



**THORLABS**

**2023**  
Sustainability Report

## **Disclaimer**

Any statements contained in this report that refer to (1) our goals, commitments and programs; (2) our business plans, initiatives and objectives; (3) our assumptions and expectations; (4) the scope and impact of our corporate responsibility risks and opportunities; (5) standards and expectations of third parties, and (6) words such as "anticipates," "targets," "goals," "projects," "intends," "plans," "believes," "seeks," "estimates," "endeavors," and variations therefrom, are only predictions and are inherently subject to risks, uncertainties, and assumptions that are difficult to predict. Thorlabs believes that these forward-looking statements are reasonable as and when made. However, we cannot guarantee that we will be able to meet our sustainability goals. Statistics and metrics relating to ESG matters are estimates and may be based on assumptions or developing standards.

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## Letter from the President

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We've all seen the images, the headlines – the skyline of New York under a smog of orange wildfire smoke, thousands of acres of forests burning, species losing their habitats and facing extinction, communities flooded and ravaged by wildfire. Like many, I feel grief and powerlessness in the face of so much loss. But our grief can galvanize us to act.

I am convinced that the time for climate action is now. It's not just a business imperative; it's a moral imperative. As a leader of Thorlabs, I have the privilege and the responsibility to put my values into practice.

As a vertically integrated manufacturer, and a direct distributor of 500,000 customer deliveries a year, we know that this won't be easy. We don't want to greenwash, to rely on dubious carbon offsets, or to hype cosmetic changes that don't address the bulk of our contributions to climate change.

This report lays out our approach to becoming an environmentally sustainable company. We hope it can serve as a model for other companies that want to embark on a similar journey. While we have more work to do, we are building a transparent, science-based roadmap and have made progress. I am proud to be one of the first companies in our industry to report on our scope 3 emissions and to make a Science Based Target Initiative (SBTi) commitment. We've done our homework and while we know this is going to be a long journey, we are putting significant investment, time, and effort behind it.

As Photonics companies, we have the power to not only change how we do business, but to produce tools that help fight climate change. Photonics has always been about harnessing the power of light to solve hard problems. Climate change is no different. In fact, the application of photonic technologies can prevent some 2.92 billion tons of annual CO<sub>2</sub> emissions by 2030. We're excited to leverage Photonics technologies to help decarbonize the economy.

Finally, we know we can have an even greater impact if we collaborate, share what works and what doesn't, and push each other to go further and faster. Thorlabs is a founding member of a new Photonics Industry Environmental Sustainability working group with other leading Photonics companies and with the support of SPIE, and we invite you to join us. Based on our experience, your employees and customers will see you taking a step to become more sustainable and will want to support you because of it.

The climate crisis is daunting, but at Thorlabs we are prepared to play our part in building a better, more sustainable future. We are just getting started and look forward to working with our employees, customers, and communities on being net good for our planet. We hope you'll join us.

**Jennifer Cable**  
President, Thorlabs

## 2.0 About Thorlabs

Thorlabs, Inc. is a vertically integrated photonics products manufacturer that was founded in 1989 to serve the laser and electro-optics research market. Over the years, we have become a leading global provider of advanced photonics and optics solutions. As the photonics market has grown, we have extended our core competencies to play a larger research role in the photonics industry, while continuing to support the industrial, life science, medical, and defense sectors through product development.

Headquartered in Newton, New Jersey, Thorlabs has expanded its international presence over the years to include offices in Canada, Brazil, Germany, Japan, Sweden, France, China, and the United Kingdom. Our highly integrated and diverse manufacturing assets include semiconductor fabrication of Fabry-Perot, DFB, and VCSEL lasers; fiber towers for drawing both silica and fluoride glass optical fibers; MBE/MOCVD epitaxial wafer growth reactors; extensive glass and metal fabrication facilities; advanced thin film deposition capabilities; and optomechanical and optoelectronic shops.

We take pride in designing and manufacturing over 20,000 different products, including imaging, optomechanics, fiber optics, light systems, motion control, and optics. Our adapt-ability in designing, manufacturing, and distributing products means we can be responsive to our customers' needs and continue to innovate.



