
Impact Report 2023

ECORUS 

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Letter from the CEO

Already at an early age, energy production captured my interest; as I started to learn how energy can be produced, I became increasingly interested in solar energy. I saw its enormous potential as a scalable, modern and sustainable energy source. When my business partner Raphael Janssens and I founded the company 12 years ago, our ideals laid the foundation for becoming pioneers to fulfil our mission.

Although our company matured over the past years, following our ideals and creating impact through Photovoltaic (PV) solar energy is still at the core of everything we do at Ecorus.

What drives us is a tremendous passion for positively impacting the world we live in. We make an impact by helping our clients with their net-zero ambitions by offering solutions

“What drives us is a tremendous passion for positively impacting the world we live in.”

from our One-Stop Solar Shop.

This solid proposition encompasses a full range of services and products, including development, construction, maintenance, financing, and energy management.

We invest in good and pleasant working conditions for our employees and ensure that the materials we procure for the projects are sustainable and high-quality.

We currently see that the development of solar energy is entering a new phase.

Solar has become the most cost-effective energy source, almost everywhere in the world. This means that we are headed towards a huge acceleration in the industry.

Now that the market is maturing, it becomes increasingly important to ensure sustainable practices across the entire supply chain.

While producing sustainable energy is already a big win, it would be an even bigger win if we can realize the energy-transition in the most sustainable manner.



We therefore believe that addressing sustainability in the supply chain should be a top priority.

Moreover, over the past year, we assessed our carbon footprint and **are committed to the ongoing effort of making our own organization more sustainable.** We are pleased to share that Ecorus Group reaffirms its support and commitment to the Ten Principles of the United Nations (UN) Global Compact in the areas of Human Rights, Labour, Environment, and Anti-Corruption.

In the coming year, our focus will be on mapping out the carbon footprint of our supply chain and improving our direct and indirect CO2 impact.

In this Impact Report, we outline the actions taken to realize the energy transition in the most sustainable way. We are delighted to share this information with all our stakeholders and look forward to another year of positive impact.

Yours sincerely,

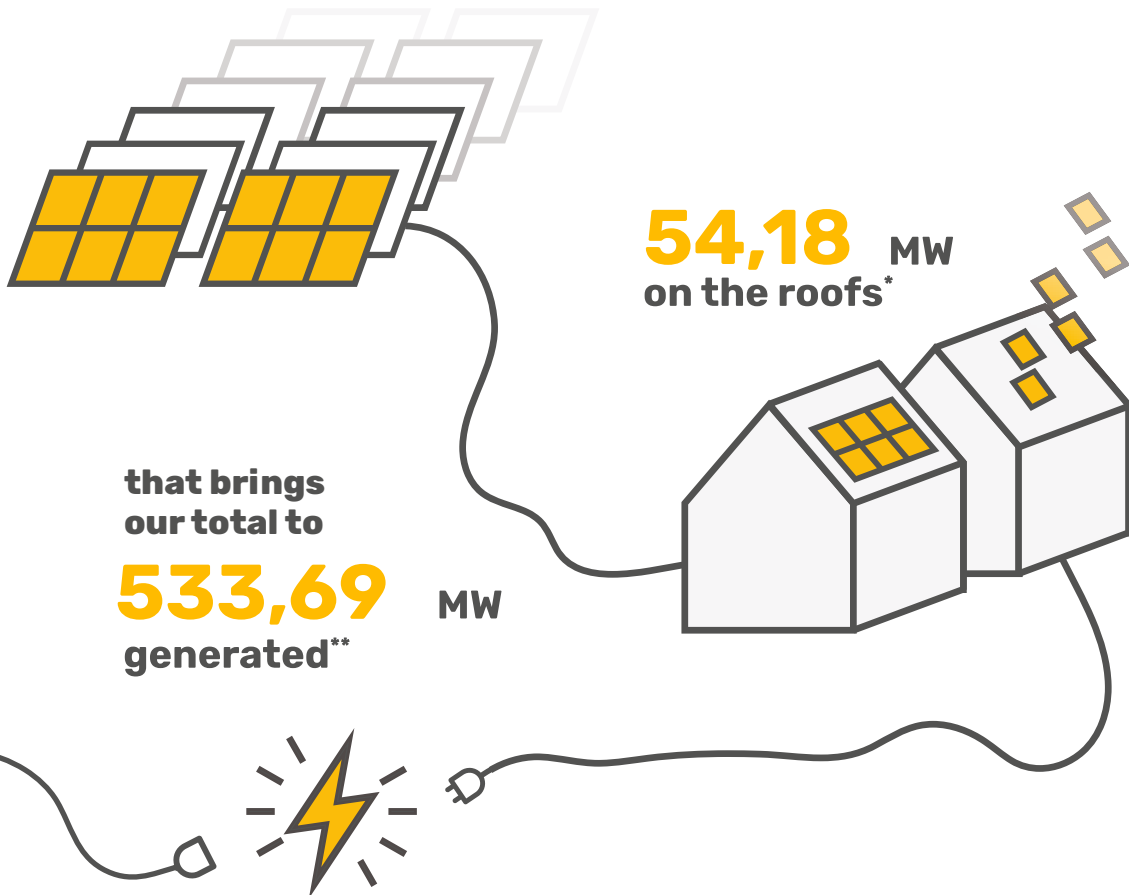
Philippe Vanhoef
Chief Executive Officer
of Ecorus Energy B.V.

A handwritten signature in black ink that reads "Philippe Vanhoef". The signature is written in a cursive, flowing style with a horizontal line underlining the name.

2023 at a glance

155,71 MW
of solar parks on land*

*Amount of MW realized in 2023
** Total amount of MW realized by Ecorus



↑ 111%
revenue growth

1% of our
profit
donated to charity

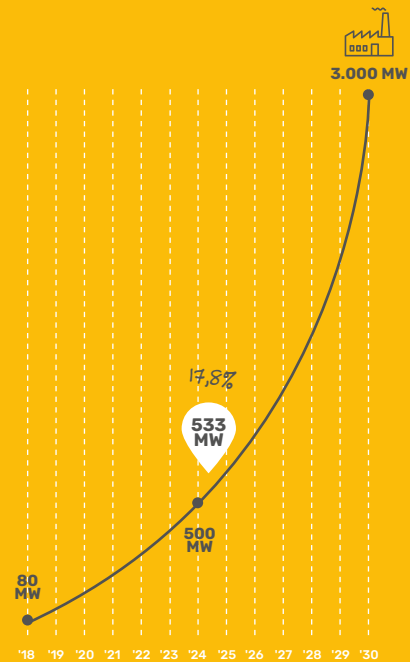
By 2030...

