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SUSTAINABILITY REPORT | 2020



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A black and white photograph of a man in profile, facing right. He is holding a flashlight, and a bright beam of light extends from his hand across the right side of the image. The background is dark, and the light from the flashlight creates a strong contrast.

ABOUT LEDiL

As an undisputed leader in the field of LED optics, LEDiL strongly believes in light that is right for increased wellbeing and safety, optimised functionality and improved sustainability with energy efficiency.

LEDiL stands out thanks to its highly-rated technical support service, a global network of sales teams and distributors, as well as superior operational performance and service, creating a great customer experience. Our innovative solutions, extensive standard product portfolio and unlimited custom products based on state of the art design expertise, combined with our global production footprint also make us the first choice for the most demanding applications.



CEO WORDS

LEDiL leads the way in enhancing the efficiency and performance of LED lighting and hence reducing the climate impact of lighting even further. Our optical solutions help provide light which increases wellbeing, improves safety, enhances light functionality and even helps to grow food sustainably with a smaller footprint: with less lumens, less watts, less space, less energy and less costs. Our prioritized sustainability focus areas are climate impact in the value chain, employee wellbeing at work and ethical business practices. Our code of conduct and related policies are applied throughout our own, and our subcontractors' operations, building the foundation for LEDiL sustainable performance by establishing standards that ensure safe working conditions, equal and respectful treatment of employees, and environmentally responsible and ethically conducted business operations.

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 contributes approximately 20 % of global energy consumption and hence lighting is in remarkable 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 and hence reducing energy consumption of lighting and helping to provide sustainable light which increases wellbeing, improves safety and even helps to grow food with 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 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 is to uphold the highest standards of ethics, 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 subcontractors' operations, building the foundation for LEDiL sustainable performance.

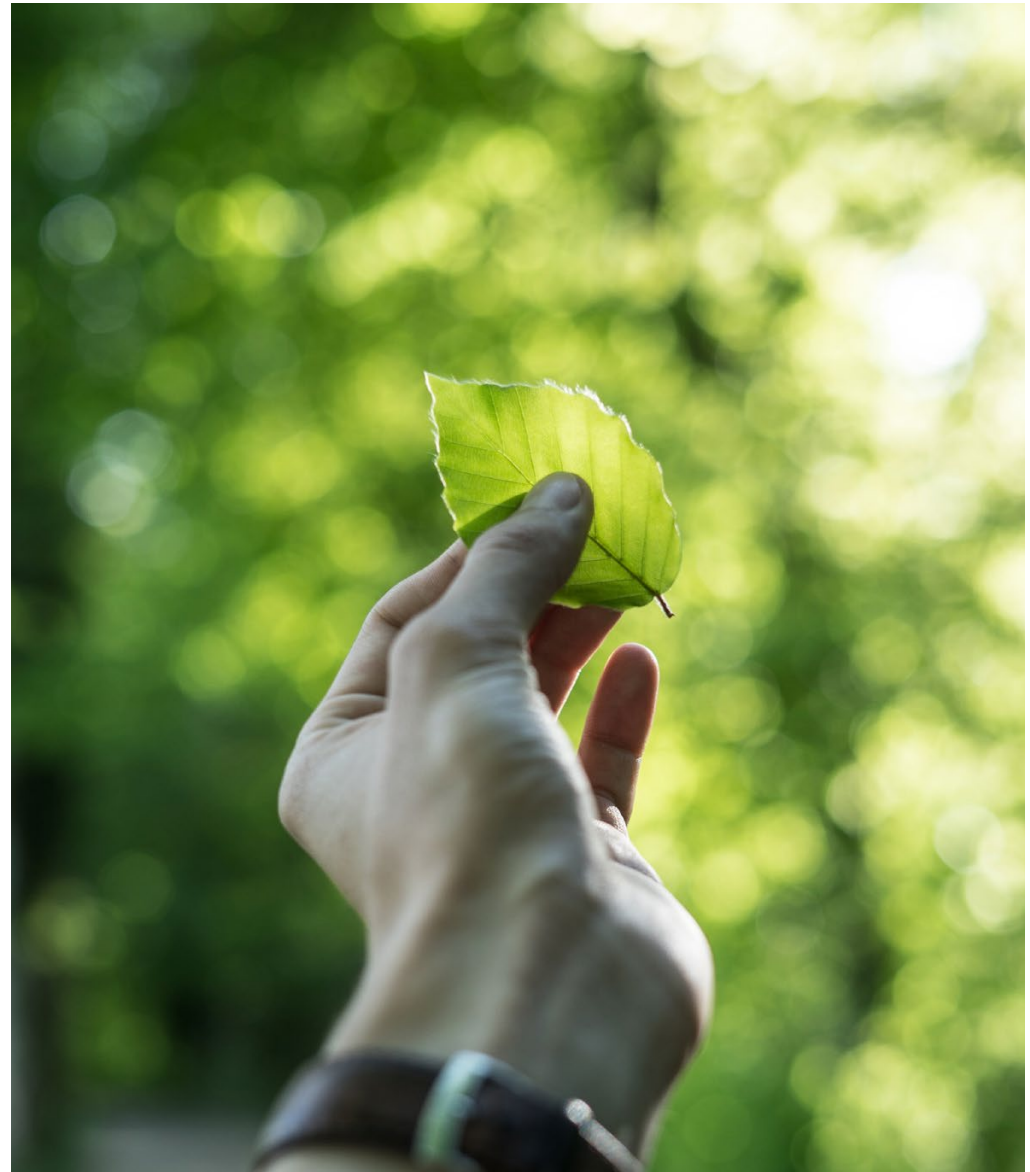
We at LEDiL are committed to upholding the human rights of workers, and to treat them