## 2.1 Our Mission and Vision

At **Thorlabs**, we transform the world by identifying, enabling and accelerating key photonics technologies. We are committed to advancing scientific and technological frontiers by delivering innovative, high-quality solutions that empower researchers and industry professionals. Placing customer service at the core of our practice, we aim to provide the tools and equipment necessary for groundbreaking discoveries in photonics and optics.

We envision a future where our state-of-the-art technologies contribute to advancements in the fields of healthcare, biotechnology, environmental monitoring, energy and many others. We are fostering a global community of researchers,

engineers, and scientists who are pushing the boundaries of knowledge and discovery.

### Customer Centricity

Understanding and meeting the unique requirements of our customers is paramount to us, and we strive to exceed typical expectations. With a focus on enhancing customer productivity, we engage with customers about everything from Lab Snacks to the intricacies of individual product needs. We take a customer-centric approach to product design, with around 30% of our products being inspired by customer requests.

## 2.2 Our Approach to Building a More Sustainable Future

The science is clear. As emphasized by [IPCC reports](#), there is an urgent need for global climate action. As a science-driven company, we understand there is much to be done and we have a responsibility to turn our environmental values into tangible action. While we have begun implementing more sustainable practices and enhanced environmental standards in our manufacturing facilities, this is just the beginning of Thorlabs' sustainability journey.

We are in the process of developing a transparent, science-based roadmap to a resilient and regenerative future. Our commitment goes beyond achieving net-zero; we realize we need to make a net-positive contribution to the planet. We also aim to create a safer and more equitable environment with commitments to improve inclusion, racial justice, and environmental justice.

Our sustainability priorities fall under two main pillars: Environmental and Social. Underpinning our sustainability priorities are Responsible Business Practices, Governance, and Transparency.

Environmental Priorities			Social Priorities	
Climate Change	Sustainable Priorities	Packaging	People	Community & Net-Good
Responsible Business Practices, Governance, Transparency				

As a vertically integrated manufacturer, we acknowledge our current contribution to greenhouse gas (GHG) emissions and material waste. We commit to analyzing our entire supply chain to identify mitigation opportunities and transform our business to support a resilient, low-carbon future.

We also seek collaborations and partnerships that will help us leverage our products as climate solutions, including in the areas of environmental monitoring, sensing, renewable energy, and carbon capture.

### 3.0 About This Report

We believe it's important to be transparent about our sustainability goals and actions – not just so that we meet industry and stakeholder expectations, but also so that we can hold ourselves accountable. With this inaugural Sustainability Report, and those that follow, we aim to update our clients, employees, peers, and other stakeholders on our activities, initiatives, and overall progress against our goals.

We are currently evaluating how to best align ourselves with current reporting standards such as the [Global Reporting Initiative \(GRI\)](#), the [International Sustainability Standards Board \(ISSB\)](#) IFRS Sustainability Disclosure Standards, and the [United Nations Global Compact](#). Preparing our reporting in accordance with recognized frameworks in future will create greater transparency and accountability along our journey. We will provide an update on our efforts to enhance the rigour of our reporting in future releases.



## 4.0 Charting Our Sustainability Journey

In 2021, we initiated work to formalize our sustainability vision and efforts into a Sustainability Strategy & Roadmap unique to our company, culture, and geographies. Our objective was to clarify our vision and ambition, identify environmental priority areas, and map out an action plan.

In the last three years we have laid the foundation for our strategy and improved our performance in some key areas. Our progress to date includes:

<b>2021</b>	<ul style="list-style-type: none"><li>• Conducted Research and Engaged Stakeholders on Environmental Performance, Risks and Opportunities.</li><li>• Established a Baseline for Environmental Performance Data, Including Energy, Water, and Waste.</li><li>• Launched Our Sustainability Strategy</li><li>• Calculated Scope 1 &amp; 2 GHG Emissions</li><li>• Initiated Our Packaging Reduction Strategy</li><li>• Continued to Build Our Commitment to Diversity &amp; Inclusion</li></ul>
<b>2022</b>	<ul style="list-style-type: none"><li>• Created Green Teams Program</li><li>• Implemented Optics Case Recycling Program</li><li>• Evaluated GHG Emissions Across the Value Chain</li></ul>
<b>2023</b>	<ul style="list-style-type: none"><li>• Committed to Setting a Science-based Target with the Science Based Targets Initiative (SBTi)</li><li>• Calculated Scope 3 Emissions</li><li>• Converted Our Ely, UK Facility to 100% Renewable Electricity</li><li>• Collaborated with Other Members of the Photonics Industry to Create an Environmental Working Group within the International Society for Optics and Photonics (SPIE)</li></ul>



Looking to 2024 and beyond, we will continue to work toward our environmental and social goals as we implement our multi-year Sustainability roadmap.