GOAL
1

WE CLOSE A COAL FIRED POWER PLANT

Our big strategic goal is to close a coal-fired power plant by 2030: equivalent to generating 3000 megawatts (MW) of solar energy. 2023

This goal is more than a symbolic commitment; it symbolizes a tangible and measurable impact on our environment. It is equivalent to generating 3,000 megawatts (MW) of solar energy. Today, we have already achieved more than 450 MW of solar power capacity and are making efforts every day to increase this number.



GOAL
2

OUR SCOPE 1 AND 2 ARE NET-ZERO

As a company active in solar energy, we think our direct emissions should be at zero as soon as possible: 2025 is our goal.

We want to completely eliminate our own direct emissions, for example the emissions from our offices and our car fleet. This means we will drive completely electric and purchase electricity from renewable energy.

GOAL
3

WE HAVE REDUCED OUR SCOPE 3 BY 50% AND HAVE A ROADMAP TOWARDS A NET-ZERO SCOPE 3 BY 2040

The world aims to be net-zero by 2050, but as a pioneer in renewables we want to completely operate net-zero by 2040.

To realize this, we need to collaborate with our suppliers and clients. In the upcoming years, we will work on a roadmap on how to achieve this.





Ecorus who are we?

Accelerate Towards Net Zero with the only One-Stop Solar Shop in Europe

Everyone wants to be more sustainable. But the road to get there is different for everyone. At Ecorus, we know better than anyone how to tackle the transition to 'net zero'.

Originally, we were a company with a passion for technology and a fascination for solar energy. But now we are much more than just makers. We are the one-stop solar shop for a sustainable transition to solar energy. From development consultancy, solar deployment to life cycle management. We link knowledge to implementation. Everything under one roof. So we can help our customers in the way that best suits their business or organization.

We do this with great pleasure. And with a lot of energy from our more than 100 solar specialists. And together we have an appropriate solution for every challenge. For customers at home and abroad. Together, we know better than anyone how to get the most out of a sustainable transition for our customers. Want to accelerate your sustainable ambitions? We Know How.

The Ecorus Group.

Ecorus was founded in 2010, by two techies with a fascination for solar energy. Our two founders, Raphael Janssens and Philippe Vanhoef, had a clear mission: **creating a positive impact on the world by developing and building solar projects**. As the solar industry was still in its infancy, pioneering was the only way. In the meantime, Ecorus has grown from a pioneer to a team of solar energy specialists, setting the standards for safe, reliable, efficient, and profitable PV solar installations. One thing remains the same: **we are problem solvers who want to make a difference.**

“We envision a world that runs on clean, renewable energy, powered by the most reliable source we know: the sun.”

In the future we envision, we no longer rely on fossil fuels that harm our planet. We envision a world that runs on clean, renewable energy, powered by the most reliable source we know: the sun. A better world for our planet and everyone who lives on it, for us is a reward that far exceeds the value of money. **Our goal is to close a coal-fired power plant by 2030:** equivalent to generating 3000 megawatts (MW) of solar energy.

Not only do we want to bring sustainable energy to everyone, we also want to go further by **adding long-term value** to our customer’s business at the same time. Whether it’s optimizing energy efficiency, reducing energy costs, or accelerating to net zero; we have the knowledge and intrinsic motivation to help our customers

achieve their sustainability goals. This is different for all our customers, which is why we operate as a **“One Stop Solar Shop”**. We unburden the customer with customized solutions, by combining the strengths of multi-disciplinary teams, each with their own expertise.





DEVELOPMENT CONSULTANCY

We want our customers to get the full benefits of solar energy.

We advise, develop and guide customers through the entire process of solar energy projects. We conduct feasibility studies, design, and elaborate plans, implement financial models such as Corporate Power Purchase Agreements (CPPAs) and take full responsibility for project development, including permit and grant applications, project management and environmental engagement.



SOLAR DEPLOYMENT

We want our customers to experience a seamless and worry-free transition to solar energy.

We take on every step of the way, from technical design and procurement to the actual construction of the project. We handle the full implementation of solar energy systems, including rooftop, ground and water-based PV installations, battery storage, solar carports, charging stations and energy management systems. In doing so, we take care of the entire EPC (Engineering, Procurement and Contracting) process.



LIFE CYCLE MANAGEMENT

We want our customers' installations to last as long as possible and perform at their maximum potential.

We ensure that solar energy systems continue to perform optimally through preventive and reactive maintenance, monitoring, PR & availability guarantees, green maintenance, cleaning and camera surveillance.

Corporate Social Responsibility

When the company was founded in 2010, the goal was to positively contribute to climate change by accelerating the shift to solar energy. **Making impact is engrained in our business model, meaning our impact increases as we grow.** Every solar panel we install brings us a step closer to making fossil fuels, the largest contributor to climate change, redundant.

Since making a positive impact on society has always been at the core of our business, **it is very important for us to do what we do in the most responsible way.** So, while we are out there growing

our business and installing solar panels, one question remains central: **how can we grow sustainably?**

How can we make sure that while doing what we do, we decrease our negative impact on the environment to an absolute minimum? At the same time, how can we make our positive impact on people and planet bigger?

We are excited to share our journey of finding an answer to those questions with you in this chapter.

FAIR SOLAR POWER FOR EVERYONE

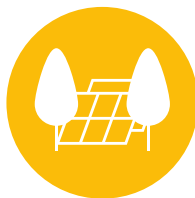
In 2020 we formalized our ambition to increase our positive impact in the manifesto “Fair Solar Power for Everyone”. This manifesto remains at the core of our business today and guides us in making the right choices. We only develop agricultural solar park projects that provide added value for society, and we only develop projects in which the benefits and burdens are fairly distributed. These are our core principles:



We strive for maximum bio-diversity



We involve all stakeholders in the design and the process



We integrate our projects into the landscape with minimal impact on the environment



We strive for 50% local ownership and therefore profit sharing for the environment



We embed ideas about aesthetic added value in the process

United Nations Global Compact

In 2021, our board of directors was looking for further steps to commit to Corporate Social Responsibility. Ecorus then became the first Dutch solar EPC company to join the United Nations Global Compact.

