

LEDiL

Sustainability
Report



2021

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About LEDiL

Our story is one of continuous discovery. Since our beginnings in 2002, we set out on a mission to perfect light for a luminous future – for humankind and the life around us.

With every customer case, we advance the quality of LED light by continuously challenging our competence and pushing the boundaries of innovation.

Our state-of-the-art optical solutions help create light that enhances wellbeing, functionality, safety and sustainability. Whether we work on indoor or outdoor lighting, we have the experience and technological know-how to achieve extraordinary results in a wide range of applications.

Together with our customers and partners, we enable and strengthen a shared ecosystem of light; because we know that no one can achieve a better future alone.



CEO words

2021, a year to remember well, LEDiL is stronger than ever

In 2020, while fighting against the enormous negative impact of Covid, LEDiL started its transformation journey by re-focusing its strategy with targets for the next five years. In 2021 these targets were further confirmed, and our focus turned from struggle to the execution of our new solid growth plan. 2021 was a great year, an all-time performance high in LEDiL's history. Regarding our business, despite the pandemic, global logistics challenges, and component shortages, we not only experienced growth with sustainable profitability, but also live according to our values while addressing our sustainability objectives. We not only reached, but exceeded our goals, and I am thankful for the ongoing commitment and responsibility that LEDiL's team members have continued to show during 2021.

Achieving our strategic goals is key to generating the returns required to develop our

company further; not just financial goals, but also sustainability goals. I must underline that these goals are not just for the management team, but for the entire LEDiL Group. LEDiL, being a responsible player in the industry, wants to be involved in shaping the future for coming generations. In the ecosystem of light, LEDiL leads the way in enhancing the efficiency and performance of LED lighting, hence reducing the climate impact of lighting even further. Our optical solutions continue to help provide perfected light, increasing wellbeing, improving safety, enhancing functionality, and even helping to grow food sustainably with a smaller footprint - with less lumens, less watts, less material, and less energy.

Our prioritized sustainability focus areas continue to be climate impact reduction in the value chain, employee wellbeing at work, and ethical business practices. Our code of conduct and related policies are applied throughout our own organisation, and extended to our subcontractors' operations, establishing standards that ensure safe working conditions, equal and respectful treatment of employees,

and environmentally responsible and ethically conducted business operations.

While I am grateful to our valued and demanding clients who drive us to become better in all ways, I would like to end by thanking all LEDiL team members who contribute to LEDiL's development every day. Without you, neither the financial results nor sustainability objectives could be achieved. Let's continue to make progress together.



Petteri Saarinen
CEO

Our values



Customer benefit

“Creating real benefit for all customers is at the core of everything we do”



In this together

“One LEDiL, one team, one goal”



Competence

“We take pride in our profession and are dedicated to climbing the mountain of knowledge”



Inspiration

“We are curious and inspiration is the source of our innovation”



Respect

“We value people and believe that mutual respect is about appreciation, fair treatment and consideration for all”

LEDiL sustainability in brief

Lighting is responsible for approximately 20 % of global energy consumption and hence can play a key role in solving the global climate challenge.

At LEDiL, sustainability is an essential part of our core business logic: LEDiL products are instrumental in ensuring efficiency and performance of LED lighting, reducing energy consumption and helping to provide sustainable light, which increases wellbeing, improves safety, and even helps grow food with a smaller footprint: with less energy and hazardous waste, which is caused by traditional light sources. LEDiL's view and commitment to sustainability has been documented in the company's Code of Conduct, which establishes the LEDiL company standards for ensuring safe

working conditions, equal and respectful treatment of employees, and environmentally responsible and ethically conducted business operations. Our prioritised sustainability focus areas are climate impact, sustainable and responsible operation, and employee health and safety. To meet social responsibilities and to achieve success in the market, LEDiL adheres to the highest ethical standards, and we aim to extend this goal to our supply chain. Our code of conduct and related policies are applied in our own, and our subcontractor's operations, building the foundation for LEDiL sustainable performance.

At LEDiL we are committed to upholding the human rights of workers, and to treating them with dignity and respect as understood by the international community. We believe, that in addition to minimizing the incidence of work-related injuries and illnesses, a safe and healthy working environment enhances the quality of products and services, the consistency of production, and worker retention and morale.

We recognize that environmental responsibility is essential for producing world class products and operating globally. In manufacturing operations, adverse effects on the community, environment and natural resources must be minimized while safeguarding the health and safety of the public. LEDiL has a documented environmental system that has been certified according to ISO 14001.

