



APPLYING LIGHT IN WAYS **THAT IMPROVE LIFE**
2023 Sustainability Report





the power to transform

IPG PHOTONICS at a glance

IPG Photonics is the world leader in fiber laser technology, enabling greater precision, higher productivity and more flexible production for industrial applications and other diverse end markets. IPG fiber laser solutions transform the products that touch your life. Our global customers include original equipment manufacturers, system integrators and end users.

IPG has developed a robust vertically integrated supply chain producing key technology components in-house, enabling the most reliable, powerful and efficient laser solutions and rapidly reducing costs.

Marlborough, Massachusetts is home to IPG's world headquarters. We have additional manufacturing facilities and offices in more than 30 locations around the world.

IPGPhotonics.com
[IPG Investor Relations](#)

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Our Operations

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A message from our CEO

Dear Stakeholders,

I am very pleased to introduce IPG's **2023** Sustainability Report. We are proud to share our accomplishments in environmental, social, and corporate governance as well as our vision and plans on how to reach sustainability goals and expectations.



We remain focused on expanding our energy efficiency strategy by decreasing our energy consumption, reducing our environmental footprint and supporting our customers' sustainability goals. IPG's unique technologies, deep technical expertise and focus on quality are transforming the way products are created in a number of industries. For example, IPG's breakthrough solutions address challenges and safety concerns in the manufacturing of batteries for electric vehicles and improve solar cell efficiency. Our products also drive efficiency and productivity, making our fiber laser technology the tool of choice in many different markets. Environmental impact is becoming a key consideration for an increasing number of customers. Our fiber laser cutting and welding solutions can substantially reduce energy use and eliminate harmful fumes compared to plasma processes. IPG's laser-based cleaning solutions can reduce toxic waste by eliminating the need for chemicals used in many industrial processes. Customers' focus on sustainability and efficiency is driving an increased demand for our ECO lasers that provide wall-plug efficiency of greater than 50%, impressive even by highly efficient fiber laser standards, and can help meaningfully reduce the environmental impact and energy costs for medium and large industrial manufacturers. These lasers also generate less heat thereby reducing cooling needs, further decreasing energy and water use in manufacturing. We remain committed to our focus on innovation and are further aligning our R&D, market development, sales and technical support functions to address environmental challenges.

IPG has been a strong supporter of social inclusion practices since its inception, employing a large number of people born outside of the U.S. and Western Europe. We believe that an engaged, diverse, and inclusive workforce creates a better future for our company and the communities in which we operate. We have improved diversity at IPG's Board of Directors recently. Now, 30% of the IPG Board is comprised of females. The Diversity, Equity and Inclusion (DE&I) Council of employees that we formed last year reviewed IPG's practices. The Council recommended new programs and several adjustments, some of which we have already introduced in 2022. Our employees are our most valuable asset, and our finest innovations are a direct result of their collaboration and unique backgrounds. We enhanced the visibility of our job opportunities via the CIRCAWORKS program for women, minorities, older workers, individuals with disabilities, veterans, and LGBTQIA applicants and keep improving our hiring practices. Our intern programs implemented over the last two years included a significant number of females and minorities. In 2022, IPG significantly increase global female representation, especially following a slight decline in 2020-2021. We also enhanced our employee benefit programs with the introduction of a paid parental bonding leave program, an adoption reimbursement program, and a floating holiday in the U.S. In this year's report, we increase transparency and accountability by announcing current and targeted levels of women and minority employment.

We appreciate all of our stakeholders and are committed to enhancing our sustainability initiatives. We are making great strides towards a more sustainable future through our focus on innovation and energy efficient technologies that continue to enable revolutionary new products that benefit society and the environment.

A handwritten signature in blue ink, appearing to read 'Eugene', written over a white background.

Dr. Eugene A. Scherbakov

CEO

April 1, 2023

2022 SNAPSHOT



\$1.4 Billion
REVENUE



49,000
DEVICES SHIPPED



~6,200
EMPLOYEES



5,000+
CUSTOMERS

Our Mission

Innovative laser solutions
making the world a better place

IPG operates around our three central pillars of corporate ethics: environment, governance and communities. IPG values our diverse and highly talented employees who allow us to develop new solutions and provide the best possible service to our global customer base.

IPG is committed to being accountable and transparent when interacting with our customers, employees, suppliers and stockholders. We are dedicated to supporting local organizations and conducting business with the highest integrity.

Our Vision

Working together to apply
light in ways that improve life

IPG is revolutionizing the laser industry as the pioneering developer and leading producer of fiber lasers and amplifiers. We aspire to work together with our employees and customers to apply light in ways that improve life. Our products have displaced traditional technologies and are creating new laser applications. Our vertical integration approach to product manufacturing means that we produce most of the critical components that go into our lasers, enabling IPG to better meet customer requirements, accelerate product development, drive down costs and dramatically lower our carbon footprint.



1990
FOUNDED



Nasdaq IPGP
STOCK TICKER



Marlborough, MA
HEADQUARTERS



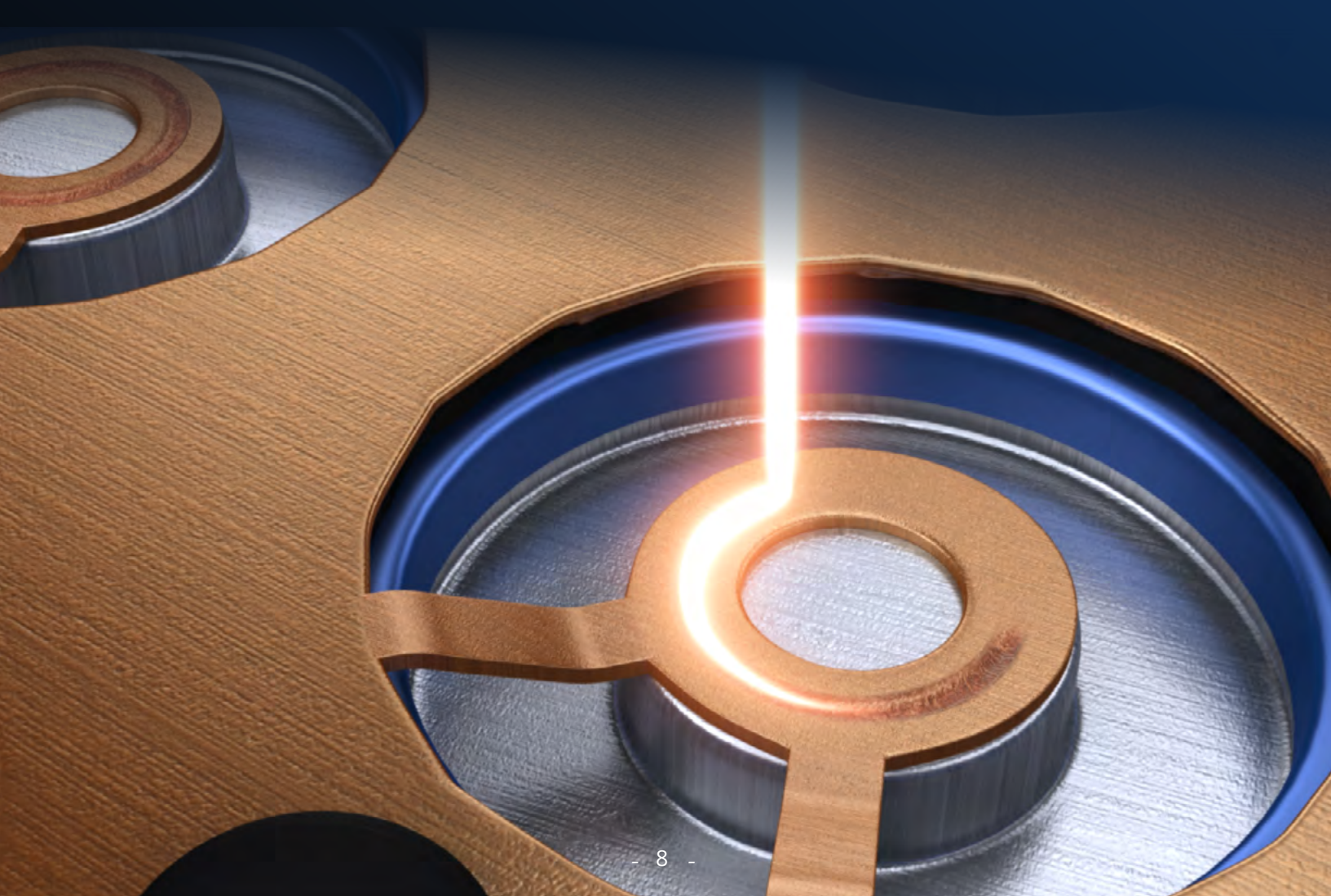
20+
COUNTRIES

Sustainable Approach to Operations

DRIVING INNOVATION

Our high power fiber lasers enable greater precision, high speed processing, more flexible production methods and improved throughput. IPG fiber lasers provide superior performance and usability by combining the advantages of semiconductor diodes with high amplification and precise beam qualities delivered through our unique optical fibers.

IPG has the broadest portfolio of fiber lasers that are industry-leading in their compactness, reliability, and low service cost. IPG has four main manufacturing facilities and more than 30 locations around the world. Our vertical integration business model, material processing expertise and 700 plus patents enable superior quality and competitive advantages.



2022 Revenue by Principal Regions



ENVIRONMENTAL IMPACT AND RECYCLING

IPG pioneered high power fiber lasers for industrial applications. Fiber lasers are 5 to 20 times more energy efficient than other laser technologies such as CO₂ or Nd:YAG lasers and can often improve process speeds which compounds customer energy savings. IPG supports the modern industrial era by manufacturing energy-efficient products that require less power from fossil fuels. Unlike gas and crystal lasers, the entirely solid-state optical architectures of our novel fiber lasers do not require consumables, such as gases, lamps and optical components. We warrant most lasers for three years. As industrial equipment, the useful lives of our products are longer than the warranty, in many cases up to ten years. We also provide service and maintenance to extend the lives of our products and prevent them from going to landfills due to our recycling programs.

IPG provides incentives for customers to return non-functioning pump modules, which contain packaged laser diodes and other optical components in a metal housing. We repair, refurbish or recycle pump modules depending upon their age and condition. IPG developed an extensive metal recovery program to reclaim a variety of materials and precious metals during our production process. Every year, IPG saves thousands of tons of materials including aluminum, copper, steel and mixed brass.

VERTICAL INTEGRATION REDUCING ENVIRONMENTAL IMPACTS

At IPG, we manufacture the most critical components of our products in-house. These include advanced opto-electronic items ranging from semiconductor diodes, specialty optical fiber and components, fiber blocks, optical delivery cables, beam switches, process heads and circuit boards, to mechanical parts such as metal cabinets and heat sinks for our pump modules and electrical items like power supplies. Our vertical integration produces substantial environmental benefits because our in-house supply chain reduces packaging usage and related waste as well as transportation emissions as compared to most other companies which source a substantial majority of components from remote third-party suppliers.

Our Planet



- Sustainability Vision
- Stakeholder Engagement
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- Sustainability Agenda
- Fiber Lasers & Electrical Efficiency
- Combating Climate Change
- Scopes of Greenhouse Gas Emissions
- Product Stewardship
- Greenhouse Gas Emissions
- Energy & Resource Conservation
- A Highly Efficient Energy System
- Architectural Efforts Toward Conservation
- Waste Management and Recycling

Sustainability Vision

IPG values innovation, accountability and transparency, which is why we continually strive to advance our sustainability strategy to align with the fundamental principles of our stakeholders and local communities.

We integrate safety, reliability and sustainability fundamentals within our operations and product development initiatives. It is our responsibility to utilize our unique innovation capabilities in response to societal and environmental challenges. We see our purpose in the sustainability field as providing cutting-edge products that help our customers and society as a whole ensure sustainable energy consumption. Some highlights of our efforts are provided below.



44 million metric tons less CO₂ emissions when operating IPG lasers compared to traditional lasers 2013-2022



85 terawatts hours of electricity savings since 2013 from customer use of IPG lasers



IPG fiber lasers are **35-50%** energy efficient with efficiency & compactness improving each year



Charitable giving of **~\$4.1 million** since 2018



IPG recycled **2,800 metric tons** of metals since 2013



IPG is a proud supporter of the United Nation's Sustainable Development Goals. The 17 Sustainable Development Goals (SDGs) were adopted by our global leaders in 2015 to act as a blueprint to help the world create a most sustainable future. IPG is excited to adhere to these international principles and is advancing our sustainability vision to align with the SDGs.

IPG aligns its goals and efforts with the United Nations Sustainable Development Goals. For more details, see "United Nations Sustainable Development Goals" in the [Appendix](#).