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 in producing world class products and operating globally. In manufacturing operations, adverse effects on the community, environment and natural resources are to 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.

ABOUT THE REPORT

This report continues on the foundation established for the 2017 report outlining LEDiL sustainability approach, key results and main activities. The focus areas have been defined based on materiality analysis. GRI standard has been used as inspiration and source for essential topics. In this report we have further improved the CO₂ emission reporting and have received more detailed information on production emissions.





MATERIAL SUSTAINABILITY TOPICS AND OUR FOCUS

A materiality analysis has been used to define the key sustainability topics and focus of LEDiL. The environmental, social and economic topics relevant to our business are based on various stakeholder interactions, a questionnaire and comparing the input with significance to LEDiL. Materiality analysis has been reviewed since last year for this report and significance has been updated. The focus topics have remained the same.

MATERIAL SUSTAINABILITY TOPICS AND OUR FOCUS

ENVIRONMENTAL IMPACT OF LEDiL PRODUCTS AND SERVICES

The positive impacts of our products and services on environment are related to energy savings by LED lighting, reducing hazardous substances compared to traditional lighting i.e. FL (fluorescent lamps) and HID (high intensity discharge) lamps and enhancing special applications efficiency and reducing environmental footprint e.g. in horticultural applications. Our products are designed to enhance further the energy savings of LED lighting by focusing the radiated light energy of LED efficiently to the designed target where it is needed. The annual estimated cumulative energy savings of LED luminaires using LEDiL components, that have been sold during 2020, are equal to 4,6 TWh.

Modularity is the basis of our design ideology which enables combining few parts and tools into a large number of tool combinations and end products and hence reducing need for producing, transporting and warehousing large number of end products and reducing total amount of different molding tools. By 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**