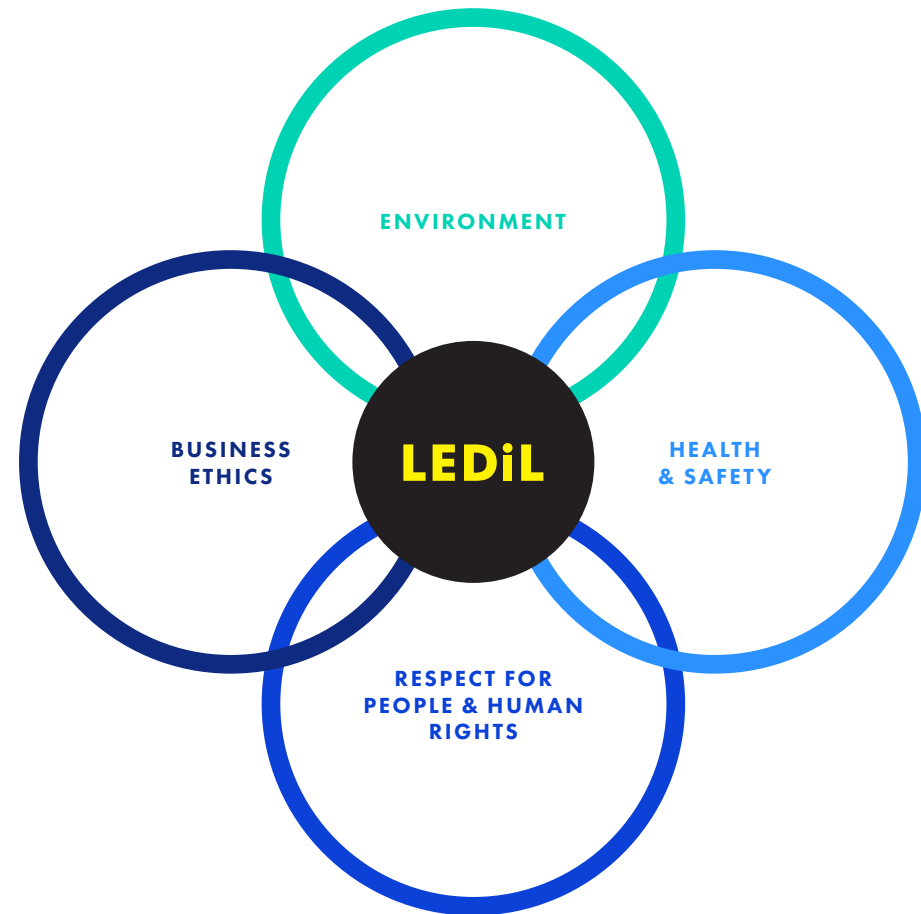


LEDiL sustainability in brief

About the report

This report continues on the foundation established by the 2017 report outlining LEDiL's sustainability approach, key results and main activities.

The focus areas have been defined based on materiality analysis. The GRI standard has been used as inspiration and a source for essential topics. In this report we have further improved CO₂ emission reporting and have received more detailed information on production emissions.





Material sustainability topics and our focus

A materiality analysis was used to define LEDiL key sustainability topics and focus. The environmental, social and economic topics relevant to our business are based on various stakeholder interactions and the result of a questionnaire.

Last year's materiality analysis was reviewed and updated for this report. The focus topics remain the same.

Material sustainability topics and our focus

The Environmental impact of LEDiL products and services

The positive environmental impacts of our products and services are related to LED lighting energy saving and reducing hazardous substances found in traditional lighting i.e. FL (fluorescent lamps) and HID (high intensity discharge) lamps, as well as enhancing the efficiency of special applications and reducing environmental footprint e.g. in horticultural applications.

Our products are designed to further enhance the energy savings of LED lighting by focusing radiated light energy of efficiently on the designed target where it is needed. The annual estimated cumulative energy savings of luminaires using LEDiL components, sold during 2021, are equal to 6,7 TWh.

Modularity is the basis of our design ideology which allows us to combine fewer parts and tools into a large number of tool combinations and end products, reducing the need for

producing, transporting and warehousing large numbers of end products, and reducing the total amount of different molding tools.

With our wide range of standard products and custom product design services and support we help luminaire manufacturers in developing optimal solutions for better quality and better efficiency lighting.

LEDiL operation's environmental approach focuses on fulfilling environmental compliance, ensuring efficient material and energy usage, appropriate handling and reduction of waste and reducing our carbon footprint.

