider whether to retain Deloitte & Touche LLP, and may retain that firm or another without re-submitting the matter to our stockholders. Even if the appointment is ratified, the Audit Committee may, in its discretion, direct the appointment of a different independent registered public accounting firm at any time during the year if it determines that such a change would be in the best interests of the Company and our stockholders.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR"

RATIFICATION OF DELOITTE & TOUCHE LLP AS OUR

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR 2019

PROPOSAL 3: APPROVE THE IPG PHOTONICS CORPORATION 2008 EMPLOYEE STOCK PURCHASE PLAN, AS AMENDED AND RESTATED

Stockholders are being asked to approve the IPG Photonics Corporation 2008 Employee Stock Purchase Plan, as amended and restated effective December 1, 2018 (the "Stock Purchase Plan"). The Company originally established the Stock Purchase Plan in March 2008 and our stockholders approved the original Stock Purchase Plan in June 2008. The original Stock Purchase Plan had a term of ten years and expired in accordance with its terms in 2018. The Board determined that it is in our and our stockholders' best interests to continue to have an employee stock purchase plan and adopted an amendment and restatement of the Stock Purchase Plan on October 24, 2018. In order to satisfy the requirements of Section 423 of the Internal Revenue Code, the reauthorization of the Stock Purchase Plan is subject to stockholder approval.

The Company is not requesting its stockholders to authorize additional new shares under the Stock Purchase Plan. By reauthorizing the Stock Purchase Plan, 397,062 shares would continue to be available for purchase under the Stock Purchase Plan. The Stock Purchase Plan will continue to include an annual increase provision that increases the number of shares available for purchase under the Stock Purchase Plan on the first day of each fiscal year, equal to the greater of (i) the number of shares of common stock available under the Stock Purchase Plan as of the last day of the immediately preceding fiscal year and (ii) the lesser of (A) 400,000 shares of common stock and (B) seventy-five hundredths of one percent (0.75%) of the outstanding shares of our common stock on the last day of the immediately preceding fiscal year.

Vote Required

In order to pass, this proposal must receive a "FOR" vote from the holders of a majority of the shares of our common stock present in person or represented by proxy and entitled to vote on this matter at the annual meeting. Abstentions will have the same effect as a vote "against" this proposal. Broker non-votes will have no effect on this proposal.

Description of the Stock Purchase Plan

The following is a summary of the principal features of the Stock Purchase Plan and its operation. The summary is qualified in its entirety by reference to the Stock Purchase Plan, a copy of which is attached as Appendix A to this proxy statement. The description herein is a summary and not intended to be a complete description of the Stock Purchase Plan. Please read the Stock Purchase Plan for more detailed information.

General. The purpose of the Stock Purchase Plan is to provide employees with an opportunity to purchase shares of our common stock through accumulated payroll deductions. The Stock Purchase Plan is intended to qualify as an employee stock purchase plan under Section 423 of the Internal Revenue Code. The Stock Purchase Plan also includes a non-Code Section 423 component for our non-U.S. employees (the "Non-Section 423 Component").

Administration. The Compensation Committee of the Board or any committee of independent directors appointed by the Board (referred to as the "Administrator") administers the Stock Purchase Plan. The Administrator is authorized to adopt rules, procedures and sub-plans with respect to the Non-Section 423 Component of the ESPP and for the operation of the ESPP in jurisdictions outside of the U.S. as appropriate to conform with the applicable local laws, practices and procedures.

All questions of interpretation or application of the Stock Purchase Plan are determined by the Administrator and its decisions are final, conclusive and binding upon all participants.

Eligibility. Each of our employees or the employees of our subsidiaries who is an employee and whose customary employment with us or one of our subsidiaries is at least twenty hours per week and more than five months in a calendar year is eligible to participate in the Stock Purchase Plan, subject to the laws pursuant to which our subsidiaries operate.

In addition, an employee must be employed by us or by a designated subsidiary for at least six months to be eligible to participate in the Stock Purchase Plan. However, an employee cannot be granted any rights to purchase shares under the Stock Purchase Plan to the extent that (i) immediately after the grant, such employee would own 5% or more of the total combined voting power or value of all classes of our capital stock or the capital stock of one of our subsidiaries, or (ii) the employee's rights to purchase stock under all of our employee stock purchase plans accrue at a rate that exceeds $25,000 worth of our stock (determined at the fair market value of the shares at the time such option is granted) for each calendar year in which such rights are outstanding. As of December 31, 2018, we and our subsidiaries had approximately 2,076 eligible employees in the U.S. and Germany.

Non-Section 423 Component. The Non-Section 423 Component of the Stock Purchase Plan authorizes the purchase of shares of our common stock, but is not intended to meet the requirements set forth Section 423(b) of the Internal Revenue Code. U.S. employees are not permitted to purchase shares of common stock under the Non-Section 423 Component. Any individual who is an employee of one of our subsidiaries that has elected to become a participating company in the Non-Section 423 Component may be a participant in the Stock Purchase Plan even if (i) he or she has not completed six or more months of service with a participating company and (ii) his or her customary employment is less than twenty hours per week, and less than five months in any calendar year, to the extend required by applicable local law.

Offering Period. Generally, the Stock Purchase Plan provides for consecutive, non-overlapping six-month offering periods. Unless the Administrator determines otherwise, the offering periods generally begin on the first trading day on or after January 1 and July 1 of each year, except that the first offering period under the Stock Purchase Plan if approved by our stockholders will commence on the first trading day on or after December 1, 2018, and end on the trading day coincident with or next preceding June 30, 2019 (the "First Offering Period").

At the beginning of each offering period, each participant is deemed to have been granted an option to purchase shares of our common stock. The option is automatically exercised on the last trading day of the offering period and the amounts deducted and accumulated by the participant are used to purchase shares of our common stock.

Participation. To participate in the Stock Purchase Plan, an eligible employee must authorize payroll deductions pursuant to the Stock Purchase Plan. Such payroll deductions must be in whole percentages not to exceed 10% of a participant's compensation during the offering period. Once an employee becomes a participant in the Stock Purchase Plan, the employee automatically will participate in each successive offering period until the employee's employment with us and the designated subsidiaries terminates, or until the employee elects to terminate participation prior to and effective upon the next offering period.

