

Sustainability Reporting Table Based on GRI Standards

GRI Standard	Disclosure	IPG Photonics Disclosure	Document Links
GRI 102: General Disclosures			
102-1	Name of the organization	IPG Photonics Corporation	
102-2	Activities, brands, products, and services	See corporate website and Investor Guidebook	About Us Investor Guidebook
102-3	Location of headquarters	50 Old Webster Road, Oxford, MA 01540	
102-4	Location of operations	We operate three principal manufacturing facilities for fiber lasers, laser systems, fiber amplifiers, and related optical components, which are located in the United States, Germany, and Russia, and we are developing a fourth principal manufacturing location in Belarus. We conduct our major research and development activities in Oxford and Marlborough, Massachusetts; Burbach, Germany; and Fryazino, Russia.	2019 Form 10-K
102-5	Ownership and legal form	See 2020 Proxy Statement	2020 Proxy Statement
102-6	Markets served	See 2019 Form 10-K	2019 Form 10-K
102-7	Scale of the organization	See 2019 Form 10-K	2019 Form 10-K
102-8	Information on employees and other workers	As of December 31, 2019, we had approximately 5,960 permanent, full-time employees. We employ contractor workers in select operations, representing less than 2% of our total workforce.	2019 Form 10-K
102-9	Supply chain	Vertical integration is one of our core business strategies through which we control our proprietary processes and technologies as well as the supply of key components and assemblies. In general, a majority of our components are sourced internally, including semiconductor diodes, optical fibers, electro-optical components, optical components and mechanical assemblies. We purchase common and specialized mechanical, electrical and optical parts and raw materials from third party vendors. IPG's supply chain organizations are designed to support production of its high-performance fiber lasers and amplifiers in a legal, economically effective, and environmentally and socially responsible manner.	
102-10	Significant changes to the organization and its supply chain	IPG has acquired several companies in last three fiscal years, which did not result in significant changes to IPG's size, structure, ownership or supply chain. IPG's business plan is premised on vertical integration using its three largest production location in Massachusetts, Burbach, Germany, and Fryazino, Russia to provide internal supply needs. IPG has added production capacity in its new facility in Belorussia, providing lower cost mechanical and other components for our internal production. IPG acquired Genesis Systems Group, LLC, an Iowa-based provider of welding solutions in 2018 in a cash transaction.	
102-11	Precautionary Principle or approach	A description of the role of the Board in risk oversight can be found in the 2020 Proxy Statement.	2020 Proxy Statement
102-12	External initiatives	External initiatives include the following: Customs-Trade Partnership Against Terrorism - USA; EU Waste Electrical and Electronic Equipment (WEEE) Directive 2005; Global Reporting Initiative—GRI 4.0 sustainability reporting guidelines; U.S. Foreign Corrupt Practices Act and similar anticorruption laws enacted under the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions.; US Equal Opportunity laws and accompanying regulations.	
102-13	Membership of associations	IPG does not disclose this information.	
102-14	Statement from senior decision-maker	See Chairman and CEO letter to stockholders from 2020 Proxy Statement	2020 Proxy Statement