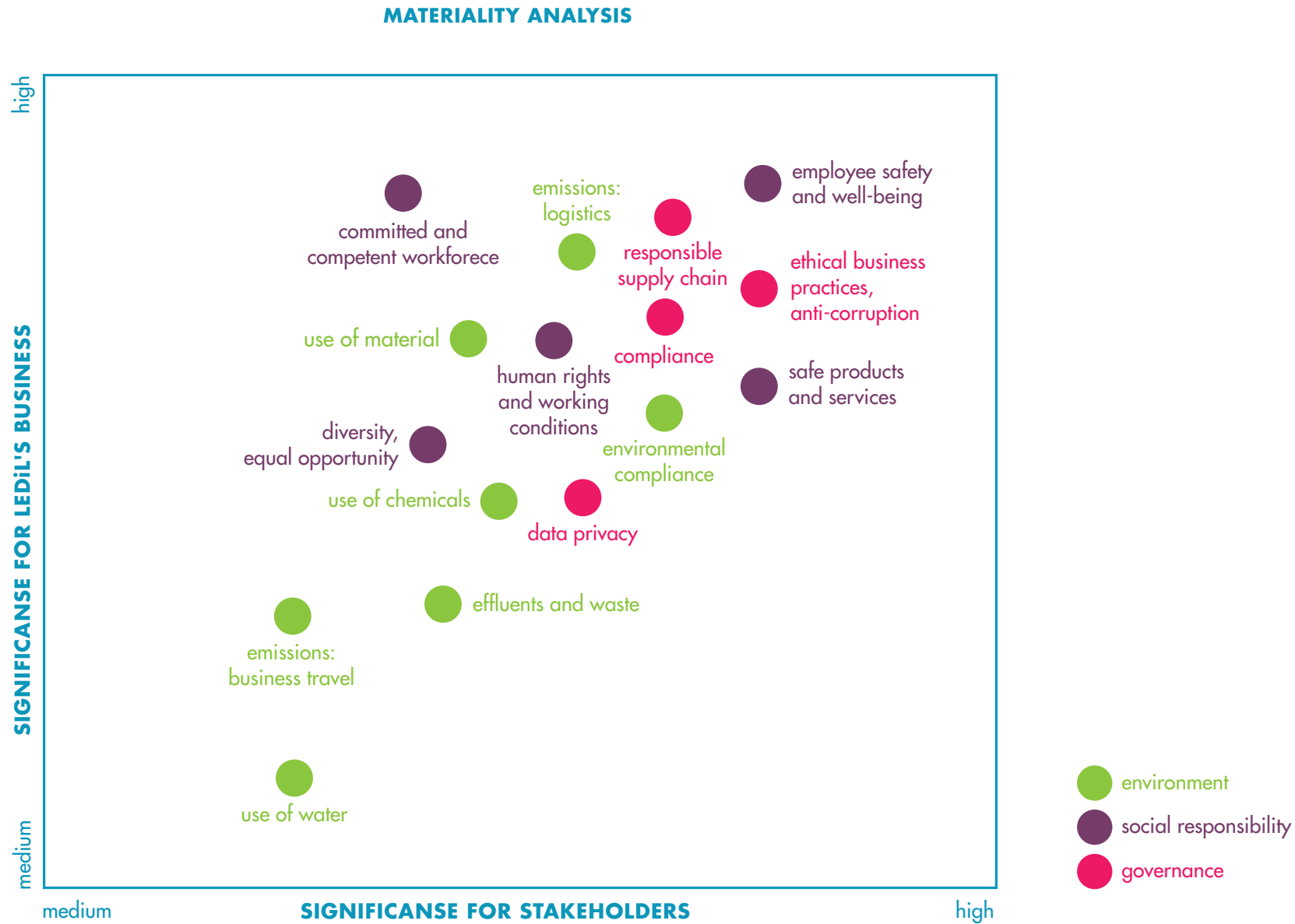


**ETHICAL BUSINESS
PRACTICES**



**RESPONSIBLE
SUPPLY CHAIN**

MATERIAL SUSTAINABILITY TOPICS AND OUR FOCUS





ENVIRONMENTAL COMPLIANCE

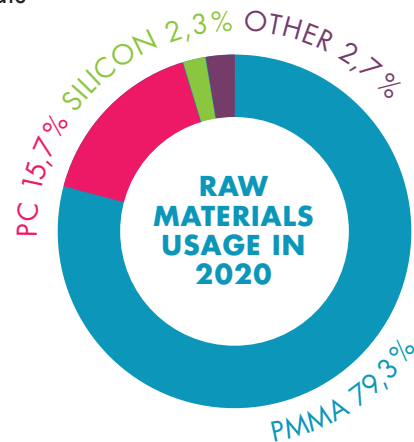
Our environmental compliance is based on ISO14001 standard. Currently we hold ISO14001:2015 certificate which was certified by DNV in August 2020. We constantly maintain and develop our environmental management system. All our products are compliant with REACH regulations and RoHS directive.



MATERIALS

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

Our aim in product design is to optimize the 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 2020 based on material purchasing was 669 tons (last year 677 tons), presented in the graph on the right by material.



ENVIRONMENTAL COMPLIANCE

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

In 2018 LEDiL warehouse in Salo, Finland, started using thinner plastic wrapping film which reduces wrapping film waste by 54 %. Use of lighter and recyclable plastic pallets has reduced total mass of pallets by 17 % compared to 2017. This has direct impact on freight related energy consumption and emissions.

PACKAGING MATERIAL USE (ton.)	2019	2020
Plastic packaging material	57,9	53,5
Carton packaging material	64,8	63,7
Wood pallets (EUR, recyclable) *	15,7	13,7
Plastic pallets (recyclable) *	14,6	13,0

* Goods handled through LEDiL Oy



ENVIRONMENTAL COMPLIANCE

ENERGY

Our measurable in-house energy consumption is based on the head office electricity consumption readings for facility, machinery and heating. LEDiL office facility in Salo facility is equipped with solar electricity panels and the building uses geothermal heating which decreases the electricity need for heating approximately by 70 % compared to direct electrical heating. The externally supplied electricity is 35 % renewable, 32 % nuclear and 33 % fossil energy (2019 data).