The United Nations Global Compact is a voluntary initiative launched by the United Nations in 2000 to encourage businesses and organizations to **adopt sustainable and socially responsible policies and practices**. The UN Global Compact's ten principles are based on internationally accepted standards in the areas of human rights, labour rights, the environment, and anti-corruption.

PRINCIPLE 10

Businesses should work against corruption in all its forms, including extortion and bribery

PRINCIPLE 1

Businesses should support and respect the protection of internationally proclaimed human rights

PRINCIPLE 9

Businesses should encourage the development and diffusion of environmentally friendly technologies

PRINCIPLE 2

Businesses should make sure that they are not complicit in human rights abuses

PRINCIPLE 8

Businesses should undertake initiatives to promote greater environmental responsibility

PRINCIPLE 3

Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining

PRINCIPLE 7

Businesses should support a precautionary approach to environmental challenges

PRINCIPLE 4

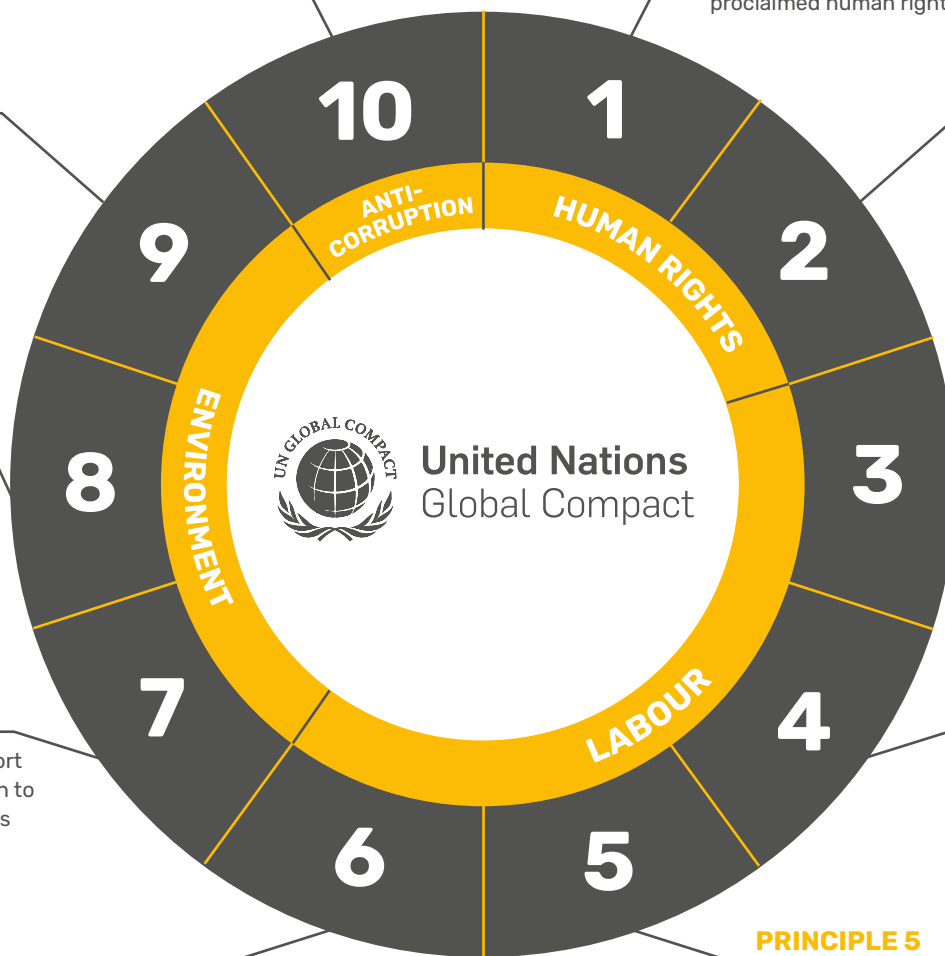
Businesses should uphold the elimination of all forms of forced and compulsory labour

PRINCIPLE 6

Businesses should uphold the elimination of discrimination in respect of employment and occupation

PRINCIPLE 5

Businesses should uphold the effective abolition of child labour



Our Sustainable Development Goals

The Sustainable Development Goals (SDGs) are a set of 17 goals adopted by the United Nations in 2015, with the aim of promoting sustainable development globally. The SDGs cover a wide range of issues, including poverty, inequality, climate change, and responsible consumption and production.

The SDGs provide a framework for companies to contribute to sustainable development and align their business strategies with global sustainability objectives. At Ecorus, we focus on making an impact on the following 5 SDGs:

- **SDG 7: Affordable and Clean Energy**
- **SDG 11: Sustainable Cities and Communities**
- **SDG 12: Responsible Consumption and Production**
- **SDG 13: Climate Action**
- **SDG 15: Life on Land**



7

Affordable and Clean Energy

Ensuring access to affordable, reliable, sustainable and modern energy has been our reason for existence at Ecorus since we were founded. It is our mission to ensure access to clean energy by financing, developing, building and maintaining solar energy installations.

We are active in the social housing sector.

By installing solar panels on social houses, the electricity costs of citizens with low income will reduce. We influence the proportion of the population who rely on clean energy, to combat climate change and the cost-of-living crisis at the same time.

The social housing sector is a sector where the end-users generally have a lower income than average. In 2023, there were significant increases in gas and electricity prices that had a heavy toll on especially low-income households. By installing solar energy installations, these households will have a lower energy bill and will be more independent than when all their electricity is coming from the electricity network.

“We influence the proportion of the population who rely on clean energy, to combat climate change and the cost-of-living crisis at the same time.”



11

Sustainable Cities and Communities

We contribute to sustainable cities by providing local energy production.

