

2021 Sustainability Report



Contents



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2021 Highlights

Our Product Impact

About Lumileds



Technology advancements in lighting, especially with LEDs, are creating tremendous opportunities in the field of light. Lighting solutions today need to work and to last; they need to give customers a competitive edge; and they need to be both more efficient and sustainably manufactured. Lumileds is a global leader in OEM and aftermarket automotive lighting and accessories, camera flash for mobile devices, MicroLED, and light sources for general illumination, horticulture, and humancentric lighting. We are a partner to companies that push the boundaries of light. With more than 100 years of innovation and industry firsts, Lumileds helps customers around the world deliver differentiated, efficient, and long-lasting solutions. As the inventor of Xenon technology, a pioneer in halogen lighting and the leader in high performance LEDs, Lumileds builds innovation into everything it does. Quality and reliability are guiding principles for Lumileds. We demonstrate this by maintaining control over materials, processes, and technologies and helping customers engineer the best quality of *light for their application to achieve the* highest performance levels. The most significant innovations occur when great minds work together. Lumileds acts with integrity as a trusted partner to its customers, honoring commitments, offering deep expertise, and going the extra mile—making the world better, safer, and more beautiful—with light.

GRI Index

Lumileds has research and development (R&D) and manufacturing facilities in Asia, Europe, and North America and more than 30 commercial offices in the Americas, Asia, and Europe.

• **Nine factories** in San Jose, United States of America (USA); Singapore; Penang(2), Malaysia; Jiaxing, China; Songzi, China, Aachen(2), Germany, and Pabianice, Poland.



Lumileds is organized in two business units to serve key customer segments: the Automotive Business Unit and the LED Solutions Business Unit.

AUTOMOTIVE BUSINESS UNIT	LED SOLUTIONS BUSINESS UNIT			
AUTOMOTIVE PRODUCTS	ILLUMINATION PRODUCTS	SPECIALTY PRODUCTS		
)		
Cutting-edge automotive lighting solutions in the Aftermarket and Original Equipment Manufacturer and Supplier (OEM, OES) markets.	A comprehensive portfolio of application optimized LUXEON LEDs focused on architectural, entertainment, retail, horticultural, and sports lighting solutions.	Products designed to provide cutting-edge solutions for Camera Flash, Display, Infrared (IR) and ultraviolet (UV) applications.		



CEO Message

Dear Stakeholders,

At Lumileds, we are steadfastly resolved to contribute to a better world through our products and our actions as global citizens. We feel extraordinarily fortunate to be in a position to reduce the strain on our environment and to improve societal health and wellbeing, and we are grateful for the valuable lessons learned along the way.

Despite ongoing challenges associated with COVID-19 and other disruptive global events, the urgent need to accelerate decarbonization across the world has been top of mind. As such, we are unwaveringly committed to reaching our sustainability goals, motivated by the 1.5 degree warming scenario boundary. Our scientists and engineers continue to increase product performance while achieving significant reductions in energy use, carbon emissions, and water consumption. And we made significant progress against our ambitious goals for 2025 that are designed to support our mission of making the world safer, more sustainable, and beautiful with light.

Our primary contribution to combatting climate change comes through our LED innovations that dramatically reduce the energy needed to produce light. Our recent LED innovations and product launches across the world have produced more energy efficient, higher quality lighting solutions that help to reduce carbon emissions, improve vehicle safety, and promote the health and well-being of our customers.

Though we are hopeful the worst of the COVID-19 pandemic is behind us in most of the regions where we operate, the health and safety of our employees remains our top priority. We are strengthening our efforts to be an inclusive workplace for every employee, placing diversity and inclusion at the heart of the Lumileds employee experience. And we're continuing to look at how we can do more to promote equal opportunity across the company and in our communities.

We are operating in a time of great change and transformation around the world, and I am confident that Lumileds can enable great possibilities for our company and our communities. My confidence is rooted in the commitment and capabilities of the Lumileds team, who share this commitment to our purpose, and the pursuit of our mission. I am honored by the opportunity to lead this extraordinary company and am excited by the opportunities ahead to bring new and innovative lighting solutions to the world.

On behalf of Lumileds employees, I would like to thank our customers, suppliers, and other stakeholders for their support of our sustainability journey. Together, we are pushing the boundaries of light.

Regards,

Matt Roney



⁴⁴ Despite ongoing challenges associated with COVID-19 and other disruptive global events, the urgent need to accelerate decarbonization across the world has been top of mind. As such, we are unwaveringly committed to reaching our sustainability goals, motivated by the 1.5 degree warming scenario boundary.⁹⁹

> Matt Roney CEO Lumileds

GRI Index

2021 Highlights

Lumileds Penang was awarded the Malaysian Society for Occupational Safety & Health Award in the "Gold Merit" category for exceptional occupational health and safety performance.



Improving Vehicle Safety

Lumileds secured road-legal approval for **LED retrofit light sources** in Korea, Germany, Austria and France (2022), bringing the safety benefits of LED lighting not only to new cars but also to the existing car park.



Lumileds Pabianice received 1st place in the National Labor Inspectorate's HSE competition for safety excellence. In the same competition, the company was recognized as one of the three best companies in Poland in the "large enterprise" category, received the "Mecum Tutissimus Ibis" (you will be the safest with me) statuette, and was added to the "Golden List of Employers."

Addressing Climate Change

Total emissions averted by Lumileds products were at a record amount of

8.60 million metric tons of CO₂ emissions.

Lumileds has demonstrated state-of-the-art **MicroLED** performance efficiencies

Reducing the Environmental Impact of Our Operations

We have achieved a significant reduction of emissions, the use of energy and water, and the generation of waste in 2021 compared to 2020. This confirms our multi-year trend of improving year over year our environmental footprint, which is supported by continuous improvement projects at all our sites.

Lumileds scored in the **84th percentile and** received a Silver Rating by Ecovadis,

placing the company in the top 25% of sustainable businesses in our industry.

As such, our score is higher than or equal to the score of 84% of all companies rated by EcoVadis.



We developed an action plan for powering our operations with renewable energy as a key part in achieving a net-zero carbon emissions target. **Our operations in Malaysia have fully transitioned to 100% renewable electricity, and our operations in the USA to at least 40% renewable electricity (2022).** This will allow the company to reduce emissions by more than 40,000 tonnes of CO₂ equivalent every year. =

Our Product Impact

Identifying Our Sustainability Priorities

Lumileds has identified nine priority issues, which are the focus of our sustainability efforts.

Employee Health and Safety	Product Energy Efficiency	Circular Economy
Business Ethics	Responsible Supply Chain	Employee Engagement and Workforce Diversity
ලියිවි Hazardous Substances	A Improving Vehicle and Road Safety	Climate Change and Carbon Footprint

Lumileds prioritizes the environmental, social, and governance (ESG) issues with the greatest impact on our business and the highest importance to our stakeholders. In 2021, we updated our materiality assessment through a process of internal review and internal and external surveys. Our materiality analysis identified nine priority issues, which remain the focus of our sustainability strategy.

In 2021, we also reviewed our sustainability strategy and disclosure priorities against the results of the most recent materiality assessment and the context of the evolving business and societal landscape. The priority issues will be used as the foundation for our next set of commitments. \equiv

essage 2021 Highlights

Identifying Our Sustainability Priorities

Our Product Impact

Our Mission (purpose)	Strategic (focus) Areas	Our Key Commitments	SDGs
	Climate Change	 Energy efficient products Environmental footprint reduction by more than 15% on energy, emissions, water and waste by 2025 	13 CLIMATE
Making	Vehicle/road safety	 Improving vehicle/road safety 	7 AFFORDABLE AND CLEAN ENERGY
the world safer, more sustainable, and beautiful	Health & Well-being	• Light for Health & Well-being	12 RESPONSIBLE
with light.	World-Class Organization	 Healthy and safe workplace with a Total Recordable Case rate below 0.22 Promote diversity and inclusion Drive employee engagement 	
	Responsible Business	 Ensure ethical behavior through our Global Code of Ethics Supplier Sustainability Performance at 95% by 2025 	3 GOOD HEALTH AND WELL-BEING

Sustainability at Lumileds

At Lumileds, we seek sustainable solutions to help us push the boundaries of light. By engaging our employees and promoting a positive workplace culture, we achieve the highest standards of quality and responsibility in our products that make life safer, better, and more beautiful.

We approach sustainability throughout every stage of our products' lifecycle:

Product Innovation – We contribute to the transition to a low-carbon economy through our energy-efficient product innovations. Our worldwide team maintains a singular focus on delivering products that consistently meet or exceed sustainability requirements by integrating environmentally efficient practices throughout research and development (R&D).

Responsible Operations – Our workplace and manufacturing practices prioritize the well-being of our employees and resource conservation. We value our employees and communities and adhere to comprehensive Environmental, Health and Safety (EHS) management guidelines that help ensure safe, secure, and healthy working conditions globally.

Acting with Integrity – We act with integrity to uphold the practices expected by our customers, investors, regulators, and partners. And we seek out suppliers that share our philosophy and approach. We have integrated these requirements into our business processes, our policies, and Code of Ethics to make these commitments actionable.



Our Contribution to the Sustainable Development Goals

We recognize that business has a key role to play in contributing to the achievement of the United Nations Sustainable Development Goals (SDGs). Lumileds has identified the following SDGs as those where we can make the most significant contribution:



Ensure healthy lives and promote well-being for all.

Lumileds supports SDG 3 through the development of high-quality lighting solutions that improve road safety, the ability to increase food supplies, as well as individual health and well-being by advancing the visual, biological, and emotional benefits of light.



Ensure access to affordable, reliable, sustainable and modern energy for all.

Lumileds supports SDG 7 through the development of affordable and energy-efficient LED lighting solutions that reduce energy demand.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION	
CO	

Ensure sustainable consumption and production patterns.

Lumileds supports SDG 12 by continually increasing the energy and material efficiency of lighting products on a global scale while also reducing the impact of lighting production.



Take urgent action to combat climate change and its impacts.

Lumileds supports SDG 13 through the development of low-carbon LED lighting solutions and an ongoing commitment to reduce greenhouse gas (GHG) emissions in our operations.