Purchase Price. Shares of our common stock may be purchased under the Stock Purchase Plan at a purchase price equal to 85% of the lesser of the fair market value of the common stock on (i) the first trading day of the offering period or (ii) the last trading day of the offering period. The fair market value of our common stock on any relevant date will be the closing price per share as quoted on the Nasdaq and reported in The Wall Street Journal or such other source as the Administrator deems reliable.

Purchase of Shares. The number of shares of our common stock that a participant may purchase at the end of an offering period will be determined by dividing the total amount of payroll deductions withheld from the participant's compensation during that offering period by the purchase price; provided, however, that a participant may not purchase more than a number of shares determined by dividing $12,500 by the fair market value of a share on the first trading day of the offering period. However, the maximum number of shares of our common stock that a participant may purchase with respect to the offering period beginning on the first trading day on or after December 1, 2018, will be the number of shares determined by dividing $25,000 by the fair market value of a share of our common stock on the first trading day for that offering period. During an offering period, a participant may not discontinue his or her participation in the Stock Purchase Plan and may not decrease or increase the rate of payroll deductions in an offering period.

All payroll deductions made for a participant are credited to the participant's account under the Stock Purchase Plan and are included in our general funds. Funds received by us pursuant to exercises under the Stock Purchase Plan are also used for general corporate purposes. A participant may not make any additional payments into his or her account.

Withdrawal. Generally, a participant may not elect to withdraw from or change his or her payroll deduction election during an offering period.

Termination of Employment. Upon termination of a participant's employment for any reason, including disability or death, the payroll deductions credited to the participant's account (to the extent not used to make a

purchase of our common stock) will be returned to him or her or, in the case of death, to the person or persons entitled thereto as provided in the Stock Purchase Plan, and the participant's option will automatically be terminated.

Adjustments; Change of Control. In the event that any change to the outstanding common stock occurs (whether by reason of any recapitalization, stock dividend, stock split, exchange or combination of shares or other change in corporate structure), the Administrator will make adjustments to preserve the benefits under the Plan. These may include appropriate adjustments to:

- the number and class of securities that may be issued or delivered under the Stock Purchase Plan;
- the number of securities purchasable per participant during any Stock Purchase Plan offering; and
- the purchase price per share.

It is intended that any adjustments will prevent any dilution or enlargement of rights under the Stock Purchase Plan. In the event of various corporate events such as our dissolution or liquidation, or a merger, or a sale of all or substantially all of our assets, the Stock Purchase Plan offering which would otherwise be in effect on the date of the event will accelerate and will end on the last pay day before the date of the event. On that date, all outstanding purchase rights will automatically be exercised.

Amendment and Termination of the Plan. The Board may, in its sole discretion, terminate or amend the Plan, but the amendment and termination of the Plan may not adversely affect outstanding purchase rights without the consent of the holders of those rights. The approval of the stockholders is required to alter the aggregate number of shares that may be issued under the Plan (except for the adjustments and annual increases provided for in the Plan) or the class of employees eligible to receive offerings of shares under the Plan. If we terminate the Stock Purchase Plan, we may end an offering period and accelerate the exercise date of all outstanding purchase rights. We will refund (without interest) any remaining payroll deductions after we terminate the Stock Purchase Plan.

Effective Date and Term. The Restated Plan will become effective as of December 1, 2018, subject to stockholder approval, and will continue in effect until the earlier of the date that (a) the shares of our common stock reserved for issuance have been depleted, and (b) the Stock Purchase Plan is terminated in accordance with its terms.

New Plan Benefits. Participation in the Stock Purchase Plan is voluntary and depends on each eligible employee's election to participate and his or her determination as to the level of payroll deductions. Accordingly, future purchases under the employee stock purchase plan are not determinable. Non-employee directors are not eligible to participate in the Stock Purchase Plan. We cannot determine the benefits that our executive officers and other employees may receive under the Stock Purchase Plan. No purchases have been made under the Stock Purchase Plan since its adoption by the Board.

Federal Income Tax Considerations

The following summary of the effect of U.S. federal income taxation upon the participants and us with respect to the shares purchased under the Stock Purchase Plan does not purport to be complete, and does not discuss the tax consequences of a participant's death or the income tax laws of any state, locality or foreign country in which the participant may reside. Therefore, this summary should not be relied upon for individual tax compliance, planning or decisions and participants of the Stock Purchase Plan should consult their own tax professionals for any such advice. Taxation of equity-based payments in countries other than the U.S. does not generally correspond to U.S. federal tax laws, and is not covered by the summary below.

The Stock Purchase Plan, and the right of participants to make purchases thereunder, are intended to qualify under the provisions of Sections 421 and 423 of the Internal Revenue Code.

Section 423 Plan Offerings. For options granted under the provisions of Section 423(b) of the Code, no income will be taxable to a participant until the shares the participant purchased under the Stock Purchase Plan are sold or otherwise disposed of. Upon sale or other disposition of the shares, the participant generally will be subject to tax in an amount that depends upon the holding period.

If the shares are sold or otherwise disposed of more than two years from the first trading day of the applicable offering period and one year from the applicable date of purchase, the participant will recognize ordinary income measured as the lesser of (i) the excess of the fair market value of the shares at the time of such sale or disposition over the purchase price or (ii) the excess of the fair market value of the shares on the first trading day of the applicable offering period over the purchase price. Any additional gain will be treated as long-term capital gain.

If the shares are sold or otherwise disposed of before the expiration of these holding periods, the participant will recognize ordinary income in the year of the disqualifying disposition generally measured as the excess of the fair market value of the shares on the date the shares are purchased over the purchase price. Any additional gain or loss on such sale or disposition will be long-term or short-term capital gain or loss, depending on how long the shares have been held from the date of purchase. We generally are not entitled to a deduction for amounts taxed as ordinary income or capital gain to a participant except to the extent of ordinary income recognized by participants upon a disqualifying disposition, that is, a sale or disposition of shares prior to the expiration of the holding periods described above.