LEDiL sustainability focus areas



Environmental compliance



Emissions in logistics chain



Employee wellbeing and safety



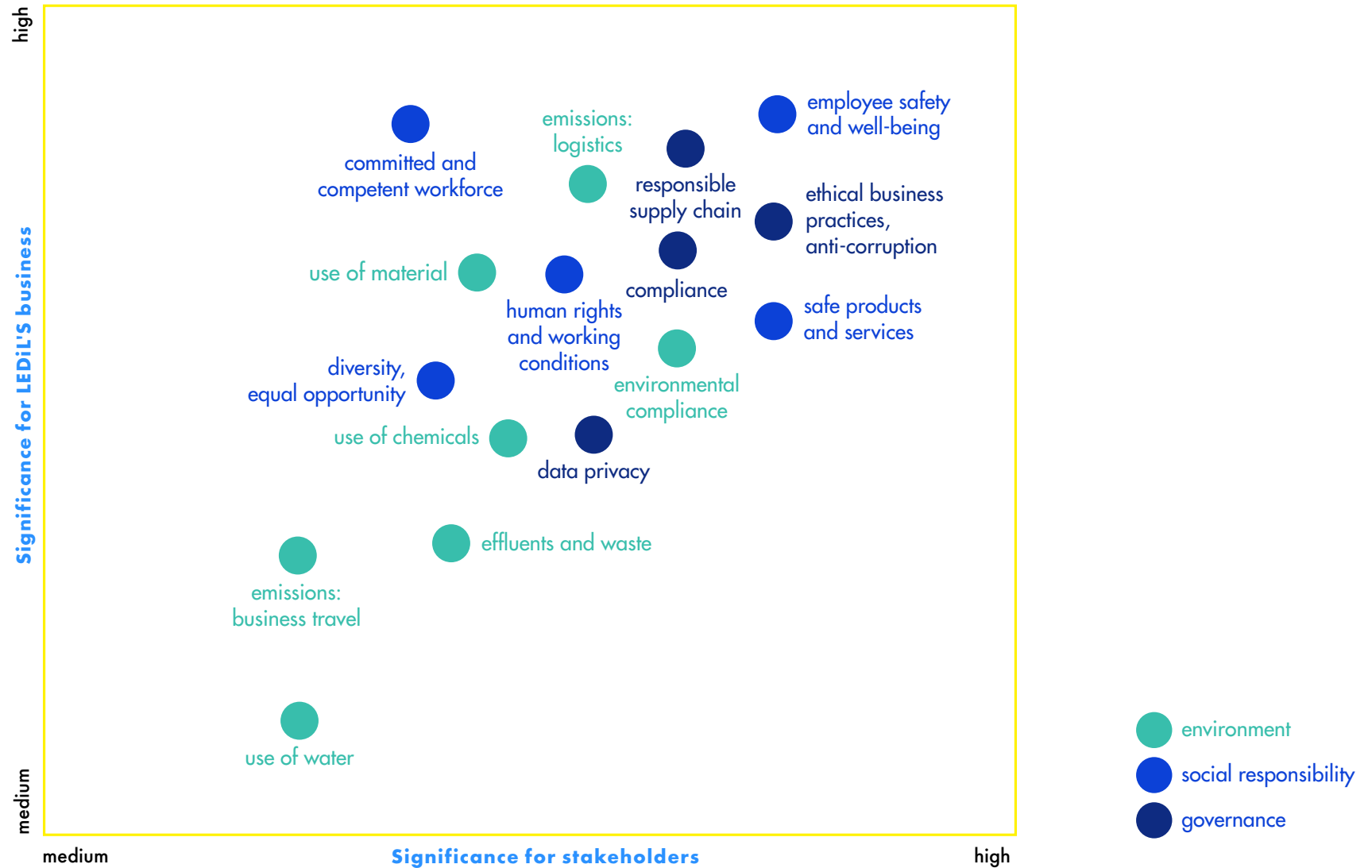
Ethical business practices



Responsible supply chain

Material sustainability topics and our focus

Materiality analysis



Environmental compliance

Our environmental compliance is based on ISO 14001 standard. Currently we hold ISO 14001:2015 certificate which was recertified by DNV in March 2021. We constantly maintain and develop our environmental management system. All our products are REACH and RoHS compliant.

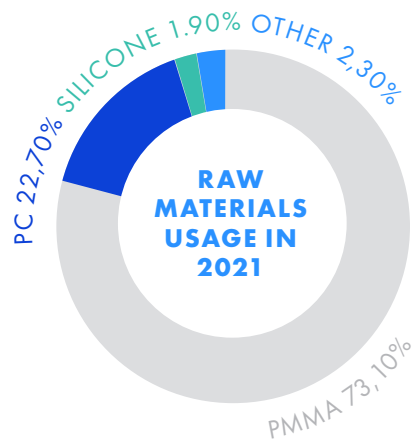


Environmental compliance

Materials

LEDiL's designed LED secondary lenses and reflectors are produced from plastic and silicone raw materials. The benefits of plastic compared to glass, another optically competitive material are the lower price, lighter weight and lower energy intensive production process. The weight of optical plastic is also 6 times lighter than optical grade glass.

Our aim in product design is to optimize raw material usage and hence reduce environmental loading and waste as far as possible. We actively test and study new materials to find more ecological solutions. LEDiL's annual raw material usage in 2021 based on material purchasing was 1010 tons (last year 669 tons), shows in the graph below by material.



Environmental compliance

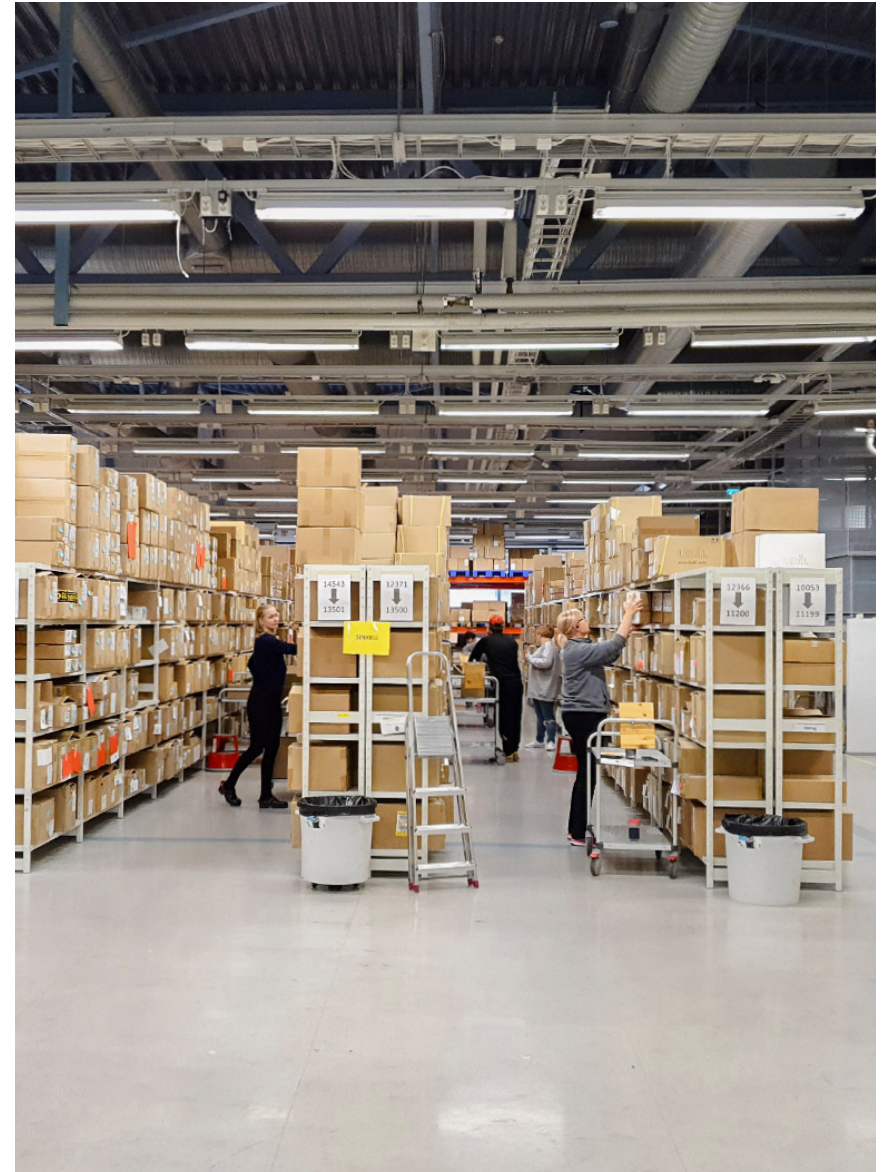
We constantly optimize the use of packaging materials by careful packaging design, taking into account product specific requirements and packaging material use, cost, and the effect on logistics and storage.