Stakeholder Engagement

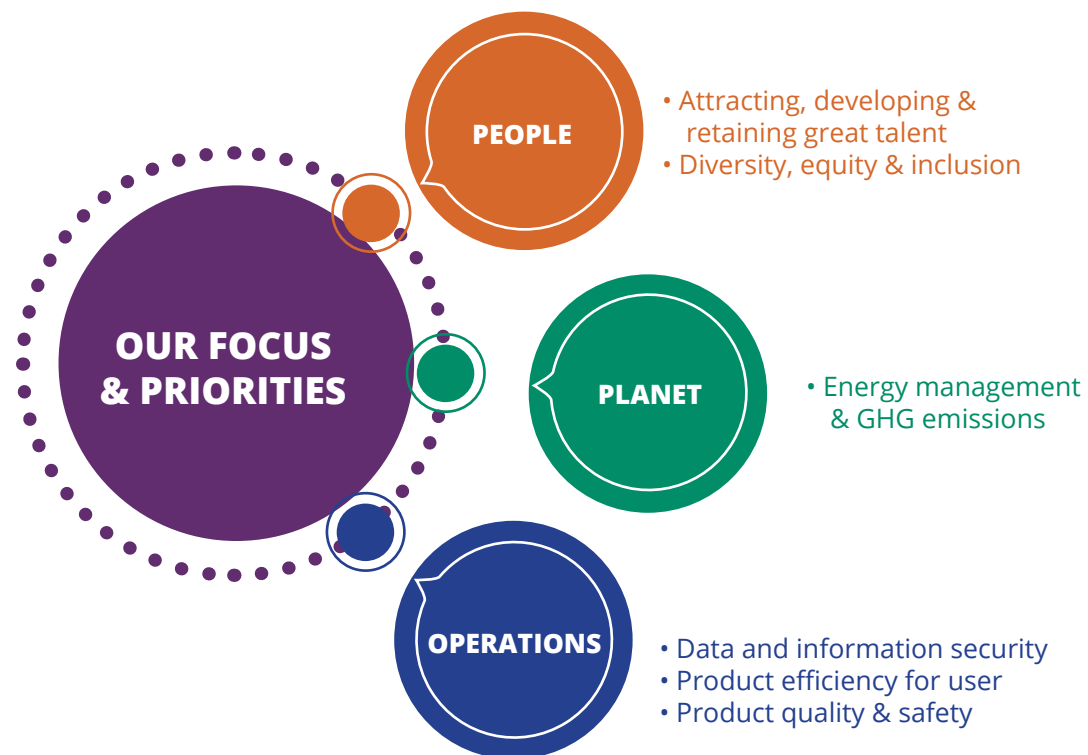
IPG engages with key stakeholders to communicate our efforts to protect the planet and to secure a safe working environment. We also continue to evaluate the primary concerns of our employees, customers and stockholders to ensure that our sustainability strategy is consistently updated to prioritize industry-specific and global material issues.

Our executive management team and our Board of Directors are engaged in our sustainability strategy and influence the direction of our agenda. IPG recognizes the value of transparency and accountability to our various stakeholders. Our strategy was developed by working with the disclosure recommendations and guidelines of third-party frameworks which include the following:

- Global Reporting Initiative (GRI)
- Sustainable Development Goals (SDGs)
- Sustainability Accounting Standards Board (SASB)

MATERIALITY ASSESSMENT

In 2021 we conducted our first materiality assessment to identify and understand the importance of ESG issues to our stakeholders and our company. The process included identification of internal and external stakeholders, benchmarking of competitors/peers, analysis of reporting frameworks, and an internal survey of functions that interact regularly with external stakeholders.



Our Sustainability Team

IPG employs a cross-functional team to manage our global sustainability program that analyzes economic, environmental and social topics. The team defines sustainability focus areas, organizes and standardizes our environmental, social and governance efforts, as well as conducts annual measurements and reports on key sustainability metrics.



Sustainability Agenda

IPG is focused on expanding our energy efficiency strategy across our enterprise. IPG is committed to decreasing our energy consumption, reducing our environmental footprint and supporting our customers' sustainability goals.

HIGHLIGHTS FROM 2022



Approximately
**10 million
metric tons**
of CO₂ saved from
using IPG lasers



529 metric tons
of recycled metals
in 2022 only



Water usage is less
than 2017 despite 62%
increase in optical
power manufactured

Water

- IPG constructs its buildings with water-efficient equipment to conserve water
- IPG looks for ways to decrease water consumption
- IPG is committed to reducing clean water usage by utilizing untreated well water for heating and cooling, which can be returned to the environment without chemicals or treatment

Waste

- IPG continues to divert resources from landfills by increasing our recycling practices
- IPG is committed to investigating new opportunities to conserve resources and reuse materials
- IPG tracks how third-party waste disposals utilize their waste to ensure as much of it is recycled as is reasonably possible
- In 2022, several IPG facilities changed their approaches to waste disposal, introduced new office waste recycling programs as well as localized policies to ensure proper waste handling and recycling

Energy

- With continuous growth and in light of the significant effect of IPG laser on energy conservation by our customers, we are monitoring our performance by the ratio of CO₂ emission per kilowatt of laser power produced. IPG targets the reduction of 10% in CO₂ emission per kilowatt of laser power produced over the decade starting in 2020 (assuming the current product mix).
- IPG invested in co- and tri-generation equipment, variable frequency drives, additional insulation, LED lighting, and other technologies to update the efficiency and infrastructure of our manufacturing facilities. We ensure that any new facilities utilize as much of such technologies as technologically possible.
- IPG is investigating the use of solar panels, replacing natural gas with new biofuel, as well as other ways to utilize renewable energy in our operations without any adverse effects to the quality of our products.

Fiber Lasers & Electrical Efficiency

The evolution of laser sources is similar to the evolution of lighting sources. Fiber lasers pioneered and perfected by IPG are the most advanced and efficient laser type. In addition, our lasers process materials more quickly than other laser technologies in many applications. Improved efficiency and productivity helps our customers with the environmental sustainability of their operations.

IPG FIBER LASER

35% TO 50% EFFICIENT

IPG fiber lasers efficiencies are comparable to modern diode light sources. Highly efficient diode pumping, proprietary laser architecture and high surface-to-volume ratio of the fiber all combine to dramatically reduce electrical power consumption and the cooling costs.



Nd:YAG LASER

2% EFFICIENT

Lamp-pumped Nd:YAG lasers energy efficiency is approximately 2%, comparable to a traditional filament bulb. The remaining 98% of input energy is lost as heat. In a laser setting, this means that more electricity is needed to obtain the targeted optical output and to power chillers to dissipate the enormous amount of waste heat.

CO₂ LASER

7% TO 8% EFFICIENT

Although gas CO₂ lasers are 3-5 times more efficient than lamp-pumped Nd:YAG lasers, over 90% of the input energy is lost as heat, similar to a fluorescent lamp. Chillers are also required to dissipate significant heat loss.

Combating Climate Change

IPG is committed to protecting the environment by fueling the renewable energy sector on their journey to instituting a low-carbon society.

FIBER LASERS FOR **GREEN PRODUCTS**

IPG fiber lasers are essential for manufacturing products across the renewable energy sector, including the production of photovoltaic cells. Of all renewable energy solutions, solar panels are anticipated to grow the fastest within the next 30 years. Fiber lasers are vital for advancing photovoltaic cell efficiency as well as decreasing manufacturing times and increasing yields.

Photovoltaic manufacturers benefit from IPG's extensive application knowledge and low cost fiber lasers. IPG green wavelength fiber lasers are critical to improving the efficiency of solar cells. These lasers, along with our near-infrared and ultraviolet fiber lasers, reduce photovoltaic manufacturing costs since laser-based processes are significantly more efficient, precise and faster than conventional processes due to high energy efficiency, excellent beam quality for tight process control and fast, high repetition rate energy pulses.

Advancing the production of solar panels is an integral component of our strategy to help society lower fossil fuel usage and transition towards a future run on renewable energy sources.

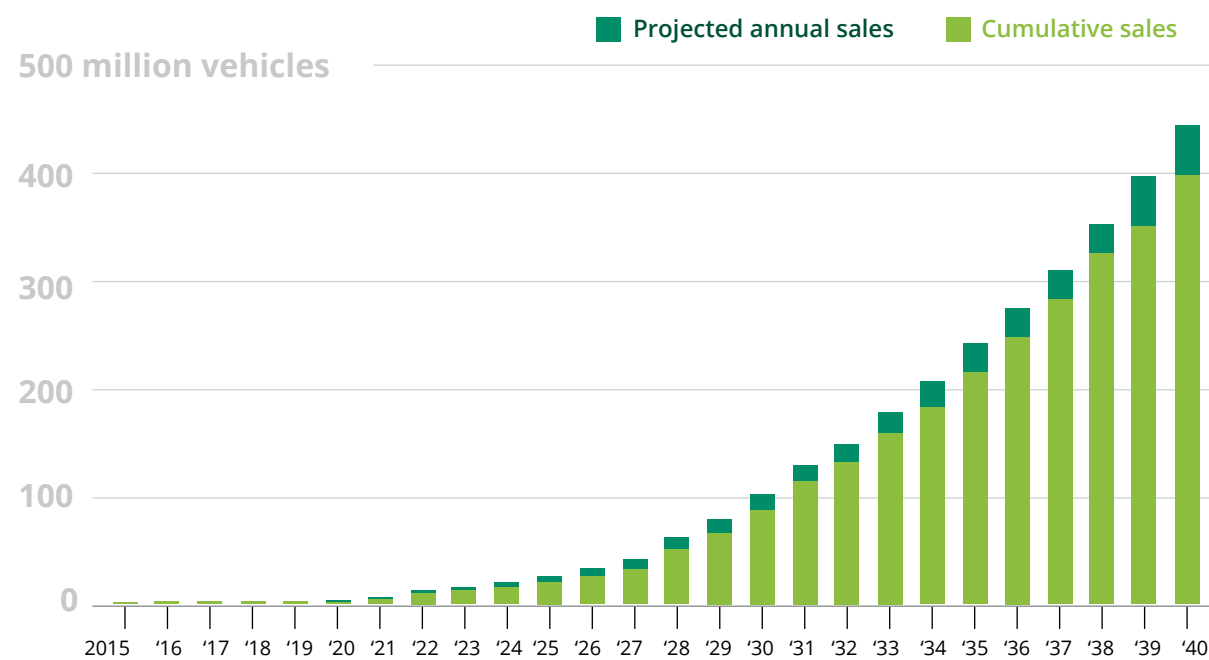
IPG recognizes the immediacy of climate change and the importance of having a positive impact on the environment.

IPG fiber lasers are much more energy-efficient than competing products, resulting in savings of multiple terawatt hours of electricity and reductions of millions of tons of CO₂ each year. We are determined to support industries such as solar and electric vehicles that are propelling the transition to a more ecologically sound world.



The biggest obstacle to worldwide mass adoption of electric vehicles (EV) is the high cost of automotive battery manufacturing. Fully automated IPG fiber laser welding solutions resolve challenges of EV battery welding quality and throughput. Fiber laser welding is more than 10x faster than traditional battery welding, forming millions of high quality welds, enabling cost-efficient mass production of millions of fuel cells per year.

The Rise of Electric Cars



Data compiled by Bloomberg New Energy Finance, Marklines

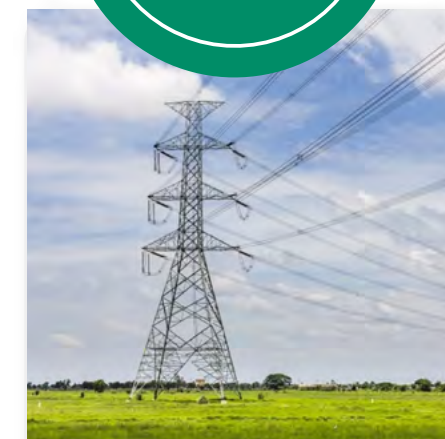
While IPG products accelerate the world's transition to EVs by making them more affordable, IPG is also committed to promoting green living practices and use of EVs by our employees. IPG has installed EV charging stations at certain facilities and plans to install additional EV charging stations to incentivize employee use of EVs.

Scopes of Greenhouse Gas Emissions

IPG is dedicated to reducing our environmental impact by tracking emissions and increasing the sustainability of our day-to-day operations. IPG consistently invests in increasing the efficiency of its operations, reducing both the cost of our products to our customers and the environmental costs of manufacturing. We implement energy efficient measures such as co-generation and heat recovery to optimize our Scope 1 emissions and reduce Scope 2 emissions.



Emissions from IPG Photonics that are a result of manufacturing, including natural gas, fuels and oils used on site



Indirect emissions that are generated offsite and purchased by IPG including electricity



Business activities that are not related to Scope 1 & Scope 2 emissions including waste generation, travel, metal extraction, product distribution and other goods and services

Product Stewardship

IPG is committed to advancing society with our highly unique innovations and solutions. IPG fiber lasers use a fraction of the electricity required by competing lasers and traditional laser technologies.

We strive to protect the planet by manufacturing generations of products with long life cycles that are more energy-efficient, compact and light.

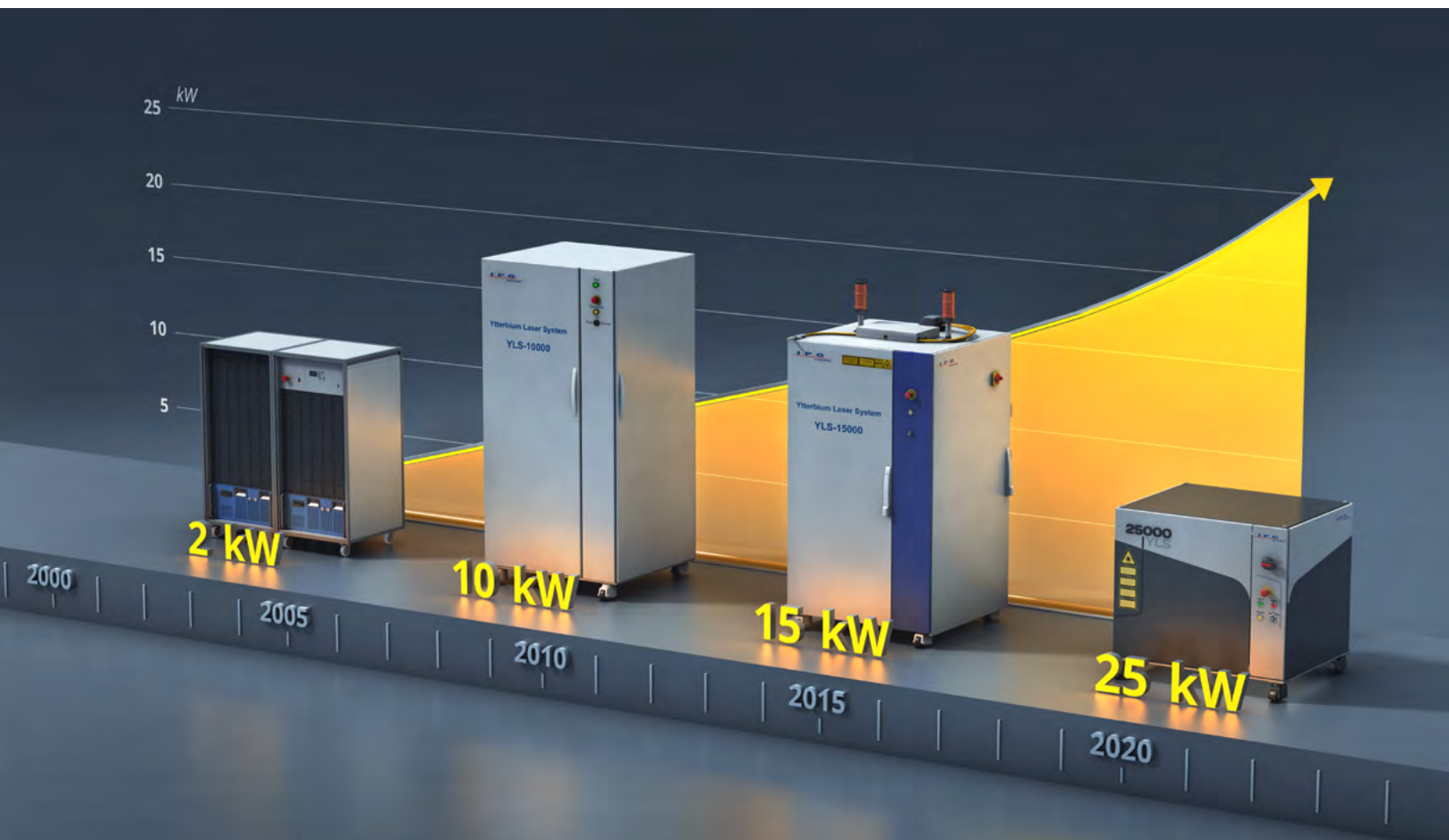
There is a rising demand for laser power worldwide. IPG is actively accommodating this growing demand while shrinking the form factors of our high-power lasers to conserve resources, floor space and operating costs for our customers. At the same time, we continually increase the efficiency of our lasers, which conserves energy and reduces the water required to cool them. IPG aspires to ensure that its products reach the maximum reasonably achievable plug efficiency.

