



GREENLED

The Meaning of Light

SUSTAINABILITY REPORT 2022

Table of Contents

| | |
|---|----|
| Greenled and sustainability | 3 |
| Greenled's sustainability strategy | 4 |
| ENVIRONMENTAL SUSTAINABILITY | 5 |
| Carbon footprint | 6 |
| Luminaire carbon footprint | 7 |
| Carbon handprint | 8 |
| Waste generated in operation | 9 |
| SOCIAL SUSTAINABILITY | 10 |
| Sick leave rates and frequency of accidents | 11 |
| Significance of your own work | 12 |
| The meaning of light | 13 |
| Customer satisfaction | 14 |
| GOVERNANCE | 15 |
| Ethical Code of Conduct and partner network | 16 |
| Economic indicators | 17 |
| Sustainability indicators 2021–2022 | 18 |
| Contact details | 19 |

We have a certified ISO 9001 quality management system and ISO 14001 environmental management system covers all of our operations. This guarantees a high-quality and efficient overall delivery.



Since 2017, we have been sponsoring Team Rynkeby. The money raised by the team is donated in full to support children and young people with cancer and their families.



We are a member of GBC Finland, which aims to promote sustainable and environmentally friendly construction.



GREENLED AND SUSTAINABILITY

Sustainability is one of Greenled's three values and at the heart of our strategy. It is directed by our management team and it is reflected in all of the company's operations.

Greenled is a turnkey lighting solution provider to companies and the public sector.

Our offer covers everything from single products to management and execution of large-scale lighting projects.

Luminaires are manufactured at our Oulu factory in Finland, and we also have offices at Vantaa and Tampere. Our subsidiary Greenled Ab operates in Sweden.

The leading supplier of comprehensive lighting solutions in Finland, Greenled, is a community of over 100 professionals. We stand out from the rest by offering comprehensive turnkey solutions and sustainable lighting concepts. We invest strongly in sustainability, which is one of our key values. Our products are manufactured in Finland and they will be in the future as well.

When Greenled was founded in 2010, our goal was to produce energy savings to our customers easily and effortlessly. We brought to market something that was not available before. We are still on the same path – we want to offer to our customers services and solutions that produce real value and support sustainable development.

People and light are strongly connected. Light is already recognised as one of the most important factors in people's well-being. Therefore, we summarise the meaning, purpose and effect of light in our slogan: "The Meaning of Light". To us, it means well-being, sustainability and better life for everyone.

We are determined to be the most sought-after partner in light and lighting and in a network that is committed to the same values as us by 2025.

I wish us all a bright future!