In 2018 the LEDiL warehouse in Salo, Finland, started using thinner plastic wrapping film which reduces wrapping film waste by 54 %. The utilization of recyclable plastic pallets since 2017 has reduced the mass of used pallets and made the operation more sustainable. This has a direct impact on freight related energy consumption emissions. The increase in packing material consumption is in line with the sales volume increase in 2021.

Packaging material use	Tons		Ratio to sold units**	
	2021	2020	2021	2020
Plastic packaging material	68,9	53,5	7,7 %	8,4 %
Carton packaging material	91,1	63,7	10,2 %	10,0 %
Wood pallets (EUR, recyclable) *	14,0	13,7	1,6 %	2,2 %
Plastic pallets (recyclable) *	14,6	13,0	1,6 %	2,0 %

* Goods handled through Ledil Oy

** Ratio to sold units = packing material weight (kg) / sold units weight (kg)



Environmental compliance

Energy

Our measurable in-house energy consumption is based on head office electricity consumption readings for facility, machinery and heating. The LEDiL office facility in Salo is equipped with solar panels and the building uses geothermal heating which decreases the electric need for heating by approximately 70 % compared to direct electric heating. The externally supplied electricity is 37 % renewable, 35 % nuclear, and 28 % fossil energy (2019 data). The increase in net electricity use comes from the cold winter in 2021.

The main contributor to energy consumption in our value chain is the energy used in our supplier's injection molding factories. This part of our energy consumption can only be estimated from available literature and studies of energy consumption in injection molding together with production volume. Significant growth in production volumes led to the increase in estimated electricity use for injection molding.

Salo head office electricity use (kWh)	2021	2020
Total electricity use +	487 251	440 823
Solar electricity production for own use -	150 000	175 000
Net electricity use	337 251	265 823
Energy consumption in production (MWh)	2021	2020
Estimated electricity use in injection molding	1 766	1 317

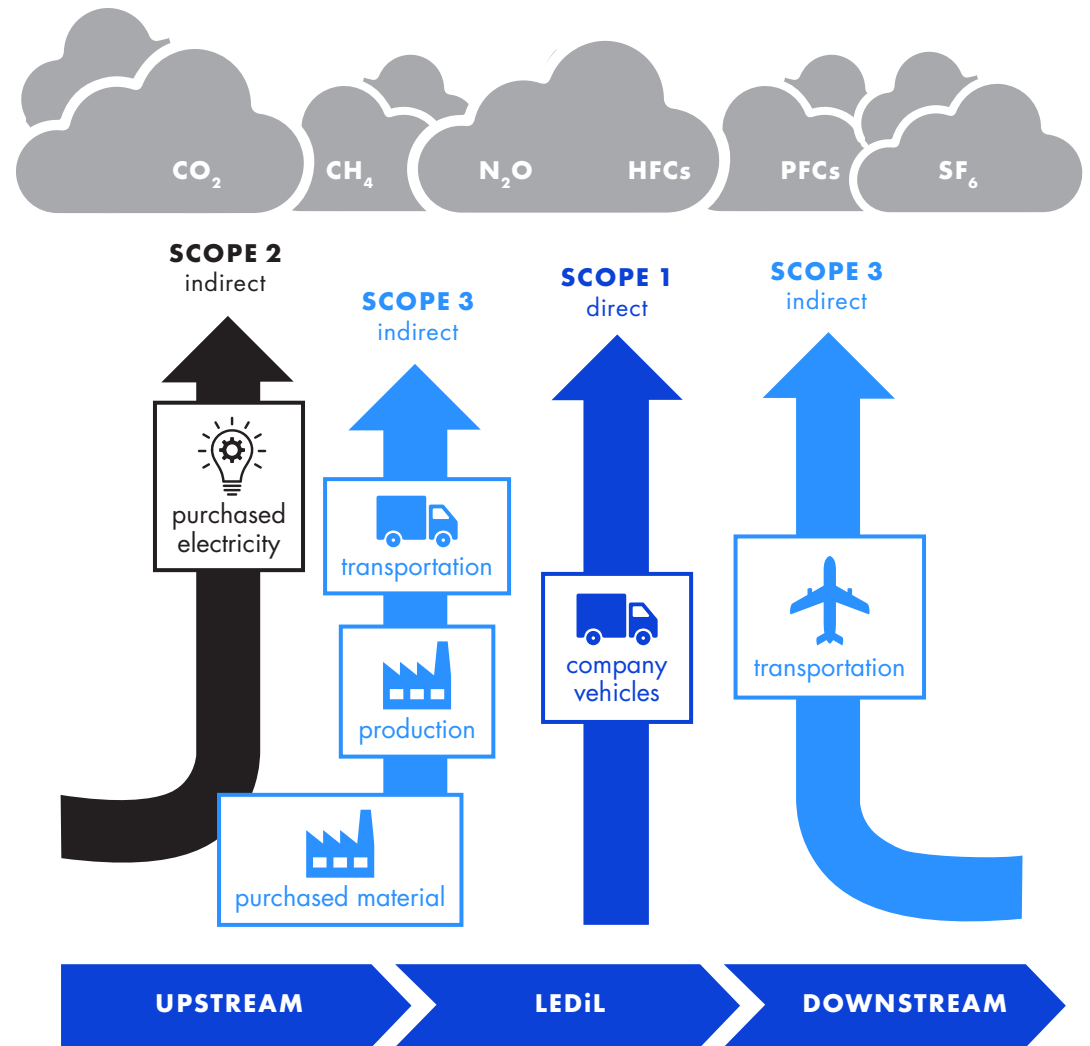


Environmental compliance

Emissions

From 2019 onwards LEDiL sustainability reporting has implemented a new calculation method for CO₂e reporting according to the Greenhouse Gas (GHG) protocol which divides emissions into 3 scopes and direct/indirect emissions. LEDiL's emission split into scopes 1-3 is shown in the picture below.