The reduction in form factors, in combination with the growth of power, also indicates our input into responsible consumption. In addition to technological progress, IPG strives to help our customers use our lasers in a way that would promote responsible consumption.

COMPARISON OF FIBER LASERS

	5 kW Fiber Laser			10 kW Fiber Laser		
	2010	2022	Improvement	2010	2022	Improvement
Electrical Efficiency	~30%	~40%	33%	~30%	~40%	33%
Weight (kg)	500	<200	60%	750	<250	27%
Volume (m ³)	0.84	0.24	71%	1.34	0.31	77%

*2022 information from YLS line of fiber lasers.



In 2022 use of IPG lasers saved approximately **10,000,000 metric tons of emissions** more than 100 times the sum of the Scope 1 and Scope 2 emissions IPG produced

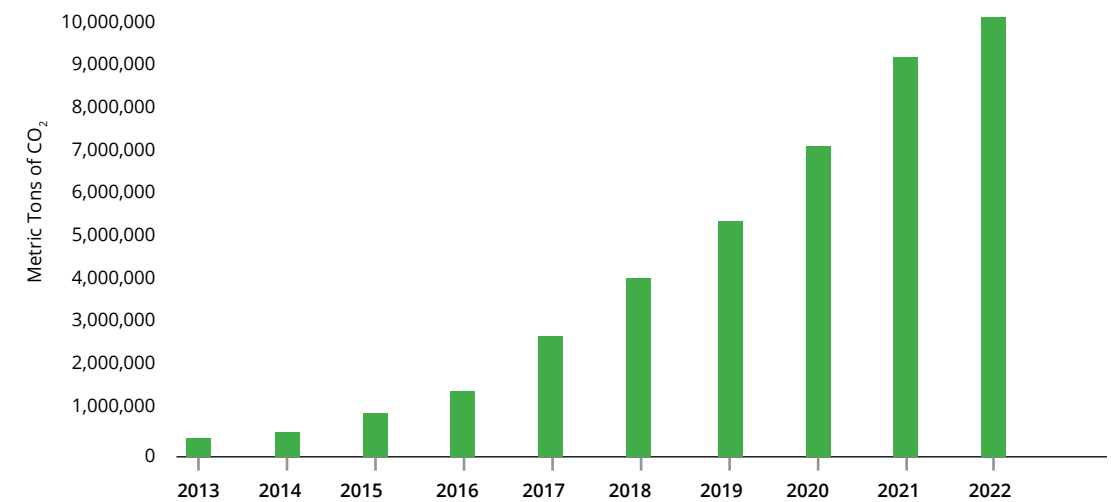
Greenhouse Gas Emissions

Core to our mission is improving the efficiency of our products and our manufacturing operations. This translates into two types of emission improvements – reducing the carbon footprint of our customers and our own.

Customer GHG Emissions

IPG invented high-power fiber lasers and successfully commercialized them. Our novel fiber laser technology is substantially more electrically efficient than traditional laser technologies enabling our customers to substantially reduce their greenhouse gas emissions and achieve their sustainability targets. We estimate that IPG lasers saved our customers approximately 44 million metric tons of CO₂ emissions cumulatively from 2013 to 2022 as compared to the use of traditional laser technologies. With a limited number of ways companies can offset their emissions, this is IPG's way of estimating our global impact against our emissions.

CO₂ Savings From IPG Fiber Lasers Sold Since 2013



•Electricity savings calculation based on IPG total megawatts of power sold, and assumes IPG fiber lasers are replacing lamp-pumped and diode-pumped Nd:YAG, CO₂ and disk lasers
 •According to the World Bank, ~2/3rds of world energy is produced from oil, gas and coal
 •According to the US Energy Information Administration, typical oil, gas and coal power plants produce ~1.9, ~0.9 and ~2.2 pounds of CO₂ for every kilowatt hour of electricity

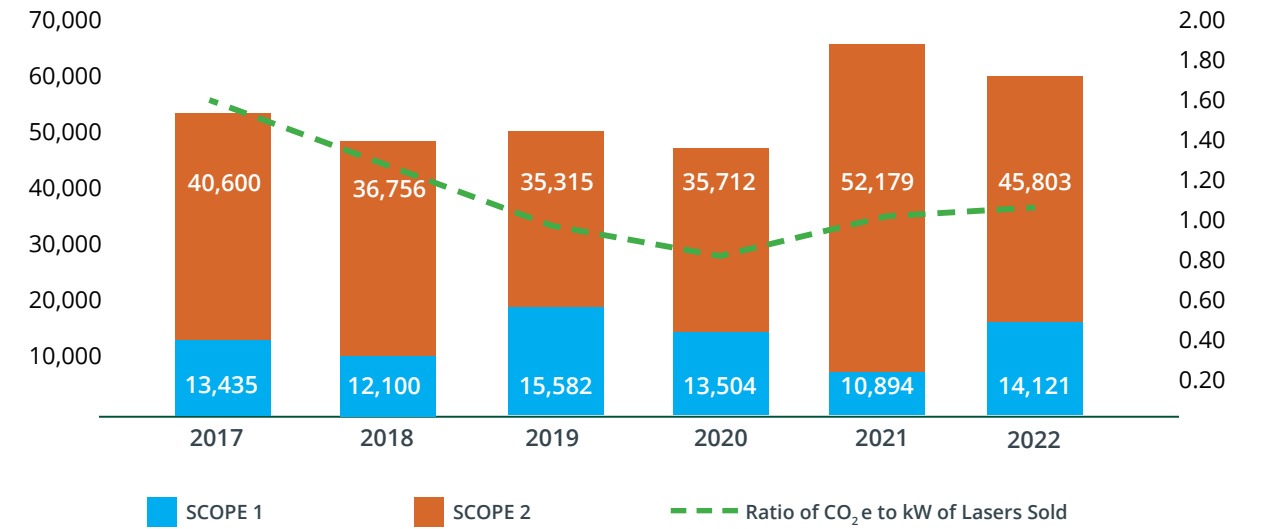
Greenhouse Gas Emissions

IPG GHG Emissions

IPG makes electronic equipment for competitive markets where the average selling prices for products can decrease significantly each year. For example, we increased laser manufacturing from 2017 to 2022 with the optical output power of products growing **62%**. Despite this increase, IPG decreased its energy intensity, as measured by CO₂ emission per kilowatt of laser power, by **31%** as compared to 2017 which demonstrates IPG's commitment to energy conservation and innovation.

Over 2021 and 2022, IPG witnessed an increase in energy consumption due to the expansion of our facilities in the USA, Germany, and elsewhere and the temporary shutdown of co-generation facilities. Geopolitical events in 2022 impacted us and our production substantially, including a reduction in laser power we produced. Also, this resulted from introduction of new products in 2022 with lower output power. The combination of these factors increased the CO₂ emission per kilowatt of laser power compared to 2020.

GREENHOUSE GAS EMISSIONS METRIC TONS OF CO₂e



ESG data is reported for all global manufacturing facilities and facilities over 50,000 square feet and/or with over 100 employees. Data since 2019 includes Genesis Systems. We use the CO₂ conversion rates provided by US Environmental Protection Agency (EPA).

Energy & Resource Conservation

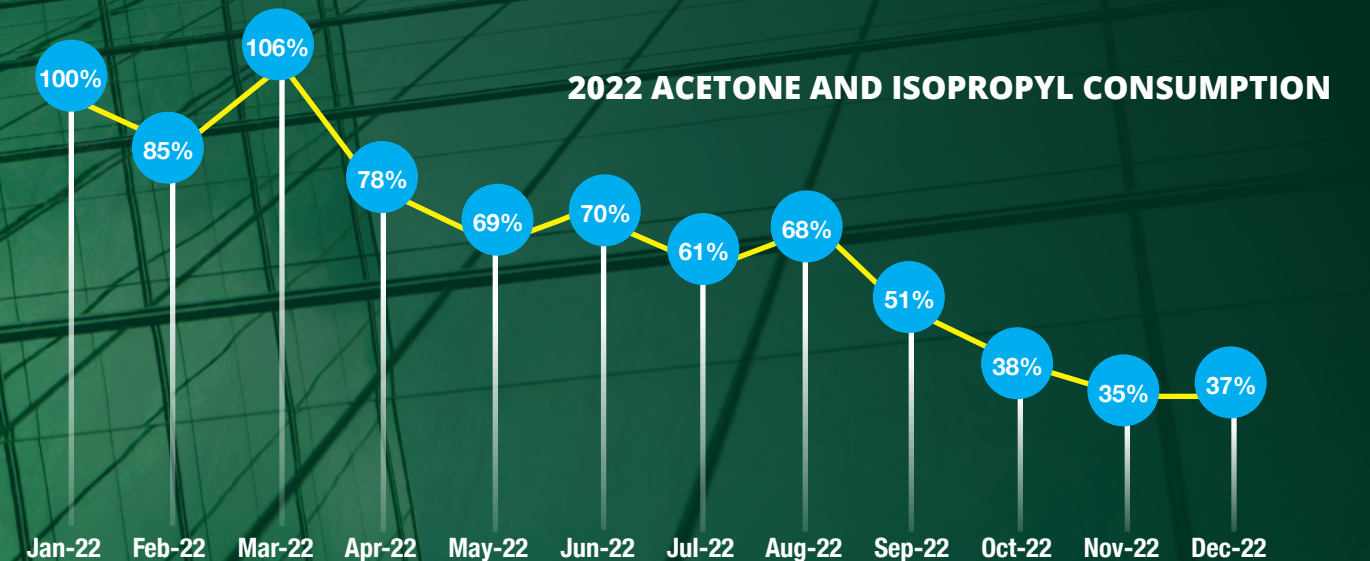
IPG has increased laser production over the last three years, but is actively lowering greenhouse gas emissions and preserving natural resources to protect balanced ecosystems.

		2017	2018	2019	2020	2021	2022
Energy Consumed MWh	Heating Oil	323	265	341	203	196	290
	Natural Gas	73,811	66,515	85,631	74,321	73,703	77,419
	Electricity	100,630	92,898	88,925	89,946	114,690	113,292
	Diesel	0	0	16	33	0	49
Total Energy Consumption		174,764	159,678	174,913	164,502	188,589	191,049
Emissions Metric Tons	Greenhouse Gas Emissions	54,035	48,856	50,897	49,217	63,073	59,924
Laser Production kW		34,436	40,384	48,963	53,746	62,447	55,723
Carbon Intensity	GHG Emissions per Laser Sold (t/kW)	1.57	1.21	1.04	0.92	1.01	1.08
Water Consumption Cubic Meters	Freshwater	198,698	178,540	182,917	192,628	200,766	189,304
Water Intensity	Water/kW Lasers Sold	5.8	4.4	3.7	3.6	3.2	3.4

ESG data is reported for all global manufacturing facilities and facilities over 50,000 square feet and/or with over 100 employees. Data since 2019 includes Genesis Systems. We use the CO₂ conversion rates provided by US Environmental Protection Agency (EPA).

IPG Photonics is determined to conserve energy, reduce greenhouse gas emissions and minimize the use of freshwater. IPG facilities are tasked with the responsibility of managing water consumption and waste water discharge. None of our major production facilities are located in regions with high or extremely high water risk per the World Resources Institute's (WRI) Water Risk Atlas.