Pertti Tahvanainen
Managing director
Greenled Oy

GREENLED'S SUSTAINABILITY STRATEGY



Environment

Minimising the carbon footprint during the life cycle of products and services

Development of life cycle services



Social

Continuous development of occupational safety and well-being

Understanding the effects of light and supporting the circadian rhythm

Increasing the sense of community and openness in the workplace through teamwork

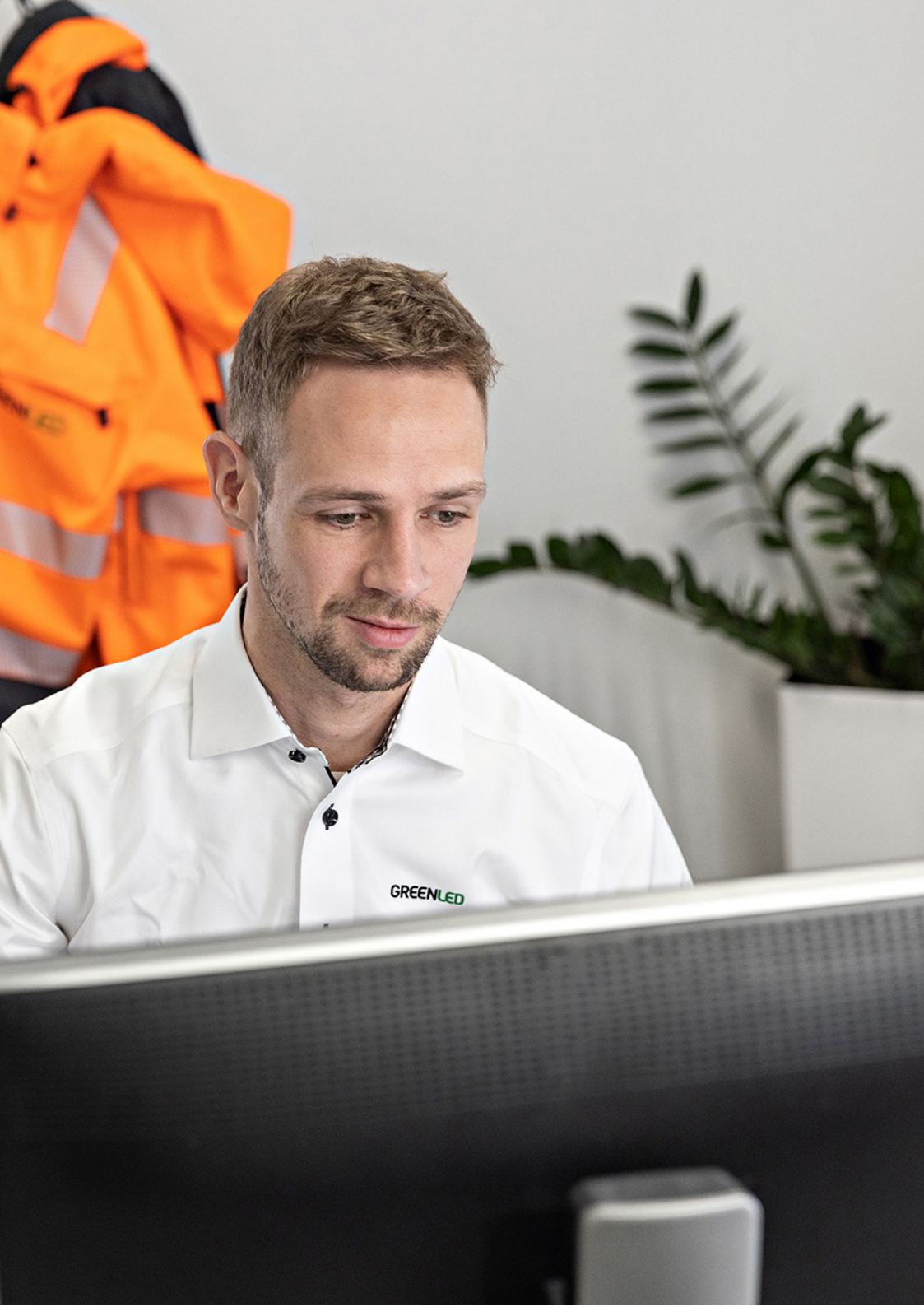


Governance

Good governance and operating principles in accordance with our ethical code of conduct