Non-Section 423 Component Offerings. If the option is granted in an offering under the Non-Section 423 Component, the participant will recognize ordinary income generally measured as the excess of the fair market value of the shares on the date the shares are purchased over the purchase price. In such instances, the amount of recognized ordinary income will be added to the participant's basis in the shares. Any additional gain or loss recognized upon the sale or disposition of shares will be treated as a capital gain or loss. A capital gain or loss will be long-term if the shares have been held for more than one year after the purchase date. We generally will not be entitled to a deduction except to the extent of ordinary income recognized by the participant upon a sale or disposition of shares, subject to the satisfaction of any tax-reporting obligations and applicable limitations under the Code.

Information Regarding Equity Compensation Plans

The following table sets forth information with respect to securities authorized for issuance under the Stock Purchase Plan as of December 31, 2018:

Equity Compensation Plan Information

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, RSUs and PSUs (a)	Weighted-Average Exercise Price of Outstanding Options, RSUs and PSUs (b)	Number of Securities Remaining Available for Future Issuance under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (c)
Employee Stock Purchase Plan Approved by Security Holders	—	—	—
Employee Stock Purchase Plan Not Approved by Security Holders (1)	—		387,498
Total (2)	—		387,498

1. As of December 31, 2018, there were 387,498 shares available for issuance under the employee stock purchase plan, including 45,184 shares subject to purchase during the current purchase period. Shares subject to purchase were calculated following plan guidelines using the December 31, 2018 closing stock price. Shares available for issuance including the shares subject to purchase, are subject to the stockholder approval requested herein.
2. For information regarding all of the Company's equity compensation plans, please see the Section entitled "Information Regarding Equity Compensation Plans" on page 35 of the Company Annual Report on Form 10-K filed with the SEC on February 27, 2019.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR"

THE APPROVAL OF THE IPG PHOTONICS CORPORATION

2008 EMPLOYEE STOCK PURCHASE PLAN, AS AMENDED AND RESTATED

OTHER MATTERS

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our directors and executive officers, and persons who beneficially own more than 10% of a registered class of our equity securities to file reports of ownership of, and transactions in, our securities with the SEC. These directors, executive officers and 10% stockholders are also required to furnish us with copies of all Section 16(a) forms that they file. Based solely on its review of such forms received by it and the written representations of its Reporting Persons, the Company has determined that no such persons known to it were delinquent with respect to their reporting obligations as set forth in Section 16(a) of the Exchange Act, except as set forth below.

Following a change in responsibilities in which Thomas J. Burgomaster, Vice President, Corporate Controller, was designated as the Chief Accounting Officer of the Company (including Principal Accounting Officer) on February 25, 2014, the following forms were not timely filed with respect to Mr. Burgomaster: (i) an initial statement of beneficial ownership of securities on Form 3 within 10 days of such appointment, and (ii) thirty eight Form 4s to report transactions in the Company's securities occurring from February 25, 2014 through June 6, 2018. Promptly after the omission was discovered, Mr. Burgomaster filed a Form 3 as well as Form 4s on October 31, 2018 to report all such transactions.

A Form 4 was not timely filed with respect to Trevor Ness, Senior Vice President, World Wide Sales and Marketing, to report one transaction occurring on March 1, 2014. Promptly after the omission was discovered, Mr. Ness filed a Form 4 on May 11, 2018 to report such transaction.

A Form 4 was not timely filed with respect to Dr. Eugene Scherbakov, Chief Operating Officer, to report one transaction occurring on February 22, 2018. Promptly after the omission was discovered, Dr. Scherbakov filed a Form 4 on May 11, 2018 to report such transaction.

2020 Annual Meeting and Nominations

Stockholders may present proposals for action at a future meeting and nominations for director if they comply with applicable SEC rules and our bylaws. Proposals and director nominations must be received by our Secretary at IPG Photonics Corporation, 50 Old Webster Road, Oxford, Massachusetts 01540.

Matters for Inclusion in the Proxy Materials for the 2020 Annual Meeting of Stockholders. If you would like us to consider including a proposal in our proxy statement pursuant to Rule 14a-8 under the Exchange Act, it must be received by our Secretary on or before December 13, 2019.

Matters for Consideration at the 2020 Annual Meeting of Stockholders, but not for Inclusion in the Proxy Materials. If you would like to present a proposal at the 2020 annual meeting of stockholders, but not to have such proposal included in our proxy statement relating to that meeting, such proposal or nomination must be received by our Secretary not earlier than January 31, 2020 and not later than March 1, 2020.

Nominations of Individuals for Election as Directors at the 2020 Annual Meeting of Stockholders Using Proxy Access. A stockholder, or group of up to 20 stockholders, that has owned at least three percent of the Company's outstanding common stock continuously for at least three years through the dates specified in the Company's bylaws may nominate and include in the Company's annual meeting proxy materials director nominees constituting up to the greater of two director nominees or 20 percent of the number of directors up for election, provided that the stockholder(s) and nominee(s) satisfy the requirements in specified in our bylaws. Notice of proxy access director nominees must be received by our Secretary not earlier than November 13, 2019 and not later than December 13, 2019.

Nominations of Individuals for Election as Directors at the 2020 Annual Meeting of Stockholders, but not Included in the Proxy Materials. If you would like to nominate a director next year, but not to have such nominee included in our proxy statement relating to that meeting, such nomination must be received by our Secretary not earlier than January 31, 2020 and not later than March 1, 2020.

Additional Requirements. Our bylaws contain specific requirements regarding a stockholder's ability to nominate a director or to submit a proposal for consideration at an upcoming meeting. Our bylaws require that the notice to the Company include (i) information relating to the name, age and experience of the nominee and such other information concerning such nominee as would be required under the then-current rules of the SEC to be included in a proxy statement soliciting proxies for the election of the nominee, (ii) the nominee's written consent to

being named in the proxy statement and serving as a director, if elected and (iii) the name and address of the record holder and beneficial holder of the shares, the number of shares held of record or beneficially owned, and representations and other undertakings by both the stockholder nominating a director and its nominee, as described in our bylaws. If the Nominating and Corporate Governance Committee or the Board determines that any nomination made by a stockholder was not made in accordance with the Company's procedures, the rules and regulations of the SEC or other applicable laws or regulations, such nomination will be void. If you would like a copy of the requirements contained in our bylaws, please contact our Secretary.