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102-15	Key impacts, risks, and opportunities	Key impacts, risks, and opportunities outlined in Investor Guidebook, Risk Factors in Form 10-K and the Corporate Social Responsibility page on our corporate website	2019 Form 10-K Investor Guidebook IPG CSR Website
102-16	Values, principles, standards, and norms of behavior	Our Code of Business Conduct outlines our values, principles, standards and norms of behavior. This is reviewed annually by the Board of Directors and all employees must undergo periodic training in local languages and acknowledge their acceptance of the Code. Additionally, IPG has the following core values: standing by our products; ethical behavior; compliance with laws and standards.	Code of Business Conduct
102-17	Mechanisms for advice and concerns about ethics	Employees are trained to seek advice about ethical or unlawful behavior and to report concerns about unethical or unlawful behavior and organizational integrity by either contacting the legal department or using a confidential method in the Code of Business Conduct.	Code of Business Conduct
102-18	Governance structure	See pages 26-29 of 2020 Proxy Statement	2020 Proxy Statement
102-19	Delegating authority	Not applicable	
102-20	Executive-level responsibility for economic, environmental, and social topics	IPG employs a cross-functional team to manage the company's global corporate social responsibility program that analyzes economic, environmental and social topics. Along with input from our executive management team and Board of Directors, the team defines corporate social responsibility (CSR) focus areas, organizes and standardizes IPG's CSR efforts and conducts annual measurement and reporting on key CSR metrics.	
102-21	Consulting stakeholders on economic, environmental, and social topics	IPG's cross-functional corporate social responsibility team consults key stakeholders on economic, environmental and social topics. These stakeholders include customers, employees and shareholders.	
102-22	Composition of the highest governance body and its committees	See pages 12-23 of 2020 Proxy Statement	2020 Proxy Statement
102-23	Chair of the highest governance body	Dr. Valentin P. Gapontsev is the Chairman of the Board and CEO. He is an executive officer of IPG.	2020 Proxy Statement
102-24	Nominating and selecting the highest governance body	See pages 22-23 of 2020 Proxy Statement	2020 Proxy Statement
102-25	Conflicts of interest	See pages 25 and 32 of 2020 Proxy Statement	2020 Proxy Statement
102-26	Role of highest governance body in setting purpose, values, and strategy	See page 24 of 2020 Proxy Statement	2020 Proxy Statement
102-27	Collective knowledge of highest governance body	See page 24 of 2020 Proxy Statement	2020 Proxy Statement
102-28	Evaluating the highest governance body's performance	See page 24 of 2020 Proxy Statement	2020 Proxy Statement
102-29	Identifying and managing economic, environmental, and social impacts	See page 24 of 2020 Proxy Statement	2020 Proxy Statement
102-30	Effectiveness of risk management processes	See page 24 of 2020 Proxy Statement	2020 Proxy Statement
102-31	Review of economic, environmental, and social topics	See page 24 of 2020 Proxy Statement	2020 Proxy Statement
102-32	Highest governance body's role in sustainability reporting	See page 24 of 2020 Proxy Statement	2020 Proxy Statement
102-33	Communicating critical concerns	The process for reporting critical concerns is outlined in our Code of Business Conduct. We provide a confidential phone hotline, fax number and confidential web reporting.	Code of Business Conduct
102-34	Nature and total number of critical concerns	Not applicable	
102-35	Remuneration policies	See pages 33-56 of 2020 Proxy Statement	2020 Proxy Statement

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102-36	Process for determining remuneration	See pages 33-56 of 2020 Proxy Statement	2020 Proxy Statement
102-37	Stakeholders' involvement in remuneration	See page 39 of 2020 Proxy Statement	2020 Proxy Statement
102-38	Annual total compensation ratio	See page 57 of 2020 Proxy Statement	2020 Proxy Statement
102-39	Percentage increase in annual total compensation ratio	Not applicable	
102-40	List of stakeholder groups	Employees, customers, suppliers, governments, non-government and non-profit organizations, communities, and shareholders.	
102-41	Collective bargaining agreements	Employees of several IPG companies participate in unions and employees of several other IPG companies participate in collective bargaining agreements.	
102-42	Identifying and selecting stakeholders	IPG's key stakeholders include customers, employees, shareholders, suppliers and communities.	
102-43	Approach to stakeholder engagement	IPG periodically engages with all stakeholders throughout the year.	
102-44	Key topics and concerns raised	See 2020 Proxy Statement	2020 Proxy Statement
102-45	Entities included in the consolidated financial statements	See 2019 Form 10-K	2019 Form 10-K
102-46	Defining report content and topic Boundaries	Not applicable	
102-47	List of material topics	Not applicable	
102-48	Restatements of information	Not applicable	
102-49	Changes in reporting	Not applicable	
102-50	Reporting period	2019	
102-51	Date of most recent report	Not applicable	
102-52	Reporting cycle	Annual	
102-53	Contact point for questions regarding the report	jhillier@ipgphotonics.com	
102-54	Claims of reporting in accordance with the GRI Standards	We self-declare that the report is prepared in accordance with GRI Standards: Comprehensive Option.	
102-55	GRI content index	This Sustainability Reporting Table serves as our GRI content index	
102-56	External assurance	While we have not sought external assurance for the content of this Sustainability Reporting Table, certain data included is subject to external review and all information provided is reviewed internally.	
GRI 103: Management Approach			
103-1	Explanation of the material topic and its Boundary	IPG believes that CSR is a crucial component of the company's success. As such, the Company has employed people and procedures to measure and manage our CSR initiatives.	
103-2	The management approach and its components	IPG employs a cross-functional team to manage the company's global corporate social responsibility program. Along with input from our executive management team and Board of Directors, the team defines CSR focus areas, organizes and standardizes IPG's CSR efforts and conducts annual measurement and reporting on key CSR metrics.	