Building a sustainable supply chain together with our partners

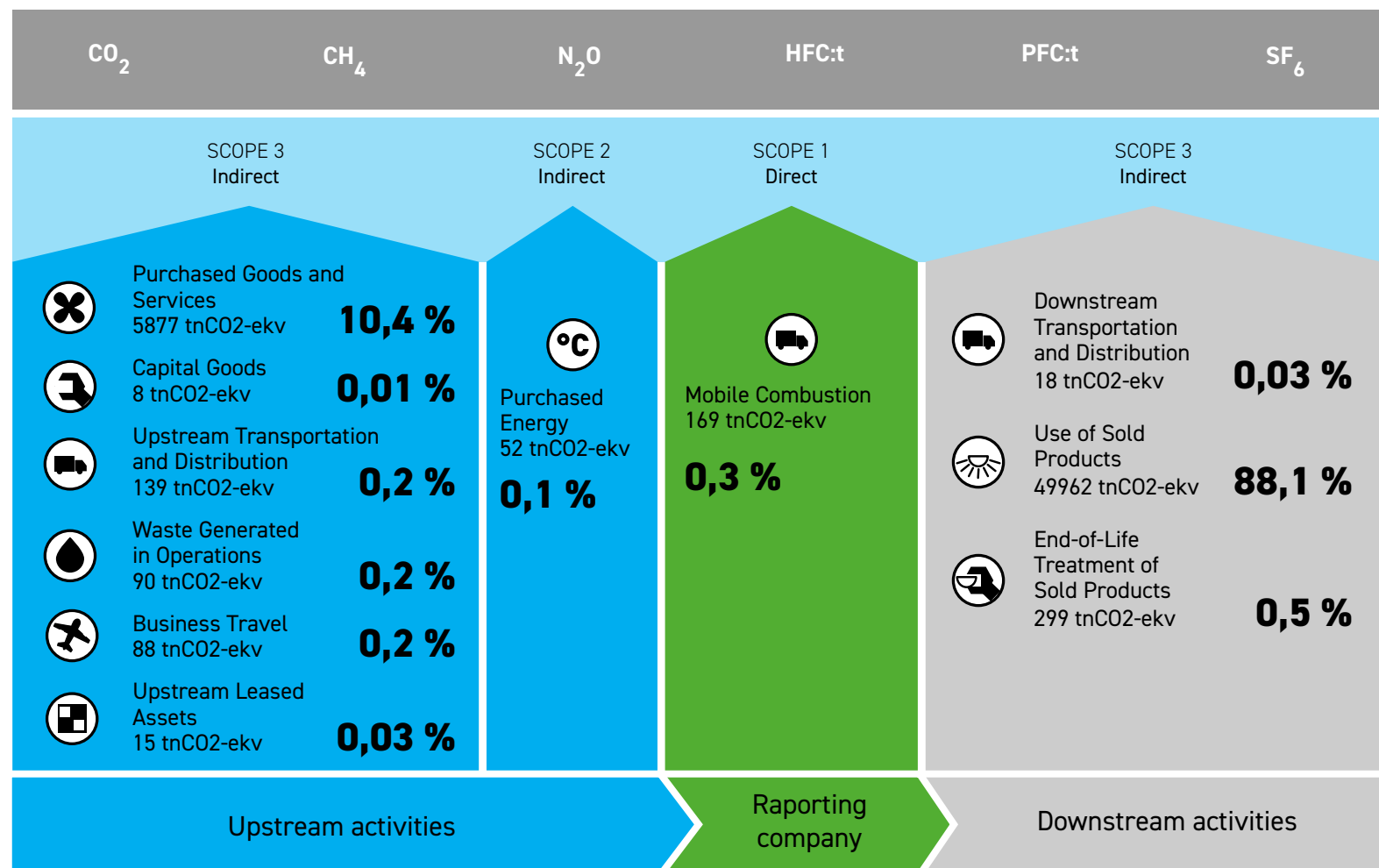
Implementation of our sustainability strategy is monitored by the sustainability steering group.