The direct emissions of our operations in scope 1 are limited to emissions from company vehicles. Emissions related to company facilities are due to purchased electricity which is reported as indirect emissions in scope 2. The emissions in the upstream of our supply chain in scope 3 are emissions due to the production of purchased raw materials, emissions due to production at suppliers, and transportation. In the downstream of our supply chain the emissions are mainly due to logistics.



Environmental compliance

LEDiL's GHG emission split into scopes 1-3

	2021		2020	
	tCO ₂ e	%	tCO ₂ e	%
SCOPE 1	1,6	0,0	2,1	0,0
Company owned vehicles	1,6	0,0	2,1	0,0
SCOPE 2	75,9	0,9	59,8	0,9
Purchased electricity for own use	75,9	0,9	59,8	0,9
SCOPE 3	8 029,7	99,0	6252,2	99,0
Logistics	1 863,1	23,0	1 722,9	27,3
Production of purchased materials	5 018,6	61,9	3 673,4	58,2
Production at suppliers	1 148,0	14,2	865,0	13,6
Total	8 107,2		6 314,1	

The main carbon footprint in our value chain is due to the production of plastic and silicone raw materials in the upstream and logistics emissions in the downstream. Due to short lead time demand in the market, and the goal of keeping stock levels low, our main shipping method is air freight. However, we are increasing the use of sea freight systematically. The doubled count of utilized sea freight containers in 2021 has led to CO₂e reduction of 257 tons compared to air freight. Therefore logistics emissions increased only 8 % whereas weight of sold products increased by 40 % during 2021. During 2022, we aim to add a third sea freight container each month, potentially reducing logistics emissions by 20 % from their current level. Additionally, train transportation will be explored as an alternative to air freight.



Environmental compliance

Waste

Our aim is to minimize the generation of waste in general, promote recycling, and minimize the amount of waste to landfill. Our primary efforts in waste management are focused on our main site and warehouse in Finland. In Salo head office waste sorting is every employee's responsibility. Office spaces, the dining and break space, warehouse and laboratory are all equipped with appropriate waste sorting containers that enable easy sorting of paper,

cardboards, bio-waste, metal, energy waste, security plastic, and packaging plastic. Employees are instructed to use these sorting stations appropriately to optimize material circulation. Carton waste increased following the growth in sales volumes in 2021. Security destroyed plastics is mostly scrapping of discontinued products as part of LEDiL's product life cycle management.

Waste by type in LEDiL headquarters Salo, Finland

Ratio to sold units*

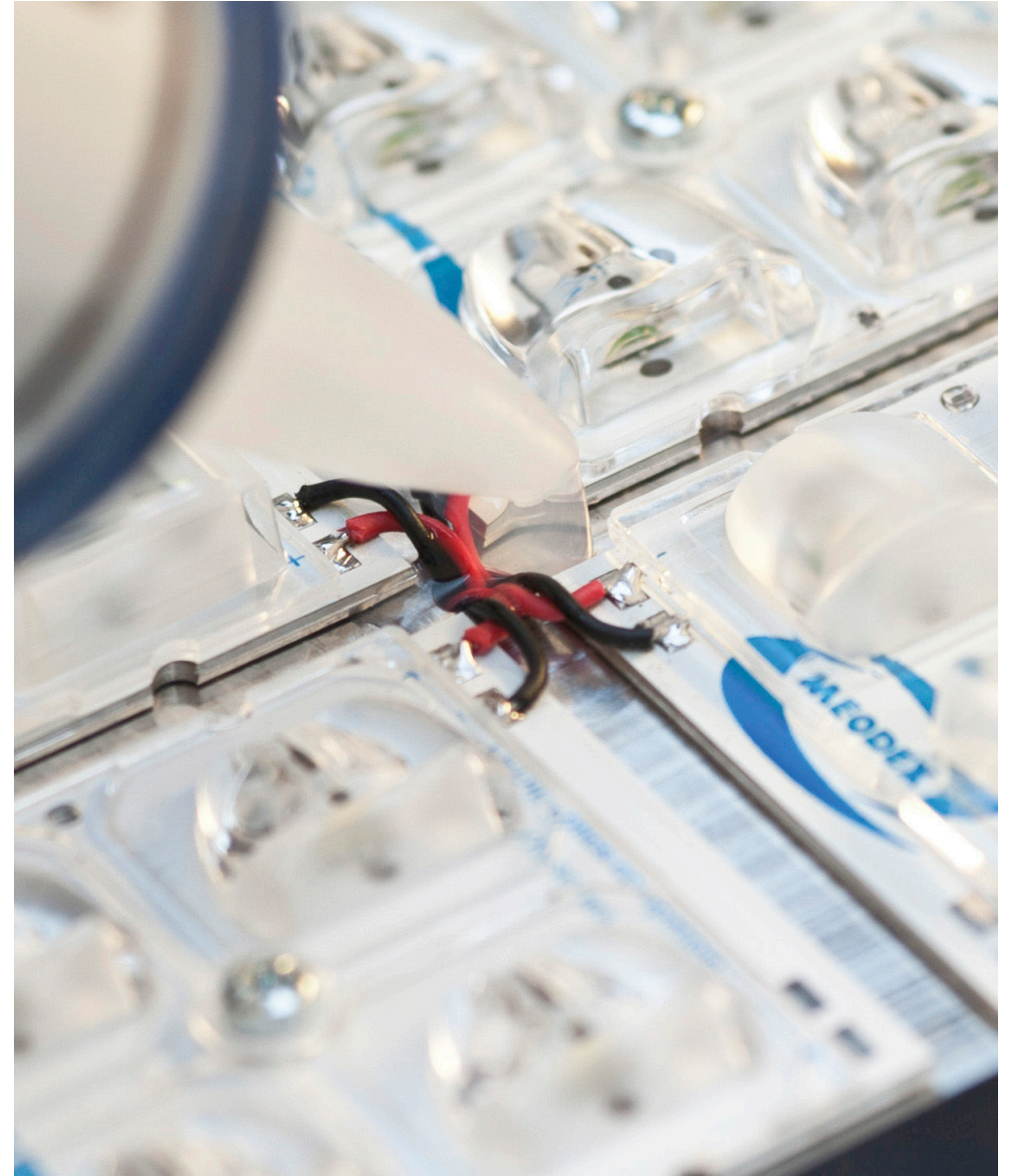
	2021	2020	2021	2020
Energy waste (incineration)	3 000 kg	3 000 kg	0,3 %	0,5 %
Security destroyed plastics (incineration)	8 000 kg	6 700 kg	0,9 %	1,1 %
Biowaste	6,5 m ³	4,6 m ³	0,7 %	0,7 %
Carton (recyclable)	75 m ³	52 m ³	8,4 %	8,2 %
Recyclable paper	4,7 m ³	5,0 m ³	0,5 %	0,8 %
Metal	2,9 m ³	1,9 m ³	0,3 %	0,3 %
Plastic (incineration)	21,8 m ³	10,6 m ³	2,4 %	1,7 %
Landfill	20 m ³	20 m ³	2,2 %	3,1 %