When developing our own projects, we put local participation at the heart of the development. As one of the spearheads of our operations and part of our manifesto, we strive for local involvement. This can be, for example, through participation in the investment (and returns on investment) or through receiving the electricity from the solar installation or solar park at competitive prices.

“We strive to provide more local energy production.”

Cities should become more resilient and sustainable. Through installing small-scale PV solar installations on residential buildings, we strive to provide more local energy production. Locally sustainably produced and directly used energy can reduce the electricity production by bigger energy production plants and the required transportation of that electricity over long distances.



12

Responsible Consumption & Production

We aim to sell responsibly produced solar panels. We mapped out the emissions of our different suppliers and are increasingly looking to partner with those who value Corporate Social Responsibility as much as we do.

In addition to the environmental sustainability friendliness of our purchased materials, we have a high focus on eradicating forced labour in the supply chain. We require all our suppliers to guarantee us that no forced labour takes place in our supply chain.

When installing solar parks, we place a high focus on sustainable waste management.

“We require all our suppliers to guarantee us that no forced labour takes place in our supply chain.”



13

Climate Action

Our primary goal is to speed up the energy transition and to ensure we stop relying on fossil fuels. The sooner we can fully rely on renewables, the better we can limit the effects of climate change. Therefore, our goal is to build as many solar energy installations as possible.

PV solar energy is one of the sustainable energy sources which will reduce the depletion of natural resources on Earth, CO2 emissions and air pollution. In addition, energy can be produced more locally at the places where the energy is needed, reducing the need to transport energy over large distances. At Ecorus, we actively promote such environmentally friendly technology. Although Ecorus intrinsically has a positive impact on the environment through designing and constructing PV installations, we continuously look at ways to further improve our environmental impact, amongst other things by reducing and compensating our own emissions.

“The sooner we can fully rely on renewables, the better we can limit the effects of climate change.”



15

Life on land

We want to become the leader in creating locally added value surrounding the solar parks by supporting biodiversity on site. This way, our operations do not only support the energy transition but also the restoration of biodiversity.

At our ground-mounted PV installations (solar parks), we stimulate biodiversity, for example by installing bee and insect hotels, sowing and growing bee-friendly grasses and plants throughout the solar park, installing special wildlife access gates in the fences or employing natural grass maintenance through sheep-grazing.

We select and execute projects that are beneficial to the environment. Projects on unused (and for nature or agriculture unusable) land will have a preference, whereas projects that require the destruction of a lot of nature and trees are refused.

“Installing bee and insect hotels, sowing and growing bee-friendly grasses and plants throughout the solar park.”



CSR in our supply chain

At Ecorus, 5 principles are at the core of our CSR endeavours. These have origins in international treaties such as the Universal Declaration of Human Rights, the ICCPR and ICESCR.

- We value **diversity** in our company and with our stakeholders and **do not tolerate discrimination**.
- We **do not accept** any form of **child labour, forced labour, slavery, or inhumane treatment**.
- **Health and safety** of humans and the environment are paramount in realizing our solar installations.
- Every employee has the right to **freedom of movement, privacy, collective bargaining, and a salary above minimum wage**. In addition, we strictly follow the national laws on working hours as well as the fundamental conventions of the International Labour Organization (ILO).
- Core values in our organization are **trust, honesty, and transparency**, and we do not accept corruption.

To ensure clarity about this in our supply chain, we established a **Supplier Code of Conduct** and implemented it with several suppliers in 2022. We expect each of our suppliers to meet the standards as defined in our SCOC, which finds its base in the principles of the UN Global Compact, the UN Bill of Human Rights and the fundamental Conventions of the International Labour Organization. We have based our SCOC on three core principles: **ethical, compassionate, and responsible**. Themes included under these principles amongst others: anti-discrimination, voluntary employment, child labour, environmental protection, and safety.

Do you want to read
our full Supplier Code of
Conduct?

Click here



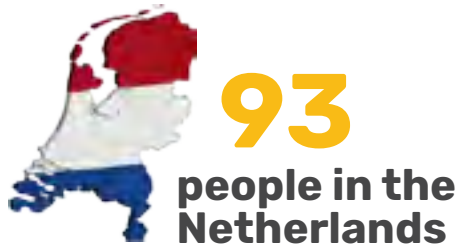
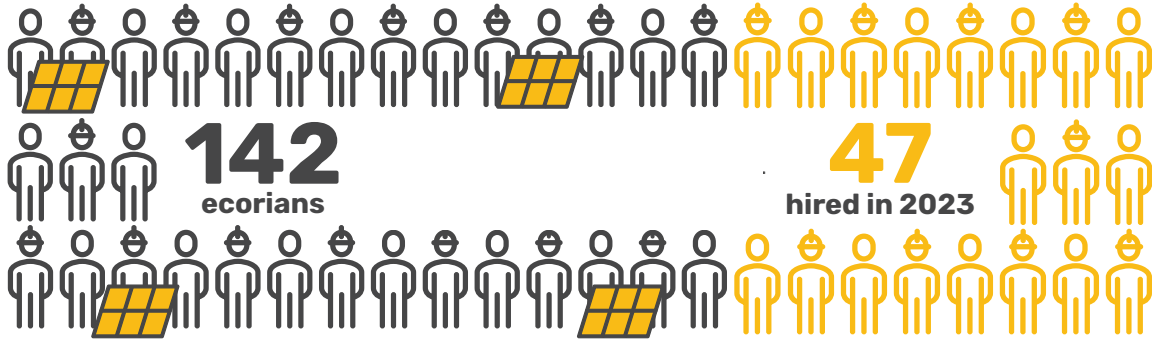
Suppliers should not only apply our requirements to their organization but are also expected to cascade these principles through their own supply chain. The SCOC is now part of the contracts with our supply chain partners, and CSR is one of our criteria for selecting our new suppliers. We have opened an email address and phone number where violations of the CSR policy and the Supplier Code of Conduct can be reported. In 2023, no violations of our SCOC were reported.

Since the risk of forced labour in the supply chain of solar panels is very present, it is not enough to just ask our suppliers to comply. In 2023, our procurement department therefore developed tools to audit suppliers on possible forced labour in their supply chains. In all transparency, obtaining accurate data on this topic remains a big challenge for us as a company.