No Incorporation by Reference

In our filings with the SEC, information is sometimes "incorporated by reference." This means that we are referring you to information that has previously been filed with the SEC and the information should be considered as part of the particular filing. As provided under SEC regulations, the *Compensation Committee Report* and the *Audit Committee Report* contained in this proxy statement specifically are not incorporated by reference into any of our other filings with the SEC, are not to be deemed soliciting materials or subject to the liabilities of Section 18 of the Exchange Act. In addition, this proxy statement includes several website addresses. These website addresses are intended to provide inactive, textual references only. The information on these websites is not part of this proxy statement.

Stockholders Sharing the Same Address

Under the rules adopted by the SEC, we may deliver a single set of proxy materials to one address shared by two or more of our stockholders. This delivery method is referred to as “householding” and can result in significant cost savings and reduce the environmental impact. To take advantage of this opportunity, we have delivered only one set of proxy materials to multiple stockholders who share an address, unless we received contrary instructions from the impacted stockholders prior to the mailing date. We agree to deliver promptly, upon written or oral request, a separate copy of the proxy materials, as requested, to any stockholder at the shared address to which a single copy of these documents was delivered. If you prefer to receive separate copies of the Notice, proxy statement or annual report, call 877-373-6374 if you are a stockholder of record, or contact your bank or broker if you own shares in "street name."

In addition, if you currently are a stockholder who shares an address with another stockholder and would like to receive only one copy of future notices and proxy materials for your household, you may notify your bank or broker if your shares are held in "street name." You may notify us if you are a stockholder of record by calling 877-373-6374.

APPENDIX A

IPG PHOTONICS CORPORATION
2008 EMPLOYEE STOCK PURCHASE PLAN
(As Amended and Restated Effective December 1, 2018)

ARTICLE I
INTRODUCTION

1.01 Purpose. IPG Photonics Corporation (the "Company") established and maintains this IPG Photonics Corporation 2008 Employee Stock Purchase Plan, as amended from time to time (the "Plan") to provide employees of IPG Photonics with an opportunity to purchase Common Stock of the Company through accumulated payroll deductions. The Company has amended and restated the Plan effective December 1, 2018 (the "Restatement Date," and the Plan on and after the Restatement Date, the "Restated Plan").

1.02 Operation. It is the intention of the Company to have the Plan qualify as an "employee stock purchase plan" under Code Section 423. Accordingly, the provisions of the Plan will be administered, interpreted and construed so as to extend and limit Plan participation in a manner consistent with the requirements of Code Section 423. However, the Company makes no undertaking or representation to maintain such qualification. In addition, the Plan authorizes the purchase of shares of Common Stock under a Non-Code Section 423(b) Component, pursuant to rules, procedures or sub-plans adopted by the Board and designed to achieve tax, securities law or other objective, provided, however, that U.S. Employees will not be permitted to purchase shares of Common Stock under the Non-Code Section 423(b) Component.

ARTICLE II
DEFINITIONS

2.01 "Administrator" means the Compensation Committee of the Board or any committee designated by the Board to administer the Plan pursuant to Article VII.

2.02 "Affiliate" means any entity, other than a Subsidiary, in which the Company has an equity or other ownership interest.

2.03 "Board" means the Board of Directors of the Company.

2.04 "Change in Control" means the occurrence of any of the following events:

(a) Any "person" (as such term is defined in Section 3(a)(9) of the Exchange Act and as used in Sections 13(d)(3) and 14(d)(2) of the Exchange Act), including a "group" (as defined in Section 13(d)(3) of the Exchange Act), other than (i) the Company, (ii) any wholly-owned subsidiary of the Company, or (iii) any employee benefit plan (or related trust) sponsored or maintained by the Company or any Affiliate, becomes a "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company having fifty percent (50%) or more of the combined voting power of the then-outstanding securities of the Company that may be cast for the election of directors of the Company (other than as a result of an issuance of securities initiated by the Company in the ordinary course of business) (the "Company Voting Securities"); provided, however, that the event described in this paragraph (a) shall not be deemed to be a Change in Control by virtue of any underwriter temporarily holding securities pursuant to an offering of such securities;

(b) During any period of two consecutive years, individuals who at the beginning of any such period constitute the Board (the "Incumbent Directors") cease for any reason to

constitute at least a majority of the Board, unless the election, or the nomination for election by the stockholders of the Company, of each new director of the Company during such period was approved by a vote of at least two-thirds of the Incumbent Directors then still in office;

(c) As the result of, or in connection with, any cash tender or exchange offer, merger or other business combination, sale of all or substantially all of the assets or contested election, or any combination of the foregoing transactions, less than a majority of the combined voting power of the then-outstanding securities of the Company or any successor corporation or entity entitled to vote generally in the election of the directors of the Company or such other corporation or entity after such transaction is held in the aggregate by the holders of the securities of the Company entitled to vote generally in the election of directors of the Company immediately prior to such transaction; or

(d) The stockholders of the Company approve a plan of complete liquidation of the Company.

Notwithstanding the foregoing, a Change in Control shall not be deemed to occur solely because any person acquires beneficial ownership of more than fifty percent (50%) of the Company Voting Securities as a result of the acquisition of Company Voting Securities by the Company that reduces the number of Company Voting Securities outstanding; provided, however, that if after such acquisition by the Company such person becomes the beneficial owner of additional Company Voting Securities that increases the percentage of outstanding Company Voting Securities beneficially owned by such person, a Change in Control transaction shall then occur.

2.05 "Code" means the U.S. Internal Revenue Code of 1986, as amended.

2.06 "Code Section 423(b) Component" means an employee stock purchase plan that is designed to meet the requirements set forth in Code Section 423(b), as amended. The provisions of the Code Section 423(b) Component shall be construed, administered and enforced in accordance with Code Section 423(b).

2.07 "Common Stock" means the common stock of the Company.

2.08 "Company" means IPG Photonics Corporation, a Delaware corporation.

2.09 "Compensation" means (i) the base salary and wages paid in cash to a Participant by the Participating Company, plus (ii) any pre-tax contributions made by the Participant under Code Section 401(k) or 125. "Compensation" shall exclude variable compensation (including bonuses, incentive compensation, commissions, overtime pay and shift premiums), all non-cash items, moving or relocation allowances, cost-of-living equalization payments, car allowances, tuition reimbursements, imputed income attributable to cars or life insurance, severance pay, fringe benefits, contributions or benefits received under employee benefit plans, income attributable to the exercise of stock options, and similar items.