Our sustainability strategy is informed by the UN Sustainable Development Goals (SDGs), a 15-year global framework that was adopted by all 192 United Nations Member States in 2015 to achieve a more sustainable future by 2030. We are using the SDG Framework to guide the development of our sustainability strategy.



## 4.1 Our Commitments and Goals

Our overarching sustainability goal is to make a net-positive contribution to the planet. Long term, we are committed to reducing our Scope 1, 2, and 3 GHG emissions to net-zero and converting to 100% renewable energy by 2050; with interim targets to keep us on track.

Supporting our vision, we are working with our business units and teams to determine challenging but achievable targets for Thorlabs in our ESG priority areas. In the near term, we are focusing on making strides in the following areas; all of which lie within our sustainability pillars.

### 4.1.1 Science-Based Targets and Net-Zero

In 2023, we made the commitment to set GHG reduction targets in line with the [Science Based Targets initiative \(SBTi\)](#) within 24 months. In 2024, we will start to develop these targets and have them validated by SBTi. As a company committed to serving researchers and engineers, we believe it is imperative to foster change through science. Science-based reduction targets will guide the development of a comprehensive Net-Zero Action Plan, which in turn will provide a robust framework for measuring our performance and progress.

By developing these targets and a Net-Zero Action Plan, we aspire to lead and encourage positive change within our industry and beyond.

### 4.1.2 Sustainable Procurement

We are committed to implementing industry-leading sustainable procurement practices and are working towards developing a sustainable procurement program. Our vision is to integrate environmental, social, and economic considerations into every sourcing decision through supplier evaluations, transparency in our supply chain, and a focus on minimizing environmental impact throughout our products' lifecycles.





As a global provider of advanced photonics and optics solutions, we aim to influence positive change and shape a future where procurement aligns with environmental conservation, social equity, and economic prosperity.

### 4.1.3 Packaging Roadmap

We see packaging as a key initiative through which we can help our customers achieve their environmental and sustainability goals while reducing our own Scope 3 emissions. Our overarching objective is to reduce our packaging, and we want to eliminate as much plastic as possible. Primarily, we aim to contribute to a more circular economy by moving away from single-use packaging towards returnable and reusable packaging. We are also working to incorporate sustainable materials into our packaging, enabling easy and responsible disposal. We aspire to integrate packaging considerations as a fundamental part of the product design process.

Our ambitious vision for packaging includes working towards the following:

- Eliminating plastic packaging in our SKUs.
- Marking all customer-facing plastic packaging with material type within the next 2-3 years for the purpose of proper recycling or disposal.
- Providing customer-facing packaging that is easily recyclable by most customer-accessible recyclers by the end of 2030.
- Providing customer-facing packaging that includes more than 25% recycled content by the end of 2030.

We will provide an update in future reports on our progress in these areas. Additionally, we will be reviewing our packaging strategy and vision this year and intend to put more specific goals in place in the near future.

#### 4.1.4 Community Outreach & Charitable Giving

We are committed to having a positive and meaningful impact on the communities with whom we interact through our outreach and charitable giving. We look to support organizations that are contributing to creating healthy communities and improving social, environmental, and economic well-being. We also believe that cultivating the next generation of diverse engineers and scientists is essential and that's why we support programs that expand Science, Technology, Engineering and Mathematics (STEM) education opportunities for all. Involving our employees in our community outreach efforts is important to us. We encourage them to participate in various initiatives and we also provide opportunities for employees to volunteer their time to causes that are important to them. Our overall vision is to continue to have a positive impact on the communities in which we live and operate. We are also committed within our own operations to fostering an inclusive and supportive work environment where all employees can thrive.