A vast majority of our suppliers is located in China, where the government has companies comply with strict guidelines on what they are allowed to communicate. Our suppliers acknowledge the need for more transparency and actively work on improving their communication. It is important to collaborate as a sector, be it within the Netherlands or Europe, to be able to increase pressure.

- We value diversity in our organization and we do not tolerate discrimination.
- We do not accept any form of forced or inhumane treatment.
- Health and safety of humans is a priority in realizing our solar installations.
- Every employee has the right to freedom of association, collective bargaining, and a salary that is fair and just. In addition, we strictly follow the fundamental conventions of the International Labor Organization (ILO).
- Core values in our organization and we do not accept corruption.

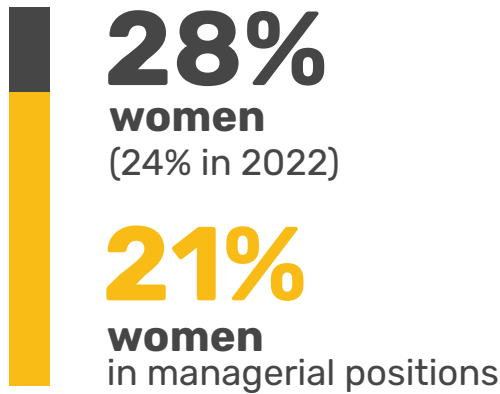
Our people



 6 people in Belgium

 5 people in Germany

 17 nationalities (12 in 2022)



The salary ratio
(average ratio of the basic salary and remuneration of women to men, comparing jobs of equal value)

94% (90% in 2022)



Absence? Just 2.95%

To top it off...
We became a World-class Workplace!



Ecorus as employer

At Ecorus, our people are our priority. They are the driving force behind our mission to accelerate the energy transition. **From bright technicians to dedicated salespeople, people on the field to our office managers and from creative marketers to innovators.**

What characterizes them, is their drive to work for a sustainable future.

At Ecorus, we consider our colleagues family. And it's our employees that say so! Our last research on employee happiness, performed in November 2023, generated such high results, that we became a WorldClassWorkPlace.

That makes us the **first company in the solar energy sector** to carry the famous label by Effectory (previously known as 'best employers'). Our employees' happiness is paramount to us, which is why their vitality is an important focus pillar.

"Our last research on employee happiness, performed in November 2023, generated such high results, that we became a WorldClassWorkPlace."



STRUCTURE AND REORGANIZATION

The focus of our HR department this year has been on re-establishing the basics. As a fast-growing organization (with 45% of our employees being hired in 2023), we had to formalize and update a lot, such as the onboarding program, our employee handbook and many other processes. We also started a re-organization, from 4 separate business units into One Ecorus, which is a big transition that will further develop in 2024. We set up our German entity, where already 5 Ecorians are employed.

GENDER EQUALITY

Our recruitment efforts to increase the number of women working at Ecorus, are slowly starting to pay off, with an increase from 24% to 28%. We are also happy to report our results on reducing the gender pay gap, with our salary ratio increasing to 94%, from last year's 90%. The salary ratio is the average ratio of the basic salary and remuneration of women to men, comparing jobs of equal value. We recognize that this gap should not be present at all and will continue our efforts to close it.

HR POLICIES

In our Employee Handbook, we have established collective agreements on salary, working hours, holidays and other types of leaves, part-time and salary benchmark, overtime work, retirement plan, sickness leave, integrity and many more. Important parts of our handbook revolve around ethics and integrity: our whistle-blower procedure, unwanted behavior policy and complaint policy. We have appointed two people as trust counsellors.

At Ecorus, we have zero tolerance for corruption, bribery and extortion. No such incidents were reported. Furthermore, the financial system has been designed such that those events are prevented. There is a clearly defined organizational governance structure, and every expenditure or contract follows a fixed approval route and includes the 'four-eyes-principle'. As a standard requirement, the finances are audited by an external accountant, accredited with 'horizontal supervision' (special accreditation in the Netherlands).

SUSTAINABLE EMPLOYER

As a company who works in the energy transition, we want to practice what we preach and be a sustainable employer too. That is why we are no longer welcoming new employees with a bouquet of flowers, but they are gifted a customized reusable notebook by Bambook. As a Christmas gift, our employees received a Zustainabox, including the option to spend their credit on charity. Eighteen of our employees donated their credit to Trees for all, the Foodbank, UNICEF, Club Kakatua and the WWF.

1% pledge: donating time

At Ecorus, we continuously look at initiatives to further enlarge the positive impact we have on society. That is why in 2022, we pledged to annually donate 1% of our profits to charities. In 2023, we donated money to **Giro555** for victims of the Earthquakes in Turkey and to the **Red Cross** for victims in Palestine and Israel.

Another big part of our profit was donated to our partner, the **So Powerful foundation**. Nearly a billion people in the world still live without any access to electricity, which implies severe challenges. For that reason, So Powerful is on a mission to apply solar where it matters most. Their projects include the electrification of healthcare facilities, schools and water access. This year we have started to intensify our partnership, by not only donating part of our profit, but also by contributing with knowledge and time. In 2024, **two Ecorians will travel to Tanzania** to help with the installation of a solar project.

One of our departments, Ecorus Home, collaborated with **Stichting het Baken** during the “week against loneliness”, by **organizing a dinner and bingo night for elderly** in the Augustinuschurch in Amsterdam.



GIRO
555

 Rode
Kruis

sopowerful

**EEN
TEGEN
EENZAAMHEID**

Fairphone

As of 2023, new company phones provided to (new) employees, will be from Fairphone. On our quest to increase our positive impact, we want to reduce our own footprint as much as possible. Partnering with Fairphone, a company that aligns with our mission very well, has been a fantastic highlight of 2023.

Fairphone is a smartphone manufacturer that emphasizes sustainability while focusing on quality, durability and performance. **They are on a mission to change the electronics industry into a fair one!**

They design their phones for longevity, easy repair and modular upgrades. The unique thing about the phones is that the design is repairable, meaning that no component is glued together and therefore anyone can repair their own device, by ordering spare parts online. The lifespan of the phone is also way higher than industry average because a long-lasting phone is the most sustainable! When producing their devices, they pay attention to recycling options to reduce e-waste, to the fairness of the materials sourced and to the working conditions of those working in their supply chain. Fairphone is really changing the industry from within!