2.10 "Employee" means any individual who is a common law employee of a Participating Company for tax purposes whose customary employment with the Participating Company is at least twenty (20) hours per week and more than five (5) months in any calendar year; provided, however, that any individual who is an employee of a Participating Company in the Non-Code Section 423(b) Component may be an Employee for purposes of the Plan even if his or her customary employment is less than twenty (20) hours per week and less than five (5) months in any calendar year, to the extend required by applicable local law.

2.11 "Enrollment Date" means the first Trading Date of each Offering Period.

2.12 "Exchange Act" means the U.S. Securities Exchange Act of 1934, as amended, including the rules and regulations promulgated thereunder.

2.13 "Exercise Date" means the last Trading Date of each Offering Period.

2.14 "Fair Market Value" means, as of any date, the value of a share of Common Stock determined as follows:

(a) If the Common Stock is listed on any established stock exchange or a national market system, its Fair Market Value will be the closing sales price for the Common Stock (or the closing bid, if no sales were reported) as quoted on such exchange or system on the date of determination, as reported in The Wall Street Journal or such other source as the Administrator deems reliable;

(b) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value will be the mean of the closing bid and asked prices for the Common Stock on the date of determination, as reported in The Wall Street Journal or such other source as the Administrator deems reliable; or

(c) In the absence of an established market for the Common Stock, its Fair Market Value will be determined in good faith by the Administrator.

2.15 "Fiscal Year" means the 12-consecutive month period coinciding with the calendar year, which is the Company's fiscal year.

2.16 "Non-Code Section 423(b) Component" means the grant of an option under the Plan that is not intended to meet the requirements set forth Code Section 423(b).

2.17 "Offering Period" means a period with respect to which the right to purchase Common Stock may be granted under the Plan, as determined pursuant to Section 3.03.

2.18 "Parent" means a "parent corporation" whether now or hereafter existing, as defined in Code Section 424(e).

2.19 "Participant" means an Employee who elects to participate in the Plan, as provided in Section 3.04.

2.20 "Participating Company" means the Company and each Related Company that has been designated by the Administrator from time to time in its sole discretion as eligible to participate in the Plan. For purposes of the Code Section 423(b) Component, only the Company, a Parent or a Subsidiary may be a Participating Company; provided, however, that, at any given time, a Subsidiary that is a Participating Company under the Code Section 423(b) Component will not be a Participating Company under the Non-Code Section 423(b) Component.

2.21 "Plan" and "Restated Plan" means the IPG Photonics Corporation 2008 Employee Stock Purchase Plan, as amended and restated effective December 1, 2018, which includes a Code Section 423(b) Component and a Non-Code Section 423(b) Component, as it may be amended from time to time.

2.22 "Purchase Price" means the price at which Participants may purchase Common Stock under the Plan, as determined pursuant to Section 5.02.

2.23 "Related Company" means any Parent, Subsidiary or Affiliate of the Company.

2.24 "Subsidiary" means a corporation, domestic or foreign, of which not less than fifty percent (50%) of the voting shares are held by the Company or a Subsidiary, whether or not such corporation now exists or is hereafter organized or acquired by the Company or a Subsidiary.

2.25 "Trading Day" means a day on which the U.S. national stock exchanges are open for trading.

2.26 "U.S. Employee" means an Employee who (i) resides in the United States, and (ii) is employed by the Company or a Participating Company located in the United States.

ARTICLE III
ELIGIBILITY AND PARTICIPATION

3.01 Eligibility. Subject to the requirements of Section 3.04, each Employee who has completed six (6) or more months of continuous service with a Participating Company on an Enrollment Date of an Offering Period shall be eligible to participate in such Offering Period; provided, however, that, for Employees participating in the Non-Code Section 423(b) Component, to the extent required by applicable local law, an Employee may be eligible to participate in an Offering Period, notwithstanding that he or she has not completed six (6) or more months of continuous service with a Participating Company on an Enrollment Date of an Offer Period.

3.02 Limitations. Notwithstanding any provisions of the Plan to the contrary, no Employee will be granted an option to purchase shares of Common Stock under the Plan (a) to the extent that, immediately after the grant, such Employee would own capital stock of the Company or any Related Company and/or hold outstanding options to purchase such stock possessing five percent (5%) or more of the total combined voting power or value of all classes of the capital stock of the Company or of any Related Company (for purposes of this subsection, the rules of Code Section 424(d) shall apply in determining stock ownership of any Employee), or (b) to the extent that such Employee's rights to purchase stock under all employee stock purchase plans (as defined in Code Section 423) of the Company or any Related Company accrues at a rate that exceeds $25,000 of Fair Market Value of the stock (determined at the time such option is granted) for each calendar year in which such option is outstanding at any time.

3.03 Offering Periods. The Offering Periods shall consist of approximately six (6) month periods commencing on the first Trading Day on or after January 1 and July 1 of each Fiscal Year and ending on the Trading Day coincident with or next preceding June 30 and December 31 of such Fiscal Year. Notwithstanding the foregoing, the first Offering Period hereunder shall commence on the first Trading Day on or after December 1, 2018, and shall end on the Trading Day coincident with or next preceding June 30, 2019 (the "First Offering Period"). The Administrator will have the power to change the duration of Offering Periods (including the commencement dates thereof) with respect to future offerings without stockholder approval if such change is announced prior to the scheduled beginning of the first Offering Period to be affected thereafter.

3.04 Participation. An Employee may become a Participant in the Plan by (i) submitting to the Administrator (or its designee), on or before a dated prescribed by the Administrator prior to an applicable Enrollment Date, a properly completed authorization for payroll deductions in the form provided by the Administrator for such purposes or (ii) following an electronic or other enrollment procedure prescribed by the Administrator. To the extent required by applicable local law, the Administrator, in its sole discretion, may decide that an Eligible Employee may contribute to the Plan by means other than payroll deductions, provided, that after December 31, 2018, contributions other than payroll deductions will be permissible only for Employees participating in the Non-Code Section 423(b) Component.