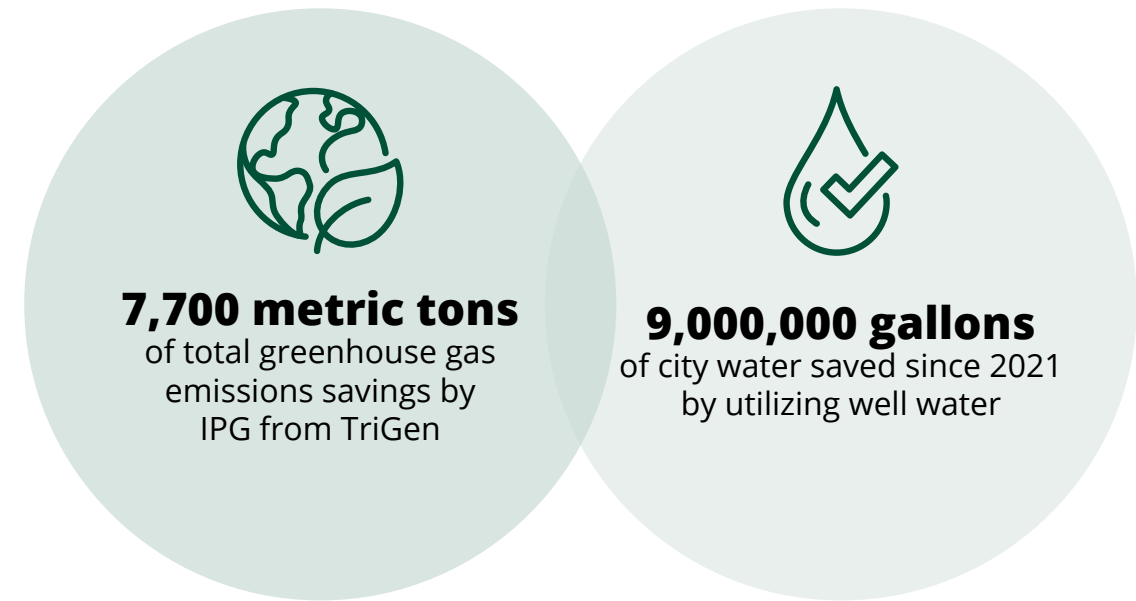
IPG continuously seeks ways to conceive the better use of materials and chemicals. As an example, IPG's facility in Oxford, MA, reduced its monthly consumption of acetone and isopropyl by about 60% due to the implementation of a program to cut the use of chemicals.



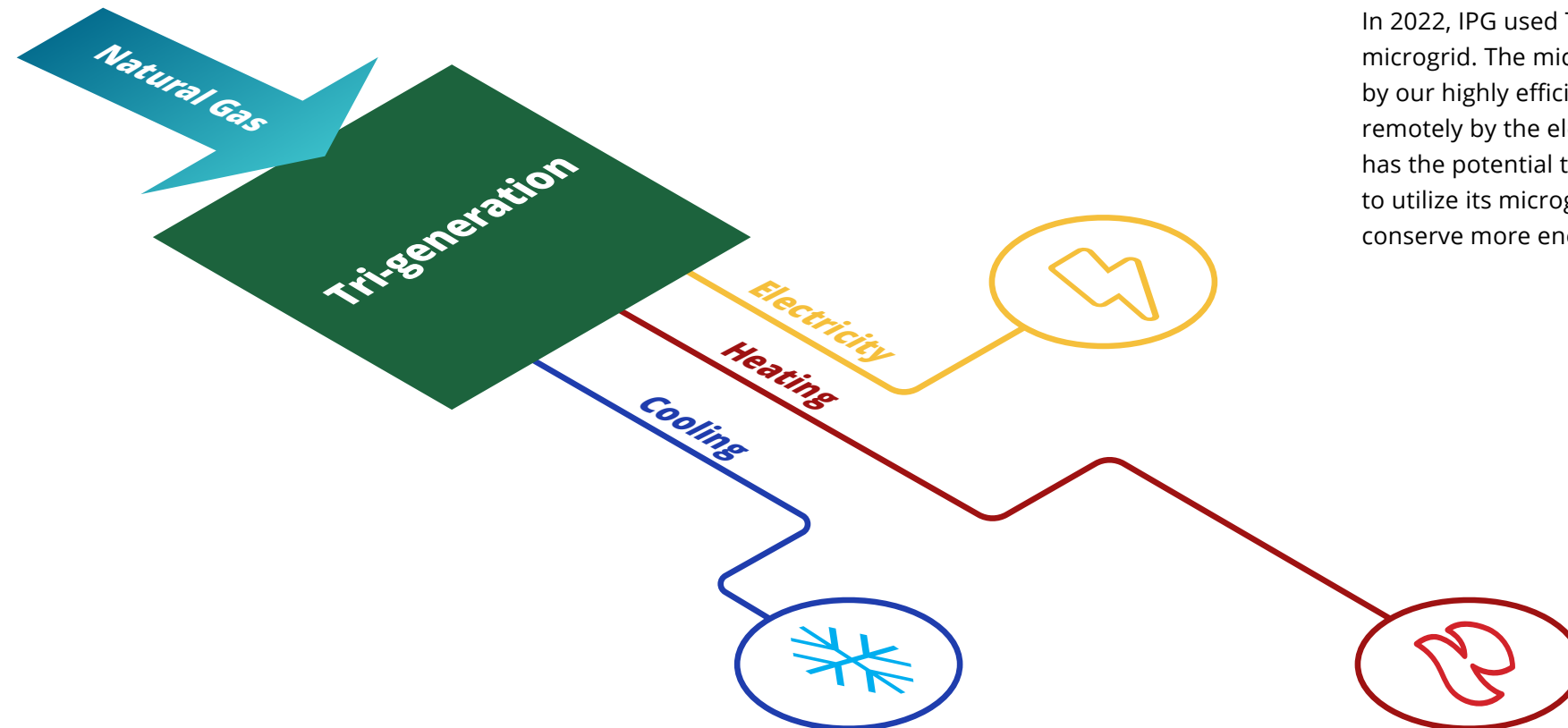
A Highly Efficient Energy System

Tri-generation (TriGen) is a clean and highly productive simultaneous process of power, heating and cooling generation from only one fuel type. By using waste heat recovery technology to capture a significant proportion of wasted heat, IPG is saving energy and protecting the environment from additional air pollutants. We substantially reduced our demand from electrical utilities, which may be coal or diesel-powered, through our on-site TriGen systems. Currently, our facilities in Oxford, MA, have approximately 4.25 MW of combined heat, cooling and power (CHP) TriGen equipment and our Italian facility has 0.25 MW of TriGen equipment. Additionally, our German facilities implemented a heat recovery system to reduce emissions and optimize fuel usage.

IPG utilizes well water from an underground aquifer in our system. We reduced our city water consumption by 4,800,000 gallons in 2022. Using well water allows the water to return to the environment without the harmful effects of chemical sanitation.



OUR TRIGEN SYSTEMS RECYCLE HEAT TO PROVIDE HEATING AND COOLING




The utilization of TriGen technologies have lowered operating costs, reduced greenhouse gas emissions and increased the security of our energy supply.


In 2022, IPG used TriGen for only half of the year owing to our installation of a microgrid. The microgrid will increase the efficiency of energy and heat production by our highly efficient TriGen equipment, reduce reliance on electricity generated remotely by the electric utility and reduce IPG's greenhouse gas emissions. Microgrid has the potential to double the emission savings from TriGen. In 2023, IPG intends to utilize its microgrid system at full capacity, which will allow our Oxford facility to conserve more energy.

Architectural Efforts Toward Conservation


IPG believes that environmentally sound practices begin at the ground level. That is why we implemented several programs to lower energy consumption and natural resource usage.



The insulation in our new construction exceed building codes up to **25%**



We replace traditional light fixtures with LED light bulbs worldwide using **75%** less energy



We use water saving fixtures in our new construction projects

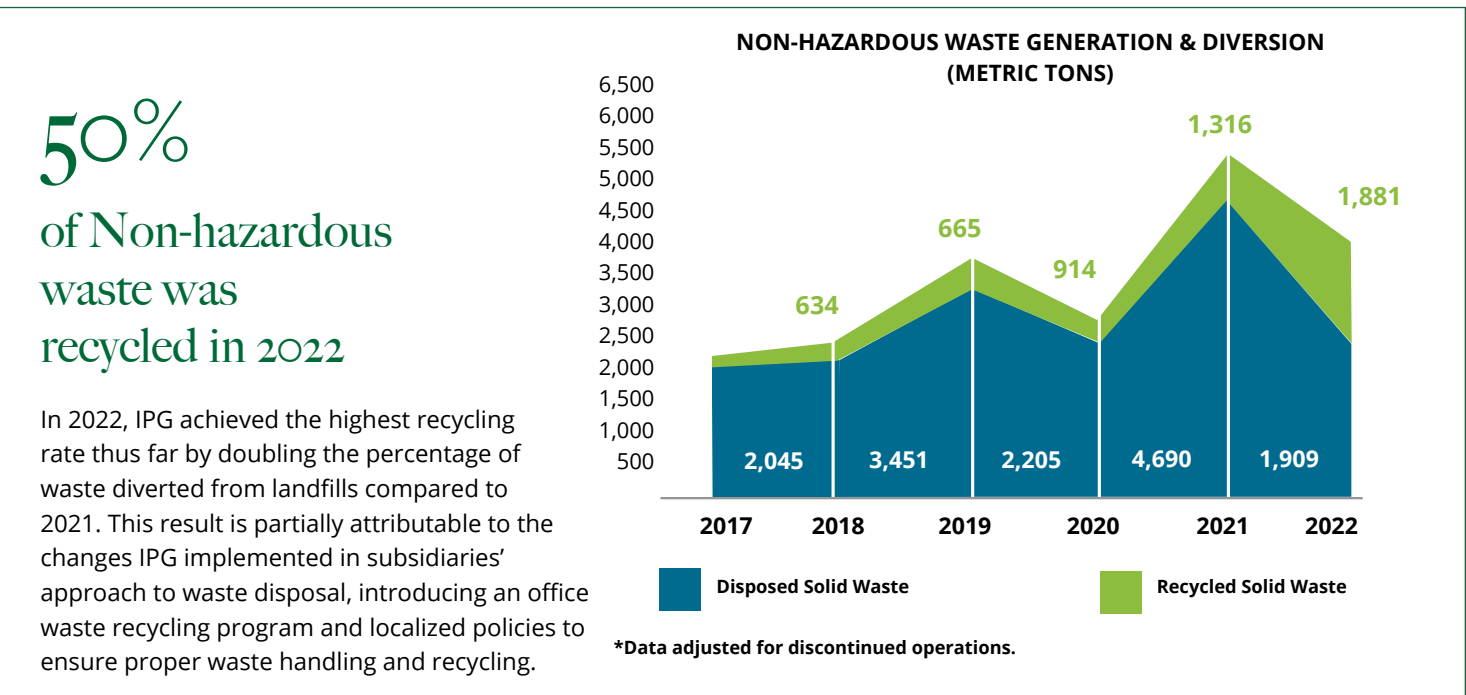
VARIABLE FREQUENCY DEVICES (VFDs) TO DECREASE ENERGY CONSUMPTION

A VFD is one of the most effective energy saving tools. It is an electronic controller that adjusts the speed of an electric motor to the specific demands of the work being performed. VFDs are an alternative to standard single-speed drives which can only operate at full speed. Many machines can be operated at less than full speed, such as HVAC systems, pumps, fans and production equipment. Other benefits of VFDs include prolonged equipment life and the ability to recover energy from braking. IPG has installed over 300 VFDs to date and will continue to advance the efficiency of our building and production equipment through expanded VFD investments.

 **VFDs save 30%-40% of energy compared to single-speed drives**

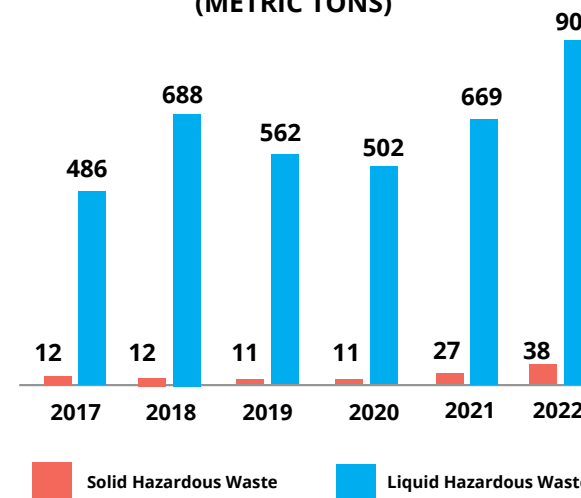
Waste Management and Recycling

Most of the waste IPG generated is a result of our manufacturing operations. From 2017 to 2022, we manufactured 62% more optical output power in our lasers. The amount of waste increased consequently. Significant variations in a waste generation were caused by the acquisition of Genesis Systems Group in December 2018, and ongoing construction, expansion, as well as changes and increases in production in 2021-2022.



Appropriately 80% of our waste in 2022 was non-hazardous. The remainder was considered hazardous, the management of which is regulated and strictly monitored. We implement controls to ensure responsible handling of hazardous waste and prioritize treatment and recycling.

SOLID & LIQUID HAZARDOUS WASTE GENERATION (METRIC TONS)



IPG has a robust recycling program and we are committed to identifying new recycling opportunities, conserving precious metals, diverting additional waste from landfills and reducing our output of hazardous waste. IPG communicates with its disposal service providers to figure out how much of the hazardous waste is recycled and encourages them to do more with this waste. Our major U.S. facilities recycle about 10% of hazardous waste.