Throughout this report, we have indicated the SDG linkages to our relevant topic areas.

Our Product Impact

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Throughout our history, we have introduced innovations and technology firsts that have made our world safer, more beautiful, and our lives more sustainable. As we continue to push the boundaries of light, we will continue to focus on the three key areas where our products have the most significant impact.

Impact 1: Addressing Climate Change



Take urgent action to combat climate change and its impacts.

8.60 million metric tons of CO₂ averted by customers using Lumileds products in 2021.

Impact 2: Improving Vehicle and Road Safety



Ensure healthy lives and promote well-being for all.

One in three cars worldwide is equipped with lighting from Lumileds.

Impact 3: Light for Health and Well-being



Ensure healthy lives and promote well-being for all.

Lumileds has the most comprehensive illumination LED portfolio in the industry, with different package types each available in a wide range of spectra, enabling luminaire makers and lighting designers to design LED systems that deliver high-quality illumination and to optimally support the circadian system.

Impact 1: Addressing Climate Change



Take urgent action to combat climate change and its impacts.

8.60 million metric tons of CO₂ averted by customers using Lumileds products in 2021.

Reducing Carbon Footprint Through Energy Efficient Lighting¹

For more than **100 years**, Lumileds has been pushing the boundaries of light through a series of firsts, particularly in the LED sector. We invented new classes of semiconductors, packages, and phosphor materials that dramatically reduced the amount of electricity required to produce a lumen of light. This started with Lumileds work in the commercialization of LEDs at Hewlett-Packard in the 1960s and continued with industry-shaping LED applications and efficacy breakthroughs ever since.

Today, we continue to make our cities, homes, offices, mobile devices, and vehicles more efficient through the development of energy-efficient lighting solutions. Our primary contribution to combatting climate change comes through our LED innovations that dramatically reduce the energy needed to produce light. We also focus on understanding the overall energy impacts of the materials that go into our products and reducing them wherever possible.

Compared to traditional incandescent lights, Lumileds LED products require ten times less energy to produce an equivalent amount of light. This tremendous efficiency gain reduces the carbon footprint of our products during their use-phase and saves customers money. In 2021, Lumileds averted 8.60 million metric tons of use-phase CO₂ through our LED products (compared to 6.42 million metric tons in 2020). This represents an important step forward, given the critical urgency to decarbonize economies across the world.

We also reduce the impacts associated with the production phase by avoiding or minimizing the use of hazardous substances and by setting standards for supplier environmental performance.



1 CO₂ reductions that can be attributed to the illumination market are calculated based on three reference products: LUXEON 3030 2D for the mid-power segment, and LUXEON TX and LUXEON 505 for the high-power segment. The energy efficiency improvements of the reference products are extrapolated to the entire sales volume of 2021 for both the mid-power and high-power segments. CO₂ reductions are annualized based on an average hours of use of 2,000 hours per year and calculated compared to conventional lighting products. In comparison to conventional lighting a conservative saving of 49 percent is used. This analysis does not account for the impact of historical installs (LED sales prior to 2021) on CO₂ reductions in 2021.

Key Impact Indicators: Efficiency Improvements

- Our new line of LUXEON 2835 Commercial LEDs are engineered and designed to support the growing demand for a high volume, high-efficacy mid-power LED to serve commercial indoor lighting applications without sacrificing the quality and robustness expected of LUXEON LEDs.
- The improved LUXEON 3030 2D Round delivers high efficacy, high light output and corrosion resistance that outperforms others, enabling customers to further optimize their solutions and support sustainability while improving lighting.
- More lumens, higher efficacy, and lower system costs are the driving forces behind the new LUXEON 7070, which is designed for any new or redesigned streetlight, high/low bay, horticulture, or other application that requires many thousands of lumens.
- The LUXEON 5050 HE LED directly addresses the increasing demand for solar and off-grid solutions, renewable power options, and improved sustainability metrics.



Performance



Looking Ahead

Lumileds will continue investing in innovation to bring more energy efficient products and solutions to market. In collaboration with our customers, we will continue exploring new applications of our technology to drive adoption of lighting innovations with the goal of reducing carbon emissions.

We also plan to expand our development of MicroLED, an emerging display technology that represents the future of the display industry, bringing higher brightness, and more efficient and longer lasting displays that enable new and exciting production paradigms and business models. To date, Lumileds has demonstrated state-of-the-art MicroLED performance efficiencies and plans to continue exploring how this new technology can further our goal of reducing carbon footprint through energy efficient applications.

A critical enabler for realizing further energy efficiency benefits is the application of lighting controls. Lumileds is leading the light source development in a DOE-funded multi-partner R&D project that aims to demonstrate the energy savings potential of

digital light sources in general lighting applications. While great strides have already been made in source efficacy, there is still vast untapped potential for improvements in delivery efficiency, i.e. providing light only when and where it is needed. Digital light source technology based on projection of segmented light sources enables the precise and dynamic tailoring of light distributions to the needs of any application. Lumileds pioneered this technology for adaptive driving beam headlights and is now leveraging its expertise to bring this functionality and the associated energy savings to general illumination. In the project, Lumileds will install prototype light engines in two conference rooms, one at its San Jose, CA facility and one at Rensselaer Polytechnic Institute, to allow lighting control developers and lighting designers to develop dynamic lighting designs and evaluate their potential to reduce lighting energy consumption.

Impact 2: Improving Vehicle and Road Safety



Ensure healthy lives and promote well-being for all.

One in three cars worldwide is equipped with lighting from Lumileds.

Safeguarding Healthy Lives

Safety starts with the ability to see and be seen. That's why top-quality lighting matters. Lumileds is at the forefront of developing innovative lighting solutions for enhanced performance and improved safety. Our products—used in many applications, including one out of every three cars globally—save lives by improving the quality and safety capabilities of vehicle lighting. In addition to vehicle lighting, our products help to make driving safer by enhancing the illumination of city streets and active work areas.

Delivering Quality Products

Product quality is a top priority. To keep people safe, we must ensure the quality and consistency of our products. Our commitment to deliver superior product quality extends to suppliers as well, who we choose based on shared standards for quality management and a willingness to collaborate on product innovation.

We demonstrate our commitment to quality by maintaining control over materials, processes, and technologies and by helping customers engineer the best quality of light for their application to achieve the highest levels of performance.

Enabling Technologies for Enhanced Vehicle Safety

At Lumileds, we push the boundaries of light, creating value through applications and customer experiences previously thought impossible. Today, LED is the leading technology for all car-lighting functions. New dynamic signaling functions and adaptive LED-matrix headlighting systems are bringing enhanced safety to drivers and other road users.

Part of Lumileds' mission is to bring the vehicle safety benefits of our products not only to the innovative premium end of the market, but also to the mainstream market. By furthering technological improvements and smart standardized, modular solution thinking, total system costs—or even total cost of ownership—can be reduced further to increase economy of scale and further roll out towards full global market adoption, maximizing the benefits to customers and ultimately end users. Modularity and standardized solutions enable engineering efficiency, serviceability, and replaceability, which are important drivers for the automotive lighting solutions roadmap towards circularity and more efficient use of materials.

The LUXEON Go product platform is an energy efficient modular headlighting solution, providing off-the-shelf building blocks for mainstream LED headlighting applications. This new LED headlighting source solution reduces CO₂ emissions while increasing road safety by combining compactness, high geometrical precision, and integrated thermal management. The first OEM car platforms with LED headlamps featuring this modular LUXEON Go solution have been fully released to multiple OEMs and are on the road today. We will see many more OEM platform introductions following over the next few years, driving the full mainstream market adoption of LED headlighting.



Our LxN product family is a range of regulated, standardized LED Bulbs designed for a wide range of applications. These industry regulated light source solutions, offering supply-chain and service sustainability, are rapidly getting adopted by numerous OEM carmakers around the globe.

Lumileds is also offering a solution portfolio for Adaptive Driving Beam (ADB) and future High Definition-ADB digital beam headlighting applications. These products will enable OEM carmakers to incorporate enhanced safety features for drivers, providing better road, sign and obstacle illumination while avoiding unwanted glare for oncoming traffic.

Our MxN LED Matrix portfolio provides customized and integrated high performance light source module solutions for ADB applications. ADB lights use onboard cameras to identify oncoming vehicles and then dynamically switch or dim individual LEDs in relation to the position of approaching vehicles. This innovation improves visibility by letting drivers keep their high beams on while also reducing glare for oncoming drivers. With the recent approval of ADB applications in the US, ADB solution offering will become commercially available to end users across the globe.



Lumileds brings the benefits of LED lighting not only to new cars but also to the existing fleet of cars on the road. Through our Automotive LED Retrofit light sources, we enable customers to replace existing lights in their vehicles. In addition to improving energy efficiency, these retrofit light sources also provide a number of safety benefits, such as increased visibility and delivering a perfect beam pattern that illuminates the road ahead without dazzling other users. These benefits are adding up to seeing and being seen more effectively, keeping everyone safer on the road.

Lumileds is active in several national initiatives to benchmark the quality and safety of aftermarket LED retrofit bulbs. Lumileds was the first manufacturer to secure road-legal approval for retrofit LED lamps, with Philips H7 and Ultinon Essential Gen2 HB3 solutions achieving certification in Korea. Germany came next, when the Philips H7 LED Ultinon Pro6000 headlamp bulb obtained the official thumbs-up from the German Federal Motor Transport Authority in spring 2021. In June 2021, Philips Ultinon Pro9000 H7 LED headlight bulb was certified road-legal by the Korea Apparel Testing & Research Institute.

In December 2021, Lumileds announced the launch of their very first road-legal LED automotive headlight bulb in Austria, the Philips Ultinon Pro6000.



Lumileds focus on innovation and safety was demonstrated once again with the launch of the Philips Ultinon Pro6001 H7-LED in France (March 2022). With the introduction of the first road-legal H7-LED retrofit headlight bulb in France, French drivers now can upgrade from halogen to road-legal LED retrofit lights. A comprehensive test program confirmed the new Philips Ultinon Pro6001 LED-H7's advanced capabilities and safety, enabling homologation by the French authorities.