## 5.0 Highlights: Summary of Key Results and Progress to Date

### Environmental Highlights

- Measured and disclosed our GHG emissions covering Scopes 1, 2, and 3.
- Established a baseline for environmental performance data, including energy, water, and waste.
- Converted to 100% renewable electricity in our Ely, UK site. Two additional sites, Jessup and Newton located in the U.S., have also signed contracts to buy 100% clean electricity.
- Fostered biodiversity at our Newton locations by minimizing light pollution, growing local plant species, participating in community trail clean-ups, and improving stormwater management.
- Implemented a #6 polystyrene optics case recycling program and new fiber spools that are more easily recyclable.
- Launched Regional Green Teams to develop and implement sustainable practices across all our locations. The teams are already working to improve waste management, energy use, and office commuting methods.

## Social Highlights

- Engaged a Diversity Coach and consultant to launch an Inclusive Leadership Training Program.
- Created an Employee Success Group to spearhead employee engagement projects and culture initiatives in the US.
- Supported organizations helping to foster the next generation of engineers and scientists through sponsoring chapters of the Society of Women Engineers (SWE) and Women in Science and Engineering (WiSE). We were also founding member of Optica's Amplify Scholarship.
- Promoted fair and livable wages and improved employee wellbeing via several UK-based initiatives, including being accredited through the UK's Investors in People program where we hold a Silver level accreditation.
- Supported employee participation in over 1,000 hours of volunteering for causes such as environmental protection, education, and public safety.
- Exceeded \$7.3 million in charitable donations.

## Governance Highlights

- Established a dedicated Steering Committee to develop, approve and prioritize our sustainability efforts. The Committee includes senior management from across the organization as well as Thorlabs' President.
- Developed our new Sustainability Policy to formalize our commitment and reinforce that all our employees have a responsibility to contribute towards our shared vision.
- Through participation in the SPIE Executive Advisory Group, Thorlabs was a founding member of an industry Environmental Working Group, which aims to encourage photonics and other companies to make sustainable choices.

## 6.0 Environment

### 6.1 Greenhouse Gas Emissions Inventory

We calculated our first GHG inventory in accordance with the [WRI/WBCSD's Greenhouse Gas Protocol's Corporate Accounting and Reporting Standard](#), which is considered international best practice. We take a complete value-chain view of our carbon footprint and our inventory includes our Scope 1, Scope 2, and Scope 3.

Our 2021 inventory will serve as a base year for future comparison, and a starting point from which reductions will be measured and data will be improved. We plan to update the full inventory in 2024.

A summary of our 2021 baseline inventory is presented below.

#### Definition of Scope 1, 2, and 3 emissions

Scope 1 emissions are direct emissions that occur from sources owned or controlled by the company (e.g., emissions from fuel combustion in heaters, boilers) while Scope 2 emissions are associated with the generation of grid electricity consumed at our facilities. Scope 3 emissions sources are indirect emissions that occur in the value chain of the reporting company, including both upstream and downstream emissions.

Scope	GHG Emissions (tonnes CO <sub>2</sub> e)	Percentage of Total Emissions
Scope 1	1,619	0.3%
Scope 2	10,927	1.9%
Scope 3	573,426	97.9%
<b>Total</b>	<b>585,972</b>	<b>100%</b>

Table 1: 2021 GHG Emissions Breakdown by Scope

Scope 3 Category	GHG Emissions (tonnes CO <sub>2</sub> e)
Purchased Goods & Services	468,570
Capital Goods	25,389
Fuel and Energy-related Activities	3,594
Upstream Transportation & Distribution	40,549
Waste Generated in Operations	405

Scope 3 Category	GHG Emissions (tonnes CO <sub>2e</sub> )
Business Travel	301
Employee Commuting	2,800
Use of Sold Products	30,616
End of Life of Sold Products	1,204
<b>Total</b>	<b>573,426</b>

Table 2: 2021 Scope 3 GHG Emissions by Category

## 6.2 Energy, Waste, and Water Performance Data

A summary of our initial energy, waste and water performance data is included in the table below.