Our People

IPG Photonics Social Impact Highlights



Diversity & Inclusion

- Developed a Diversity, Equity and Inclusion Action Plan for 2022-2023
- In 2022, IPG achieved a significant increase in the percentage of women employees over the last three years
- In recognition of the diversity of its workforce, IPG added a floating holiday in the U.S.
- Co-sponsored the 2022 Massachusetts Conference for Women



Employee Wellness

- Introduced a paid parental leave and adoption reimbursement program
- Launched “A Healthy Me” wellness portal and “Wellness Your Way” newsletter to ensure employees benefit from the wellness programs
- Ensured exceptional employee safety for the past five consecutive years in comparison to our industry



Helping the Community

- Donated approximately \$1,360,000 in 2022
- IPG receive an award for supporting female youth pursuing a career in STEM-related areas

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- Safety in the Workplace

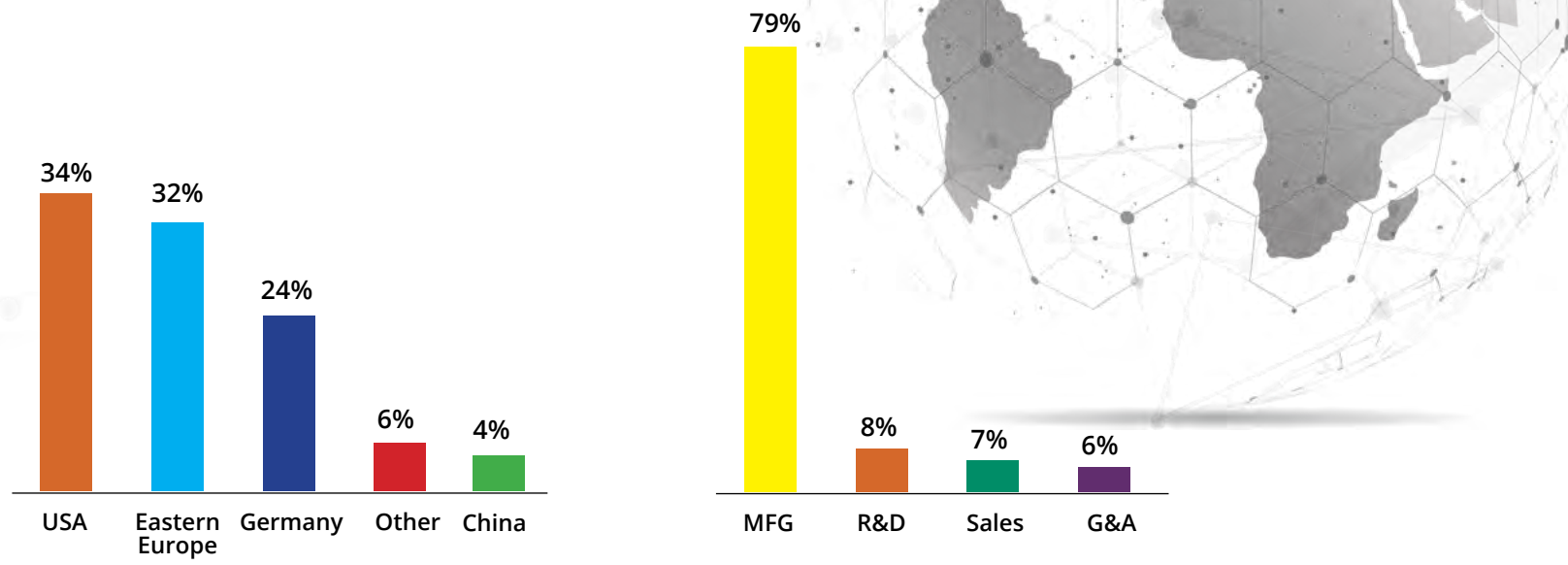


IPG employees are our most valuable asset. Their unique skill and experiences enable IPG to produce industry-leading products that change the world daily. We are committed to attracting and retaining the best talent and an engaged, diverse and thriving workforce that drives a sustainable future for our company and society.

We are dedicated to ensuring the IPG is a “Best Place to Work” for our employees. Our recently established Diversity, Equity and Inclusion (DE&I) Council reviews IPG’s practices and programs and provides recommendations for changes that model our vision and mission (aligned with UN SDGs) to “provide equitable opportunities where present and future employees are encouraged to be their authentic selves, feel empowered to contribute openly and grow to their fullest potential.”

Our People By Geography

~6,200 Employees Worldwide



Creating the “Best Place to Work”

DIVERSE LEADERSHIP: IPG is proud to support a culture that values different backgrounds and experiences. A substantial portion of our global leadership workforce consists of women and diverse employees in management roles.

EMPLOYEE DEVELOPMENT: IPG also provides continual development to our employees focused on developing their skills and competencies. Examples include monthly leadership training to develop management skills to effectively address contemporary workplace management issues. We provide employees support for attendance at professional conferences, seminars and technical presentations.

EDUCATION ASSISTANCE: IPG pays for educational courses related to an employee’s work or as part of a degree program, including tuition, lab fees and books. This program has been effective enabling employees to attain advanced degrees and enhance their career opportunities.

INTERNSHIP PROGRAM: Since its inception, IPG has been committed to fostering diverse and young talent through our internship program. Our paid internships provide practical experience across numerous divisions for college students and recent graduates.

BENEFITS: Employment with IPG offers top-rated benefits and competitive compensation designed to support and retain our employees. Our benefits are locally customized such as health and dental insurance coverage and retirement savings plans. We also offer programs to help our employees participate in our profitability through bonuses, equity grants and an employee stock purchase plan, which are available generally to salaried employees.

IPG fosters a culture of inclusion, respect and professionalism. We believe that we are made better and stronger by having a diverse and inclusive workforce shaping our business choices, and we are culturally enriched by having the unique perspectives of people of all backgrounds. In recognition of the unique needs of our diverse employees, IPG introduced in 2022 a floating holiday, allowing for observance of an individual religious or cultural holiday.

As a global organization, IPG respects and educates new hires on cultural differences and diversity awareness by providing training during the new hire’s on-boarding process. New hires are required to participate in an IPG diversity and inclusion training program as part of their onboarding process and to periodically pass the training again.

We are committed to developing a community of talented individuals who share our values of dignity, respect and caring. Our employee benefit programs and individualized training and development programs support the mission of retaining our diverse and inclusive workforce.

IPG instills a family-friendly workplace culture. In 2022, we are proud to introduce paid parental leave to allow employees paid time at home to adjust to, and bond with their newly expanded families. We also introduced an adoption reimbursement program which is designed to help parents afford the costs associated with adopting a child. This benefit is available to U.S. employees.

2022 Diversity & Social Initiatives

In 2022, IPG engaged in a number of initiatives to promote its diversity goals, the most notable of which include:

- **Participated in various diversity based career fairs**, including Mass Hire, Big 10 Women in Computing Women’s Colleges, University Diversity Career Expose, Stony Brook Diversity Recruitment Fair, Mass Rehab with OFCCP and Massachusetts Conference for Women.
- **Published social media posts** on multiple global outlets stressing the importance of International Women’s Day.
- **Co-sponsored the 2022 Massachusetts Conference for Women**, which provided a forum to address issues that matter most to women in the workplace including but not limited to: work/life balance, health, and professional development.
- **Enabled students to take advantage of opportunities** to further their science, technology, engineering and math (STEM) related academic interests and realize their career goals with the support of educational organizations, including by supporting the following groups and organizations: the Society of Hispanic Professional Engineers, the Society of Women Engineers, the Society of American Indian Science and National Society of Black Engineers, Girls Who Code, the African Community Education organization, junior and senior high school robotic teams, Stony Brook Foundation and local schools.
- **Sponsored the Boston College Center for Work and Family Annual HR Roundtable.**
- **Provided ongoing financial support** to local food banks.

IPG believes that our workforce should be representative of the communities where we operate. We continue to focus on increasing female representation worldwide and racial/ethnic minority representation in the U.S., both in terms of general population and managers. We are actively taking steps to improve the diversity of our workforce, beginning at the recruitment stage. This includes a number of initiatives:

- IPG enhanced the visibility of our job opportunities via the CIRCAWORKS program, which is focused on community-based organizations targeted to reach women, minorities, older workers, individuals with disabilities, veterans, LGBTQIA applicants.
- In 2023 we enhanced our requirements for third-party search firms to include that a minimum of two diverse candidates must be presented when interviewing for any open U.S. management positions. We also engaged minority-owned search firms for the recruiting purposes.
- Since 2021, IPG has partnered with the internship program INROADS, an international non-profit organization designed to promote ethnic diversity across the corporate world. As a national sponsor of INROADS, IPG gained access to extraordinary talent to assist IPG at our operations in the United States.
- We have established partnerships with diversity conferences such as the Society of Hispanic Professional Engineers (SHPE), the Society of Women Engineers (SWE) and the National Society of Black Engineers (NSBE).
- We actively recruit at universities having higher than average populations of women and minorities in STEM-related programs.
- IPG continues to foster innovation and offer educational opportunities to the next generation through scholarships to graduates of local high schools and vocational schools.

Diversity & Inclusion Strategy

At IPG, we strive to nurture an inclusive and equitable culture where diversity of experience, background and skills are valued, respected, and celebrated. Our employees' ability to work to their fullest potential is enhanced by creating a culture of belonging. We believe an engaged, diverse, and inclusive workforce creates a better future for our company and the communities in which we operate. In recognition of this, and to further our goals, IPG recently established a Diversity, Equity and Inclusion (DE&I) Council to identify key initiatives on which to focus and establish accountability for our efforts. Because of the importance of this initiative, IPG retained an outside expert to advise us on the creation and implementation of this important committee.



We expanded diversity among our Board of Directors in 2022 with the appointment of the first member of Asian background. Together with two females who joined the Board previously, the female representation of the Board reached 30%. Also, in 2022, we increased the representation of women in our management to appropriately 24%. Although we are proud of this progress, we recognize there is still significant work to be done to achieve our goals for representation of women in our global management ranks.

Results of 2022 Diversity Efforts

IPG is committed to empowering every member of our global workforce. Management ensures that IPG employees receive equal opportunities to thrive and grow within the company. IPG recognizes the importance of a balanced workforce and strives to employ and promote women and minorities into leadership positions across IPG locations.

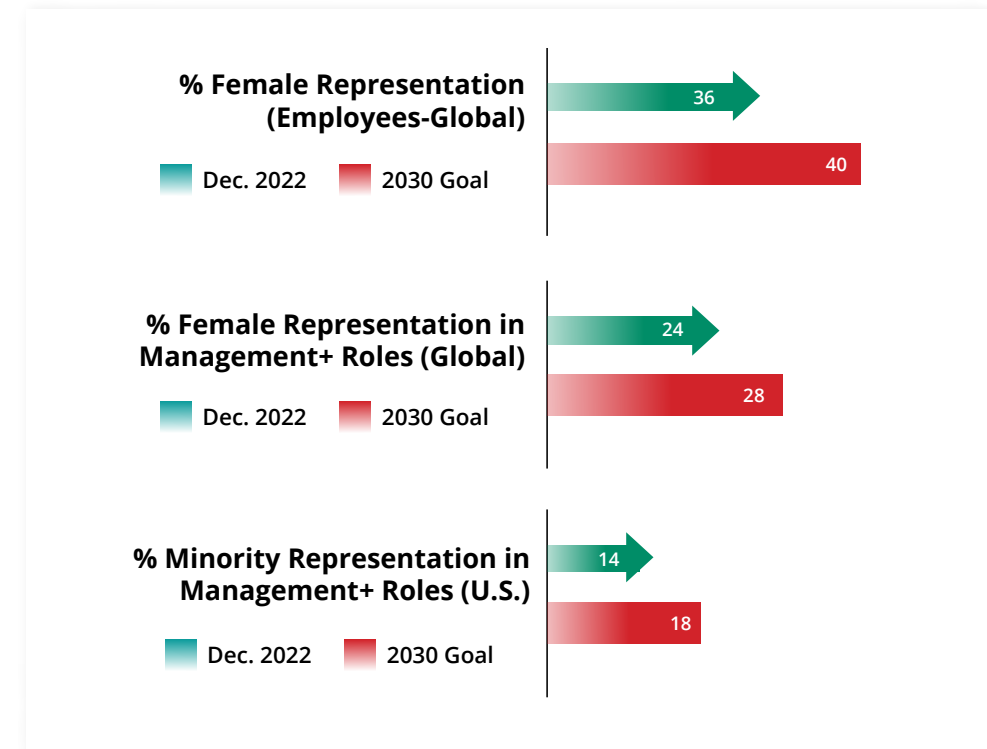
In 2022, IPG significantly increased our female employee population, following a slight decline during 2020-2021. The main contributor to this change is new hires, partially supported by IPG's internships and collaboration with universities and diversity organizations. Specifically, 50% of 18 interns who graduated in 2022 converted to full-time IPG employees, of which 33% identified with a minority race/ethnicity.

Diversity Goals

We are tracking new metrics focused on increasing female and minority representation in our workforce, and providing professional development opportunities for employees. In 2023, we established the following diversity and inclusion goals:

- Increase global female representation to 40% from 36% of employee population by 2030;
- Increase global female representation to 28% from 24% of managers and above by 2030;
- Increase U.S. minority representation to 18% from 14% of U.S. managers and above by 2030.

"Managers and above" includes executives, senior managers, officials and professionals.



Nearly 41% of our employees in the U.S. identify with a minority race/ethnicity. "Minority" refers to individuals who identify as American Indian or Alaskan Native, Asian, Native Hawaiian or Pacific Islander, Black or African American, Hispanic or Latino, or two or more races. We intend to update our stakeholders every two years about our progress in reaching these goals.



Philanthropy

IPG is actively contributing to non-profit organizations and programs that focus on education, community welfare, arts and social services. IPG recognizes the importance of helping our neighborhoods, and so we strive to enhance our local communities across the globe. In the United States, IPG supports dozens of charities across the world with the goal of promoting community engagement and advancing economic opportunities.



EDUCATION

We have a stake in various programs that help students be well prepared to be tomorrow's leaders and innovators:

- Support secondary education programs that enhance core competencies in STEM
- Focus on helping students develop necessary reading, writing and analytical skills



CIVIC & SOCIAL SERVICES

IPG believes that it is important to ensure that our communities have access to the most basic needs. We want to improve the quality of life in our regions by empowering people to achieve personal growth and encouraging them to take advantage of new opportunities. IPG works to establish more experiences for people in their communities by supporting programs that advance:

- Economic and workforce development
- Diversity
- Scientific literacy
- Conservation and sustainability



ARTS & CULTURE

IPG invests in programs that promote participation in the arts. Artistic expression inspires creativity and improves mental health. IPG supports a variety of opportunities for the young and the elderly from underserved or diverse communities to partake in cultural and artistic experiences.