* Ratio to sold units = waste (kg) / sold units weight (kg) or waste (m³) / sold units weight (tons)

Environmental compliance

Chemicals

Regarding the use of chemicals, we follow health and safety regulations and our products comply with REACH regulations and the RoHS directive. In our supply chain, we pay attention to safe and healthy chemical handling, storage, and disposal. These are actively monitored in regular supplier audits and other visits.



Social and employee responsibility

LEDiL employee responsibility topics include employee wellbeing and safety, competence development, and employee satisfaction in a fast-growing organization.

The majority of LEDiL employees are based in the headquarters in Salo, Finland. In 2016, LEDiL established a subsidiary in Sycamore, USA. In 2019 LEDiL Ltd China was established and the logistics department Delivered in Hong Kong was acquired. Other areas outside Europe are represented by sales agents.

LEDiL employee data	2021	2020
Number of employees in the end of year	108	113
Share of women in employees	35 %	35 %
Share of women in the management team	9 %	11 %



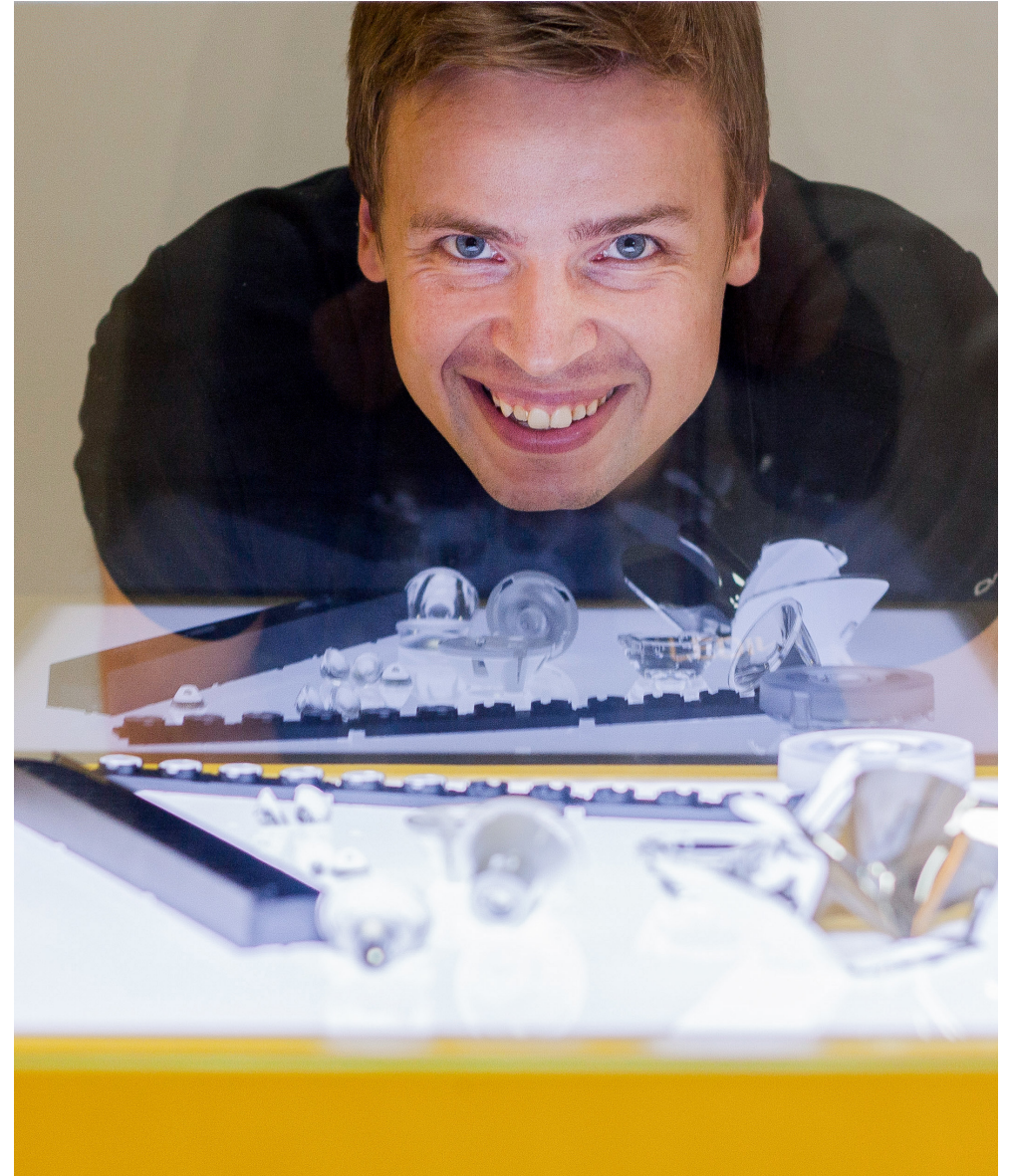
Social and employee responsibility

Employee wellbeing and safety

The primary objective at LEDiL is to offer employees a healthy and safe working environment. Our target is zero accidents annually. All new employees receive training in health and safety. A health and safety committee consisting of representatives from the employees, employer and HR meets regularly to follow up issues and take actions when required. Cooperation with the occupational health services provider is active and focuses on preventive measures and development of employee wellbeing. LEDiL's flexible ways of working and weekly sports activities help to improve and maintain employee wellbeing.