“We are proud to partner with Fairphone, a company that aligns seamlessly with our Ecorus ESG strategy. Our mission is to accelerate our energy transition towards renewables, away from fossil fuel in an ethical, fair, and sustainable way. Fairphone’s unwavering commitment to ethical sourcing and labor conditions within the mobile phone supply chain reflects our shared values.”

- Fubin Lu
Chief Procurement Officer



FAIRPHONE

SOW Sustainability

As of the start of 2023, we have partnered up with SOW Sustainability to achieve our ESG targets. SOW Sustainability is an organisation facilitating organisations in their sustainability achievements. The experts of SOW help their clients by facilitating **activation and strategy workshops**, delivering **knowledge sessions** as well as **implementation support** on a practical and reporting level. In our case, they have performed a baseline measurement, provided our employees with an inspiration workshop, helped map out our carbon footprint and are currently helping us with the execution of our reduction plans and sustainability reporting challenges.

“They are currently helping us with the execution of our reduction plans and sustainability reporting challenges.”



STORIES

20
23

The numbers '20' and '23' are rendered in a large, bold, sans-serif font. Each digit is filled with a different photograph of children. The '2' in '20' shows a close-up of a child's face. The '0' in '20' shows two children looking at something together. The '2' in '23' shows a child's hands. The '3' in '23' shows a child's face. The overall color palette for the photos is a mix of teal, blue, and yellow.

PROJECT FLEDDERBOSCH



Philip Berendsen
Project manager

Can you tell me a bit more about the project?

In 2017, Ecorus began developing a 90-hectare solar park in Groningen, in collaboration with an agricultural landowner, Waterschap Noorderzijlvest, and 'Energiecoöperatie Ten Boer'. By 2022, all major milestones were achieved: community participation, park design meeting environmental standards, securing an SDE subsidy, and a 65MVA grid connection from Enexis, which is historically large. In early 2023, a deal with investor CEE was finalized. Civil works began in March, followed by construction in June. We expect the project to finish in the first months of 2024.

What make this project different?

To begin with, the project's scale is remarkable: 186,561 solar panels generating nearly 104 MW at peak capacity, will supply clean energy to 37,000 households in Groningen. This initiative significantly reduces CO2 emissions associated with electricity generation for local residents. For both Ecorus and the province, community involvement is important, along with

seamlessly integrating the solar park into the existing landscape and preserving natural surroundings.

Navigating the web of stakeholders involved in the project, as well as managing the numerous water, gas, and electricity infrastructures, was very challenging. For example, there were gas pipes, electricity lines and archaeological zones under the park. We had to collaborate with the local community, energy cooperatives, municipal authorities, regional water management bodies, provincial authorities, ecological and archaeological specialists, as well as grid operators such as Enexis, NAM, Shell, and local water and sanitation authorities, and both local and international subcontractors.

Constructing the low-lying park within strict timelines was not easy. Over 800 trucks delivered materials, including 300



“Our park design dedicates around one-third of the 90 hectares to nature, fostering biodiversity.”

containers of modules and mounting structures, 290 inverters, and over 2,000 kilometres of cables. This meant we needed a large workforce, consisting of site managers and subcontractors. At times, more than 100 people worked at the same time across different sections of the site, who all had to be managed safely.

Unfavourable weather conditions, including the wettest autumn on record, added to the project’s challenges. We were fighting water constantly with dikes, ditches, and pumps to maintain progress. Despite these obstacles, this project will set a new standard for logistical and construction management in the development of large-scale solar parks.

What measures do you take to take sustainability and nature preservation into account?

We prioritize sustainability by separating and recycling materials and using grid or solar electricity for our site operations as much as possible. To minimize emissions, we chose for shipping containers from Rotterdam to the Eemshaven instead

of trucks. Our park design dedicates around one-third of the 90 hectares to nature, fostering biodiversity with a mix of natural grasses, clover, and herbs between and under modules. Within 27 hectares of ecological zones, we’ve seeded carefully curated native herb mixtures to attract diverse flora and fauna.

Our waterway design is eco-friendly, and we’re installing an observation deck for bird watching in the expansive ecological zone. During field preparation, we took precautions to avoid disturbing wildlife, even using decoys and lasers to make sure birds would build their nests elsewhere. Regular inspections by ecologists ensured minimal disruption of the natural surroundings. We adjusted our schedule to accommodate young birds spotted nearby, demonstrating our commitment to the nature around us.

Remarkably, the construction phase has already welcomed various wildlife, including birds, deer, martens, hares, owls, and birds of prey, showcasing the park’s potential as a thriving ecosystem.

“At times, more than 100 people worked on site at the same time.”

PROJECT HAGHORST – PPA



Mike Dusseldorp
Head of PPA and Energy Markets

Can you tell me a bit more about the project?

In Haghorst we built a solar park of 41,3 MW, and in addition we negotiated and concluded multiple Corporate Power Purchase Agreements (CPPA) with several different corporate off-takers. This means that the electricity generated from this park, is directly purchased by companies, in this case Lidl, van der Valk and Hessing. This way, we can ensure that companies who do not have enough rooftop surface or land themselves, are still supplied with sustainable energy.

These companies committed to purchase all energy generated by the park, for 10 years, against a fixed rate. This takes away some of the risk associated with

developing a project, which is a huge win for the energy transition. Currently, developers of solar parks often depend on subsidies, but as Ecorus we want to work towards a

“We can ensure that companies who do not have enough rooftop surface or land themselves, are still supplied with sustainable energy.”

system where subsidies are no longer necessary. Big corporations will commit to bearing the risk of developing the solar park, as part of their sustainability journey and the targets and reporting requirements that come with this.

How does the current draw of the energy work, considering that the park is not necessarily close to the company?

For this contract, we work together with the energy provider of the customer. Every MW that is generated per hour, is exactly the amount that the company must purchase. In case it is more than what they use in that hour, they would have to sell the energy back to the market. If they need more, they purchase that energy separately. Basically, it works the exact same as it would with your own solar panels on your roof. This makes it very different from buying certificates for green energy. We as Ecorus help clients to make a decision based on our in-house



“Haghorst is the first project in the Netherlands that connected a 40+ MW solar park to multiple different companies through a corporate PPA with such long tenors.”

model on the best solar off-take volume taking into account the current total consumption profile and the future plans of the corporate client.