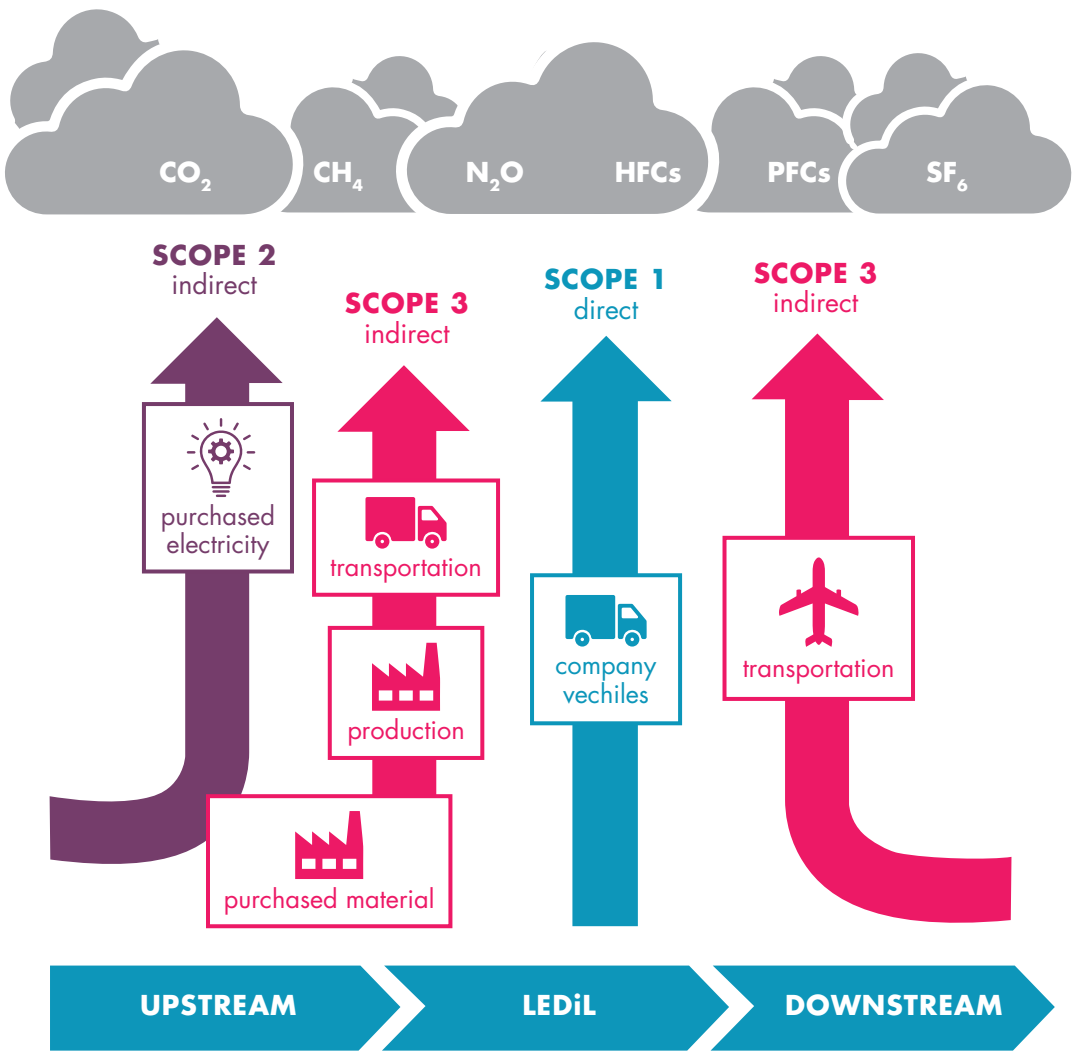
The main contributor to the energy consumption in our value chain is the energy used in the injection molding factories by our suppliers. This part of energy consumption can only be estimated by available literature and studies of energy consumption in injection molding together with production volume.