Electricity		
Grid Electricity	30,105	MWh
Purchased Renewable	738	MWh
On-Site Produced Renewable	21	MWh
<b>Total</b>	<b>30,176</b>	<b>MWh</b>
Water		
Consumption	48,775	m <sup>3</sup>
Reused	300	m <sup>3</sup>
<b>Total</b>	<b>49,075</b>	<b>m<sup>3</sup></b>
Wastewater		
Acid Waste Treatment	1,798	m <sup>3</sup>
Biochemical Treatment	300	m <sup>3</sup>
pH Adjustment	1,136	m <sup>3</sup>
<b>Total</b>	<b>3,234</b>	<b>m<sup>3</sup></b>
Waste		
Chemical	74	Ton

Compostable	3	Ton
Electronic	1	Ton
Glass	1	Ton
Hazardous	5	Ton
Metal	9	Ton
Non-recyclable	84	Ton
Paper/cardboard	80	Ton
Plastic	1	Ton
Wood	8	Ton
<b>Total</b>	<b>265</b>	<b>Ton</b>

Table 3: 2021 Environmental Performance Data





## 6.3 Environmental Initiatives

To reduce our environmental footprint and work towards achieving our goals and targets, we have undertaken several initiatives across our global operations as described below.

### 6.3.1 Climate Change & Energy

On-going and future initiatives across Thorlabs facilities to address climate change and reduce our energy consumption include:

- Introduced an Energy Team in Germany whose purpose is to discuss and implement measures required for achieving energy certifications
- Installed charging stations for electric vehicles in Germany, Boulder, CO, and Newton, N.J., with no cost for employee use. We have also contributed to employee bike leases
- Installed a heat exchanger in Germany for heat recovery from waste air to fresh air
- Installing 5,888 ft<sup>2</sup> of solar panels in Germany in 2024. With 113 kilowatt peak (kWp) of power produced, the panels will cover 17% of the facility's annual power requirement
- Replacing fluorescent bulbs with LEDs in all US facilities
- Upgraded our Canadian site's HVAC control system
- Upgraded our centralised vacuum system in Canada for annual energy savings of 5 MWh per year
- Installed solar panels and a roof-top solar hot-water heating system in Brazil
- Providing carbon-neutral shipping on all UPS shipments from Europe and the US
- Switching to clean electricity: electricity consumed at our Ely, UK site is now powered by 100% renewable energy. Our Ann Arbor site has joined the MIGreenPower program with 100% of electricity consumption now attributed to renewable energy. Two additional sites in the US have signed contracts to buy 100% clean electricity
- Working to eliminate the use of natural gas in production processes at our Ely, UK facility in 2024 and completely eliminate natural gas from the building within five years

### 6.3.2 Waste & Water

#### On-going initiatives across Thorlabs related to waste and water include:

- Installed a scrap-metal compressor in one of our machine shops. Briquettes made of compressed metal chips reduce the number of pick-ups required by scrap-metal handlers
- Installed a water evaporator in Newton, N.J. This reduces grey water production, leaving only sludge behind as waste, decreasing total waste quantities and reducing landfill runoff
- Recycling paper void-fill from international entities for re-use. This enables approximately five 55-gallon bags of paper to be re-used each day in our Newton, N.J. distribution facility
- Conducted a composting trial for food waste at one of our machine shops. We have expanded the program to 3 other locations
- Recycling Personal Protective Equipment (PPE), such as hair nets, shoe covers, and gloves
- Reusing packaging for inter-company shipments wherever possible. Recyclable packaging and e-waste are delivered to appropriate waste haulers
- Eliminating K-Cups and other personal-use coffee machines to remove disposable plastics from the coffee-making process

### 6.3.3 Biodiversity

#### We are actively engaged in several initiatives aimed at promoting biodiversity:

- Installing dark-sky friendly lighting in our Newton, N.J. facility, minimizing light pollution and ensuring that our operations contribute to preserving the natural night environment
- Planting and maintaining native plant species to enhance local biodiversity at various sites
- Participated in the clean-up and maintenance of a local trail system in Newton, fostering a healthier outdoor space for residents
- Implemented stormwater management programs in Newton, N.J. and installed rain gardens to mitigate runoff impact
- Planted trees on-site at Thorlabs Canada ULC
- Established garden maintenance programs that enable rain infiltration into the soil, thereby reducing flooding risks at Thorlabs Brazil

As we move forward, we will continue to prioritize biodiversity, with a focus on expanding initiatives to all global operations.