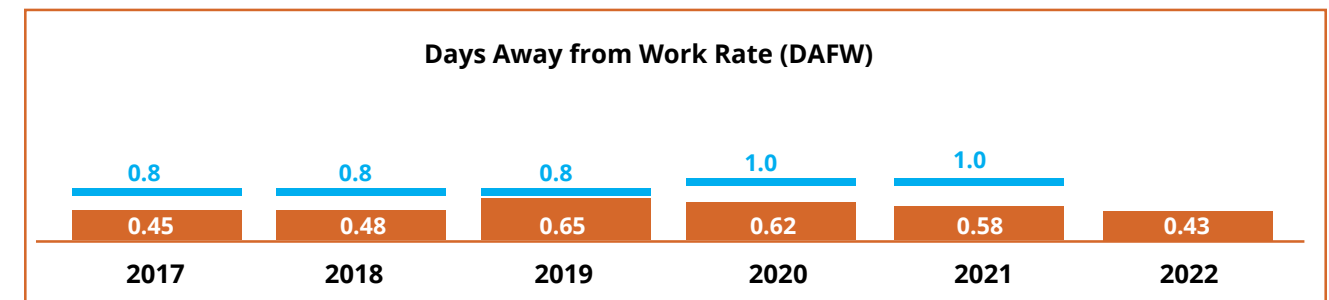
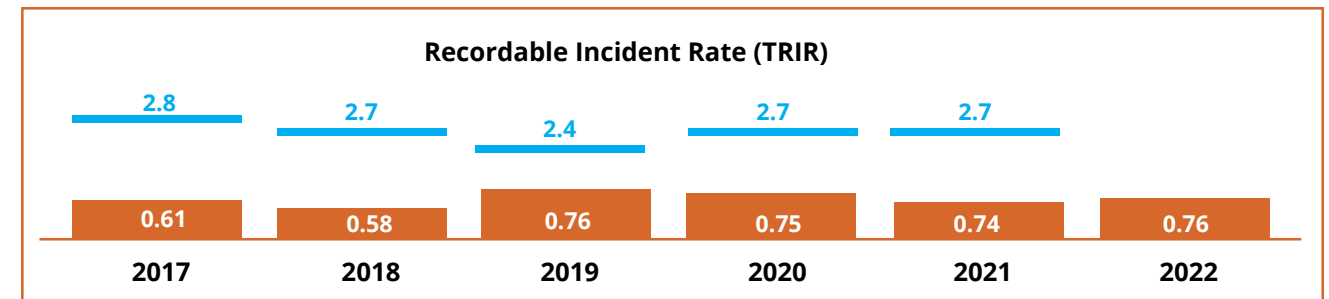
HEALTH & WELFARE

IPG supports local health and welfare programs. We also donate to local youth and recreational centers that promote responsible citizenship, education and community involvement. IPG is focused on initiatives that improve the quality of healthcare & wellness.

Safety in the Workplace

Our manufacturing employees undergo comprehensive training to help reduce and prevent workplace accidents, which contributes to our low incident rates.

As a result of IPG's efforts, our injury rates have stayed below the industry averages since the base year.



■ IPG ■ Industry Average

Data includes facilities in US, Germany, Italy, Russia and Belarus. TRIR = Recordable cases x 200,000 / total hours worked by all employees; DAFW = Lost time cases x 200,000 / total hours worked by all employees. Industry average represents goods-producers with more than 1,000 employee published by US Bureau of Labor Statistics. 2022 BLS data was not available at time of publication.

Notwithstanding this success, IPG is working to enhance its safety management system across its production facilities and aims to align its Health and Safety Management System with the GRI Standards and several OSHA guidelines.

Our Governance



- Governance Highlights
- ESG Oversight
- A Business of Ethical Operations
- Innovations Designed with Integrity
- The Power to Transform 2023

Governance Highlights



Independent Leadership & Oversight

- Governed by a 10-member board of directors, 7 of whom are independent directors under Nasdaq guidelines
- Supermajority of independent directors and 100% independent Board committees
- Separate roles of Chairman and CEO; Non-executive Board Chair
- Board approved oversight framework for ESG risks in 2022



Continued Focus on Board Refreshment

- Continued refreshment of the Board with a focus on diversity
- A majority of the Board has a tenure of 5 or fewer years
- The Board policy requires external director candidate pool to include diversity of gender and race/ethnicity



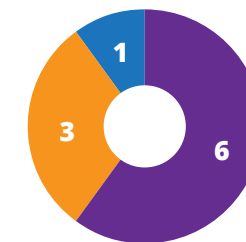
Structured to Empower Shareholder Rights

- Annually elected directors
- Director majority voting policy
- Single class of voting stock
- No supermajority voting provisions

Board Demographics Highlights

Board Refreshment

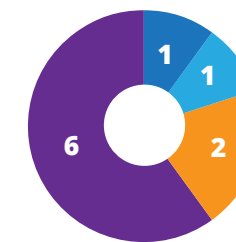
Average Tenure - 8 years



- 5 or fewer years
- over 10 years
- 6-10 years

AGE

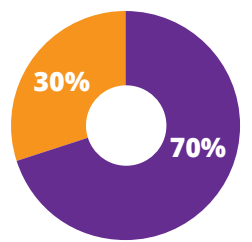
Average Age - 62 years



- 60-69 years
- <50 years
- 50-59 years
- ≥70 years

Gender Diversity

30% Female

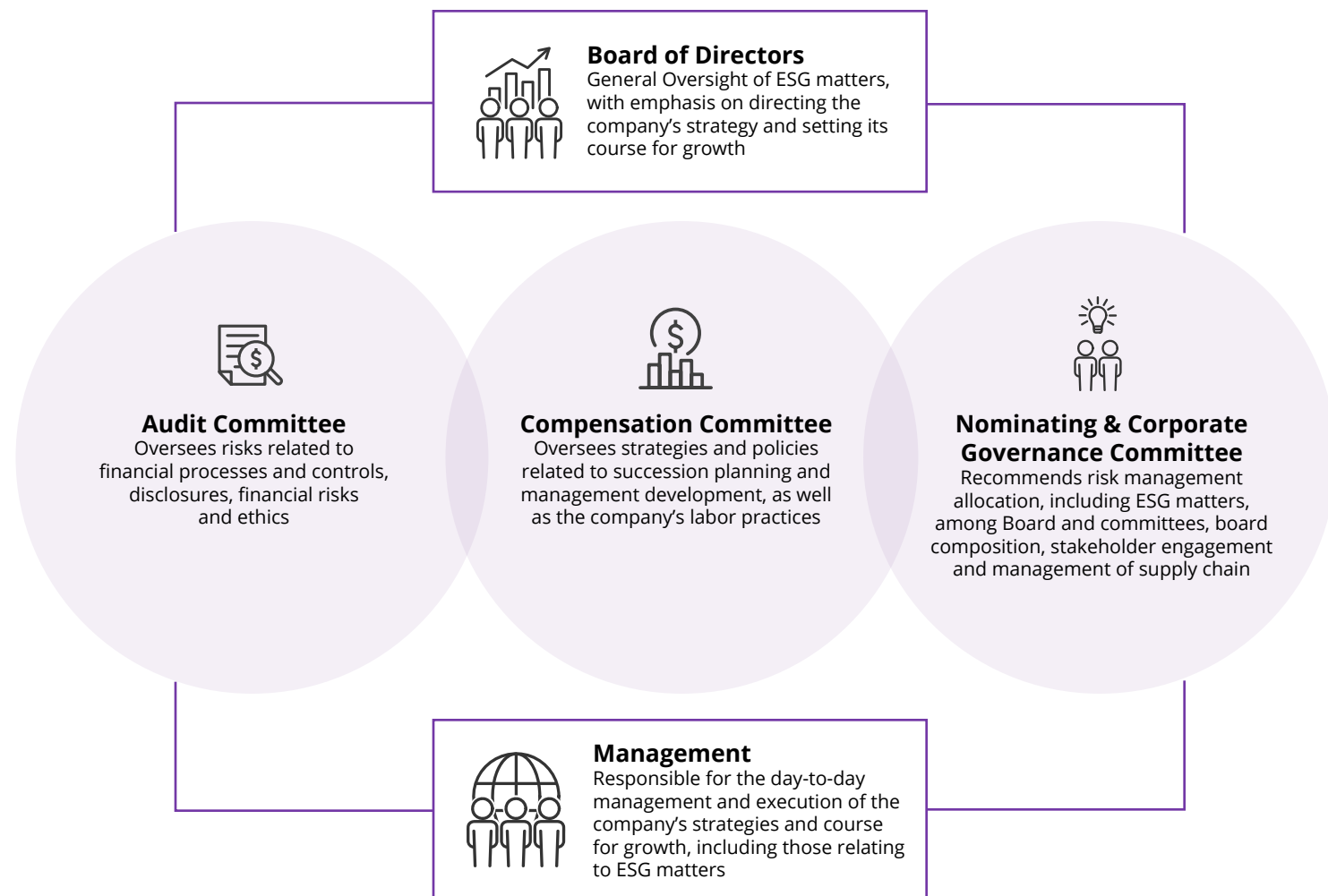


- Female
- Male

ESG Oversight

Critical ESG matters could impact our company, including environmental and human capital risks such as diversity, equity and inclusion, and employee health and safety. Early in 2022, our Board of Directors reviewed an enterprise-level ESG risk assessment to identify and understand specific material risks within the ESG realm (based on the previously performed materiality assessment) that could have a material impact on the company.

Specific ESG topics are overseen by the Board as a whole or, in certain circumstances, by the Board committee generally responsible for the subject matter. Our Audit Committee oversees risks related to financial processes, disclosures, and ethics; our Compensation Committee oversees strategies related to succession, leadership development, and certain labor practices; and our Nominating and Corporate Governance Committee recommends risk management oversight allocation and stakeholder engagement. The Board also supports and regularly inquires about progress in the Company's reporting of ESG policies, metrics, and related disclosures.



A Business of Ethical Operations

IPG values solid corporate governance with a focus on protecting the safety and fundamental human rights of all our employees across the globe. IPG ensures that new employees are trained and educated about our values and policies and that they review the policies periodically. Employees' questions on any such policy may be addressed to the proper officers and Human Resources. IPG provides the channels to report any violations under the policies and encourages all employees, suppliers, and customers to use them as needed and not to be silently complacent.

CODE OF CONDUCT

At IPG, all employees are responsible for adhering to the values and guidelines included in our Code of Business Conduct. Across the world, all IPG employees have a responsibility to uphold the code and respect our high ethical standards. IPG is committed to running a moral, ethical and trustworthy enterprise. The Code of Business Conduct highlights our regulations and values to help employees identify and avoid any unethical actions that would discredit our reputation and ethical standards.

WHISTLEBLOWER POLICY

IPG is compliant with all applicable security laws and regulations, accounting standards, accounting controls, audit practices and bribery prohibitions. Any IPG employee may submit a good faith complaint to the management without fear of dismissal or retaliation.

ANTI-BRIBERY POLICY

IPG operates in accordance with applicable anti-bribery regulations and local laws. Our Anti-Corruption Policy advises directors, employees, agents and representatives of IPG of their position regarding sensitive transactions and requires that transactions are executed, and access to assets is permitted, only in accordance with management's authorization guided by applicable laws and regulations.

SUPPLIERS CODE OF CONDUCT

IPG works with suppliers who are ISO 9001:2015 certified and are committed to business integrity, human rights, protection of information and EHS management. Our suppliers adhere to the global, fundamental principles of human rights including the freedom of association, right to organize, abolition of forced labor, elimination of child labor, equality and anti-discrimination rights, and provision of legally mandated employee benefits – same way IPG does. IPG investigates new ways to improve and extend its oversight of the supplier practices and ensure their strict compliance with our values and international laws.

HUMAN TRAFFICKING AND MODERN SLAVERY

IPG has an established zero-tolerance policy prohibiting human trafficking-related activities. Under the policy, involuntary or forced labor (including bonded, debt bondage, indentured, and involuntary prison labor), commercial sex, slavery, or trafficking of persons is prohibited. IPG is committed to maintaining and improving the systems and processes to ensure we comply with all rules and regulations regarding human trafficking and any forced labor in our operations and supply chain.

Innovations Designed with Integrity

HAZARDOUS MATERIALS:

IPG carefully manages all materials and chemicals that are used during production in order to protect the environment and ensure the health and safety of our workers.

European Union REACH - IPG commits to the safe use and identification of chemicals per the requirements of Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). Our products are "articles" as defined in 3(3) of REACH and do not release substances under normal use. According to REACH, suppliers of articles must provide recipients with information on Substances of Very High Concern (SVHC) if those are present above a concentration limit of 0.1% on an article level. We monitor updates to the list of SVHCs and we strive to minimize or eliminate SVHC substances. Although a substantial majority of our products into the EU marketplace do not contain SVHCs above the specified concentration limits, there may be some that do. We are committed to providing our customers with information regarding SVHC in our products and will continue to monitor our products under REACH.

European Union RoHS and WEEE - IPG complies with applicable provisions of the EU Restriction of Hazardous Substances (RoHS) Directive and Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) targeting the reduction of environmental impact of waste electrical and electronic equipment. IPG is committed to compliance with the RoHS and WEEE Directives and minimizing the environmental impact of its products.

CONFLICT MATERIALS:

IPG is committed to the responsible sourcing of tin, tantalum, tungsten and gold used in our products and IPG conducts annual due diligence of its suppliers to determine the sourcing of conflict minerals in its products and confirms there is no evidence that the conflict minerals in IPG's product funded conflict. IPG will not knowingly source any conflict minerals from sources that fund conflict. If IPG's due diligence reveals that any of IPG's suppliers have provided IPG with goods or metals that funded conflict, IPG will seek alternative sources for such goods or metals. IPG files a conflict minerals report with the SEC.

COMPLIANCE & RISK MANAGEMENT:

At IPG, risk management is a priority for our Board of Directors and senior management. Effectively monitoring and managing risk are essential to the successful execution of IPG's business strategy. Managers at IPG have the power to manage, mitigate and elevate risks to senior management. The Board has oversight for risk management with a focus on the most significant risks, including strategic, operational, financial and compliance risks.