GREENLED

ENVIRONMENTAL SUSTAINABILITY

CARBON FOOTPRINT



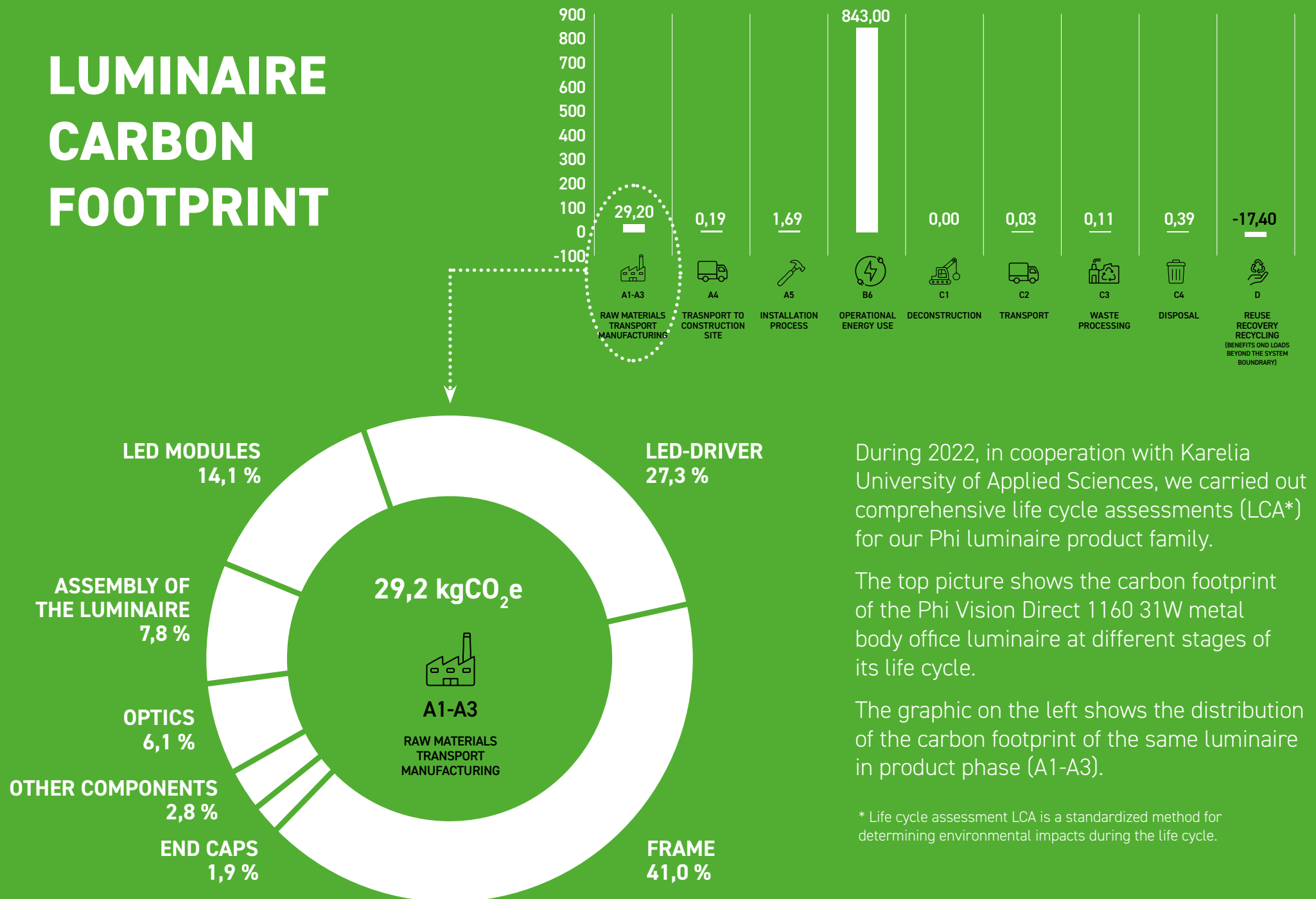
The emissions have been calculated according to the Greenhouse Gas calculation protocol, and Third Rock Finland Ltd reviews the calculations.

The three most significant sources of emissions are Use of Sold Products, Purchased Goods and Services and End-of-Life Treatment of Sold Products.

We monitor the development of emissions and strive to reduce them in all areas of our operations.

Total
56717
tnCO2-ekv

LUMINAIRE CARBON FOOTPRINT



During 2022, in cooperation with Karelia University of Applied Sciences, we carried out comprehensive life cycle assessments (LCA*) for our Phi luminaire product family.

The top picture shows the carbon footprint of the Phi Vision Direct 1160 31W metal body office luminaire at different stages of its life cycle.

The graphic on the left shows the distribution of the carbon footprint of the same luminaire in product phase (A1-A3).

* Life cycle assessment LCA is a standardized method for determining environmental impacts during the life cycle.

CARBON HANDPRINT

Almost more than 90%* of the luminaire's entire life cycle carbon footprint is formed by its energy use. Lighting also plays a major role in the kWh/m² energy-efficiency of buildings.

* Source: The Phi luminaire life cycle assessment (LCA), which has been done using the average electricity emission factor of Finnish electricity production.

Greenled continuously produce carbon handprints for our customers enabling customers to reduce their own carbon footprint.