### 6.3.4 Sustainable Packaging

**We are committed to sustainable packaging practices, and we are consistently looking for new opportunities for improvements. Key initiatives and ongoing efforts include:**

- Reducing the use of plastics in product packaging, incorporating a higher amount of recycled packaging content, and promoting the use of materials that are easy to recycle, compostable or composed of bio-plastics
- Delivering PCBs and housings in returnable and reusable packaging such as bins and pallets
- Adopting lightweighting strategies
- Ensuring materials are clearly labelled for appropriate recycling or disposal
- Implemented a #6 Polystyrene optics case recycling program with our partner [Polycarbin](#). This plastic is generally not accepted by recycling facilities, thereby ending up in landfills. Through Polycarbin, the plastic is transformed back into lab products or recycled into items such as pallets and bulk bins, diverting waste from landfill, conserving water, and reducing CO<sub>2</sub> emissions
- Developing a handbook to guide engineers in seamlessly integrating sustainable packaging considerations into the product introduction process



## 7.0 Our Commitments and Goals

### 7.1 Environmental Education and Collaboration

Our employees play a critical role in our sustainability efforts. We have implemented several initiatives to educate, connect with, and engage our teams on topics relating to sustainability and climate change. As a result, our employees have been valuable contributors throughout our sustainability strategy development. We regularly share data on our environmental performance with our team to continually build engagement and a shared sense of ownership and accountability. Our primary employee initiatives are detailed below.

#### 7.1.1 Environmental Education

We conducted Employee Education Workshops to build understanding of key sustainability topics and gather thoughts and ideas on our priorities, targets, and metrics. Outputs from these workshops informed our Sustainability Roadmap and initial action plans. By involving and securing the support of our employees through this process, we believe we can be even more successful in implementing our sustainability strategy.

Additional educational seminars and trainings are planned for 2024.

#### 7.1.2 Green Teams Program

In 2023 we launched Regional Green Teams to develop and execute sustainable ideas and practices. The teams identify regional sustainability opportunities and review any ideas submitted through the companywide Green Ideas Program, through which any employee can submit a sustainability initiative for consideration. Funds from the company sustainability budget will be allocated to approved Green Teams projects.

Our North American Green Team is switching from plastic stirrers and cutlery to wood. Additionally, efforts are underway to reduce plastic waste by eliminating sticky pads from clean rooms and ensuring that appropriately sized garbage bags are used for waste collection.

In Germany, our Green Team focuses on waste management improvements, emphasizing enhanced waste separation, organizing a flea market, and collecting old mobile phones.

In Sweden, the Green Team is working towards waste reduction through better garbage sorting practices. They are also addressing energy consumption by ensuring lights and equipment are turned off when not in use, while also coordinating purchases to decrease the number of incoming deliveries by truck.

In China, our Green Team is making a substantial impact on waste reduction. Through an organized flea market, 170 items have been saved from disposal. The team is also actively involved in minimizing disposable tableware and bottled water use, advocating for a paper-less office, and promoting carpooling and public transportation for a greener commute.

## 7.2 Industry Action

President Jenn Cable, through her participation in the [SPIE](#) Executive Advisory Group, is participating as a founding member of an Environmental Working Group within the industry. This dedicated group is committed to driving positive and measurable change in the photonics industry by prioritizing sustainability. Their initiatives include incorporating carbon impact considerations into purchasing decisions and endorsing a climate action pledge.

The group has garnered participation from members representing eight different companies thus far and is actively seeking interest from additional companies. To our suppliers, customers, and peers: if you are interested in participating or learning more about the group you can contact Jamie at [jlacouture@thorlabs.com](mailto:jlacouture@thorlabs.com).



## 8.0 People and Communities

### Our Employees Care



**Chris Bailey**  
Manufacturing Technician II

"I am continuously looking for ways I can not only give back to my company, but my community as well."



**Meghan Bowlby**  
HR Coordinator

"I find it extremely important to do what we can to help prevent our natural resources from depleting so our future generations can thrive."



**Jason Marrero**  
Communications Coordinator

"It's a true breath of fresh air to work for a company that places such a high value on sustainability as they do for the well-being of their employees."