ARTICLE IV
PAYROLL DEDUCTIONS

4.01 Amount of Deduction/Contribution. At the time a Participant enrolls in the Plan pursuant to Section 3.04, he or she will elect payroll deductions or contribution amounts (as applicable) of any whole percentage not exceeding ten percent (10%) of such Participant's Compensation for each pay period during an Offering Period. Payroll deductions or contributions authorized by a Participant will commence on the first payday following the Enrollment Date. A Participant's election shall remain in

effect for successive Offering Periods unless modified or suspended by the Participant in accordance with procedures established by the Administrator or terminated as provided in Section 4.07.

4.02 Participant's Account. All of a Participant's payroll deductions/contributions will be credited to an account established for such Participant under the Plan. Except as expressly provided herein, a Participant may not make any additional payments into such account.

4.03 Changes in Payroll Deductions/Contributions. Once enrolled for an Offering Period, a Participant may not change his or her payroll deduction/contribution election for that Offering Period, unless required by applicable local law.

4.04 Administrator's Power to Suspend Deductions/Contributions. Notwithstanding the foregoing, to the extent necessary to comply with Code Section 423(b)(8) and Section 3.02 of the Plan, a Participant's payroll deductions/contributions may be decreased at any time during an Offering Period. Subject to Code Section 423(b)(8) and Section 3.02 hereof, payroll deductions/ contributions will recommence at the rate elected by the Participant immediately prior to the suspension, effective as of the Enrollment Date of the first Offering Period in which the Participant's payroll deductions/contributions will comply with Code Section 423(b)(8) and Section 3.02, unless terminated as provided in Section 4.07.

4.05 Interest. No interest will be paid, accrued, or allowed on the payroll deductions of a Participant in the Plan or any money paid into the Plan or credited to the account of or distributed to any Participant, unless required by applicable local law.

4.06 Withdrawal. No Participant in the Plan shall be entitled to withdraw any amount from the accumulated payroll deductions/contributions in his or her account, unless required by applicable local law; provided, however, that a Participant's accumulated payroll deductions/contributions shall be refunded to the Participant as and to the extent specified in Section 4.07 below.

4.07 Termination of Employment. Notwithstanding anything in the Plan to the contrary, upon termination of a Participant's employment with the Participating Companies for any reason, the Participant's participation in the Plan shall be terminated and the payroll deductions/contributions credited to the Participant's account during the Offering Period but not yet used to purchase shares of Common Stock under the Plan will be returned to the Participant or, in the case of the Participant's death, to the Participant's designated beneficiary. If no beneficiary is designated or if a beneficiary designation is not permitted by the Administrator, the amounts credited to the Participant's account shall be paid to the Participant's spouse, if any, and if none, to the Participant's estate.

ARTICLE V
OPTION GRANTS AND EXERCISE

5.01 Grant of Option. On an Enrollment Date of each Offering Period, each Participant shall be deemed to have been granted an option to purchase on the Exercise Date of the Offering Period a number of shares of Common Stock determined by dividing the Participant's accumulated payroll deductions/contributions as of the Exercise Date by the Purchase Price.

5.02 Purchase Price. The applicable Purchase Price shall be an amount equal to the lower of (a) eighty-five percent (85%) of the Fair Market Value of a share of Common Stock on the Enrollment Date or (b) eighty-five percent (85%) of the Fair Market Value of a share of Common Stock on the Exercise Date; provided, however, that the Purchase Price may be adjusted by the Administrator pursuant to Article VIII.

5.03 Limitation. Except as provided below or otherwise provided by the Administrator, the maximum number of shares of Common Stock that a Participant may purchase with respect to any Offering Period is the number of shares determined by dividing $12,500 by the Fair Market Value of a share of Common Stock on the Enrollment Date. Notwithstanding the preceding sentence, the maximum number of shares of Common Stock that a Participant may purchase with respect to the First Offering

Period shall be the number of shares determined by dividing $25,000 by the Fair Market Value of a share of Common Stock on the Enrollment Date for First Offering Period.

5.04 Option Exercise. Except as provided in Section 4.07, a Participant's option for the purchase of shares of Common Stock will be exercised automatically on the Exercise Date, and the maximum number of full shares subject to an option will be purchased for such Participant at the applicable Purchase Price with the accumulated payroll deductions/contributions in the Participant's account. During a Participant's lifetime, the Participant's option to purchase shares hereunder is exercisable only by him or her.

5.05 Fractional Shares. No fractional shares of Common Stock will be purchased; any payroll deductions/contributions accumulated in a Participant's account that are not sufficient to purchase a full share of Common Stock will be retained in the Participant's account for the subsequent Offering Period.

5.06 Purchase Reductions. Notwithstanding anything herein to the contrary, the Administrator shall have the discretion to reduce the number of shares of Common Stock to be purchased by Participants with respect to an Offering Period and to allocate such reduced number of shares among Participants in such Offering Period, so long as such reduction and allocation is done in a manner consistent with Code Section 423. Any payroll deductions not applied to the purchase of shares of Common Stock shall be promptly refunded to Participants after the Exercise Date of the Offering Period to which such reduction applies.

5.07 Delivery. After each Exercise Date on which a purchase of shares of Common Stock occurs, shares purchased upon exercise of the Participant's option shall be held in such Participant's account. As soon as administratively practicable after the Participant's request, the Company will distribute to such Participant, as appropriate, the shares in each Participant's account in a form determined by the Administrator (in its sole discretion) and pursuant to rules established by the Administrator. No Participant will have any voting, dividend, or other stockholder rights with respect to shares of Common Stock subject to any option granted under the Plan until such shares have been purchased and delivered to the Participant's account.

ARTICLE VI
COMMON STOCK

6.01 Available Shares. Subject to Section 9.05, the maximum number of shares of Common Stock that will be made available for sale under the Restated Plan will be 400,000 shares of Common Stock, plus an annual increase, if any, to be added on the first day of each Fiscal Year so that the total number of shares of Common Stock available shall be equal to the greater of (i) the number of shares of Common Stock available under the Plan as of the last day of the immediately preceding Fiscal Year and (ii) the lesser of (A) 400,000 shares of Common Stock and (B) seventy-five hundredths of one percent (0.75%) of the outstanding shares of Common Stock on the last day of the immediately preceding Fiscal Year. Any or all shares of Common Stock may be granted under the Code Section 423(b) Component.