LEDiL key metrics for occupational health and safety	2021	2020
Work related injuries	0 pcs	0 pcs
Sick leave rate	1,73 %	1,43 %

We follow ISO 45001 standard principles in our OHS management. In addition health and safety requirements, including zero tolerance of discrimination, are defined in our code of conduct which we require our suppliers to adhere to.



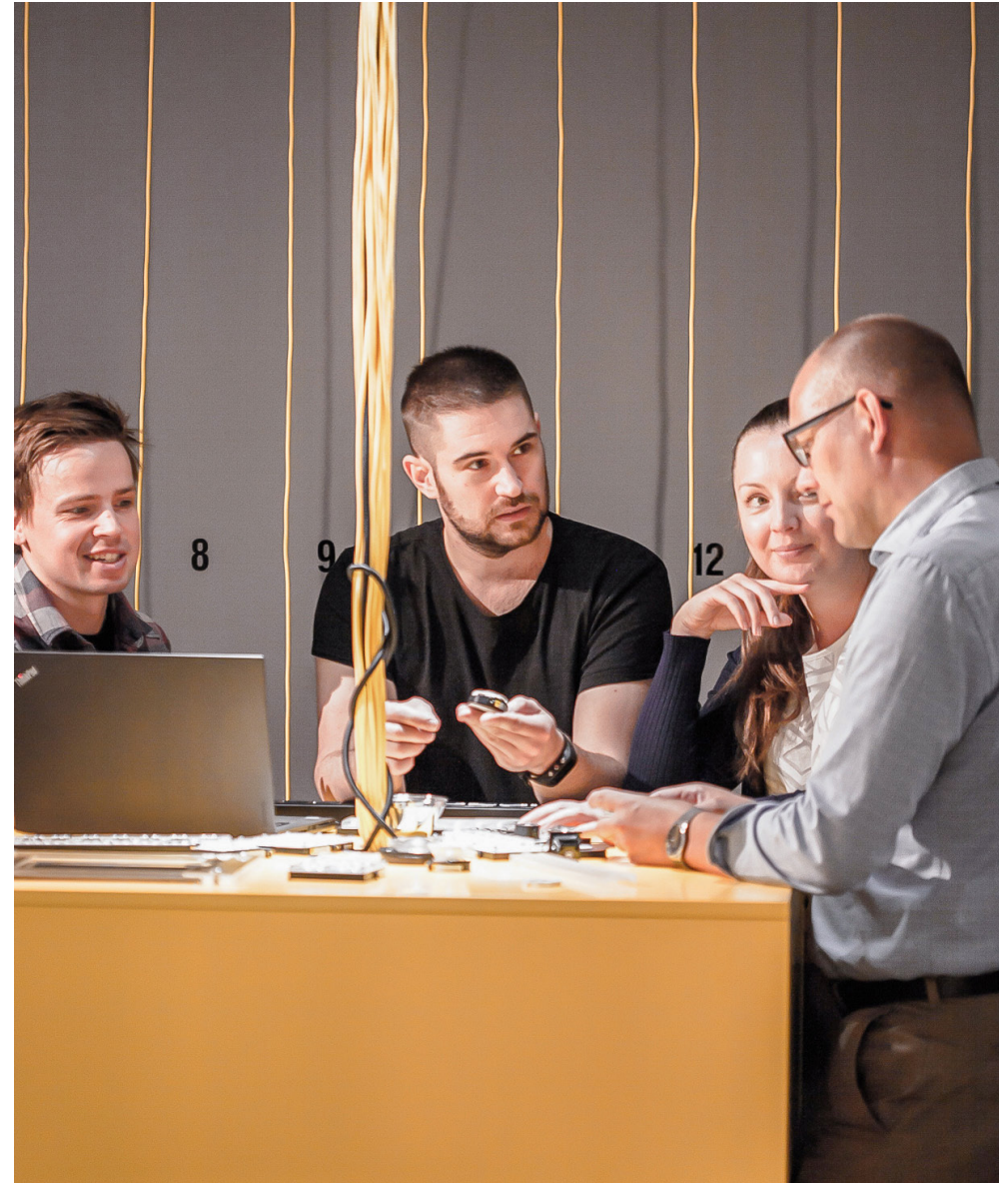
Social and employee responsibility

Competence development

Competent, innovative and motivated people are key to LEDiL's success. Staying ahead of the competition requires constant development as an organization and individual learning. As a foundation of competence development LEDiL is continuously mapping training needs and listening to employee's aspirations for personal and organizational development. Every employee has a development plan, objectives and a means of how to reach those objectives. LEDiL actively supports employees to improve individual and organizational performance.

Employee satisfaction

We aim to maintain and develop employee satisfaction continuously. The working atmosphere has been a key focus point at LEDiL. LEDiL has implemented flexible ways of working and a hybrid working method has been adopted with the purpose of serving as a foundation for a positive working atmosphere, wellbeing, and employee satisfaction. An employee satisfaction survey has been organized annually since 2018. In 2021 the survey results indicated that 85 % of LEDiL employees are very or quite satisfied with LEDiL as an employer. More focus has been put on equality, information sharing, personnel development, flexibility, and team spirit.