**Johannes Zäpfel**  
Technical Support

"I am very interested in progressive sustainable ideas and how we can implement them as a company."

## 8.1 Social Initiatives

We recognize the need for industry to take greater action in encouraging and supporting students, scientists, researchers, and engineers of color as well as members of the LGBTQIA+ community. We have committed to program development and partnerships with industry associations to advocate for greater inclusion and equality, and to rewriting our own policies to drive better inclusion and equity across our operations.

### 8.1.1 Diversity and Inclusivity

**Our recent and notable initiatives to support diversity and inclusivity include:**

- Engaging with a Diversity Coach
- Launching an Inclusive Leadership Training Program
- Creating an internal Employee Success Group in the United States that spearheads employee engagement projects and culture initiatives, such as an employee engagement survey and the Remark, Recognize, Recommend feedback tool
- Holding membership in the [UK Disability Confident Scheme](#) which is creating a movement of change, encouraging employers to think differently about disability and take action to improve how they recruit, retain and develop disabled people

### 8.1.2 Science, Technology, Engineering and Mathematics (STEM) Education

**We believe in fostering diversity in the next generation of engineers and scientists. We support several programs that provide greater access to STEM education, including:**

- Being a founding member of [Optica's Amplify Scholarship](#) and providing funding for travel grants, as well as for Optica student chapters
- Sponsoring several chapters of the Society of Women Engineers (SWE) and Women in Science and Engineering (WiSE)
- Supporting Sussex County Community College's STEM and Children of Veterans scholarships annually, as well as funding scholarships through the local Chamber of Commerce
- Helping develop the [Machine Tool Technology](#) and [Optics Technology](#) programs at Sussex County Community College
- Sponsored JeunesExplo in Québec to increase the visibility of Light Sciences in schools

- Providing funding and engineering mentors for more than 20 high school robotics and college technology programs in the U.S.
- Supporting the Summer School for Young Scientists of Condensed Matter Physics in Japan
- Sponsoring a Biophotonics Summer School in Sweden
- Volunteering with a student research center focused on mathematics, IT, natural sciences, and technology in Germany
- Partnering with more than 30 colleges to teach joint courses, offer guest lectures, collaborate on research, host student visitors, and develop new programs
- Developing an engineering and work-study program at Thorlabs UK office to enable university students to gain real-world work experience while earning a stipend to put toward tuition costs
- Providing paid summer internships at many of our locations to help students gain relevant work experience
- Launching our Mobile Photonics Lab Experience - the lab travels to U.S. universities and brings hands-on, experiential learning to campus
- Volunteering to assist with several university optics-based courses at Hokkaido University, the National Institute of Basic Biology and Nagoya University
- Supporting The Japan Society of Applied Physics (JSAP) program since 2018

### 8.1.3 Community and Employee Support

- Maintaining an accreditation in the UK's [Investors in People](#) since 2015, which has the sole aim of making work better by focusing on employee connection, engagement, wellbeing, and organizational culture. Thorlabs UK currently holds a silver accreditation
- Providing UK-based employees who work as retained firefighters or special police constables with additional time off for necessary training
- Donating to local charities and sponsoring events such as local school career fairs and the local summer festival in the UK
- Having a dedicated US volunteer program whereby each employee receives at least eight hours of paid time off to volunteer at an organization of their choice. Since the launch of the program in 2019, Thorlabs US employees have completed almost 900 hours of volunteer work
- Hosting an annual golf outing in the US to benefit [Domestic Abuse and Sexual Assault Intervention Services \(DASI\)](#) as well as angel trees, an annual gift collection campaign for children at [Ginnie's House](#) and [Family Promise](#)



## 8.2 Awards and Recognition

**We are proud of the recognition we have received for our dedication to our business and the value it delivers to employees. Awards recognizing this dedication include:**