6.02 Registration. Shares of Common Stock purchased by a Participant under the Plan will be registered in the name of the Participant or, to the extent required or if the Participant so directs by written notice to the Administrator prior to the Exercise Date, in the name of the Participant and his or her spouse.

ARTICLE VII
ADMINISTRATION

7.01 Administration. The Administrator shall administer the Plan. The Administrator will have full and exclusive discretionary authority to construe, interpret and apply the terms of the Plan, to determine eligibility, to adjudicate all disputed claims filed under the Plan and to establish such

procedures that it deems necessary for administration of the Plan (including, without limitation, to adopt such rules, procedures and sub-plans as are necessary or appropriate to accommodate the specific requirements of applicable local laws to permit the participation in the Plan by Employees who are foreign nationals or employed outside of the United States). Every finding, decision and determination made by the Administrator shall, to the fullest extent permitted by law, be final and binding upon all parties.

7.02 Delegation. The Administrator, in its sole discretion and on such terms and conditions as it may provide, may delegate to one or more individuals all or any part of its authority and powers under the Plan.

7.03 Rules Governing the Administration of the Committee. The Board may from time to time appoint members of a committee to serve as the Administrator of the Plan. Such committee may select one of its members as its chairperson, shall hold meetings at such times and places as it shall deem advisable, and may hold telephonic meetings. All determinations of the committee shall be made by a majority of its members. A decision or determination reduced to writing and signed by a majority of the members of the committee shall be fully effective as if it had been made by a majority vote at a meeting duly called and held. The committee may appoint a secretary and shall make such rules and regulations for the conduct of its business as it shall deem advisable.

ARTICLE VIII
AMENDMENT AND TERMINATION

8.01 Amendment or Termination. The Board may at any time and for any reason suspend, terminate or amend the Plan; provided, however, that the Board shall not, without the approval of the stockholders of the Company, alter (a) the aggregate number of shares of Common Stock that may be issued under the Plan (except pursuant to Section 9.05), or (b) the class of Employees eligible to receive options under the Plan, other than to designate Participating Companies; and provided, further, that, subject to Section 8.02, no termination, modification, or amendment of the Plan may, without the consent of an Employee then having an option under the Plan to purchase shares of Common Stock, adversely affect the rights of such Employee under such option. In addition, and notwithstanding anything contained herein to the contrary, to the extent necessary under Code Section 423 (or any successor rule or provision or any applicable law or regulation), the Company shall obtain stockholder approval in such a manner and to such a degree as required.

8.02 Administrator Authority. Without stockholder consent, the Administrator shall be entitled to change the Offering Periods, limit the frequency and/or number of changes in the amount withheld during an Offering Period, establish the exchange ratio applicable to amounts withheld in a currency other than U.S. dollars, permit payroll withholding in excess of the amount designated by a Participant in order to adjust for delays or mistakes in the Company's processing of properly completed withholding elections, establish reasonable waiting and adjustment periods and/or accounting and crediting procedures to ensure that amounts applied toward the purchase of Common Stock for each Participant properly correspond with amounts withheld from the Participant's Compensation or otherwise contributed by the Participant, and establish such other limitations or procedures as the Administrator determines in its sole discretion advisable that are consistent with the Plan, in each case so long as any such action is consistent with Code Section 423. None of the foregoing actions shall be considered to have adversely affected any right of any Participant.

8.03 Accounting Treatment. In the event the Administrator determines that the ongoing operation of the Plan may result in unfavorable financial accounting consequences, the Administrator may, in its discretion and to the extent necessary or desirable, modify, amend or terminate the Plan to reduce or eliminate such accounting consequence including, but not limited to:

(a) altering the Purchase Price for any Offering Period including an Offering Period underway at the time of the change in Purchase Price;

(b) shortening any Offering Period so that the Offering Period ends on a new Exercise Date, including an Offering Period underway at the time of such action;

(c) reducing the maximum percentage of Compensation that a Participant may elect to set aside as payroll deductions;

(d) reducing the maximum number of shares of Common Stock a Participant may purchase during any Offering Period; and

(e) allocating shares of Common Stock to Participant's pursuant to

Section 5.06.

None of the foregoing actions shall require stockholder approval or shall be considered to have adversely affected any right of any Participant.

ARTICLE IX
MISCELLANEOUS

9.01 Transferability. Neither payroll deductions/contributions credited to a Participant's account nor any option or other rights with regard to the exercise of an option to receive shares of Common Stock under the Plan may be assigned, transferred, pledged or otherwise disposed of in any way by the Participant other than by will, the laws of descent and distribution, or as provided in Section 9.04.

9.02 Use of Funds. The Company may use all payroll deductions/contributions received or held by the Company under the Plan for any corporate purpose, and the Company will not be obligated to segregate such payroll deductions/contributions, unless otherwise required by applicable local law. Until shares of Common Stock are issued under the Plan (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), a Participant will only have the rights of an unsecured creditor with respect to such shares.

9.03 Reports. Individual accounts will be maintained for each Participant. Statements of account will be given to Participants at least annually, which statements will set forth the amounts of payroll deductions/contributions, the Purchase Price, the number of shares of Common Stock purchased and the remaining cash balance, if any.

9.04 Designation of Beneficiary.

(a) If permitted by the Administrator in its sole discretion, a Participant may designate a beneficiary who is to receive any shares of Common Stock and cash, if any, from the Participant's account under the Plan in the event of such Participant's death subsequent to an Exercise Date on which the option is exercised but prior to delivery to such Participant of such shares and cash. In addition, if permitted by the Administrator in its sole discretion, a Participant may designate a beneficiary who is to receive any cash from the Participant's account under the Plan in the event of such Participant's death prior to exercise of the option. If a Participant is married and the designated beneficiary is not the spouse, spousal consent may be required by the Administrator in its sole discretion for such designation to be effective, unless otherwise required by applicable local law.