A carbon handprint i.e. emission reduction potential, is created through energy savings when old lighting technology is updated to new. This means energy-efficient LED lamps, their control systems and lighting design, which ensures lighting as needed. These together produce the best possible light output (lumen, luminous flux) per consumed unit of electricity (watt), lm/W.

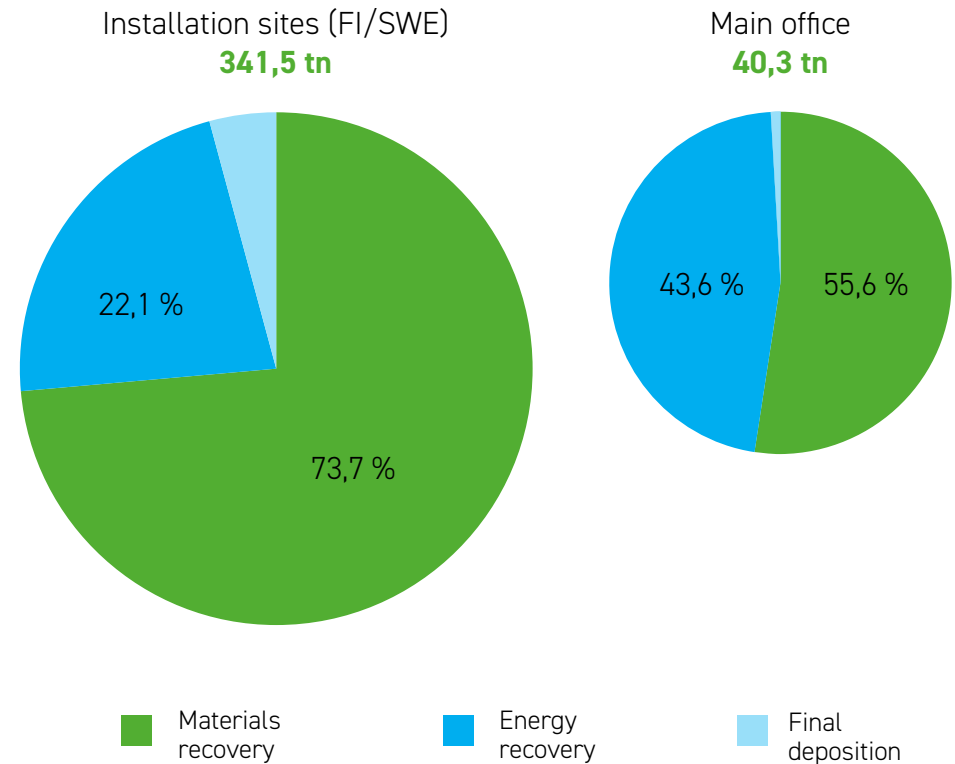
The typical light efficiency of a Greenled luminaire produced in Finland in 2022 was 140 lm/W

The light efficiency of a traditional T8 or T5 fluorescent luminaire is about 82 lm/W.

WASTE GENERATED IN OPERATION

In the statistics, the amount of waste generated from our main office and our installation sites as well as utilisation of the waste is separated. Our goal is to make the waste recycling rate as high as possible by making sorting more efficient. We also try to reduce the amount of waste generated.

The old fluorescent tube removed from the customer can be 97% recycled thanks to the sorting already carried out at the installation site.





Asiakaslähtöisyys

Arvostamme asiakkaitamme ja ajattelemme aina heidän parastaan. Haluamme, että he ovat tyytyväisiä työhömmä ja palveluihimme. Haluamme osoittaa olevamme heidän luottamuksensa arvoisia.

Vastuullisuus

Olemme suomalainen yritys, joka noudattaa kaikessa toiminnassaan kestävän kehityksen periaatteita. Olemme totuudenmukaisia ja sanomme asiat niin kuin ne ovat. Toimintamme on tuloksellista ja vastuullista niin ympäristössä, yhteiskuntaa kuin henkilöstöäkin ajatellen.

Asiantuntijuus

Arvostamme ammattitaitoa ja asiantuntijuutta. Haluamme olla edelläkävijöitä alallamme. Prosessimme ovat mutkattomia ja turvallisia. Nautimme yhdessä tekemisestä ja kohtelemme toisiamme reilusti.