Drivers in these countries now have a way to distinguish between fully tested, high-quality retrofit LED bulbs that won't dazzle other road-users and the many unregulated lamps on the market whose safety remains questionable.

Key Impact Indicators: Vehicle and Road Safety

- We launched our very first road-legal LED automotive headlight bulb in Austria and Germany, the Philips Ultinon Pro6000. Drivers across the country can now legally and easily upgrade their headlights from halogen to Philips LED, which provides an exceptional beam with up to 230% brighter light, compared to the minimum legal standard for halogen bulbs (courtesy of the advanced Lumileds LUXEON Altilon LEDs).
- Philips CrystalVision platinum upgrade headlight bulbs deliver a brilliant, white light while also providing excellent performance. More than just a styling innovation, CrystalVision platinum bulbs provide up to 130% more vision than standard halogen bulb, better contrast and enhanced visibility when driving at night, which enhances driver comfort and reduces eye fatigue. The longer beam pattern also gives drivers more time to react.
- We launched our new line of Philips Ultinon Essential LED Headlights in Canada, representing the latest in LED lighting technology and ensuring the ultimate performance and safety for drivers. In addition, Philips X-tremeUltinon LED Headlight Bulbs, also recently launched, are noticeably whiter and brighter than standard headlights and illuminate the road clearly without blinding oncoming drivers.



Looking Ahead

As automotive technology advances, cars are becoming more sustainable, safer, and more intelligent. New enabling lighting technologies such as Matrix LED and MicroLED will improve safety and visual comfort for drivers.

As we speak, LED technology is reinventing itself evolving with the emergence of MicroLEDs. Leveraging all its expertise in materials, processing, and packaging design built up over multiple decades, the LED industry has now come up with a disruptive new generation of highly miniaturized LED devices. Typical chip dimensions have been downscaled from millimeters to microns, making these MicroLEDs high-resolution, pixelated light sources. This will eventually lead to fully digital lighting applications for cars. These addressable MicroLEDs will be fed data from various sensors in the vehicle, and the resulting light patterns will communicate the embedded information visually to drivers or other road users. Numerous new applications are being explored: fully software-controlled high-definition headlighting beams, digital-signaling surround projection, information-display lighting, and more.

Lumileds has demonstrated a 20k pixel high-resolution MicroLED solution enabling advanced digital headlighting applications for ultra-compact design. The individual control of pixels (in the light source) offers a variety of new features in the beam distribution pattern and expands functionality towards novel symbol and road marking projections to enhance safety.



We are making vehicles safer today and are working on future solutions for the era of autonomous driving. Before crossing the street, pedestrians intuitively make eye contact with drivers to confirm they have been seen. Autonomous vehicles will have to take over this important safety task without an active driver behind the wheel. Together with automakers, we are defining and developing

new solutions that communicate with pedestrians through lighting. In today's world, turn signals, hazard lights, and brake lights give signals to other road users. In a future of automated driving, vehicles will say "I see you" using Lumileds lighting technologies, communicating via embedded dynamic display-like car body lighting, bringing form (design) and function (safety) together.

Impact 3: Light for Health and Well-being



Ensure healthy lives and promote well-being for all.

Lumileds has the most comprehensive illumination LED portfolio in the industry, with different package types available in a wide range of spectra, enabling luminaire makers and lighting designers to design LED systems that deliver high-quality illumination while optimally supporting the circadian system.

Supporting Health and Well-being Through Lighting

We established a partnership with BIOS Lighting in 2020, a human centric lighting innovator. Together, we created LUXEON[®] SkyBlue[™], a new LED to address circadian lighting and dramatically lower the lumen per dollar barriers that have prevented widespread adoption of better, healthier lighting.

How does it work? BIOS SkyBlue Circadian technology engages with a non-visual photoreceptor in the eye. During the day, SkyBlue strengthens circadian rhythm, increases alertness, improves focus, and boosts moods. In the evening, luminaires using LUXEON SkyBlue and BIOS technology can create a warmer atmosphere that promotes natural melatonin production leading to a better night's sleep.

In March 2021, we announced the immediate availability of our new LED human-centric lighting solution – LUXEON SkyBlue. In partnership with BIOS Lighting, Lumileds has engineered a circadian lighting solution that delivers superior melanopic ratios at comfortable CCTs – 3000K, 3500K, and 4000K – with industry-leading efficacy and uniformity at the lowest solution cost.

LUXEON SkyBlue won a 2021 Architectural Products Magazine Product Innovation Award for interior lighting. Our collaboration with BIOS Lighting simplifies the analysis and engineering necessary to create a human-centric circadian #lighting system.



LUXEON SkyBlue received the LEDs Magazine 2021 Sapphire Award for #CircadianLighting!

Lumileds is further supporting circadian rhythm by designing products that reduce exposure to nighttime light, including the limiting of sky glow. Sky glow is the brightening of the night sky attributable to scattering of light from human-made sources (e.g., outdoor electric lighting), including radiation that is emitted directly upward and radiation that is reflected from surfaces. Because LEDs allow light to be better aimed, we are able to control and limit the amount of light that is directed upward into the sky from our products.

Additionally, sky glow and blue light exposure at night can both be reduced by spectral distributions that contain less blue light. In general, "blue-er light" tends to be more efficient than light of warmer tint. Lumileds has developed phosphor materials that allow us to make warmer light, with much of the reduced efficacy mitigated.



CEO Message

2021 Highlights

Identifying Our Sustainability Priorities

Our Product Impact

GRI Index

LUXEON Fusion

Our LUXEON Fusion platform technology takes human centric lighting to the next level by making the highest quality tunable and human-centric white light selection available for mainstream adoption. When lighting designers are lighting hospitals, restaurants, offices, or retail venues, they often wish to be able to adjust color temperatures and light levels throughout the day to complement a changing ambient environment to improve health and happiness. LUXEON Fusion makes that possible.

Increasing Food Availability and Quality Through Horticulture Lighting

There is a continual quest to improve the yield and quality of crops, flowers and vegetation. With the advancement of LED technology, lighting is playing an ever more important role in traditional and urban farming. The practice of using LED illumination to grow plants is proving in many cases to be a greener, more environmentally sustainable choice that not only impacts yields but energy efficiency and even water consumption. To support the horticulture market, Lumileds has developed a portfolio of horticulture LEDs. We support growers' and lighting equipment manufacturers' experimentation by providing the industry's broadest portfolio of horticultural-grade LEDs.



Key Impact Indicators: Light for Health and Well-being

- Potential turned to reality with a collaboration between Summa-Systems and Lumileds. Summa-Systems puts the full gamut of color tuning capabilities in LUXEON Fusion at the fingertips of lighting designers and end users: a Summa-Systems-enabled fixture can create some 600,000 different shades of white and special colors. Any kind of dimming profile can be implemented, with full dimming from 100% to 0.1%. The Summa-Systems interface also implements the LUXEON Fusion dim-to-warm capability, synchronizing dimming with color changing from 2700K to 1800K.
- In partnership with BIOS, Lumileds' LUXEON SkyBlue LED is a new human-centric lighting product that delivers the spectral power distribution (SPD) designed by BIOS to enhance sleep patterns, improve productivity, and generally raise the comfort level of people in a space.
- We introduced the new Philips GoPure GP5212, a powerful, compact, and innovative car air purifier that can quickly remove up to 100 different types of pollutants and neutralize unpleasant odors in a vehicle. GoPure GP5212 uses a special 3-layer filter technology to quickly deliver clean, fresh air in minutes and its extremely compact and portable design makes it easy to use anywhere in the vehicle.

Well-being in Automobiles

In addition to being a trusted partner for car makers by providing innovative lighting solutions, Lumileds also provides drivers and passengers with solutions for well-being. Automotive wellbeing covers driver and passenger comfort, and air quality is an important part. In 2021, Lumileds introduced the new Philips GoPure GP5212, a powerful, compact, and innovative car air purifier that can quickly remove up to 100 different types of pollutants and neutralize unpleasant odors in a vehicle. GoPure GP5212 uses a special 3-layer filter technology to quickly deliver clean, fresh air in minutes.

Looking Ahead

We continue working with lighting designers and experts in sensors and controls to develop the next generation of light engines that provide dynamic control over not only intensity and spectrum but also the direction of lighting. This technology will enable lighting installations to better perform on critical human-centric lighting metrics such as light uniformity and contrast, glare, and retinal melanopic illuminance.

Our ESG Disclosures



We recognize our responsibility to act to mitigate the threat of climate change. By developing lighting solutions that reduce energy use and greenhouse gas (GHG) emissions during their use-phase, we continue to promote the transition to a low-carbon economy. We also look for ways to reduce impacts beyond our own operations by working with our suppliers and encouraging them to reduce their environmental impact. Because we know that our manufacturing operations are the primary contributor to our own environmental footprint, we pursue comprehensive programs to improve the efficiency of manufacturing, lower energy and water use, reduce waste, and reduce negative impacts from chemical processes. And we do so in a way that meets or exceeds all environmental laws and in the jurisdictions within which we operate. In 2021, we continued to make great progress across all our environmental targets, driven primarily by continuous improvement activities across our sites.



Take urgent action to combat climate change and its impacts.