SALO HEAD OFFICE ELECTRICITY USE (kWh)	2019	2020
Total electricity use +	449 194	440 823
Solar electricity production for own use -	175 000	175 000
Net electricity use	274 194	265 823
ENERGY CONSUMPTION IN PRODUCTION (mWh)		
Estimated electricity use in injection molding	1 076	1 317



EMISSIONS

From 2019 sustainability reporting onwards LEDiL has implemented a new calculation method for CO₂e reporting according to Greenhouse Gas (GHG) protocol which divides emissions into 3 scopes and direct/indirect emissions. LEDiL's emission split into scopes 1–3 has been presented 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. Emissions in upstream of our supply chain in scope 3 are emissions due to 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 2020 GHG EMISSION SPLIT INTO SCOPES 1-3

	tCO ₂ e	%
SCOPE 1	2,1	0,0
Company owned vehicles	2,1	0,0
SCOPE 2	59,8	0,9
Purchased electricity for own use	59,8	0,9
SCOPE 3	6 252,2	99,0
Logistics	1 722,9	27,3
Production of purchased materials	3 673,4	58,2
Production at suppliers	856,0	13,6
TOTAL	6 314,1	

The main carbon footprint in our value chain is due to production of plastic and silicon raw materials in the upstream and emissions of the logistics in the downstream. Due to short lead time demand in the market and the aim to keep stock levels low our main shipping method is air freight. However, we are increasing the use of sea freight systematically. The utilization of sea freight in 2020 has led to a CO₂e reduction of 279 tons compared to air freight. During 2021, we aim to double our count of sea freight containers with potential to reduce logistics emissions by approximately 15 %. Figures from 2019 are not comparable, as the underlying dataset for 2020 is more comprehensive and will serve as baseline for 2021 calculation.



WASTE

Our aim is to minimize generation of waste in general, promote recycling and minimize the amount of waste to landfill. Our primary efforts in waste management are focused to our main site and warehouse in Finland. In Salo main office waste sorting is every employee's responsibility. Office spaces, dining and break space, warehouse and laboratory are all equipped with appropriate waste sorting containers that enable easy sorting into paper, carton, bio-waste, metal, energy waste, security plastic and packaging plastic. Employees are instructed to use these sorting stations appropriately to optimize the material circulation. For enabling more focused and rationalized product offering, our 'Security destroyed plastic' amount increased as a result of +800 products being discontinued and remaining inventories being scrapped.