GREENLED

GREENLED

SOCIAL SUSTAINABILITY

SICK LEAVE RATE AND FREQUENCY OF ACCIDENTS

Number of personnel
/ FI + SWE

97

Frequency of accidents
/ FI + SWE

27,36 %

TARGET 0 %

Well-being of our personnel
is our most important capital.
We continuously monitor sickness
absences and frequency of
accidents and are determined
to lower both numbers.

Sick leave rate / FI

4,38 %

TARGET <3,5 %

Sick leave rate / SWE

6,80 %

TARGET <2,5 %

SIGNIFICANCE OF OWN WORK

We have been actively monitoring staff job satisfaction from 2016, and since 2021 we have used the Siqni personnel survey as a monitoring tool. Its purpose is to help us understand which factors are relevant for employees, and how they materialise in the everyday life of our company.

In the 2022 survey, the response rate was almost as high as the previous year, 86%. In the responses, the employees felt that the most important things were a fair salary, a strong sense of unity in the workplace, and a balance between work and free time.

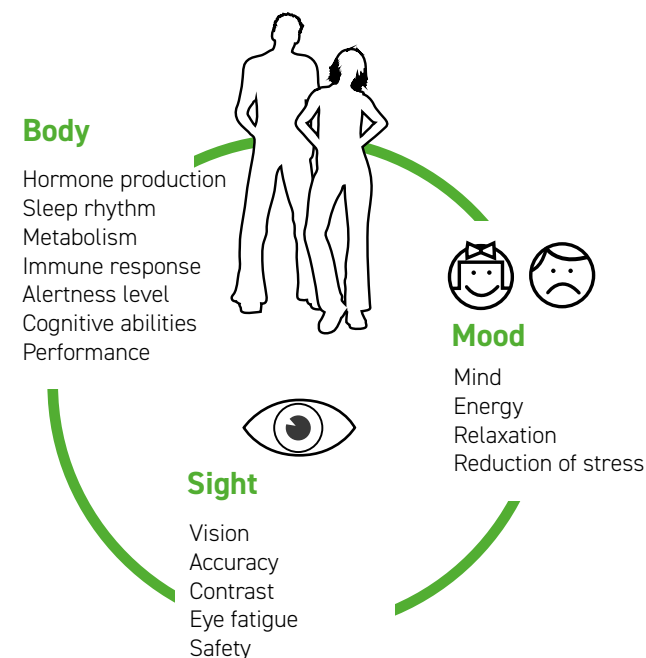
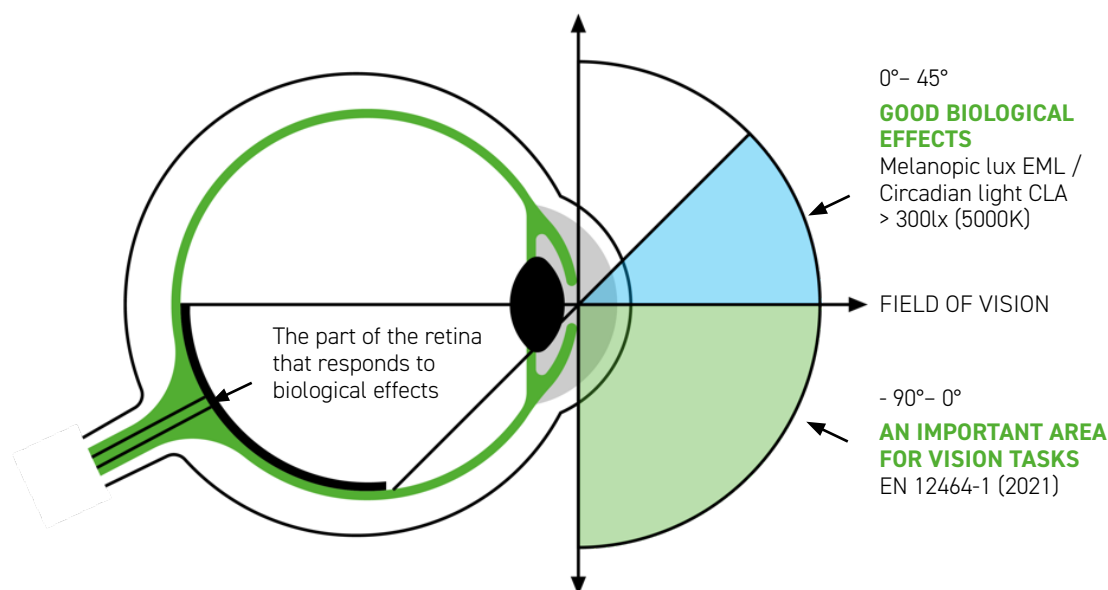
In the top ten list of important things, the highest rating was given to a work environment where you can be yourself - in the responses of Greenled employees this received the top score, 92. Almost as important was the certainty and continuity of the workplace, which received a rating of 87.