The Power to Transform 2023

IPG is determined to advance our commitment to society and our planet. We are dedicated to enhancing our sustainability program and to updating our agenda periodically.

IPG has established and expressed goals for energy use, and published our diversity data and targets to improve diversity in this report. IPG plans to conduct assessments to further our sustainability agenda, to reduce our environmental footprint and to advance our community engagement efforts. Among these are to conduct an assessment of climate change upon our business and operations, to investigate opportunities to invest in solar or wind energy, to reduce our greenhouse gas emissions and to continue to pursue electrical efficiency increase in our products and operations, with a target reduction of 10% in CO₂ emission per kilowatt of laser power produced over the decade starting 2020 (assuming the current product mix).

Since the publication of our first report in December 2020, we gathered data on energy, water, waste and GHG from additional subsidiaries to gain a further understanding of our environmental footprint. In addition, we completed our first materiality assessment of our key stakeholders. IPG also made a substantial deposit in a local black-owned bank.

IPG is determined to address the evolving challenges facing society and the planet by continuously updating our priorities and utilizing our unique innovations and technological processes to transform products across all industries.

About this Report

This sustainability report covers IPG's approach to sustainability and corporate social responsibility as well as our global progress on environmental, social, and governance (ESG) topics. This report was published on April 14, 2023, and covered operations data from majority-owned subsidiaries from January 1, 2022, to December 31, 2022. When the data covers less than 100% of our operations, the report provides an appropriate clarification regarding the scope of operations and geographies included.

The appendix to this report provides an overview of the alignment between the efforts of IPG and the United Nations Sustainable Development Goals, as well as certain disclosures in accordance with the frameworks established by the Global Reporting Initiative (see GRI Index) and the Sustainability Accounting Standards Board (see SASB Content Index).

Information contained in this document is summary in nature and subject to change without notice.

Financial information can be found in IPG's 2022 Annual Report (Form 10-K), 2023 Proxy Statement and Investor Guidebook.

The information in this report does not form a part of our Annual Report or Proxy Statement.

Please send any questions or comments about this report to CSR@IPGPhotonics.com.

IPG Photonics Corporation
377 Simarano Drive,
Marlborough, MA 01752
IPGPhotonics.com

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Appendix

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

IPG Photonics' sustainability strategy is in alignment with the United Nations Sustainable Development Goals (SDGs). IPG's innovations support the United Nations along with their goal of establishing a more sustainable society by 2030.



GOOD HEALTH & WELLBEING (PAGES 31 & 37)

IPG responded to COVID-19 by instituting new policies to maintain the supply chain while simultaneously ensuring the safety of our employees across the globe. Our products help transform lives in the healthcare industry and improve worker safety across the globe. We provide proper laser safety training for our employees in accordance with the OSHA guidelines.



QUALITY EDUCATION (PAGE 31-36)

IPG is committed to ensuring that today's students are well prepared to be tomorrow's leaders and innovators. Our programs are targeted at post-secondary education that enhances core competencies in STEM.



DECENT WORK & ECONOMIC GROWTH (PAGES 8,9 & 31)

IPG is an equal opportunity employer with competitive employee benefits and compensation. Our vertical-integrated business model allows us to be a leader in the production of fiber lasers and provide solutions to a variety of industries across the world that are advancing technologies and the efficiency of the global workforce.



INDUSTRY, INNOVATION AND INFRASTRUCTURE (PAGES 9 & 18-20 & 24-26)

Our innovations revolutionize automation, industrial production and the automotive industry. Our superior quality and energy-efficient lasers are built to last and protect the environment.



REDUCED INEQUALITIES (PAGES 32-37)

Globally, IPG is committed to fostering a work environment that promotes diversity and inclusion. We adhere to our Code of Business Conduct and Human Rights Policy to align our business to protect our employees and provide them with the necessary support they need to succeed.



RESPONSIBLE CONSUMPTION & PRODUCTION (PAGES 9 & 22-27)

IPG carefully monitors our internal supply chain to reduce industrial waste, conserve energy and recycle a variety of materials, including precious metals.



CLIMATE ACTION (PAGES 16-19, 21 & 26)

Our facilities have LED fixtures, low water consumption plumbing, variable speed motors and tri-generation plants that reduce emissions. Operating our energy-efficient fiber lasers, reduced global CO₂ emissions by 44 million metric tons compared to other competing laser technologies.

Appendix GRI INDEX

GRI DISCLOSURE		DISCLOSURE OR A REFERENCE TO ITS LOCATION
GRI 2: General Disclosures (2021)		
2-1	Organizational details	Legal name: IPG Photonics Corporation. For ownership and legal form please see 2023 Proxy Statement. Headquarters: 377 Simarano Drive, Marlborough, Massachusetts 01752, USA. Counties of operation: IPG operates four principal manufacturing facilities for fiber lasers, laser systems, fiber amplifiers, and related optical components, which are located in the United States, Germany, Russia and Belarus. We have numerous sales and service offices located throughout the world. See 2022 Form 10-K: Part I Item 1 .
2-2	Entities included in the organization's sustainability reporting	See 2022 Form 10-K: Part I Item 1 . We report our sustainability data for all global manufacturing facilities and facilities over 50,000 square feet and/or with over 100 employees. We adjust data to any acquisitions and mergers as soon as IPG is able to collect the ESG data from its new subsidiaries and/or facilities. Data for retired assets is not reported in the following period, except as expressly noted in the Sustainability Report.
2-3	Reporting period, frequency and contact point	The 2023 Sustainability Report covers a period from January 1, 2022, to December 31, 2022, which is aligned with IPG's financial reporting period. The Sustainability Reports have been previously published annually in April of each year. The questions regarding the Report could be addressed to CSR@IPGPhotonics.com .
2-4	Restatements of information	We clarified our approach to the collection and reporting of ESG data. To comply with the adopted approach, IPG's energy and water consumption for the years of 2017-2022 were adjusted to account for the energy consumed by our non-manufacturing facilities in China, which represent about 2% of total square footage of our facilities. This resulted in a change to energy and water consumption as well as GHG emissions of about 1%.
2-5	External assurance	While we have not sought external assurance for the content of this Sustainability Report and its appendixes, certain financial statement data is subject to external review. All provided information is reviewed internally.
2-6	Activities, value chain & other business relationships	See 2022 Form 10-K .
2-7	Employees	As of December 31, 2022, IPG had approximately 6,230 permanent, full-time employees, 359 temporary employees and 158 part-time employees. For gender diversity and geography of employment see pages 30 and 34-35 of the 2023 Sustainability Report.
2-8	Workers who are not employees	As of December 31, 2022, IPG had approximately 398 workers who are not employees (contractors and consultants). See 2022 Form 10-K .
2-9	Governance structure and composition	See pages 5-7, 14-20 and 27-30 of the 2023 Proxy Statement .
2-10	Nomination and selection of the highest governance body	See pages 25-28 of the 2023 Proxy Statement .

Appendix GRI INDEX

GRI DISCLOSURE		DISCLOSURE OR A REFERENCE TO ITS LOCATION
GRI 2: General Disclosures (2021)		
2-11	Chair of the highest governance body	Dr. Eugene A. Scherbakov is the CEO. He is an executive officer of IPG. 2023 Proxy Statement .
2-12	Role of the highest governance body in overseeing the management of impacts	See pages 14-17 of the 2023 Proxy Statement .
2-13	Delegation of responsibility for managing impacts	Not applicable.
2-14	Role of the highest governance body in sustainability reporting	See pages 15 and 16 of the 2023 Proxy Statement and page 40 of the 2023 Sustainability Report.
2-15	Conflicts of interest	See pages 14-16 and 53 of the 2023 Proxy Statement .
2-16	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.
2-17	Collective knowledge of highest governance body	IPG does not disclose this information.
2-18	Evaluation of the performance of the highest governance body	See page 23 of the 2023 Proxy Statement .
2-19	Remuneration policies	See pages 45-50 and 54 of the 2023 Proxy Statement .
2-20	Process to determine remuneration	See pages 51-54 of the 2023 Proxy Statement .
2-21	Annual total compensation ratio	See page 84 of the 2023 Proxy Statement .
2-22	Statement on sustainable development strategy	See the CEO Letter in 2023 Sustainability Report and the CEO letter to stockholders in 2023 Proxy Statement .
2-23	Policy commitments	IPG's Code of Business Conduct outlines our values, principles, standards and norms of behavior. The Human Rights Policy , Supplier Code of Conduct , Anti-Human Trafficking Policy apply to IPG, its subsidiaries, affiliates, and suppliers and is consistent with IPG's Code of Business Conduct . IPG outlines its approach to protection of environment and climate action in the Environmental Policy and the 2023 Sustainability Report.
2-24	Embedding policy commitments	See pages 9 , 11 , 16-17 and 40-42 of the 2023 Sustainability Report.
2-25	Processes to remediate negative impacts	Key impacts, risks and opportunities are outlined in 2022 Form 10-K .
2-26	Mechanisms for seeking advice and raising concerns	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 described in the Code of Business Conduct .

Appendix GRI INDEX

GRI DISCLOSURE		DISCLOSURE OR A REFERENCE TO ITS LOCATION
GRI 2: General Disclosures (2021)		
2-27	Compliance with laws and regulations	IPG has received no material fines or non-monetary sanctions for non-compliance with environmental laws and/or regulations in 2022. IPG has received no material fines or non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area.
2-28	Membership associations	IPG does not disclose this information.
2-29	Approach to stakeholder engagement	IPG's key stakeholders include customers, employees, stockholders, suppliers and communities. IPG engages with its stakeholders throughout the year. IPG's cross-functional CSR team performs periodical materiality assessments with participation of different stakeholder groups and consults key stakeholders on economic, environmental and social topics. 2023 Sustainability Report: page 12 . See pages 8, 9 and 44 of the 2023 Proxy Statement on stakeholder involvement in remuneration.
2-30	Collective bargaining agreements	Employees of several IPG companies participate in unions and employees of several other IPG companies participate in collective bargaining agreements. Human Rights Policy .
102-12	External initiatives	External initiatives include the following: Customs-Trade Partnership Against Terrorism - USA (CT-PAT); EU Waste Electrical and Electronic Equipment (WEEE) Directive 2005; Global Reporting Initiative sustainability reporting guidelines; U.S. Foreign Corrupt Practices Act and similar anti-corruption laws enacted under the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions; US Equal Opportunity laws and accompanying regulations.
GRI 3: Material Topics (2021)		
3-1	Process to determine material topics	See pages 12-13 and 40 of the 2023 Sustainability Report.
3-2	List of material topics	See pages 12-13 of the 2023 Sustainability Report. The list of material topics did not change from the previous reporting period.
3-3	Management of material topics	See 2023 Sustainability Report.

Appendix GRI INDEX

GRI DISCLOSURE		DISCLOSURE OR A REFERENCE TO ITS LOCATION
GRI 201: Economic Performance (2016)		
201-1	Direct economic value generated and distributed	2022 direct economic value generated \$1,480,398,000; 2022 economic value distributed: \$1,320,892,000; 2022 economic value retained: \$159,505,000. 2022 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 novel fiber laser technology. IPG fiber lasers use less electricity than competing laser technologies, and we estimate that operation of IPG fiber lasers instead of other types of lasers has resulted in approximately 44 million metric tons less global CO ₂ emissions by our customers since 2013 and over 10 million metric tons less CO ₂ emission in 2022 alone. We help our customers achieve their sustainability goals by lowering their electrical usage while still providing high efficiency fiber lasers. 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. 2023 Sustainability Report: pages 11 , 14 , and 18-21 .
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. 2022 Form 10-K .
201-4	Financial assistance received from government	Not applicable.
GRI 202: Market Presence (2016)		
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 (2016)		
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.

Appendix GRI INDEX

GRI DISCLOSURE		DISCLOSURE OR A REFERENCE TO ITS LOCATION
RI 204: Procurement Practices (2016)		
3-3	Management of material topics: procurement	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. 2022 Form 10-K . IPG's business plan is premised on vertical integration using our largest production locations to provide internal supply needs. In 2022, IPG has sold its telecommunications products business, closed its Lebanon branch office, and implemented a restructuring program at its Russian subsidiary. The effects of these actions are described in the 2022 Form 10-K .
204-1	Proportion of spending on local suppliers	IPG does not disclose this information.
GRI 205: Anti-Corruption (2016)		
205-1	Operations assessed for risks related to corruption	Operations at IPG are assessed for risks related to corruption. No significant risks have been identified.
205-2	Communication and training about anti-corruption policies and procedures	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 (2016)		
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 (2019)		
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. 2022 Form 10-K .

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GRI DISCLOSURE		DISCLOSURE OR A REFERENCE TO ITS LOCATION
GRI 207: Tax (2019)		
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. 2022 Form 10-K .
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 2022 Form 10-K .
GRI 301: Materials (2016)		
301-1	Materials used by weight or volume	IPG does not track this information.
301-2	Recycled input materials used	IPG does not disclose this information.
301-3	Reclaimed products and their packaging materials	IPG provides incentives for customers to return pump modules, which we then repair, refurbish or recycle.
GRI 302: Energy (2016)		
302-1	Energy consumption within the organization	Approximately 191,049 megawatt hours of electricity, heating oil, diesel and natural gas consumption in 2022 from main facilities in USA, Germany, Russia, Belarus, Italy and offices in China. 2023 Sustainability Report: page 22 .
302-2	Energy consumption outside of the organization	IPG does not track this information.
302-3	Energy intensity	59,924 metric tons CO ₂ emissions equivalent in 2022 per 55,723 kilowatt of laser power shipped. 2023 Sustainability Report: page 22-23 .
302-4	Reduction of energy consumption	In 2022, our energy consumption was 191,049 megawatt hours. In 2022, IPG used Tri-Gen for only half of the year owing to our installation of a microgrid. In 2023, IPG intends to utilize its microgrid system at full capacity, which will allow to conserve more energy. 2023 Sustainability Report: pages: 22 and 24-25 .
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 our laser products. For example, the wall-plug efficiency of a 5 kilowatt continuous wave ytterbium laser has increased by about 67% from 2010 to 2020. 2023 Sustainability Report page 14 , 15 and 20 .