Lumileds supports SDG 13 through the development of low-carbon LED lighting solutions and an ongoing commitment to reduce GHG emissions in our operations \equiv

Our Product Impact

Environment

Our environmental targets for 2025						
2021 RESULT	OUR 2025 COMMITMENT	STRATEGIC INITIATIVES				
Operational Carbon Footprint						
Our carbon footprint per unit produced decreased by 10.8% , far exceeding our target of 3%. The decrease is the result of energy efficiency improvements. In absolute terms, our carbon increased in 2021 by 2,163 metric tons (an increase of 2.2%) compared to 2020 ¹ .	 Reduce the carbon footprint of our operations per unit produced by 15% (CO₂e per unit produced) compared to 2020 baseline. 	In 2021, Lumileds has executed a feasibility assessment for achieving a net-zero carbon emissions target. We have implemented several programs to switch to renewable energy in our operations, which will result in a decrease of our operational carbon footprint of more than 40% in 2022.				
Operational Energy Consumption						
Energy consumption per unit produced decreased by 9.7% against a target of 3%. The decrease confirms that efficiency gains implemented in period of low demand due to COVID-19 are structural. In absolute terms, energy consumption in our manufacturing sites increased in 2021 by 6,801 MWh (an increase of 2.9%) compared to 2020 ¹ .	 Reduce energy consumption in our operations per unit produced by 15% (MWh per unit produced), compared to 2020 baseline. 	We initiated new projects in 2021 with a combined expected annual savings of more than 3 gigawatt hours. We will continue to focus on energy efficiency projects in 2022.				
Operational Water Intake						
Water consumption per unit produced decreased by 5.9% against a target of 3%. The decrease was mainly driven by water saving initiatives. In absolute terms, water consumption increased in 2021 by 109 thousand Nm ³ (an increase of 8.8%) compared to 2020 ¹ .	 Reduce water intake in our operations per industrial output by 15%, compared to 2020 baseline. 	We initiated new projects in 2021 with a combined expected annual savings of more than 80,000 m ³ (roughly equivalent to 6% of Lumileds total water consumption). We will continue to focus on water efficiency projects in 2022.				
Waste and Recycling						
In 2021, we realized a waste recycling rate of 90% (compared to 83% in 2020). Total waste generated per unit produced decreased by 12.1% , against a target of 3%. The decrease was mainly driven by waste reduction initiatives. In absolute terms, total waste decreased in 2021 by 329 metric tons (a decrease of 7.6%) compared to 2020.	 Reduce waste generated in our operations per industrial output by 15%, compared to 2020 baseline. Increase the waste recycling rate to 85%. 	In 2022, we will extend the zero waste to landfill pilot we initiated in 2021, to identify and implement further opportunities across our sites to reduce, reuse and recycle.				

1 Absolute carbon emissions, energy, and water consumption increased from 2020 to 2021 as production volumes recovered from a lower level in 2020 due to COVID-19. Carbon emissions, energy and water consumption **per unit produced** decreased in 2021 due to efficiency improvements.

Reducing the Climate Impact of Our Operations

The majority of our GHG emissions are released through the energy used at manufacturing sites and the release of perfluorinated compounds (PFCs) in our manufacturing.

Lumileds GHG Emissions and Perfluorinated Compounds



Total scope 1 and 2 (location) emissions, kg CO₂e, Location based, All, LUMILEDS

Category II per fluorinated compounds used in processes, kg CO₂e, Location based, All, LUMILEDS

We have implemented several energy reduction initiatives, which will result in significant GHG emission reductions. See "Improving Operational Efficiency" for more detail on these initiatives.

PFCs serve two important roles in the semiconductor manufacturing process chamber cleaning and plasma etching. Although we limit PFC use, its high potency as a GHG compared to CO_2 makes this compound a significant emissions contributor. Notably, our emissions from PFCs have drastically reduced in recent past years (see "Lumileds GHG Emissions and Perfluorinated Compounds" table), primarily from emissions reduction efforts in our Singapore facility.



Greenhouse Gas Emissions at Manufacturing Sites

Improving Operational Efficiency

We continue to reduce our operational impact by pursuing comprehensive programs to improve the efficiency of manufacturing, lowering energy and water use, reducing waste, and reducing negative impacts from chemical processes.

Improving Energy Efficiency

Energy use is our most significant operational impact area. The energy that we use releases carbon emissions and has the potential to pollute local air. To mitigate this impact, we focus on reducing energy use through internal efficiency programs and we have set company-wide targets for energy-use reduction.

Energy Use at Manufacturing Sites



Energy Efficiency Programs

In 2021, all our manufacturing sites implemented projects to reduce energy consumption. In total, these projects are expected to produce more than 3 gigawatt hours of annual savings. Examples of projects achieving energy savings are provided below.

• Heating, Ventilation, Air Conditioning (HVAC)

In Singapore, the chilled water system efficiency was improved by raising chilled water supply temperature from 5.8°C to 7°, resulting in reduced electricity consumption of 263 MWh per year. In addition, air handling units were further optimized with Variable Speed Drive (VSD), resulting in reduced energy consumption of 269 MWh per year.

Compressed Air Projects

In Aachen, Germany, we optimized power management of pressured air compressors as part of a change in the production shift pattern, thereby reducing electricity required for compressed air production by 923 MWh per year. In Penang, Malaysia, we optimized the compressor configuration for the compressed dry air system, reducing the pressure, increasing redundancy, and use of a pressure booster. The optimization reduces electricity consumption for compressed air by 394 MWh per year. CEO Message

Identifying Our Sustainability Priorities

Our Product Impact

Conserving Water

Our larger manufacturing sites have wastewater reclamation systems that treat and recycle wastewater from production to then be used again in production, cooling towers, and scrubbers. Our company-wide water reduction target to reduce water use intensity is driving the more water-intensive sites to find new ways to reduce water use. For example, a water efficiency project in Singapore is treating and diverting condensate water from the Air Handling Units for reuse in the cooling towers thus reducing the needs for fresh incoming water to the plant. The project results in a decrease of freshwater consumption by roughly 12 thousand m³ per year.

Ensuring Environmental Best Practice

All Lumileds manufacturing sites are certified to the ISO 14001:2015: Environmental Management Systems standard. In addition, our site in Aachen, Germany is certified to the ISO 50001:2011: Energy Management Systems standard and our site in Singapore is certified to the Water Efficiency Management System (WEMS): SS577:2012.

Reducing Waste

2021 Highlights

Our manufacturing sites generate hazardous and nonhazardous waste streams, in addition to office and general waste. Most of the waste is related to the manufacturing of our products.

Lumileds has a company-wide target to increase the recycling rate of the total waste generated to 85 percent and reduce the amount of waste delivered to landfill. The recycling rate is tracked and defined as the total waste delivered for recycling as a percentage of total waste, inclusive of waste incineration with energy recovery. In 2021, our recycling rate was 90 percent (compared to 83 percent in 2020) and our recycling rate excluding waste incineration was 67 percent. We have also set a goal to reduce the waste generated in our operations per industrial output by 15 percent compared to our 2020 baseline.

To achieve our goals, we implemented projects focused on optimizing the segregation of waste streams and training employees to minimize the mixture of recyclable and non-recyclable waste. Manufacturing sites are also looking for opportunities to divert waste from going to landfill. As depicted by the following chart, our total waste at Lumileds decreased by more than 329 metric tons in 2021.

Reducing Hazardous Substances

Wherever possible, we work to minimize or eliminate hazardous substances from our products. Our policies and operations frequently go beyond existing industryrelated hazardous substances regulations and standards, and we publish and update regularly the Lumileds List of Regulated Substances. This list is derived from stakeholder consultations, scientific evidence of hazards, and awareness of existing and possible future legislative requirements, and we require all suppliers to comply with it as a condition of doing business with Lumileds.

Reduce, Reuse, Recycle

Lumileds Penang has implemented the Go-Green Initiative to reduce waste to landfill. Several programs have been implemented, such as paper cups elimination, tissue paper elimination, and recycling of used plastic utensils.

Lumileds Environmental Policies and Documents

- Environmental, Health and Safety Policy
- ISO 14001:2015 Certification
- REACH Position Statement
- Regulated Substances List (RSL)
- Supplier Sustainability Declaration (SSD)



Looking Ahead

We remain steadfast in our commitment to further efficiency improvements on emissions, energy, water, and waste. For 2021, we have identified and initiated strategic initiatives to focus on increasing the use of renewable energy and on working towards zero waste to landfill. We're also doubling down on our commitment to renewable energy. As of March 2022, our Malaysia operations are fully powered by renewable energy, and our San Jose operations by at least 40% renewable energy. These initiatives combined reduce our company wide CO₂ footprint by more than 40%.

Lumileds Total Waste (kg)



essage 2021 Highlights

Identifying Our Sustainability Priorities

Our Product Impact

Our ESG Disclosures

ures Performance

GRI Index

Employees

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We strive to make the world a better, safer, and more beautiful place for everyone. This starts internally with our employees. Our first priority is to provide a safe, healthy, and accident-free workplace at all times. We also acknowledge that in order for us to continue to sustain our top performance, we need to recruit and retain the best talent. We believe that a values-based culture, supportive management, and a focus on diversity are key ingredients for us in shaping a work environment that will attract, engage, and retain talented employees.



CEO Message

Identifying Our Sustainability Priorities

Our Product Impact

Focusing on the Employee Experience

Even with social distancing during the COVID-19 pandemic, we continued to engage and communicate with our employees in several ways, including through video, web-based media, and virtual events.

Company updates are regularly shared through our intranet—THE HUB—which promotes awareness of business results, customer wins, and large internal initiatives. It promotes engagement, recognition, and role modeling by featuring employee stories at all levels, and it also serves as an educational tool about the Lumileds business. We feature sites so that employees can understand the diversity of our locations and people.

Our recognition program awards and celebrates outstanding employee achievement and contribution. Recognition is most often offered for project completion, outstanding results, living Lumileds values, and company seniority. We have different award levels, each with a different monetary reward. We also hosted our annual quality improvement competition as a virtual event where employees from across Lumileds share quality improvement ideas, and a jury of senior-level business leaders selects the winners.

In the 2020 people survey, employees asked for continued work flexibility post COVID, allowing employees to work from home a few days per week. We listened and deployed flexible working across the US and parts of Europe in 2021, offering employees more freedom to work from any location, provided they can access the technology necessary for their job duties and it is aligned with their manager. In 2021, we executed our third global survey. We received feedback on topics such as company direction, customer focus, innovation, work environment, and leadership. We had a very strong response rate at 81 percent and scored just above the score of the 2020 survey (73 vs 72). More importantly, the survey scores show a positive trend on important topics like Company direction and Communication. It also highlighted again some of our key strengths: Ethics, Compliance and People leadership.