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103-3	Evaluation of the management approach	IPG's CSR team consists of our General Counsel, VP of Inventor Relations and Financial Planning & Analysis, VP of Human Resources, VP of Communications Products, US Safety Specialist, and various other representatives from our operations, finance, legal, human resources, supply chain, quality and safety groups. The team's objectives are to develop and enhance IPG's global CSR program, identify gaps in CSR compliance and develop strategies to ensure compliance, and to improve IPG external communication of environmental, social and governance metrics.	
GRI 201: Economic Performance			
201-1	Direct economic value generated and distributed	2019 revenues: \$1,314,581,000; 2019 economic value distributed: \$1,134,347,000; 2019 economic value retained: \$180,234,000	2019 Form 10-K
201-2	Financial implications and other risks and opportunities due to climate change	We believe an increasing global focus on mitigating risks from climate change presents an opportunity for greater adoption of our laser technology. IPG fiber lasers uses less electricity than competing laser products, and we estimate that operation of IPG fiber lasers instead of other types of lasers has resulted in approximately 40 billion pounds less global CO2 emission since 2011 and 13 billion pounds less CO2 emission in 2019. IPG lasers are used in renewable energy products including production of electric vehicles (EV), solar cells and EV batteries. Our laser technology also enables lighter materials to be used in transportation that reduces weight and improves fuel efficiency. Laser welding reduces the amount of overlapping material required in joining, and IPG lasers enable more efficient and faster drilling of holes in turbine blades and fans that improve jet engine fuel efficiency.	Investor Guidebook IPG CSR Website
201-3	Defined benefit plan obligations and other retirement plans	IPG does not offer a defined benefit plan to employees. IPG offers defined contribution plans that vary country by country.	
201-4	Financial assistance received from government	Not applicable	
GRI 202: Market Presence			
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	IPG does not disclose this information.	
202-2	Proportion of senior management hired from the local community	IPG does not disclose this information.	
GRI 203: Indirect Economic Impacts			
203-1	Infrastructure investments and services supported	Not applicable	
203-2	Significant indirect economic impacts	IPG does not measure indirect economic impacts as noted nor does IPG track indirect economic impacts in context of external benchmarks.	
GRI 204: Procurement Practices			
204-1	Proportion of spending on local suppliers	IPG does not disclose this information.	
GRI 205: Anti-Corruption			
205-1	Operations assessed for risks related to corruption	All operations are assessed for risks related to corruption. No significant risks have been identified.	
205-2	Communication and training about anti- corruption policies and procedures	All IPG employees receive training on IPG's anti-corruption policy upon employment and biannually.	
205-3	Confirmed incidents of corruption and actions taken	Not applicable	

GRI 206: Anti-Competitive Behavior			
206-1	Legal actions for anti- competitive behavior, anti-trust, and monopoly practices	IPG has no legal actions for anti-competitive behavior, anti-trust, or monopoly practices.	
GRI 207: Tax			
207-1	Approach to tax	Our tax strategy is implemented in support of our business strategy and global operations. IPG reports profits and pays taxes on those profits in the countries of its operations, including research & development, manufacturing and sales, in accordance with the laws of each country. Our tax rate is based on our income, statutory tax rates and tax planning opportunities available to us in the various jurisdictions in which we operate. We file federal and state income tax returns in the United States and in numerous international jurisdictions.	2019 Form 10-K
207-2	Tax governance, control, and risk management	Our tax strategy is implemented by our Chief Financial Officer, along with other members of the finance tax group and regional controllers, in consultation with our executive management team and oversight by the Audit Committee of the Board of Directors.	
207-3	Stakeholder engagement and management of concerns related to tax	We engage with tax authorities in the many regions in which we operate.	
207-4	Country-by-country reporting	See 2019 Form 10-K	2019 Form 10-K
GRI 301: Materials			
301-1	Materials used by weight or volume	IPG does not track this information.	
301-2	Recycled input materials used	See Investor Guidebook	Investor Guidebook
301-3	Reclaimed products and their packaging materials	IPG does not track this information.	
GRI 302: Energy			
302-1	Energy consumption within the organization	Approximately 130,000 megawatt hours of electricity and natural gas consumption in 2019.	Investor Guidebook
302-2	Energy consumption outside of the organization	IPG does not track this information.	Investor Guidebook
302-3	Energy intensity	Approximately 99 megawatt hours of electricity and natural gas consumption per \$1 million revenue in 2019.	Investor Guidebook
302-4	Reduction of energy consumption	Over a five year period, our annual consumption of electricity and natural gas per \$1 million revenue has decreased approximately 18%.	Investor Guidebook
302-5	Reductions in energy requirements of products and services	IPG has continually increased the wall-plug efficiency (watts of electricity required to generate a watt of optical energy) of laser products. For example, the wall-plug efficiency of a 3 kilowatt continuous wave ytterbium laser has increased from approximately 35% in 2010 to 48% in 2020, and IPG has introduced an Eco line of these products with more than 50% wall-plug efficiency.	Investor Guidebook
GRI 303: Water and Effluents			
303-1	Interactions with water as a shared resource	IPG does not track this information.	
303-2	Management of water discharge-related impacts	IPG does not track this information.	
303-3	Water withdrawal	Approximately 162,700 cubic meters in 2019.	Investor Guidebook
303-4	Water discharge	Approximately 500 cubic meters in 2019.	Investor Guidebook
303-5	Water consumption	Approximately 162, 200 cubic meters in 2019.	Investor Guidebook
GRI 304: Biodiversity			
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	None to our knowledge.	