(b) If the Administrator in its sole discretion has permitted the Participant to make a beneficiary designation, the Participant may change such designation of beneficiary at any time by written notice. In the event of the death of a Participant and in the absence of a beneficiary validly designated under the Plan who is living at the time of such Participant's death, the Company will deliver such shares and/or cash to the Participant's spouse, if any, and if none, to the Participant's estate.

(c) All beneficiary designations permitted under this Section 9.04 will be made in such form and manner as the Administrator may prescribe from time to time.

9.05 Adjustment upon Changes in Capitalization; Change in Control.

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Common Stock, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Common Stock or other securities of the Company, or other change in the corporate structure of the Company affecting the Common Stock such that adjustment is appropriate to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan, the Administrator shall adjust the shares of Common Stock to preserve the benefits or potential benefits under the Plan. Action by the Administrator may include adjustment of: (i) the number and class of Common Stock that may be delivered under the Plan, (ii) the Purchase Price per share, (iii) the number of shares of Common Stock covered by each option under the Plan that has not yet been exercised, and (iv) the numerical limits of Section 6.01.

(b) Change in Control. In the event of a Change in Control, any Offering Period then in progress will be shortened by setting a new Exercise Date (the "New Exercise Date") on the date of the Change in Control and will terminate on such date, unless provided otherwise by the Administrator. The Administrator will notify each Participant in writing, at least ten (10) business days prior to the New Exercise Date, that the Exercise Date for the Participant's option has been changed to the New Exercise Date and that the Participant's option will be exercised automatically on the New Exercise Date.

9.06 Notices. All notices or other communications by a Participant to the Company or the Administrator under or in connection with the Plan will be deemed to have been duly given when received in the form and manner specified by the Company or Administrator at the location, or by the person, designated by the Company or Administrator for the receipt thereof.

9.07 Conditions Upon Issuance of Shares.

(a) Shares of Common Stock will not be issued with respect to an option under the Plan unless the exercise of such option and the issuance and delivery of such shares pursuant thereto shall comply with all applicable provisions of law, domestic or foreign, including, without limitation, the Securities Act of 1933, as amended, including the rules and regulations promulgated thereunder, the Exchange Act, and the requirements of any stock exchange upon which the shares may then be listed, and will further be subject to the approval of counsel for the Company with respect to such compliance. If, on the Exercise Date of any Offering Period, as delayed to the maximum extent permissible, the shares of Common Stock have not yet been issued, all payroll deductions/contributions accumulated during the Offering Period (reduced to the extent, if any, such deductions/contributions have been used to acquire shares of Common Stock) shall be distributed to Participants, without interest, unless otherwise required under applicable local law.

(b) As a condition to the exercise of an option, the Company may require the person exercising such option to represent and warrant at the time of any such exercise that the shares are being purchased only for investment and without any present intention to sell or distribute such shares if, in the opinion of counsel for the Company, such a representation is required by any of the aforementioned applicable provisions of law.

9.08 Covenants of the Company. The Company shall seek to obtain from each federal, state, foreign or other regulatory commission or agency having jurisdiction over the Plan such authority as may be required to issue and sell shares of Common stock upon exercise. If, after commercially

reasonable efforts, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company shall be relieved from any liability for failure to issue and sell shares of Common Stock upon exercise unless and until such authority is obtained.

9.09 Effective Date. The Restated Plan shall become effective as of its adoption by the Board, subject to approval by the holders of a majority of the shares of Common Stock, and shall continue in effect until the earlier of the date that (a) the shares of Common Stock reserved for issuance have been depleted, and (b) the Restated Plan is terminated under Article VIII.

9.10 No Employment Rights. The Plan does not, directly or indirectly, create in any person any right with respect to employment or continuation of employment by the Company or any Related Company, and it shall not be deemed to interfere in any way with the Company's or any Related Company's right to terminate, or otherwise modify, any Employee's employment at any time.

9.11 Severability. If any particular provision of the Plan is found to be invalid or otherwise unenforceable, such provision shall not affect the enforceability of the other provisions of the Plan, and the Plan shall be construed in all respects as if such invalid provision had been omitted.

9.12 Electronic Delivery of Plan Information and Electronic Signatures. To the extent permitted by applicable law, the Company may deliver by email or other electronic means (including posting on a web site maintained by the Company or by a third party under contract with the Company) all documents relating to the Plan (including without limitation, prospectuses required by applicable securities law) and all other documents that the Company is required to deliver to its security holders (including without limitation, annual reports and proxy statements). To the extent permitted by applicable law, a Participant may submit his or her payroll deduction election or other forms by electronic facsimile or other method of recording of the Participant's election or signature in a manner that is acceptable to the Administrator.

9.13 Treatment of Non-U.S. Participants. Participants who are paid in foreign currency, and who contribute foreign currency to the Plan through contributions or payroll deductions will have such contributions converted to U.S. dollars. The exchange rate and method for such conversion will be determined as prescribed by the Administrator. Each Participant shall bear the risk of any currency exchange fluctuations (if applicable) between the date on which any Participant contributions are converted to U.S. dollars and the following Purchase Date.

9.14 Eligible Persons in Other Countries. Without amending the Plan, the Administrator may grant options or establish other procedures to provide benefits to Employees who are not U.S. Employees on such terms and conditions different from those specified in the Plan as may, in the judgment of the Administrator, be necessary or desirable to foster and promote achievement of the purposes of the Plan and shall have the authority to adopt such modifications, procedures, subplans and the like as may be necessary or desirable (a) to comply with provisions of the laws or regulations or conform to the requirements to operate the Plan in a qualified or tax or accounting advantageous manner in other countries or jurisdictions in which the Company or any Participating Company may operate or have employees, (b) to ensure the viability of the benefits from the Plan to Employees employed in such countries or jurisdictions and (c) to meet the objectives of the Plan.

9.15 Governing Law. Except to the extent superseded by the federal laws of the United States, the law of the State of Delaware, without regard to its conflict of laws provisions, will govern all matters relating to the Plan. Participants, the Company, a Participating Company, a Subsidiary, the Parent, and any Affiliate each submit and consent to the jurisdiction of the courts in the Commonwealth of Massachusetts, County of Worcester, including the Federal Courts located therein, should Federal jurisdiction requirements exist in any dispute or action brought to enforce (or otherwise relating to) the Plan.