2021 Highlights

Promoting Health and Safety

Health and safety is our number one priority at Lumileds. We aim to foster an injury prevention culture where employees, managers, and leadership have the courage to act on "potential" injuries before they occur. We conduct risk assessments, host safety trainings, oversee safety improvement programs, and make ongoing adjustments to processes and operations. All our manufacturing sites are certified for ISO 45001 as the basis for our Occupational Health and Safety Management System. The management system ensures a structured approach on key safety topics such as hazard/ risk assessment, operational controls, training, communication, governance, and management review. These topics are assessed through internal and external safety audits.

Goals

Reduce lost workday injury cases to 0.15*

Progress in 2021

In 2021, our lost workday injury case rate was 0.17 (compared to 0.14 in 2020).

*Percentages are based on cases per 100 full-time equivalent employees (FTE).

In 2021, our Total Recordable Case rate was 0.30. (measured as total number of recordable cases per 100 FTE at manufacturing sites).

Promoting a Healthy Workforce

At Lumileds, our first priority is – and will always be – to protect the health and safety of our employees. In response to COVID-19, we implemented a strict global policy at every site and launched additional measures in alignment with various local regulations or local health authority guidance. The global health advisory protocol originally issued in January 2020 has been updated several times to reflect the latest pandemic developments and will continue to evolve as the pandemic evolves.

Our ability to safeguard employees' health, deploy and manage new digital ways of working, and evolving our approach to supply chain management is more robust than ever. As we look forward to continuing to transition out of the COVID-19 pandemic, we expect the measures implemented to strengthen our resiliency and agility as a company will continue to have a positive impact on our day-to-day business operations.

In addition to the strict COVID-19 health and safety protocols we put in place, our sites around the world implement a range of initiatives to support the health and well-being of employees, including:

- Health talks by experts on topics such as women's health, ergonomics, stress management, and COVID-19 related topics.
- Periodic dedicated days or weeks to promote a healthy lifestyle (e.g. steps challenges).
- Risk assessments on mental stress.
- Campaigns offering employees access to various health screenings

Reducing Safety Risks Through Continual Improvement

In 2021, a total of 14,032 injury prevention actions were performed, including:

- 9,798 behavior observations with feedback provided
- 2,952 at risk conditions observed and addressed
- 1,282 near misses reported and action taken



Changing Behaviors for a Safer Workplace

We work to reinforce a company-wide culture where everyone is equipped to proactively identify, address, and reduce unsafe behaviors. To support this, Lumileds created Behavior Based Safety (BBS) programs that foster positive safety behaviors. BBS observations create a culture where employees openly look out for themselves and each other and discuss how to do their jobs more safely.

Safety Training

We provide trainings at our sites to ensure all employees have the right skills and knowledge to do their job safely, as well as minimize the risk of injuries to themselves and colleagues. Our training programs range from general safety trainings for employees to job-specific safety trainings and specialized trainings.

Examples of specialized trainings carried out in 2021 include:

- First aid trainings
- Fire protection trainings
- Behavior Based Safety (BBS) Trainings on how to conduct BBS assessments
- Safety Awareness Trainings
- Log-out Tag-out (LOTO) trainings on electrical safety
- Machine safety trainings
- Chemical safety trainings



Zero Accidents as part of Operational Excellence

Total Continuous Process Improvement and Innovation (TCPI²) was launched in Q1 2021 in support of Lumileds' Strategic Priorities to achieve Operational Excellence. The program integrates all seven previously existing Continuous Improvement Programs and organizes them under three new "Zero Pillars": Zero Accidents, Zero Defects, and Zero Waste.

Zero Accidents is our ambition and commitment to create and ensure safe and healthy workplaces by preventing all accidents and continually promoting excellence in Safety.

TCPI² unified the Continuous Improvement Programs under a single umbrella with common Core Principles, Objectives, Practices, Methods, and Metrics. Now we are using the fully developed Pillar Maturity Matrices to build 4 milestone steps (Bronze, Silver, Gold, Platinum) to help us achieve world-class operation status.

In the most recent exercises, three sites, Aachen, San Jose, and Songzi, achieved the Bronze Level – an excellent start.

Looking Ahead

In 2022, we aim to further identify continual improvement opportunities in the area of health and safety, making use of the maturity matrix we have developed for the Zero Accidents Pillar.

Investing in Talent

Learning@Lumileds

High performance is an integral part of our culture. We aim to create a workplace that encourages continuous learning and development. To that end, we have introduced Competence Management as part of our development planning to support our employees in their growth.

Competence management is the process to assess, develop, and monitor job-specific skills sets. In this process, each employee self-assesses and is assessed by their manager on a set of values-based competencies. The outcome forms the basis for development planning, adding specificity and rigor to this important process.

To actively support the execution of employees' development plans, we offer hundreds of relevant courses through our online learning management platform. We offer targeted curricula for key subjects (e.g., related to our values, products, compliance). In 2021 our e-curriculum was expanded to cover a more comprehensive selection of topics and offer higher quality learning content.

A meaningful and rewarding place to work where you can grow

Lumileds operates in markets where there is fierce competition for Talent. Retaining and attracting Talent is pivotal in our strategic priority around building a world class organization. In 2021, we conducted a company-wide Talent & Succession review: this included assessing the growth potential of almost 1300 colleagues (including middle and lower management) and developing succession plans for all senior-level jobs (230 jobs). Through Talent reviews and succession planning we are better equipped to develop internal Talent and deal with unforeseen turnover. Among other, it provides an opportunity to develop potential internal replacements to be ready to take over when a senior-level role opens up.

Strengthening Diversity

Lumileds is guided by a set of ethical standards, which underscores our commitment to build a strong and diverse slate of candidates. We believe talented and diverse employees provide fresh perspectives and strategic thinking, better equipping us to understand global markets. We approach diversity as a strength and as a critical aspect of a high performing organization. In 2021, Lumileds piloted a new Diversity, Equity, and Inclusion Council in the U.S.

Diversity & Inclusion is a core value of Lumileds. In 2021, Lumileds recognized and celebrated two important events: Women's History Month and International Women's Day (IWD). These events were an opportunity to reflect on how to put this value into practice

Looking Ahead

We continue to look at how Lumileds can do more to remove bias, promote inclusion, and make sure that our employees truly have an equal opportunity to pursue their careers. We will further build upon our new Diversity, Equity, and Inclusion Council in the U.S., and explore and understand how the learnings can be applied globally.



to support the over 3,500 women at Lumileds, prospective women who may choose to come work with us, and the countless women who make our lives better outside of the workplace. As part of our 2021 #WomensHistoryMonth celebration, we highlighted inspiring women from our global team each week of the month. The event by team members around the globe celebrated women's achievements in pursuit to challenge inequality and create an inclusive world.

In 2019, Lumileds Malaysia (Penang) launched a project called the Hear Me Talent (HMT) Program, aimed at providing opportunities to individuals with disabilities (deaf category) by giving them an equal chance to experience a career in manufacturing. The program is also designed to create inclusiveness, provide a diversified environment, and to be a resource to others. In addition to the HMT program, Lumileds Penang improved site infrastructure to enhance the visibility of emergency alarm and lighting, as well as additional evacuation trainings conducted specially for these employees. The program continued in In 2021 with the hiring of seven new employees.

Next to Diversity, Equity and Inclusion, we will focus our effort on deploying Flex working for APAC and the remainder of Europe in 2022. We will again deploy Talent & Succession planning, and this time we will spend more time and effort on leveraging this company-wide process to drive meaningful and targeted employee development. Making certain that we further maximize its value to our employees.

GRI Index

Communities

The activism and passion of Lumileds employees on the ground is what transforms our community strategy into real-world results. In 2021, Lumileds employees stepped up to respond – even in the face of uncertainty and adversity – to the most urgent needs within our communities.

Supporting Community Initiatives

Collaboration with our stakeholders is one of our core values. Local community engagement activities are reported centrally and are shared on our global intranet, THE HUB, to foster awareness and recognition for these initiatives.

In total, more than 851 employee volunteer hours were dedicated to company-sponsored community and other charitable activities during 2021. Most of these activities were partnerships with local non-governmental organizations (NGOs). Examples of community engagements undertaken in 2021 include:

- **Penang, Malaysia:** Lumileds donated products and essential items to several organizations including: lighting to an orphanage center Ramakrishna Ashrama Penang; 20 laptops to the Penang State e-learning PC program; groceries and food items to support households of Lumileds employees impacted by the Enhanced Movement Control Order (EMCO) in 13 localities around Bayan Lepas district in Penang; hand sanitizers to Kiwanis for children with cognitive disabilities; a monetary donation to SMK Bayan Lepas for the new curtain at the organization's Science Lab; and monetary donation to a local elder care home.
- **Singapore:** Lumileds participated in the Packing and Distribution of "Chinese New Year Gift Packs" to residents of Blk 269A/B Yishun Residents in collaboration with North West Community Development Council. Together with Northwest CDC and Campus Impact, we also participated in a virtual Christmas event to appreciate Yishun Health Workers for their dedication and selfless service to the community during COVID-19.



Looking Ahead

In 2022, we will continue to engage with our local partners to support the communities where we operate.

2021 Highlights

Our Product Impact

GRI Index

Governance

In addition to our Global Code of Ethics, Lumileds' Leadership Team is guided by our corporate values of innovation, quality, execution, care for customers, collaboration, and integrity. These values are our compass and the cornerstone of our culture. They guide how we work with our colleagues, customers, business partners, and communities, and drive the expectations that we set internally for employees.

Together with our Global Code of Ethics, our values serve as a guide to do the right thing and to take actions in the best interest of our company and stakeholders around the world.



Managing Our Business Responsibly

Global Code of Ethics

Lumileds Global Code of Ethics serves as a guide for employees and stakeholders and supports commitment to working in alignment with the highest ethical standards and our global values. The Code has been translated into multiple languages and is integrated into mandatory new hire trainings.

Lumileds believes it is important to cultivate an open, transparent culture among our employees, allowing everyone to express, in good faith, any concern. We have a dedicated 24/7 Speak Up line and an online platform where everyone can express concerns, report complaints, and ask questions.

Everyone should be able to raise concerns without fear of retaliation, knowing that their concern will be treated confidentially, seriously, fairly, and promptly. Most of the time, this can be done by speaking with a direct manager, the local Human Resources representative or the Legal and Compliance department. If an employee prefers to remain anonymous, they can contact the Lumileds Speak Up line.