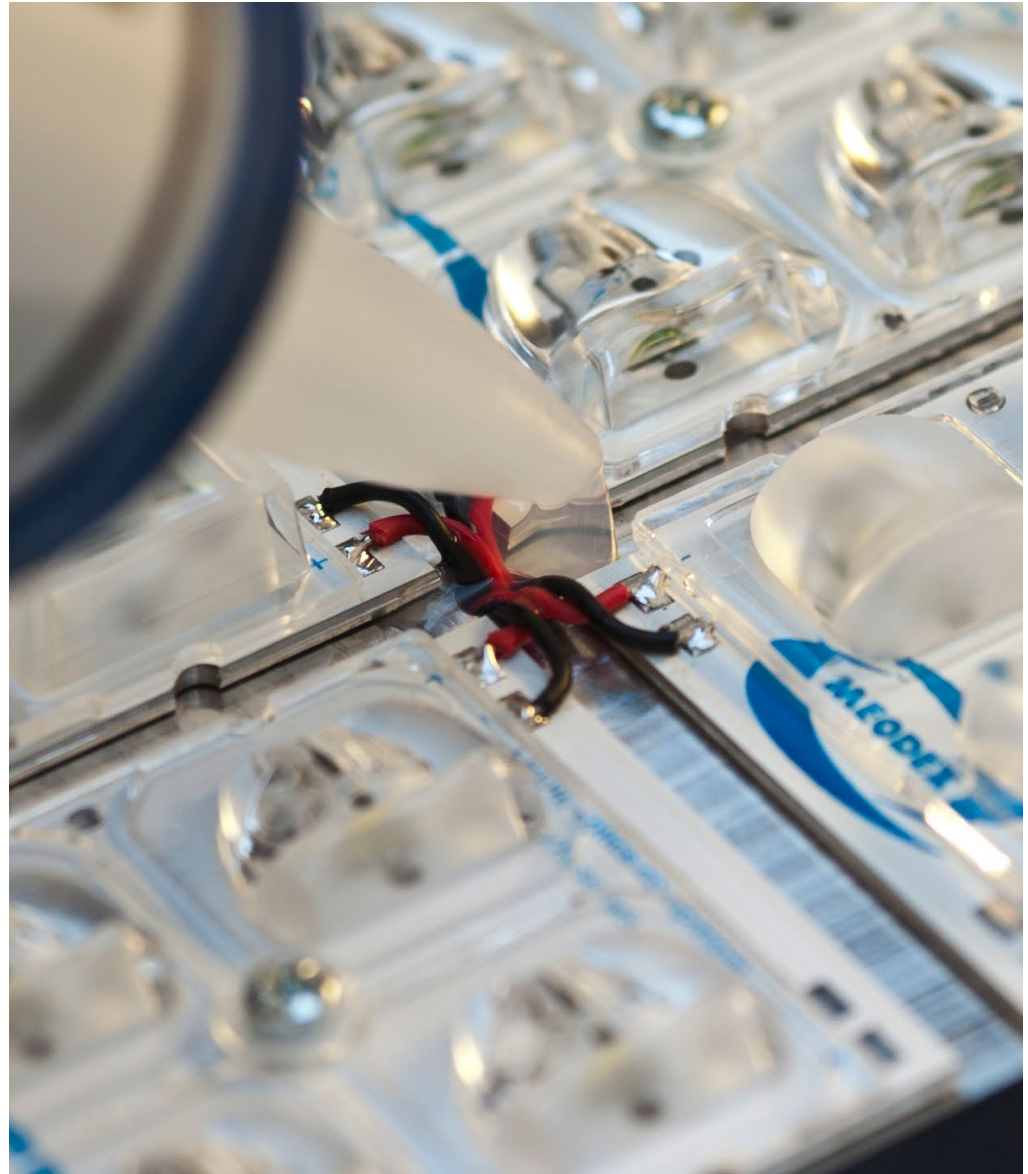
WASTE BY TYPE IN LEDIL HEADQUARTERS SALO, FINLAND

	2019	2020
Energy waste (incineration)	3 280 kg	3 000 kg
Security destroyed plastics (incineration)	2 992 kg	6 700 kg
Biowaste	3,6 m ³	4,6 m ³
Carton (recyclable)	68 m ³	52 m ³
Packaging plastic (recyclable)	35,7 m ³	33,0 m ³
Recyclable paper	4,7 m ³	5,0 m ³
Metal	2,9 m ³	1,9 m ³
Plastic (incineration)	10,6 m ³	10,6 m ³
Landfill	20 m ³	20 m ³

ENVIRONMENTAL COMPLIANCE

CHEMICALS

Regarding the use of chemicals, we follow health and safety regulations and our products comply with REACH regulations and 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

The employee responsibility topics of LEDiL are employee wellbeing and safety, competence development and employee satisfaction in the fast-growing organization. The majority of LEDiL employees are based in the headquarters in Salo, Finland. In 2016, LEDiL has established a subsidiary in Sycamore, USA. In 2019 LEDiL Ltd China was established as well as the logistics department Delivered in Hong Kong was acquired. Other areas outside Europe are represented by sales agents.

LEDiL EMPLOYEE DATA

	2019	2020
Number of employees in the end of year	123	113
Share of women in employees	33 %	35 %
Share of women in the management team	33 %	11 %