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304-2	Significant impacts of activities, products, and services on biodiversity	None to our knowledge.	
304-3	Habitats protected or restored	None to our knowledge.	
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	None to our knowledge.	
GRI 305: Emissions			
305-1	Direct (Scope 1) GHG emissions	Approximately 7,400 metric tons CO ₂ equivalent in 2019.	Investor Guidebook
305-2	Energy indirect (Scope 2) GHG emissions	Approximately 42,000 metric tons CO ₂ equivalent in 2019.	Investor Guidebook
305-3	Other indirect (Scope 3) GHG emissions	IPG does not track this information.	
305-4	GHG emissions intensity	Approximately 38 metric tons of scope 1 and scope 2 CO ₂ equivalent emissions per \$1 million revenue in 2019.	Investor Guidebook
305-5	Reduction of GHG emissions	Over a five year period, our annual CO ₂ equivalent emission per \$1 million revenue has decreased approximately 32%.	Investor Guidebook
305-6	Emissions of ozone- depleting substances (ODS)	IPG does not disclose this information.	
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	IPG does not disclose this information.	
GRI 306: Effluents and Waste			
306-1	Water discharge by quality and destination	IPG does not disclose this information.	
306-2	Waste by type and disposal method	IPG does not disclose this information.	
306-3	Significant spills	Not applicable	
306-4	Transport of hazardous waste	IPG uses licensed transporters only.	
306-5	Water bodies affected by water discharges and/or runoff	Not applicable	
GRI 307: Environmental Compliance			
307-1	Non-compliance with environmental laws and regulations	IPG has received no material fines or non-monetary sanctions for non-compliance with environmental laws and/or regulations.	
GRI 308: Supplier Environmental Assessment			
308-1	New suppliers that were screened using environmental criteria	IPG expects our suppliers to adhere to Supplier Code of Conduct which outlines environmental standards they must meet.	Supplier Code of Conduct
308-2	Negative environmental impacts in the supply chain and actions taken	IPG does not perform negative environmental impact assessments of its supply chain.	
GRI 401: Employment			
401-1	New employee hires and employee turnover	IPG does not disclose this information.	
401-2	Benefits provided to full- time employees that are not provided to temporary or part-time employees	IPG does not disclose this information.	
401-3	Parental leave	IPG does not disclose this information.	
GRI 402: Labor/Management Relations			
402-1	Minimum notice periods regarding operational changes	We provide a minimum number of weeks' notice to employees prior to implementing significant operational changes that could substantially affect them in accordance with local operations.	
GRI 403: Occupational Health and Safety			
403-1	Occupational health and safety management system	Not applicable	
403-2	Hazard identification, risk assessment, and incident investigation	IPG conducts hazards assessments and risk assessments. Incidents, injuries and illness are reported, tracked and investigated.	