Calls to the Speak Up line are toll free and available 24 hours a day in all local languages. Telephone numbers for the Speak Up line are available on posters throughout Lumileds sites, on the Lumileds intranet, and on lumiledsintegrity.com. The Speak Up line serves as a whistleblowing line and is managed by an independent company. All reports are reviewed by our Legal and Compliance department and employees can be assured of objective treatment. The Speak Up line is operated in compliance with data privacy requirements and reports can be made anonymously (unless local law prescribes otherwise).

Ethics and Employee Training

We promote a culture of uncompromising ethics and integrity. Every Lumileds employee is educated on working in an ethical, honest, and compliant manner and he or she has received the message that Lumileds will not compromise when it comes to ethical principles. To ensure this ethical standard is communicated accurately, Lumileds has trained all employees on fair competition, gifts and entertainment standards, anti-bribery policies, avoiding conflicts of interest, complying with global trade restrictions and export controls, protecting data/IP/ other property, as well as Lumileds' view on taking care of people and the planet. In 2021, all new employees were trained in the Code of Ethics, and all existing employees were required to take an annual refresher course. Certain gualified employees are required to take subject matter-specific trainings as well.

2021 Highlights

Identifying Our **Sustainability Priorities**

Our Product Impact

Performance **GRI** Index

Sustainability Governance

Our ability to deliver on our sustainability commitments many years into the future requires that we establish a strong governance framework. With that in mind, Lumileds has formed a Sustainability Board that provides executive-level governance for the Sustainability Program at Lumileds. The Sustainability Board sets the vision for sustainability at Lumileds, is responsible for our sustainability and EHS policies, and identifies areas for improvement. The Sustainability Board consists of Executive Team members representing our two Business Units, Operations, R&D, Quality, Human Resources, and Legal functions.

Lumileds has a Sustainability Manager at the corporate level who oversees management of the ESG issues disclosed in this report. The Sustainability Manager reports into the Quality Function and provides periodic updates (at a minimum of three times per year) to the Sustainability Board. In addition, EHS & Sustainability is a fixed topic during the Monthly Integrated Business Operations Reviews (MIBOR) with the Lumileds Leadership Team.

Each manufacturing site has an EHS Management Function and EHS Manager(s). The site EHS Manager(s) report into the Operations Function. The Sustainability Manager and the site EHS Managers communicate regularly to align on progress toward our corporate sustainability targets.

Protecting Data Privacy

We are committed to treating the personal data of our business partners, customers, and employees with respect. We collect personal data in alignment with our business purposes and the relevant lawful basis, and protect it appropriately. We consider it important to demonstrate our commitment to data protection and have, as part of our Data Protection Compliance Program, filed Binding Corporate Rules with the Dutch Data Protection authorities.

Indicator		2017	2018	2019	2020	2021
Supplier audits,	Target	75%	80%	85%	90%	91%
compliance rate in %	Actuals	75%	82%	86%	90%	91%

Responsible Supply Chain

Our core value of integrity extends externally to our supply chain where we set strict standards for our suppliers. As a condition of doing business with Lumileds, we require suppliers to share our commitment to responsible business practices.

We enforce this commitment through the Supplier Sustainability Declaration policy that sets standard labor, environmental, ethics, and health and safety requirements for suppliers. Our Supplier Sustainability Declaration is based on the Responsible Business Alliance (RBA) Version 7.0 (2021). In accordance with the California Supply Chain Transparency Act (SB 657), the Supply Chain Transparency statement provides information on our efforts to address the issues of slavery and human trafficking in the supply chain.

Our supply chain actions in 2021:

• Training and capacity building: In 2021, we held 24 Supplier Sustainability Code of Conduct training sessions for our suppliers (Nine on-site and 15 online). We divided on-site training into two parts: sustainability management awareness for suppliers' leadership and capacity building for suppliers' EHS/sustainability teams.

- Audit: Even with the COVID-19 related challenges of getting on-site access to suppliers in 2021, we still managed to execute 57 audits (initial, surveillance, and resolving audits) at supplier sites. Most audits were executed by thirdparty audit companies.
- Audit follow up: After an audit, a corrective action plan is agreed to with the supplier. Lumileds works with suppliers on the improvement areas identified in the audit and follows up to provide coaching to suppliers until the non-conformities are corrected and verified. This also includes opportunities for improvement that are not identified as a non-conformity, and which can be identified through overall trends observed in the audit program.
- Supplier improvement: Specific focus areas are defined based on the audit findings, which are integrated in the training sessions.

Lumileds Ethics and Supply Chain Policies and Documents

- Supplier Sustainability Declaration
- Conflict Minerals Position Statement
- Conflict Minerals Declaration (CMRT)
- Transparency in Supply Chains Statement

Holding Suppliers Accountable: Monitoring and Audits

To support supply chain responsibility efforts, Lumileds carries out selective monitoring by means of supplier self-assessment questionnaires and third-party audits to ensure suppliers fulfill their commitment. The selection of a supplier in the self-assessment or audit program depends on the risk profile of the supplier. A supplier's risk profile includes the country risk as assessed by external sources.

If a supplier is selected to be in the scope of the audit and accepts, the supplier will be enrolled in a three-year audit cycle. The audits cover all the requirements of the RBA Code of Conduct. The audit identifies any code violations for which a corrective action plan to remedy the violations is agreed upon with the supplier. Lumileds works with the suppliers on the improvement areas that are identified in the audit and follows up with coaching to suppliers until the non-conformities are corrected. This also includes opportunities for improvement that are not identified as a non-conformity, and which can be identified through overall trends observed in the audit program.

Key non-conformities identified and corrected as part of the supplier sustainability program in 2021 were:

- Fire safety exit and escape route (signs, quantity, emergency lights)
- Social insurance & annual leave
- Chemical & hazardous wastes management
- One day off every seven days week
- Personal Protective Equipment and workplace safety
- Building structure and fire safety certification
- Weekly working hours
- Establishment of energy conservation and emission reduction targets
- First aider organization, and first aid equipment.

Conflict Minerals

Conflict minerals are natural resources that ethical companies seek to avoid purchasing because they have been extracted in conflict zones and are used to finance and perpetuate armed conflicts.

The four most commonly mined conflict minerals are tin, tungsten, tantalum, and gold. Each of these metals are used in the manufacturing of LEDs. As outlined in our **Conflict Minerals Position Statement**, Lumileds is committed to not purchasing raw materials, subassemblies, or supplies that contain conflict minerals that directly or indirectly finance or benefit armed groups. Lumileds also asks our suppliers to establish their own Conflict Minerals Policies and to only use validated smelters. Further, Lumileds supports organizations including the Responsible Minerals Initiative that seek to prevent minerals that directly or indirectly finance the DRC conflict from entering the electronics supply chain.

Conflict Free Smelters and Refiners

The **Responsible Minerals Initiative** helps companies make informed choices about responsibly sourcing minerals in their supply chains. The organization conducts independent third-party audits of smelter and refiner management systems and sourcing practices to form a comprehensive list of conformant companies. Lumileds uses this list to assess our suppliers and we will not work with any that use non-conforming smelters and refiners.



Looking Ahead

Driven by our corporate target to increase our Supplier Sustainability Compliance rate to 95% in 2025, we will review our supplier engagement procedures to identify areas for further continual improvement.

Stakeholder Engagement

As we continue to innovate and challenge ourselves to create value for our business, we recognize stakeholders are key to our ongoing success. To ensure our priorities continue to align with current stakeholder expectation, we engage the stakeholders most material to our business success and most impacted by our activities. We continuously interact with them through a wide range of initiatives and on topics specific to the interests of each group. A sampling of stakeholder interactions undertaken in 2021 are provided below. Some of these interactions are discussed in further detail throughout this report.

STAKEHOLDER	INTERACTION	DESCRIPTION/EXAMPLE
Communities	 Local community outreach projects 	Our employees engage in community outreach activities to build relationships with a broad range of local partners.
Customers	 Customer meetings Joint research and development 	Care for our customers is one of our core values. Everything we do is with our customers in mind— meeting their existing requirements and lighting needs, plus anticipating their future demands. To that end, we listen closely for insights that serve as the catalyst for breakthrough solutions and services.
Employees	 People Survey Employee newsletters Intranet platform "THE HUB" 	We have a range of initiatives to engage with our team members on an ongoing basis. In 2021, we executed our third People Survey that measures employee satisfaction. See section Focusing on the Employee Experience for more information.
Investors	 Board meetings Participation in portfolio network events 	We have intensive dialogue with our investors through Board of Directors Meetings. On the topics of Environmental, Social and Governance (ESG) performance we regularly interact with Apollo by numerous touchpoints, including the ESG Reporting Program, ESG Webinars, and ESG Digests.
NGOs	• Membership	Lumileds supports the Clean Lighting Coalition (CLiC) campaign to transition global markets to safe, cost-effective, and energy-saving LED lighting through the removal of fluorescent lamp exemptions in the Minamata Convention on Mercury.
Regulatory	Engagement through Industry Associations	We are active in several industry organizations where we partner with peers and engage policymakers on a range of environmental and social topics specific to our industry.
bodies		As an example, Lumileds has been engaging with other industry partners through LightingEurope with the European Commission and their consultants on a range of new sustainability requirements for lighting products.
Suppliers	 Supplier Sustainability Declaration Supplier trainings and audits 	We understand suppliers are critical to our success. Everything we achieve is a collaborative effort. That's why we seek suppliers who share our exacting quality and sustainability standards, then work closely with them to enhance product innovations and speed-up time-to market. See section Responsible Supply Chain for more information.



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Our Product Impact

Performance



Throughout this report, we detail the performance related to the priority issues identified. In this section, we provide an overview of our environmental and social performance in 2021.