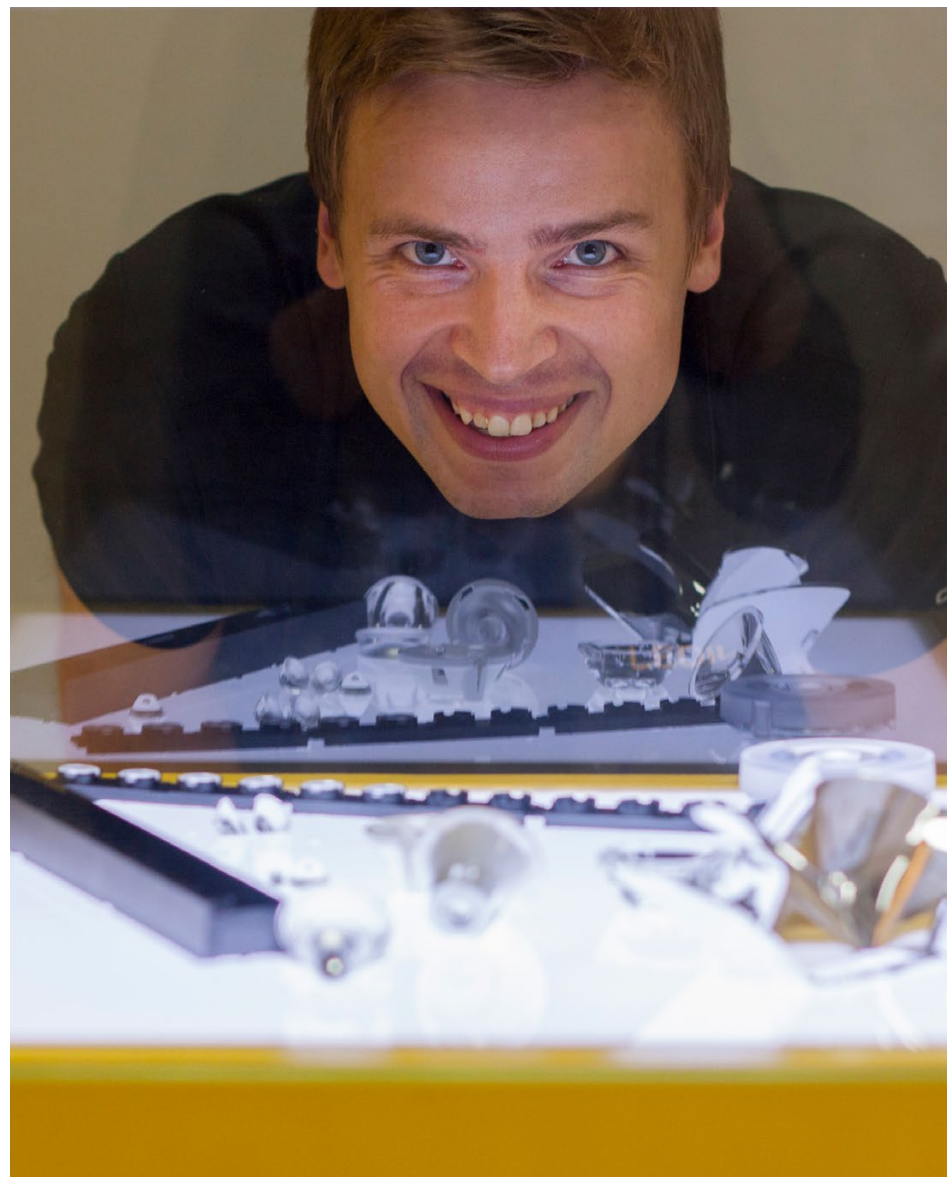
EMPLOYEE WELLBEING AND SAFETY

The primary objective at LEDiL is to offer its employees a healthy and safe working environment. Our target in LEDiL is zero accidents annually. All new employees receive a training for health and safety. A health and safety committee consisting of representatives of employees, employer and HR assembles regularly to follow up issues and take actions when required. Cooperation with the occupational health services provider is active and it focuses on preventive measures and development of employee wellbeing.

LEDiL KEY METRICS FOR OCCUPATIONAL HEALTH AND SAFETY

	2019	2020
Work related injuries	0 pcs	0 pcs
Sick leave rate	2,6 %	1,43 %

We follow ISO45001 standard principles in our OHS management. In addition, the health and safety requirements, including zero tolerance for discrimination, are defined in our code of conduct which we require also our suppliers operating in areas of high risk for employee safety and human rights, to adhere.



SOCIAL AND EMPLOYEE RESPONSIBILITY

COMPETENCE DEVELOPMENT

Competent, innovative and motivated people are the key to LEDiL's success. Staying in the front line of competition requires constant development of staff and learning of each individual. As the foundation of employee competence development LEDiL has implemented regular development discussions and reviews. Every employee shall have development plan, objectives and means how to reach those objectives. Training needs are being mapped throughout the development discussion process and are being monitored by managers continuously. Also values are in focus in 2020 through workshops.

EMPLOYEE SATISFACTION

We aim to maintain and develop employee satisfaction continuously. The working atmosphere has been a key focus point at LEDiL. Internal workplace rules were developed by LEDiL employees with the purpose to serve as a foundation for a positive working atmosphere and employee satisfaction. Employee satisfaction survey has been organized annually since 2018. As a result more focus has been put on equality, information sharing, personnel development 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 the 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 to the code of conduct and anti-corruption and the training rate is followed and reported as LEDiL sustainability KPI. Every new employee is trained to these topics during the induction period. To be able to prevent and take actions in case of misconducts against the code of conduct, a Whistleblowing channel was established in 2018. The channel a externally managed third-party service that enables anonymous reporting for all LEDiL employees.