### **Sussex County Chamber of Commerce:**

Worksite Wellness Award, 2014  
Workplace of the Year, 2023

### **Sussex County Economic Development Partnership:**

Distinctive Leadership Award, 2019  
Business Expansion Award, 2022

### **Greater Newton Chamber of Commerce:**

Beautification Award, 2021 & 2022

**Other awards our company has received over the last 10 years recognizing our leadership and impact include:**

- Intercultural Harmony Award, Bordeaux Cartierville, Québec, Canada, 2017
- NJ Smart Workplaces Platinum level Recognition
- NJ Governor's Conference on Housing and Economic Development – Excellence in House and Economic Redevelopment, 2012
- SCARC Foundation Community Leadership Award, 2013
- TransOptions Employer of the Year, 2014
- SCARC Inc., Employer of the Year, 2015
- Sussex County 4-H Business of the Year, 2019
- SCARC Inc., Employer of the Year – Optics Department, 2019
- Career Tech NJ (NJ Council of County Vocational-Technical Schools) Business Partner of the Year, 2019
- NJMEP (Large) Manufacturer of the Year, 2019
- DASI Community Partner of the Year, 2022
- Karen Ann Quinlan Hospice Hero Award, 2023

## **9.0 Governance**

### **9.1 Sustainability Steering Committee**

Established in 2021, our Sustainability Steering Committee is responsible for the vision and direction of environmental sustainability at Thorlabs. Comprised of cross-functional representatives, our Sustainability Steering Committee prioritizes the activities of our sustainability strategy, identifies barriers to implementation, and works collaboratively to resolve constraints, allocate resources, and drive progress. Members of the Steering Committee include Thorlabs' President as well as senior managers and executives from across the organization. The committee meets quarterly.

Since its inception, the priority of the Steering Committee has been to cultivate a sustainability culture across the organization. The Steering Committee is working to embed sustainability into all business practices and business decision making processes.

### **9.2 Sustainability Policy**

In 2023, we developed our Sustainability Policy, which applies to all global operations, facilities, and functions. Our policy is to meet or exceed all environmental regulatory requirements, take action to reduce GHG emissions, and incorporate ESG considerations into all business decisions. Incorporating our sustainability vision into company policy formalizes our commitment to sustainability and reinforces that every employee has a responsibility to contribute towards this shared vision.

Within the policy, we commit to maintaining a sustainability strategy with measurable goals and reporting annually on our progress. We aim, where possible, to partner with suppliers and contractors who are minimizing their environmental impacts and we strive to offer innovative products that will assist our customers with their own environmental goals. Our Sustainability Steering Committee is responsible for oversight and implementation of this policy.

### 9.3 Meet our Sustainability Team

Our Sustainability Team oversees all sustainability initiatives within Thorlabs. Members of the Sustainability Team also sit on the Sustainability Steering Committee.



**Jamie Lacouture**  
ESG & Communications Manager

- I work closely with our leadership to execute our vision and strategy to be a more sustainable company.
- Looking back at 2023, it was a big year for us in laying the groundwork to "dig in" on the long-term and intensive work that is needed to truly move the needle on sustainability.
- I am excited to see how our employees and our industry comes together to help fight climate change. I have already heard so much enthusiasm from peers and colleagues. My focus for 2024 will be continued education for our employees and supporting a culture where everyone is empowered to contribute to meeting our strategic goals.



**Gwen Macchione**  
Sustainability Coordinator

- My role is to implement sustainability initiatives in the US that reduce our environmental impact and move us towards a healthier relationship with the planet. I also support global efforts through guidance and sharing best practices.
- I am most proud that we were able to switch 7 sites in the US to clean electricity and launched a composting program for our Newton-area sites.
- In 2024, I am focused on continuing our clean energy transition, reducing our energy consumption and increasing our EV charging capacity as our employees' interest in sustainable transport continues to grow.



**Eric Geoffrion**  
General Manager - Canada

- My passion for nature drives my efforts in pursuing sustainability. Mitigating the environmental impacts of resource consumption, climate change and waste are crucial to protecting nature and preserving the natural world for us all to enjoy.
- I am proud to work for a company that shares my values and is taking bold action to embed sustainability into the way we do business.
- In the coming years I am excited to be involved in helping Thorlabs make the transition to a Net-Positive company.

## 10 Looking to the Future

The announcement that [2023 was the hottest year on record](#) is just one more reason why we are focused on building a more sustainable world for our employees, communities, and families. The initiatives outlined in this report are just the beginning; given the urgency of the climate crisis, we have accelerated our pace. We recognize that there is a long road ahead and we have many lessons to learn on this journey. However, we have the ambition and the moral clarity to know that the journey is the right one.