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GRI DISCLOSURE		DISCLOSURE OR A REFERENCE TO ITS LOCATION
GRI 303: Water and Effluents (2016)		
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 189,304 cubic meters in 2022. 2023 Sustainability Report: page 22 .
303-4	Water discharge	IPG does not track this information.
303-5	Water consumption	IPG does not track this information.
GRI 304: Biodiversity (2016)		
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.
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 (2016)		
305-1	Direct (Scope 1) GHG emissions	Approximately 14,122 metric tons CO ₂ equivalent in 2022. 2023 Sustainability Report: page 23 .
305-2	Energy indirect (Scope 2) GHG emissions	Approximately 45,803 metric tons CO ₂ equivalent in 2022. 2023 Sustainability Report: page 23 .
305-3	Other indirect (Scope 3) GHG emissions	IPG does not track this information.
305-4	GHG emissions intensity	GHG emission per kW lasers sold (Metric Tons/kW) is 1.08 in 2022. 2023 Sustainability Report: page 23 .
305-5	Reduction of GHG emissions	Our direct GHG emissions rose in 2021 and 2022 primarily due to increased production, expansion of facilities, geo-political events in 2022, reduced TriGen usage due to implementation of a microgrid. Despite increase of laser manufacturing from 2017 to 2022 with the optical output power of products growing 62%, GHG emissions are only 11% higher than in 2017. 2023 Sustainability Report: page 22-23 .
305-6	Emissions of ozone-depleting substances (ODS)	We are not aware of any ozone depleting substances on site at our major production facilities.
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Not applicable.

Appendix GRI INDEX

GRI DISCLOSURE		DISCLOSURE OR A REFERENCE TO ITS LOCATION
GRI 306: Waste (2020)		
306-1	Waste generation and significant waste-related impacts	See pages 9 and 27 of the 2023 Sustainability Report.
306-2	Management of significant waste-related impacts	See pages 9 and 27 of the 2023 Sustainability Report.
306-3	Waste generated	See page 27 of the 2023 Sustainability Report.
306-4	Waste diverted from disposal	See page 27 of the 2023 Sustainability Report.
306-5	Waste directed to disposal	See page 27 of the 2023 Sustainability Report.
GRI 308: Supplier Environmental Assessment (2016)		
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.
308-2	Negative environmental impacts in the supply chain and actions taken	IPG did not perform negative environmental impact assessments of its supply chain in 2022.
GRI 401: Employment (2016)		
401-1	New employee hires and employee turnover	IPG hired approximately 1,080 employees in 2022. 2022 Form 10-K .
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 complies with local laws to allow for parental leave for full-time employees. In 2022, IPG introduced a paid parental leave as well as an adoption reimbursement program in the U.S. See page 31 of the 2023 Sustainability Report.
GRI 402: Labor/Management Relations (2016)		
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 (2018)		
403-1	Occupational health and safety management system	IPG does not disclose this information.
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. See page 31 of the 2023 Sustainability Report.
403-3	Occupational health services	Designated clinics, alternative transportation for non-emergency follow-ups and eye care clinics are available at specific sites where applicable.
403-4	Worker participation, consultation, and communication on occupational health and safety	Where applicable there are regular safety meetings with our safety officers. Prevention medical check-up by the company doctor for applicable workers.
403-5	Worker training on occupational health and safety	Training at hire and retaining, periodically varying by operations and exposures. See pages 29-31 and 37 of the 2023 Sustainability Report.
403-6	Promotion of worker health	There are amenities related to health. In 2022, IPG launched "A Healthy Me" wellness portal and "Wellness Your Way" newsletter to ensure employees benefit from the provided programs. See pages 31-33 of the 2023 Sustainability Report.

Appendix GRI INDEX

GRI DISCLOSURE		DISCLOSURE OR A REFERENCE TO ITS LOCATION
GRI 403: Occupational Health and Safety (2018)		
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	We design and optimize our working stations to prevent posture damage or other health problems.
403-8	Workers covered by an occupational health and safety management system	Workers are covered by our operating procedures, which incorporate health and safety practices.
403-9	Work-related injuries	IPG tracks and reports in accordance with local laws and regulations. Work-related injuries are below industry average, as disclosed at page 37 of the 2023 Sustainability Report.
403-10	Work-related ill health	IPG tracks and reports in accordance with local laws and regulations. Work-related ill health is below industry average, as disclosed at page 37 of the 2023 Sustainability Report.
GRI 404: Training and Education (2016)		
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 (2016)		
405-1	Diversity of governance bodies and employees	See page 33-35 and 39 of the 2023 Sustainability Report.
405-2	Ratio of basic salary and remuneration of women to men	IPG does not disclose this information.
GRI 406: Non-Discrimination (2016)		
406-1	Incidents of discrimination and corrective actions taken	IPG does not disclose this information.
GRI 407: Freedom of Association and Collective Bargaining (2016)		
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	We have identified none. IPG allows employees to have the right to freedom of association and collectively bargaining. Human Rights Policy .
GRI 408: Child Labor (2016)		
408-1	Operations and suppliers at significant risk for incidents of child labor	We have identified none. Our labor policy prohibits the use of child labor and prohibits workers under the age of 15 or the minimum age under local law. IPG's Supplier Code of Conduct contains similar restrictions on child labor. Human Rights Policy , Supplier Code of Conduct , Anti-Human Trafficking Policy .

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GRI DISCLOSURE		DISCLOSURE OR A REFERENCE TO ITS LOCATION
GRI 409: Forced Labor (2016)		
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. Human Rights Policy , Supplier Code of Conduct , Anti-Human Trafficking Policy .
GRI 410: Security Practices (2016)		
410-1	Security personnel trained in human rights policies or procedures	IPG hires third party organizations for security which are required to comply with law and our Supplier Code of Conduct .
GRI 411: Rights of Indigenous Peoples (2016)		
411-1	Incidents of violations involving rights of indigenous peoples	None.
GRI 412: Human Rights Assessment (2016)		
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	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	Contracts require suppliers to agree to our Supplier Code of Conduct, which includes human rights provisions. Supplier Code of Conduct .
GRI 413: Local Communities (2016)		
413-1	Operations with local community engagement, impact assessments, and development programs	See pages 36-37 of the 2023 Sustainability Report.
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 (2016)		
414-1	New suppliers that were screened using social criteria	IPG requires suppliers to comply with all applicable environmental, health and safety laws, regulations and directives. Suppliers are expected to protect the health, safety and welfare of their people, visitors and others who may be affected by their activities. Supplier Code of Conduct .
414-2	Negative social impacts in the supply chain and actions taken	Through our vertical integration model, we reduce purchase from a third party supply chain as well as the negative social impacts of any third party suppliers' actions.

Appendix GRI INDEX

GRI DISCLOSURE		DISCLOSURE OR A REFERENCE TO ITS LOCATION
GRI 415: Political Contributions (2016)		
415-1	Political contributions	IPG had no political contributions for the reporting period. See 2022 Annual Report on Political Contributions .
GRI 416: Customer Healthy and Safety (2016)		
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 (2016)		
417-1	Requirements for product and service information and labeling	IPG is required by local 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.
417-2	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.
RI 418: Customer Privacy (2016)		
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.

Appendix SASB CONTENT INDEX

Reporting Period: January 1 – December 31, 2022

TOPIC	SASB CODE	METRIC	IPG PHOTONICS CORPORATION RESPONSE
Greenhouse Gas Emissions	TC-SC-110a.1	(1) gross global Scope 1 emissions (2) amount of total emissions from perfluorinated compounds	(1) Scope 1 emissions: 14,122 Metric tons CO ₂ e IPG reports on its GHG emissions for its primary manufacturing facilities in the US, Germany, Russia and Belarus, and facilities in Italy and China, all together representing approximately 89% of our total square footage which include the most significant resource consumption from manufacturing and R&D. (2) 30 Metric tons of CO ₂ e (an estimate to account for potential undetected leaks). Under our procedures, any such compounds that are used in manufacturing and their sub-products are caught, cleaned, and disposed of as hazardous waste.
	TC-SC-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Ten-Year Target: Total reduction of 10% in Scope 1 and Scope 2 GHG emissions per kilowatt of laser power produced (in CO ₂ equivalent), assuming the current product mix, with 2020 as the base year. During 2017-2022: Despite a 62% increase in optical power manufactured by IPG since 2017, in 2022, our CO ₂ emissions per kilowatt of laser power was 31% less than in 2017. This demonstrates IPG's commitment to energy conservation and innovation. IPG utilizes LED fixtures, low water consumption plumbing, variable speed motors and tri-generation plants that reduce emissions. We use and implement additional trigeneration plants to ensure further energy conservation. Additionally, the use of IPG's energy-efficient fiber lasers reduced global CO ₂ emissions worldwide by approximately 44 million metric tons since 2013 compared to other competing laser technologies.
Energy Management in Manufacturing	TC-SC-130a.1	(1) total energy consumed, (2) percentage grid electricity, and (3) percentage renewable	(1) 687,776 GJ (2) 59% (of total energy consumed) (3) 0% The implementation of a microgrid required a pause in trigeneration in 2022, which caused an increase in grid electricity consumption. Microgrid will allow IPG to meet its goals for effective and responsible energy use by utilizing trigeneration to its full capacity after the microgrid is fully operational, significantly reducing grid electricity use and increasing its CO ₂ savings from trigeneration.
Water Management	TC-SC-140a.1	(1) total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	(1) Total withdrawal: 189,304 cubic meters (based on data from the facilities in Massachusetts, California, Alabama, Michigan, Iowa, Florida, New Hampshire, New Jersey, Germany, Russia and Belarus). Less than 0.5% of total water withdrawn in regions with High or Extremely High Baseline Water Stress: - Moscow, Russia: 0.46% - Oviedo, Florida: 0.02% (2) Water consumption data currently is not captured.

Appendix SASB CONTENT INDEX

Reporting Period: January 1 – December 31, 2022

TOPIC	SASB CODE	METRIC	IPG PHOTONICS CORPORATION RESPONSE
Waste Management	TC-SC-150a.1	(1) amount of hazardous waste from manufacturing, (2) percentage recycled	(1) 940 metric tons (2) Hazardous waste is processed by external waste services. We estimate that approximately 10% of the hazardous waste generated by our Oxford, MA, facility is recycled by such waste services.
Employee Health and Safety	TC-SC-320a.1	Description of efforts to assess, monitor and reduce exposure of employees to human health hazards	<ul style="list-style-type: none"> - EHS Manual - Health and Safety Hazard Identification, Risk Assessment and Control - EHS Objective and Targets - EHS Management of Change and Equipment Sign Off - Health and Safety Performance Monitoring, Reporting and Compliance Evaluation - EHS Audit Global Work Process - EHS Management Review - Hazard Communication Program - Occupational Exposure Assessment for Airborne Contaminates - Emergency Preparedness and Response (Chemical, Spill, Fire, etc.) - Fire Protection Systems, Electrical Safety - Toxic, Flammable, Compressed Gases and Compressed Gas Cabinet - PPE - Preliminary medical examination and medical check-ups; Designated clinics, alternative transportation for non-emergency follow-ups and eye care clinics are available at specific site <p>Only a very small number of our employees are cleanroom workers in semiconductor fabrication plants.</p>
	TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations (USD)	\$0

Appendix SASB CONTENT INDEX

Reporting Period: January 1 – December 31, 2022

TOPIC	SASB CODE	METRIC	IPG PHOTONICS CORPORATION RESPONSE
Recruiting and Managing a Global and Skilled Workforce	TC-SC-330a.1	Percentage of employees that are: (1) foreign nationals and (2) located offshore	(1) Foreign employees: 5.0% (2) Offshore employees: 0.6% IPG supports efforts to obtain permanent work status and/or naturalization to reduce risks associated with employment of foreign workers. It monitors immigration regulations and works with employees to manage issues they may face from time to time with working and traveling. We have increased efforts to develop local talent pools through apprenticeships and internships.
Product Lifecycle Management	TC-SC-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances (%)	0% IPG Photonics does not manufacture products that contain specific substances that cause harm to human health and/or the environment. IPG Laser complies with REACH/RoHS regulation.
Product Lifecycle Management	TC-SC-410a.2	Processor energy efficiency at a system level for: (1) servers, (2) desktops, and (3) laptops	Not applicable for IPG operations.
Materials Sourcing	TC-SC-440a.1	Description of the management of risks associated with the use of critical materials	IPG discloses its management approach to their responsible minerals sourcing. We are aware of the potential supply shortage of rare earth elements and their use in the production of electronic components. Rare earth elements are used in our production process but we do not manufacture any of these materials and they are only added when needed. Through our enterprise-wide risk management and supply frameworks, tools and processes, we identify the loss of critical supplies as a risk that is managed, mitigated and is tracked within the supply chain planning. We evaluate critical material risks in our supply chain and build information from the evaluation into our business continuity plans. For rare earth materials we utilize mitigation plans to ensure continuity of supply (e.g., maintain safety stocks at our facilities worldwide, finding and continuously evaluating potential alternative sources, etc.) and procurement groups.

Appendix SASB CONTENT INDEX

Reporting Period: January 1 – December 31, 2022

TOPIC	SASB CODE	METRIC	IPG PHOTONICS CORPORATION RESPONSE
IP Protection and Competitive Behavior	TC-SC-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations (USD)	In FY22, IPG did not incur monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations.
Product Safety	RT-EE-250a.1	Number of recalls issued, total units recalled	0
	RT-EE-250a.2	Total amount of monetary losses as a result of legal proceedings associated with product safety	0
Business Ethics	RT-EE-510a.2	Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption	0