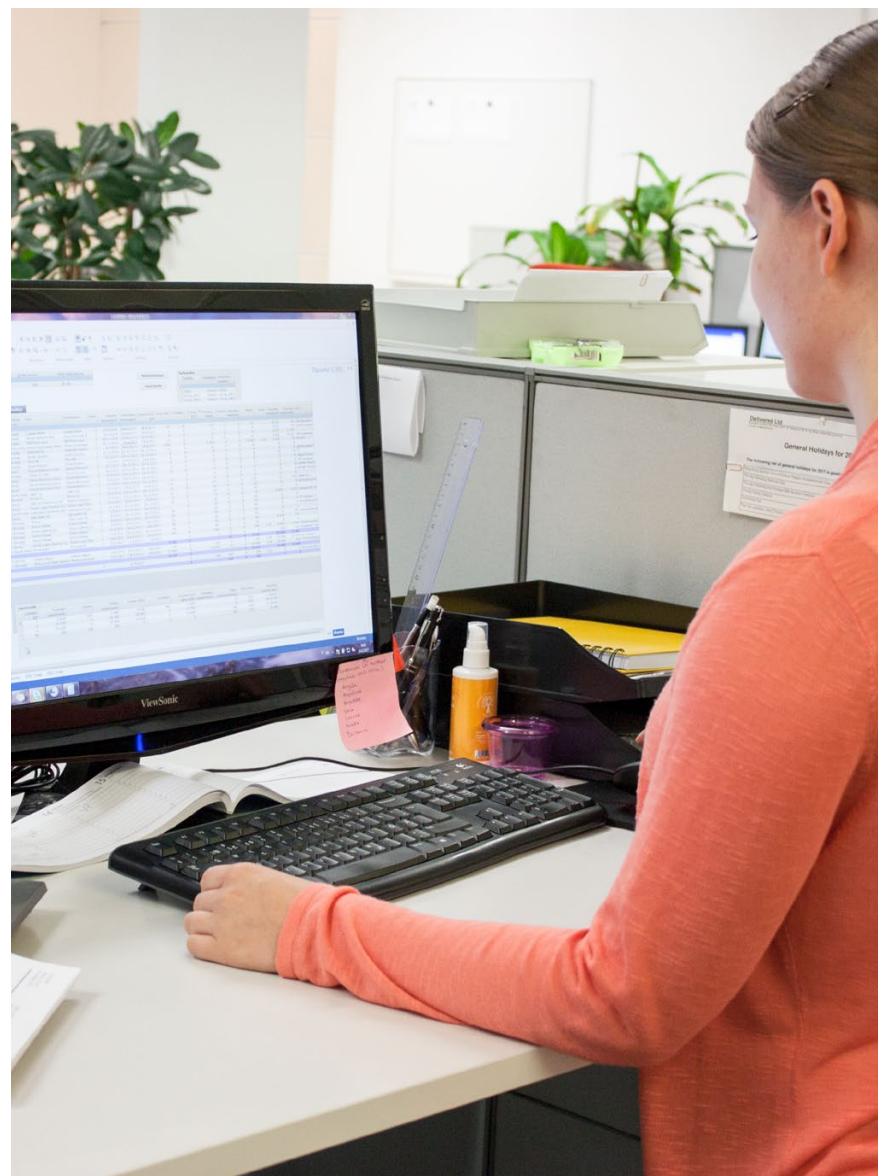
BUSINESS ETHICS AND ANTI-CORRUPTION

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. By careful evaluation and selection of suppliers and partners we ensure that the quality, human rights, environmental, anti-corruption and business ethics requirements are met. Our suppliers operating in risk areas for corruption, labour and environmental issues have signed LEDiL code of conduct agreement. We follow and develop the share of suppliers having subscribed the LEDiL code of conduct and have selected this as one sustainability KPI (see page 8). During co-operation we evaluate the supplier's operation and compliance to agreed ways of working by on-site audits. No compliance issues have been reported in audits during 2020. LEDiL and its suppliers are committed to 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 are carefully safeguarding the confidentiality and availability of our proprietary information. We fulfill the requirements of GDPR data protection regulation which became enforceable 25th May 2018.



LEDiL SUSTAINABILITY KPIs 2020

4,6 TWh

cumulative energy saving
by products sold annually

99%

share of employees
who have attended
sustainability courses

71%

share of subcontractors
who have subscribed
LEDiL code of conduct

1,43%

employee wellbeing,
sick leave rate

6 314 tons

CO₂ emission
(scope 1-3)