The results of the survey were reviewed together with our personnel, and a development plan has been made based on the results.

The development of the response rate and grades is monitored annually.



THE MEANING OF LIGHT



Only in the last few years various studies have shown how widely light affects well-being of a human through many different factors. It's not just about the quantity of light, but also its quality, which can be influenced in different ways. Supporting a person's natural circadian rhythm is one of the ways. More information [Circadian Nobel Prize](#)

Greenled's product development continuously follows light-related research and takes research results into account as widely as

possible. Furthermore, the lighting of Greenled's manufacturing facilities has been designed by utilising these results, and its effect to occupational well-being is continuously monitored.

The same results are utilised in sales and systems offered to our customers as well. We have implemented several solutions for our customers where well-being has been the guiding factor. These customers include among others [LapWall](#), [Valmet](#) and [Pimatic](#).

CUSTOMER SATISFACTION

We at Greenled consider customer satisfaction as one of our most important sustainability measurements. High customer satisfaction tells us that we have succeeded in being responsible for our customers in addition to environment and employees.

The NPS is commonly used index number, which tells how likely customers are going to recommend a company, product or service to their friends or colleagues.

A NPS number over 50 points is generally considered excellent.

NPS is simple but effective metric that is easy to track.

NPS

Turn key
deliveries

70

* NPS is an abbreviation of Net promoter score.



GREENLED

GOVERNANCE

ETHICAL CODE OF CONDUCT AND PARTNER NETWORK

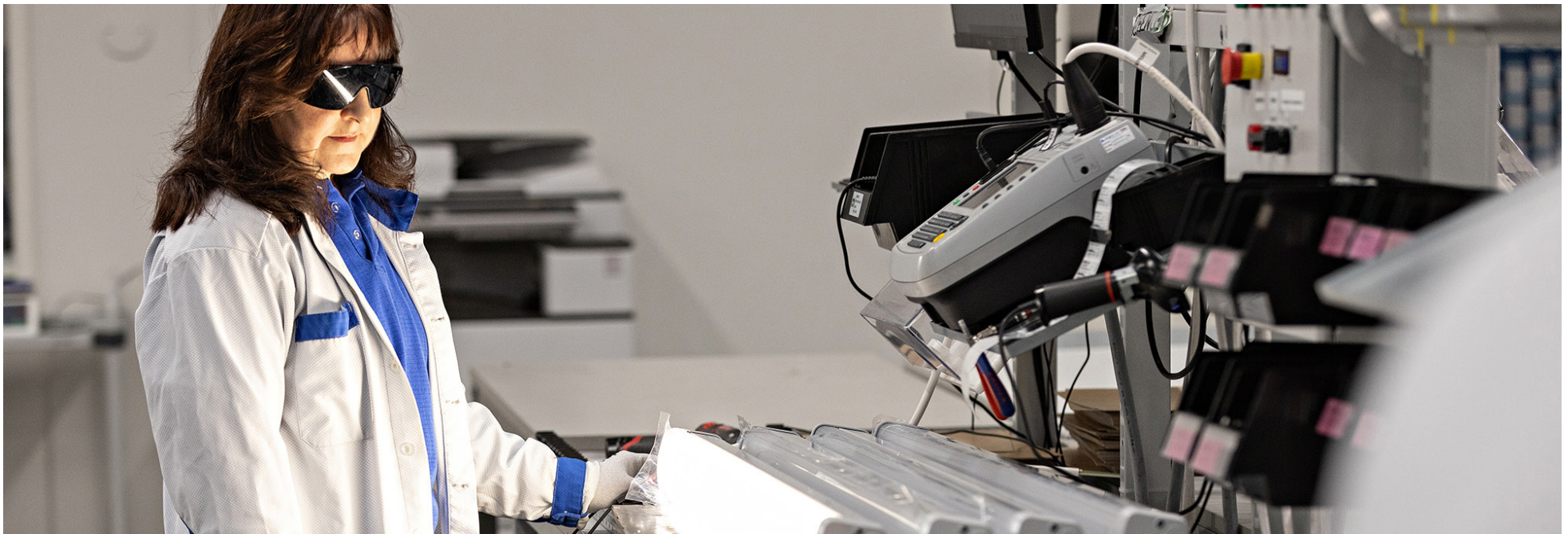
Greenled's Ethical Code of Conduct can be found from our website. We always go through it with all of our employees during their induction training.