Why is this such an important development?

Ecorus is one of the first companies to work with such contracts and Haghorst is the first project in the Netherlands that connected a 40+ MW solar park to multiple different companies through a corporate PPA with such long tenors (10 years). In the future, this form of contracts will ensure that more solar parks can be realized preferably without any subsidies. A solar park generates energy for at least 15 years, and one cannot predict what the energy price over that period is going to be. That is why it is necessary to find a partner willing to

pay a fixed rate for sustainable energy, otherwise it is not feasible to build parks, once the subsidies will stop existing in its current form after 2025 (or later). It also seems more fair, that the costs and the risk involved with the energy transition will move towards companies, instead of citizens that indirectly pay for subsidies. The companies will also benefit from the CPPA's because they are, partly forced by new regulation, increasingly looking for opportunities to reduce their footprint. It is truly a win-win!



ECORUS HOME: SOCIAL HOUSING



Sanne Cornelissen
Manager marketing

Ecorus Home attends social housing corporations who own large amounts of residential buildings (houses and flats) and rent them out to inhabitants with low income: social housing. We install small-scale PV solar systems on the rooftops, which helps lower the residents' energy bill. To illustrate the impact of solar panels on social housing rooftops, Sanne interviewed residents of two of our past projects.

CHANTAL

Chantal lives with her 16-year-old son in a single-family home from Vivare. She is now the proud owner of 8 solar panels.

After receiving the letter from corporation Vivare, Chantal was enthusiastic right away. Not only because Vivare provided her with the opportunity to install solar panels on her rooftop and live more sustainable but also because she only found out after signing the agreement that the money saved would be her win and not the corporations.

After registration, an installer came by to see how many panels fit on the roof and what the cable route would look like. The installer was very friendly, approachable, and explained well what he was going to do. An installation appointment was then made, and the solar panels were installed in just half a day.

"After installing the solar panels, I received my login details by email to keep track of the yield myself. When the days are sunny, I regularly look at the yields in the Eleena App." Chantal also advises other tenants to participate in the solar panel project. She has already been able to encourage several other tenants to participate.

"When the days are sunny, I regularly look at the yields in the Eleena App."

RICHARD & THEA

Richard and Thea live in a single-family home, owned by housing corporation Rijswijk Living. They have lived here with great pleasure for about 30 years. Since February this year they have had 8 solar panels on the roof. "We actually wanted 10 solar panels, but that doesn't fit on the roof, but we are happy with 8 solar panels", says Richard.

After Richard & Thea received the letter from Rijswijk Wonen & Ecorus, they registered immediately. "We easily did that online", says Thea. Saving on energy bills was the main reason for participating. Their aquarium with tropical fish and high-water temperature consumes a lot of energy so now they could save some money.

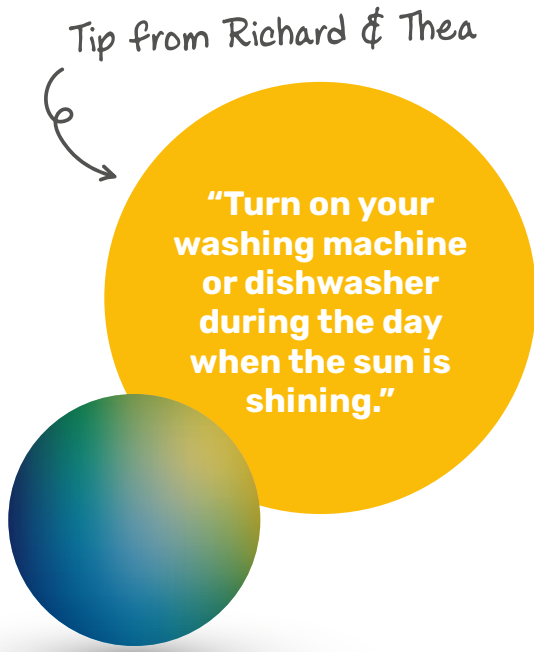
In addition to saving on energy bills, they enjoy contributing to a better environment. Richard also indicates that the solar panels block heat in the attic. "In the summer that makes a difference of about 1 to 2 degrees", says Richard.

Prior to the installation, the installer came by to show photos what the cable route would look like. On the day of the installation, the installers politely introduced themselves. "I got the men some delicious sausage rolls and made

them a cup of coffee", says Thea with a smile. The installation was done within 4 hours. The installation went well, and the installers cleaned up everything nicely after they were done. Richard himself works in technical services. Working safely is the top priority. "I think it's good to see that the boys worked safely", he says.

Richard and Thea have a good tip for other tenants with solar panels: turn on your washing machine or dishwasher during the day when the sun is shining. They used to only do that after 11 p.m., but now they do it during the day when the sun is shining.

Tip from Richard & Thea



"Turn on your washing machine or dishwasher during the day when the sun is shining."

PROJECT LOON OP ZAND



Niels van den Heuvel
Project Engineer

Can you tell me a bit more about the project?

Zonnepark Loon op Zand is a 9,5MW ground mounted solar park with 17.496 modules build for the local energy-cooperation.

The field has historically been used as a drainage field for industrial waste. Due to its usage the ground is polluted with materials such as chrome and lead meaning that the field cannot be used for other purposes. That makes it perfect to build a solar park!

What makes it different from other projects?

What makes this project unique are multiple facets, on the one hand the old dikes in the field are of historical value which had to be maintained, meaning that the project is split in many smaller fields. Then of course, we had to work with soil polluted by chrome and lead. Since this poses a risk while digging, a specialized civil farm was tasked with all major cable laying, as opposed to an installation subcontractor that usually does it. The installation subcontractor and anyone onsite had to wear a full suit of protective gear and the construction site was split in a dirty and clean area, even when no digging work was taking place. The protective measures were extra precautions for the health and safety of

those onsite. It is important to note that the polluted soil does not pose any risk to flora, fauna, and local residents.

What measures did you take to take sustainability and nature preservation into account?