Business ethics and anti-corruption

Compliance

We are committed to following all applicable environmental, safety, quality, and business-related laws and regulations. LEDiL code of conduct establishes LEDiL company standards for ensuring safe working conditions, equal and respectful treatment of workers, and environmentally responsible and ethically conducted business operations. The highest standards of integrity are to be upheld in all business interactions enforcing zero tolerance for corruption and bribery.

All LEDiL employees and sales agents have been trained in the code of conduct and anti-corruption, and the training rate is followed and reported in the LEDiL sustainability KPI. Every new employee is trained on these topics during the induction period. To be able to prevent and take actions in case of misconduct against the code of conduct, a Whistleblowing channel was established in 2018. The channel is an externally managed third-party service that enables anonymous reporting for all LEDiL employees.



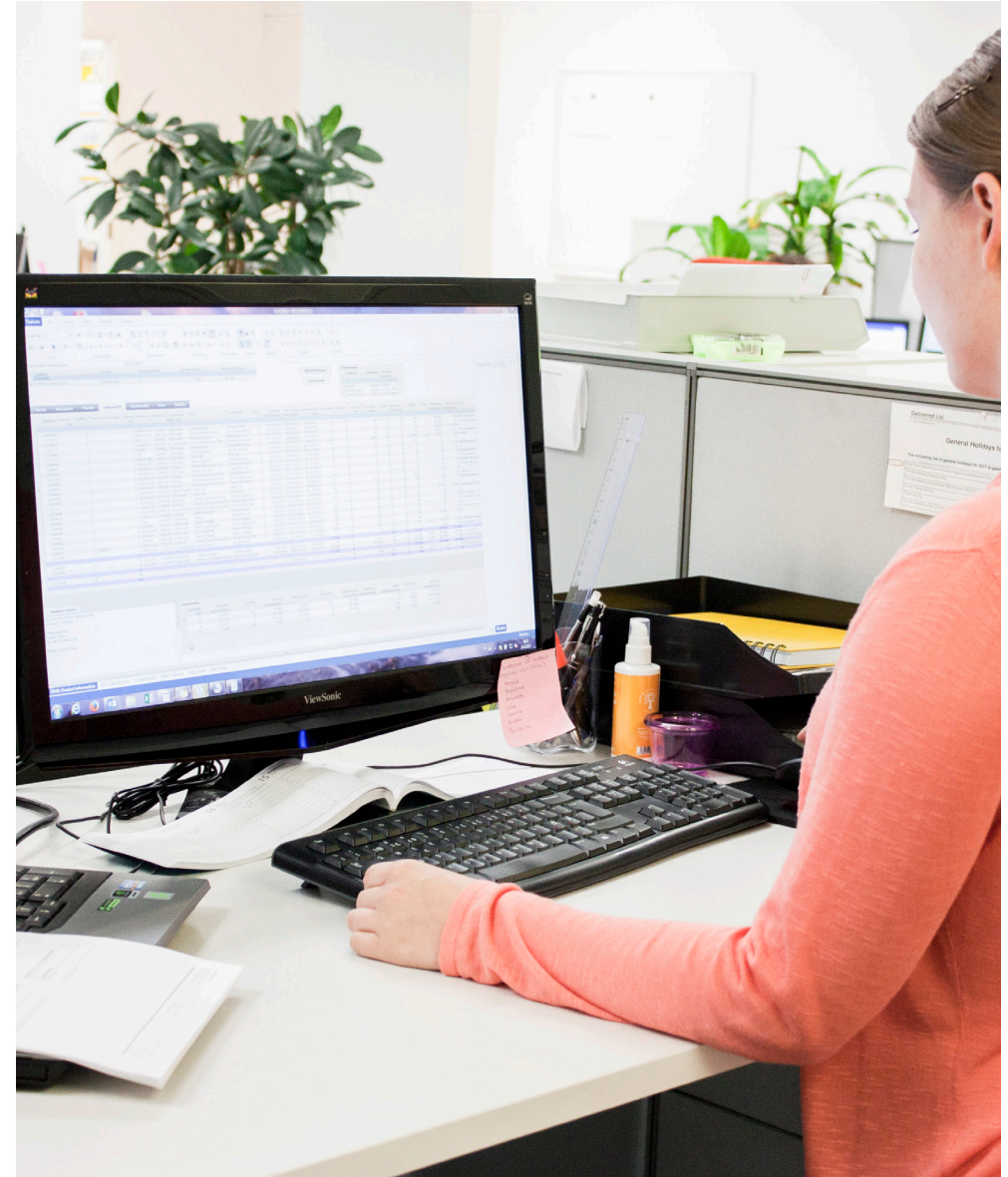
Business ethics and anti-corruption

Responsible supply chain

LEDiL is committed to conducting its business in a responsible and sustainable way and we expect the same commitment from our suppliers and business partners. By careful selection and evaluation of suppliers and partners, we ensure that quality, human rights, environmental, anti-corruption and other business ethics requirements are met. We aim to have all LEDiL suppliers sign the agreement to LEDiL code of conduct by the end of 1H2022. During co-operation with the supply chain we evaluate the supplier's operations and compliance with agreed ways of working by on-site audits. LEDiL and its suppliers are committed to the non-use of conflict minerals.

Data privacy

LEDiL is committed to protecting the required privacy expectations of personal information of everyone we do business with, including suppliers, customers, consumers, and employees. We carefully safeguard the confidentiality and availability of our proprietary information. We fulfill the requirements of the GDPR data protection regulation which came into force on 25th May 2018.



LEDiL sustainability KPIs 2021

6,7 TWh

cumulative energy saving by
products sold annually

100%

share of employees who have
attended sustainability courses

88%

share of suppliers who have subscribed
LEDiL code of conduct

1,71%

employee wellbeing,
sick leave rate

8107 tons

CO₂ emission
(scope 1-3)