The most important principles of our Ethical Code of Conduct are honesty in business, responsibility for the quality of our products and services, responsibility for the environment as well as taking care of the well-being and safety of our employees.

These principles apply equally to Greenled's employees, our partners, subcontractors and suppliers.

We regularly assess our partner network's commitment to our ethical principles and go through them with our new partner candidates.

You can find our Ethical Code of Conduct from this address:
<https://greenled.com/ethical-code-of-conduct/>



ECONOMIC INDICATORS

Turnover

21,98

mEur

reliable
partner



Profit

1,23

mEur

Greenled is own by private Finnish individuals and Bocap Fund I. The degree of domestic ownership is 100%.

Key Flag products from all of the sold luminaires

82%



Association of Finnish Work has calculated that a monthly spend of €10 invested in domestic products and services create 10 000 jobs a year.

SUSTAINABILITY INDICATORS 2021–2022

| Environmental sustainability | 2021 | 2022 |
|---|-------------|-------------|
| Scope 1, Direct, tnCO2-ekv | 196 | 169 |
| Scope 2, Indirect, tnCO2-ekv | 97 | 52 |
| Scope 3, Indirect, tnCO2-ekv | 58 254 | 56 496 |
| The typical light efficiency of a Greenled luminaire, lm/W | 137 | 140 |
| Waste generated in operation, Installation sites (FI/SWE), tn | 332,4 | 341,5 |
| Materials recovery, % | 73,6 | 73,7 |
| Energy recovery, % | 22,0 | 22,1 |
| Final deposition, % | 4,4 | 4,2 |
| Waste generated in operation, Main office, tn | 38,9 | 40,3 |
| Materials recovery, % | 50,9 | 55,6 |
| Energy recovery, % | 48,2 | 43,6 |
| Final deposition, % | 0,9 | 0,8 |
| Social sustainability | 2021 | 2022 |
| Number of personnel / Finland and Sweden | 95 | 97 |
| Frequency of accidents / Finland and Sweden % | 10,92 | 27,36 |
| Sick leave rate / Finland % | 3,03 | 4,38 |
| Sick leave rate / Sweden % | 1,01 | 6,8 |
| Customer satisfaction, turn key deliveries NPS | 51 | 70 |
| Governance | 2021 | 2022 |
| Turnover mEur | 17,8 | 21,98 |
| Profit mEur | 0,56 | 1,23 |
| Key Flag products from all of the sold luminaires | 87 | 82 |

Oulu 22.12.2023

Pertti Tahvanainen

Managing director
Greenled Oy

The figures in this report are from 2022.

For more information about
the report please contact our
sustainability manager

Jani Kaaresto

+358 50 320 5871
jani.kaaresto@greenled.fi

Greenled Oy

Oritkarintie 4
FI-90400 Oulu (Finland)
+358 20 1255 800
info@greenled.fi
www.greenled.fi

GREENLED