CEO Message 2021 Highlights

Our Product Impact

GRI Index

Performance

Environmental Performance

GREENHOUSE GAS EMISSIONS	2018	2019	2020	2021
Total absolute emissions (metric tons of CO ₂ e) ¹	115,001	113,640	99,989	102,238
Scope 1	15,651	16,552	11,218	11,224
Scope 2 location-based (manufacturing)	92,218	92,735	87,398	89,554
Scope 2 location-based (offices) ²	1,666	1,665	872	648
Scope 3 (air travel only)	5,466	2,688	501	811
Total normalized emissions				
GHG intensity (g CO ₂ e per unit produced) ³	47	56	50	44

1 Emission factors have been updated for 2017-2020 based on the most recent version of the GHG Protocol / IEA 2021 (02/2022) and eGrid 2019.

- 2 2020 and 2021 data reflect lower utilization of offices due to COVID-19.
- 3 GHG intensity measures Scope 1 and Scope 2 location-based emissions attributable to manufacturing, per unit produced.

ENERGY	2018	2019	2020	2021
Total energy consumption (MWhs)	285,095	258,450	236,226	242,588
Natural gas	48,736	42,358	33,726	34,210
Fossil carburants (diesel and LPG) for stationary use	732	603	591	520
Energy from electricity consumed in manufacturing	222,428	203,162	190,629	194,966
Energy from electricity consumed in offices	3,047	3,043	1,712	1,273
Energy from heat, steam, and cooling	10,152	9,284	9,568	11,619
Direct purchase of renewable electricity	-	-	-	2,143
Indirect purchase of renewable electricity (renewable energy certificates)	26,153	-	-	-
Total normalized energy consumption				
Energy intensity (kWh per unit produced) ¹	0.12	0.13	0.12	0.11

1 Energy intensity measures total energy consumed in manufacturing sites per unit produced.

WASTE	2018	2019	2020	2021
Total hazardous waste (metric tons)	984	1,032	989	1,443
Sent to landfill	59	8	18	15
Recycled or composted	393	393	363	572
Recovered (energy from waste) ¹	264	464	487	721
Incinerated	269	167	121	135
Total non-hazardous waste (metric tons)	5,087	4,203	3,316	2,533
Sent to landfill	267	454	415	229
Recycled or composted	3,869	3,093	2,625	2,083
Recovered (energy from waste)	135	200	98	219
Incinerated	816	456	177	1
Total waste (tons)	6,070	5,235	4,305	3,976
Recycling Rate	70.2%	66.6%	69.4%	66.8%

WATER	2018	2019	2020	2021
Total water withdrawn (Nm ³)	1,699,646	1,419,810	1,245,299	1,354,795

ENVIRONMENTAL COMPLIANCE	2018	2019	2020	2021
Number of significant environmental fines	0	0	0	0
Amount of significant environmental fines	0	0	0	0

Safety Performance

SAFETY	2018	2019	2020	2021
Fatalities as a result of work-related injury (number)	0	0	0	0
Fatalities as a result of work-related injury (per 100 FTE)	0	0	0	0
High-consequence work-related injuries ¹ (number)	0	0	0	2
High-consequence work-related injuries ¹ (per 100 FTE)	0	0	0	0.03
Total incident rate ² (injury cases per 100 FTE)	0.26	0.23	0.23	0.30
Lost-time incident rate ² (lost workday cases per 100 FTE)	0.12	0.16	0.14	0.17

1 Excludes fatalities. Work-related injury that results in a fatality or in an injury from which the worker cannot, does not, or is not expected to recover fully to pre-injury health status within 6 months.

2 Total incident rate and lost-time incident rate covers full-time equivalents at manufacturing locations, which is greater than 95% of all Lumileds full-time equivalents.

_				Identifying Our				
=	About Lumileds	CEO Message	2021 Highlights	Sustainability Priorities	Our Product Impact	Our ESG Disclosures	Performance	GRI Index

Gender Diversity

GENDER		TOTALS			FEMALE			MALE	
GENDER	2019	2020	2021	2019	2020	2021	2019	2020	2021
Employment Contract									
Permanent employees	7,465	6,902	7,099	3,823	3,532	3,616	3,642	3,370	3,483
Interns	13	18	33	3	8	11	10	10	22
TOTAL	7,478	6,920	7,132	3,826	3,540	3,627	3,652	3,380	3,505
Employment Type ¹									
Full-time	7,402	6,862	7,083	3,783	3,505	3,594	3,619	3,357	3,489
Part-time	76	59	49	43	35	33	33	24	16
TOTAL	7,478	6,920	7,132	3,826	3,540	3,627	3,652	3,380	3,505
Employees by Region ¹									
Americas	544	496	458	183	158	153	361	338	305
APAC	4,880	4,619	5,109	3,051	2,865	3,003	1,829	1,754	2,107
EMEA	2,054	1,806	1,565	592	517	471	1,462	1,288	1,093
TOTAL	7,478	6,920	7,132	3,826	3,540	3,627	3,652	3,380	3,505
Employee Category ¹									
Admin Support	430	355	293	272	243	207	158	111	85
Director	209	190	187	31	34	34	178	156	153
Executive	34	29	26	5	3	2	29	26	24
Manager	452	409	390	145	135	133	307	274	258
Production & Assembly	3,348	3,091	3,469	2,301	2,102	2,246	1,047	990	1,222
Professional	1,845	1,784	1,762	663	646	652	1,182	1,138	1,110
Supervisor	182	160	137	64	58	50	118	102	87
Tech Support	978	903	868	345	320	303	633	583	565
TOTAL	7,478	6,920	7,132	3,826	3,540	3,627	3,652	3,380	3,505

1 Interns are included in calculations.

	TOTALS		FEMALE			MALE			
GENDER	2019	2020	2021	2019	2020	2021	2019	2020	2021
Employee count by Age ¹									
Age 16-19		44	170		25	75		19	95
Age 20-24		513	685		440	469		73	216
Age 25-34		1,738	1,790		1,090	1,103		648	687
Age 35-44		2,300	2,206		1,141	1,102		1,160	1,104
Age 45-54		1,525	1,522		619	610		905	912
Age 55-64		734	630		196	204		538	426
65 years and over		49	51		21	23		28	28

1 Interns are not included in calculations.

				Identifying Our				
—	About Lumileds	CEO Message	2021 Highlights	Sustainability Priorities	Our Product Impact	Our ESG Disclosures	Performance	GRI Index

Gender Diversity

PERCENTAGE OF FEMALE EMPLOYEES	2018	2019	2020	2021
Americas	32%	34%	32%	33%
APAC	63%	63%	62%	59%
EMEA	31%	29%	29%	30%

NEW EMPLOYEE HIRES ¹	2018	2019	2020	2021
Total	1,078	497	582	2,941
New Employee Hires by Region				
Americas	108	42	26	49
APAC	746	369	497	2,786
EMEA	224	86	59	106
New Employee Hires by Gender				
Female	567	261	335	1,539
Male	511	236	247	1,402
Not Declared	0	0	0	0
New Employee Hires by Age Group				
Under 30 years old	454	162	265	2,034
30–50 years old	554	286	291	869
Over 50 years old	70	49	26	38
Not Declared	0	0	0	0

1 Excludes contingent workers and interns.

	EMPLOYEE TURNOVER ¹			TURNOVER RATE ²		
EMPLOYEE TURNOVER AND RATE	2019	2020	2021	2019	2020	2021
Voluntary	1,324	701	2,298	16.1%	9.6%	32.8%
Involuntary	403	472	319	4.9%	6.5%	4.6%
Retirement	49	51	51	0.6%	0.7%	0.7%
End of Fixed Term/Intern Contracts	252	113	96	3.1%	1.5%	1.4%
Total	2,028	1,337	2,764	24.6%	18.3%	39.4%
Turnover by Region						
Americas	166	77	83	27.7%	14.7%	18.5%
APAC	1,559	956	2,312	29.0%	19.6%	46.0% ³
EMEA	303	304	369	13.4%	16.0%	24.0%
Turnover by Gender				·		
Female	1,195	744	1,464	29.7%	19.9%	41.0%
Male	833	593	1,300	19.8%	16.6%	37.8%

1 Excludes contingent workers and interns.

2 Turnover rate is calculated by total number of terminations divided by total headcount.

3 The increase in turnover is primarily driven by direct labor attrition in Malaysia.

GRI Index



The GRI Sustainability Reporting Standards (GRI Standards) are the most widely adopted global standards for sustainability reporting. This report applies the 2016 version of the GRI Standards. "2016" refers to the Standards issue date, not the date of information presented in this report.