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403-3	Occupational health services	Not applicable	
403-4	Worker participation, consultation, and communication on occupational health and safety	Yes, safety meetings with worker participation, education and training performed regularly	
403-5	Worker training on occupational health and safety	Yes, periodically varying by operations and risk	
403-6	Promotion of worker health	Not applicable	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	IPG does not track this information.	
403-8	Workers covered by an occupational health and safety management system	Not applicable	
403-9	Work-related injuries	IPG tracks and reports in accordance with local laws and regulations. Work-related injuries and ill health are below industry average, as disclosed in Investor Guidebook.	Investor Guidebook
403-10	Work-related ill health	IPG tracks and reports in accordance with local laws and regulations. Work-related injuries and ill health are below industry average, as disclosed in Investor Guidebook.	Investor Guidebook
GRI 404: Training and Education			
404-1	Average hours of training per year per employee	IPG does not disclose this information.	
404-2	Programs for upgrading employee skills and transition assistance programs	IPG does not disclose this information.	
404-3	Percentage of employees receiving regular performance and career development reviews	IPG does not disclose this information.	
GRI 405: Diversity and Equal Opportunity			
405-1	Diversity of governance bodies and employees	IPG does not disclose this information.	
405-2	Ratio of basic salary and remuneration of women to men	IPG does not disclose this information.	
GRI 406: Non-Discrimination			
406-1	Incidents of discrimination and corrective actions taken	IPG does not disclose this information.	
GRI 407: Freedom of Association and Collective Bargaining			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	IPG does not disclose this information.	
GRI 408: Child Labor			
408-1	Operations and suppliers at significant risk for incidents of child labor	There are no identified risks of child labor abuse at any of our operations. IPG's Terms and Conditions of Purchase, Supplier Code of Conduct, and Anti-Human Trafficking Policy and Compliance Plan all contain explicit restrictions on child labor to which all suppliers are expected to adhere.	Supplier Code of Conduct Anti-Human Trafficking Policy
GRI 409: Forced Labor			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	There are no identified risks of child and forced labor abuse at any of our operations. IPG's Terms and Conditions of Purchase, Supplier Code of Conduct, and Anti-Human Trafficking Policy and Compliance Plan all contain explicit restrictions on child labor to which all suppliers are expected to adhere. IPG also supports the UK Modern Slavery Act and is committed to identify and address the risks of modern slavery, as outlined in IPG's UK Modern Slavery Act Transparency Statement.	Supplier Code of Conduct Anti-Human Trafficking Policy

GRI 410: Security Practices			
410-1	Security personnel trained in human rights policies or procedures	IPG does not disclose this information.	
GRI 411: Rights of Indigenous Peoples			
411-1	Incidents of violations involving rights of indigenous peoples	Not applicable	
GRI 412: Human Rights Assessment			
412-1	Operations that have been subject to human rights reviews or impact assessments	Not applicable	
412-2	Employee training on human rights policies or procedures.	All IPG employees undergo Code of Business Conduct training biannually.	
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	IPG does not disclose this information.	
GRI 413: Local Communities			
413-1	Operations with local community engagement, impact assessments, and development programs	IPG does not disclose this information.	
413-2	Operations with significant actual and potential negative impacts on local communities	IPG has not identified any operations with significant actual or potential negative impacts on local communities.	
GRI 414: Supplier Social Assessment			
414-1	New suppliers that were screened using social criteria	IPG expects suppliers to comply with all applicable environmental, health and safety laws, regulations, and directives including but not limited to REACH, RoHS, ISPM 15, anti-lead, California Prop 65, Transportation HazMat/Dangerous Goods regulations and their global equivalents. Suppliers should protect the health, safety and welfare of their people, visitors and others who may be affected by their activities. This is outlined in IPG's Supplier Code of Conduct, Section VII.	<u>Supplier Code of Conduct</u>
414-2	Negative social impacts in the supply chain and actions taken	IPG does not perform negative social impact assessments of its supply chain.	
GRI 415: Political Contributions			
415-1	Political contributions	IPG had no political contributions for the reporting period.	
GRI 416: Customer Healthy and Safety			
416-1	Assessment of the health and safety impacts of product and service categories	Product safety group is responsible for ensuring the safety of our products. In addition, third party certifiers are utilized to assess certain of our products.	
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	IPG is not aware of any non-compliance concerning the health and safety impacts of any of our products or services.	
GRI 417: Marketing and Labeling			
417-1	Requirements for product and service information and labeling	IPG is required by US and EU laws to label its products to disclose laser light and other risks.	
417-2	Incidents of non-compliance concerning product and service information and labeling	IPG is not aware of any non-compliance concerning the product and service information and labeling of any of our products or services.	
417-3	Incidents of non-compliance concerning marketing communications	IPG is not aware of any non-compliance concerning the marketing communications of any of our products or services.	

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GRI 418: Customer Privacy			
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	IPG has not identified any substantial complaints received concerning breaches of customer privacy. IPG has no identified leaks, thefts, or losses of customer data.	
GRI 419: Socioeconomic Compliance			
419-1	Non-compliance with laws and regulations in the social and economic area	IPG has received no material fines or non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area.	