GRI 102: General Disclosures 2016*

102-4Location of operationsOur Global Footprint102-5Ownership and legal formLumileds operates as a private company and is majority owned by Apollo Global Management.102-6Markets servedLumileds products are sold worldwide. We have commercial offices in more than 30 countries and service other countries through a network of distributors. Customers in the specialty and illumination market are exclusively business-to- business. In the Automotive market we have customers in both the business-to-business (OEM, OES) and business-to-consumer (Aftermarket) segments.102-7Scale of the organization.Company Overview102-8Information on employees and other workersPerformance, pages 30-33102-9Supply chainResponsible Supply Chain, page 26102-10Significant changes to the organization and its supply chainIn 2021, Lumileds divested from our Middelburg site in the Netherlands.102-11Precautionary Principle or approachWithin Lumileds management system processes, we evaluate risks and opportunities related to quality, environment, and health and safety. These risks and opportunities are reviewed annually and discussed in the Management Review at the Corporate Level. This includes any impact of our activities upon human health or the environment.102-12External initiativesWe endorse the Responsible Business Alliance (RBA) Code of Conduct. The RBA Code of Conduct is a standard part of Lumileds terms and conditions of purchase. The code of conduct requires suppliers to share our commitment to promote acceptable working conditions, environmentally responsible management, and ethical behavior.102-13M	GRI 102.		
102-1 Name of the organization Lumileds 102-2 Activities, brands, products, and services Who We Are 102-3 Location of headquarters Our operational headquarters is in San Jose, USA. Our Corporate headquarters is in Schiphol, the Netherlands. 102-4 Location of operations Our Gibal Footprint 102-5 Ownership and legal form Lumileds operates as a private company and is majority owned by Apollo Gibbal Management. 102-6 Markets served Lumileds products are sold worldwide. We have commercial offices in more than 30 countries and service other countries through a network of distributors. Customers in the specialty and illumination market are exclusively business-to-business. In the Automotive market we have customers in both the business-to-onsumer (Altermarket) segments. 102-7 Scale of the organization. Company Overview 102-8 Information on employees and other workers Performance, pages 30-33 102-9 Supply chain Responsible Supply Chain, page 26 102-10 Significant changes to the organization and its supply chain In 2021, Lumileds divested from our Middelburg site in the Nationary Principle or approach 102-11 Precautionary Principle or approach Within Lumileds management system processes, we evaluate risks and opportunities and conductis upon human health or the environment. 102-12 Ext			CROSS-REFERENCE OR ANSWER
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102-8Information on employees and other workersPerformance, pages 30-33102-9Supply chainResponsible Supply Chain, page 26102-10Significant changes to the organization and its supply chainIn 2021, Lumileds divested from our Middelburg site in the Netherlands.102-11Precautionary Principle or approachWithin Lumileds management system processes, we evaluate risks and opportunities related to quality, environment, and health and safety. These risks and opportunities are reviewed annually and discussed in the Management Review at the Corporate Level. This includes any impact of our activities upon human health or the environment.102-12External initiativesWe endorse the Responsible Business Alliance (RBA) Code of Conduct. The RBA Code of Conduct is a standard part of Lumileds terms and conditions of purchase. The code of conduct requires suppliers to share our commitment to promote acceptable working conditions, environmentally responsible management, and ethical behavior.102-13Membership of associationsWe are active in industry associations in Europe (LightingEurope) where we partner with others in the industry to engage with policymakers on a range of environmental and social topics specific to our industry. We are active in several standardization bodies where we help to define specifications.StrategyIntegrityCEO Message, page 5Ethics and IntegrityValues, principles, standards, Governance, page 26	102-6	Markets served	commercial offices in more than 30 countries and service other countries through a network of distributors. Customers in the specialty and illumination market are exclusively business-to- business. In the Automotive market we have customers in both the business-to-business (OEM, OES) and
102-9Supply chainResponsible Supply Chain, page 26102-10Significant changes to the organization and its supply chainIn 2021, Lumileds divested from our Middelburg site in the Netherlands.102-11Precautionary Principle or approachWithin Lumileds management system processes, we evaluate risks and opportunities related to quality, environment, and health and safety. These risks and opportunities are reviewed annually and discussed in the Management Review at the Corporate Level. This includes any impact of our activities upon human health or the environment.102-12External initiativesWe endorse the Responsible Business Alliance (RBA) Code of Conduct. The RBA Code of Conduct is a standard part of Lumileds terms and conditions of purchase. The code of conduct requires suppliers to share our commitment to promote acceptable working conditions, environmentally responsible management, 	102-7	Scale of the organization.	Company Overview
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102-14 Statement from senior decision-maker CEO Message, page 5 Ethics and Integrity Ethics and Integrity 102-16 Values, principles, standards, Governance, page 26	102-13	Membership of associations	(LightingEurope) where we partner with others in the industry to engage with policymakers on a range of environmental and social topics specific to our industry. We are active in several standardization bodies where we help to define specifications to enhance safety
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102-16 Values, principles, standards, Governance, page 26	102-14		CEO Message, page 5
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	102-16		Governance, page 26

* This report applies the 2016 version of the GRI Standards unless otherwise indicated. "2016" refers to the Standards issue date, not the date of information presented in this report.

DISCLOSURE	DESCRIPTION	CROSS-REFERENCE OR ANSWER
102-17	Mechanisms for advice and concerns about ethics	Governance, page 26
Governance	e	
102-18	Governance structure	Leadership Team
102-20	Executive-level responsibility for economic, environmental, and social topics	Governance, page 26-29
Stakeholde	r Engagement	
102-40	List of stakeholder groups	Stakeholder Engagement, page 28
102-41	Collective bargaining agreements	59% of Lumileds workforce is covered by collective bargaining agreements.
102-42	Identifying and selecting stakeholders	Stakeholder Engagement, page 28
102-43	Approach to stakeholder engagement	Stakeholder Engagement, page 28
102-44	Key topics and concerns raised	Identifying Our Sustainability Priorities, page 7
Reporting F	Practice	
102-45	Entities included in the consolidated financial statements	Not applicable as Lumileds does not publish consolidated financial statements.
102-46	Defining report content and topic Boundaries	Identifying Our Sustainability Priorities, page 8 The report includes all Lumileds operations. The Environment, Health and Safety (EHS) performance indicators represent our manufacturing facilities and do not include our commercial offices, unless otherwise indicated at the relevant sections.
102-47	List of material topics	Identifying Our Sustainability Priorities, page 7
102-48	Restatements of information	2018, 2019 and 2020 Greenhouse Gas Emissions data, specifically Total absolute emissions, Scope 1, and Scope 2 location-based (manufacturing), has been updated to reflect the latest emission factors available for these periods from the most recent version of the GHG Protocol / IEA 2021 (02/2022) and eGrid 2019.
102-49	Changes in reporting	None.
102-50	Reporting period	January 1, 2021 - December 31, 2021
102-51	Date of most recent report	May 19, 2021
102-52	Reporting cycle	Annual
102-53	Contact point for questions regarding the report	Contact the Senior Director of Sustainability at info@lumileds.com
102-54	Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: Core option.
102-55	GRI content index	GRI Index, pages 34-36
102-56	External assurance	The 2021 Sustainability Report and GRI disclosures were not subject to external assurance.

2021 Highlights

GRI 103: Topics and Topic Boundaries 2016*

About Lumileds

GRI TOPIC	CROSS-REFERENCE OR ANSWER	RELEVANT EXTERNAL ENTITY
GRI 205: Anti-corruption 2016	Governance, page 26-29	Communities, Customers, Policymakers, Investors, Suppliers
GRI 302: Energy 2016	Environment, page 18	Communities, Customers, Policymakers, Investors, Suppliers
GRI 305: Emissions 2016	Environment, page 18	Communities, Customers, Policymakers, Investors, Suppliers
GRI 306: Effluents and Waste 2016	Environment, page 18	Communities, Customers, Policymakers, Investors, Suppliers
GRI 307: Environmental Compliance 2016	Environment, page 18	Communities, Customers, Policymakers, Investors, Suppliers
GRI 308: Supplier Environmental Assessment 2016	Governance, page 26-29	Communities, Policymakers, Investors, Suppliers
GRI 401: Employment 2016**	Employees, pages 21-24	
GRI 403: Occupational Health and Safety 2018**	Employees, pages 21-24	
GRI 405: Diversity and Equal Opportunity 2016**	Employees, pages 21-24	
GRI 414: Supplier Social Assessment 2016	Governance, page 26	Communities, Policymakers, Investors, Suppliers
GRI 416: Customer Health and Safety 2016	Our Product Impact, page 10	Communities, Customers, Policymakers, Investors, Suppliers
GRI 419: Socioeconomic Compliance 2016	Governance, pages 26-29	Communities, Customers, Policymakers, Investors, Suppliers

GRI 200-400: Topic-Specific Disclosures 2016*

DISCLOSURE	DESCRIPTION	CROSS-REFERENCE OR ANSWER						
GRI 205: Anti-corruption 2016								
205-2	Communication and training about anti-corruption policies and procedures	Governance, pages 26-29						
GRI 302: Ener	rgy 2016							
302-1	Energy consumption within the organization	Performance, page 30						
302-3	Energy intensity	Performance, page 30						
302-5	Reductions in energy requirements of products and services	Our Product Impact, page 11						
	Energy intensity Reductions in energy requirements							

* This report applies the 2016 version of the GRI Standards unless otherwise indicated. "2016" refers to the Standards issue date, not the date of information presented in this report.

** Employees as a stakeholder group are not considered an external entity.

GRI 200-400: Topic-Specific Disclosures 2016* (cont'd)

DISCLOSURE	DESCRIPTION	CROSS-REFERENCE OR ANSWER
GRI 305: Em	issions 2016	
305-1	Direct (Scope 1) GHG emissions	Performance, pages 30-33
305-2	Energy indirect (Scope 2) GHG emissions	Performance, pages 30-33
305-3	Other indirect (Scope 3) GHG emissions	Performance, pages 30-33
305-4	GHG emissions intensity	Performance, pages 30-33
305-5	Reduction of GHG emissions	Environment, page 18
GRI 306: Eff	luents and Waste 2016	
306-2	Waste by type and disposal method	Performance, pages 30-33
GRI 307: Env	vironmental Compliance 2016	
307-1	Non-compliance with environmental laws and regulations	Performance, pages 30-33
GRI 308: Sup	oplier Environmental Assessment 2016	
308-2	Negative environmental impacts in the supply chain and actions taken	Governance, page 26-29
GRI 401: Em	ployment: 2016	
401-1	New employee hires and employee turnover	Performance, pages 30-33
GRI 403: Oc	cupational Health and Safety 2018	
403-1	Occupational health and safety management system	Employees, page 22
403-2	Hazard identification, risk assessment, and incident investigation	Employees, page 22
403-3	Occupational health services	Employees, page 22
403-4	Worker participation, consultation, and communication on occupational health and safety	Employees, page 22
403-5	Worker training on occupational health and safety	Employees, page 23
403-6	Promotion of worker health	Employees, page 22
403-7	Prevention and mitigation of occupational health and safety management impacts	Employees, page 23
403-9	Work-related injuries	Performance, pages 30-33
GRI 405: Div	versity and Equal Opportunity 2016	
405-1	Diversity of governance bodies and employees	Performance, pages 30-33
GRI 414: Sup	oplier Social Assessment 2016	
414-2	Negative social impacts in the supply chain and actions taken	Governance, pages 26-29
GRI 416: Cus	stomer Health and Safety 2016	
416-1	Assessment of the health and safety impacts of product and service categories	Our Product Impact, page 10
GRI 419: Soc	cioeconomic Compliance 2016	
419-1	Non-compliance with laws and regulations in the social and economic area	Lumileds incurred no significant fines associated with non-compliance of social or economic laws in 2021.

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SR66 Lumileds 2021 Sustainability Report 20220426