Besides maintaining the historic cultural value of the land and taking special precaution for the health and safety of the workers and local residents there were also measures for nature preservation. The land is surrounded on three sides by forests, the land directly outside the fenced off area has been sown with a grass and local herb mixture. A local animal group has made the area near the solar park extra attracting to badgers. To help the badgers and other small animals there is a gap at the bottom of the fences to avoid blocking off the land for wild animals.

“The field cannot be used for other purposes. That makes it perfect to build a solar park!”

ClimatePartner Certified

The excessive amounts of CO2 that are currently emitted are contributing largely to the slow destruction of our planet. By installing PV solar installations, a high amount of carbon emissions is prevented. However, with the production, transportation and construction of solar panels, CO2 is being emitted too.

In 2023, we collaborated with ClimatePartner to determine our Corporate Carbon Footprint over 2022. The calculation was based on the guidelines of the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (GHG Protocol). The foundation for any climate action starts with calculation, which has

been the focus for us this year. Knowing our carbon footprint, means we can take targeted actions to reduce our emissions. We will continue to calculate our footprint annually, to check progress and proceed with reduction.

Included in our 2022 calculation, were scope 1 and 2 and parts of our scope 3 (employee commuting, business travel, operational waste, our purchased laptops and emissions from our assets in their supply chain).



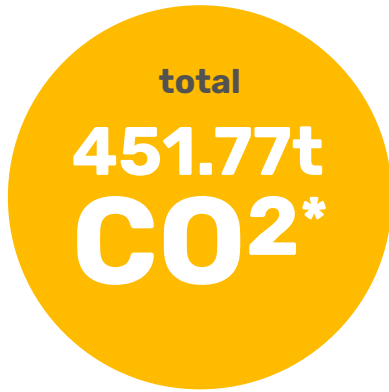
ClimatePartner certified company
climate-id.com/8H3E71



CO2 measure reduce contribute



2022 emissions



 **103**
employees

 **€ 61.507.476**
revenue


4,39t
per employee

7,3 gr
CO² per 

this is equivalent to...



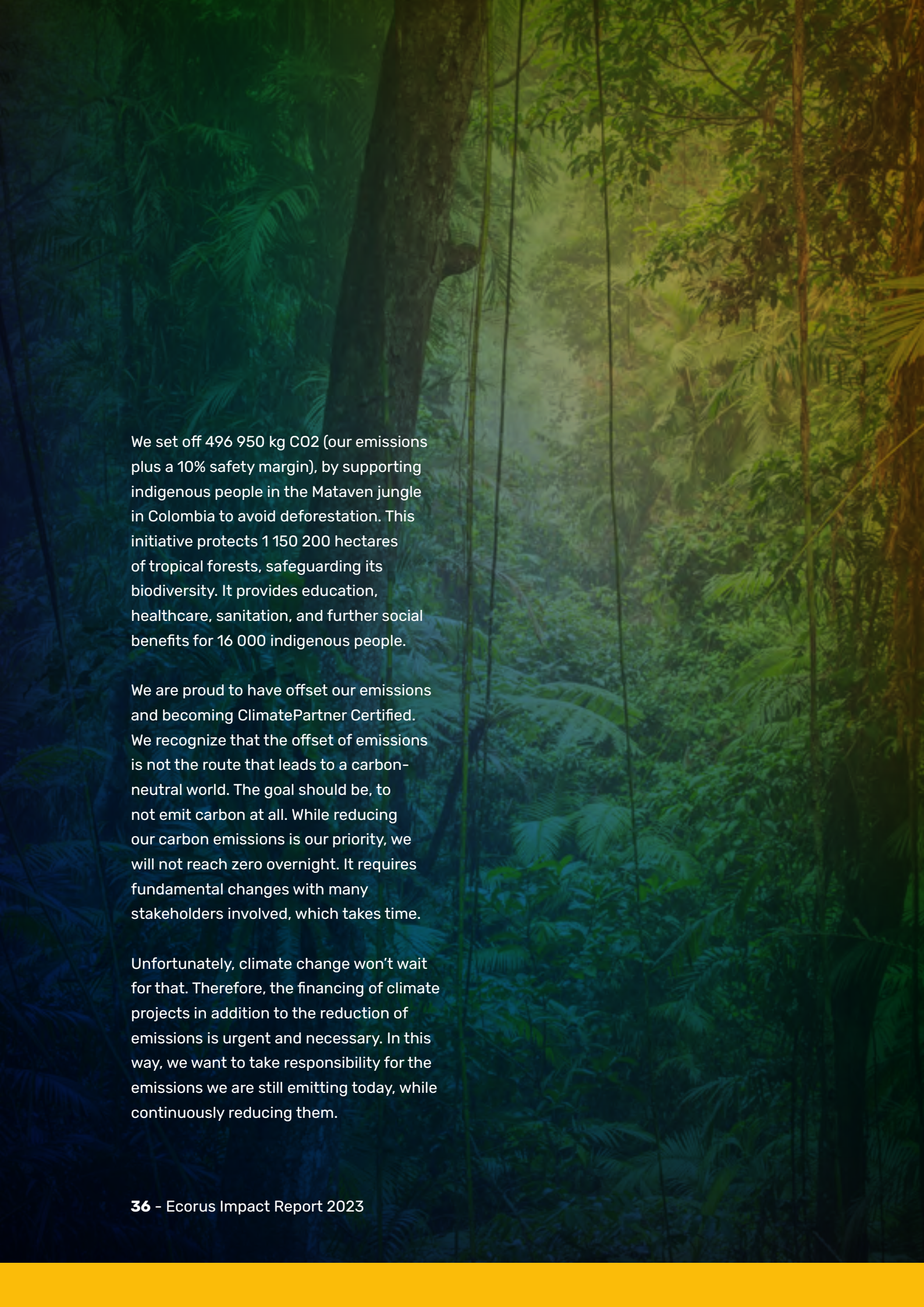
**The corporate carbon footprint calculates all emissions as CO2 equivalents (CO2e), which this report also refers to as "CO2".*

103 employees – 4.39t CO2 per employee

€ 61.507.476 revenue – 7.3 gram CO2 per € revenue or 0,7t CO2 per €100k revenue

Total: 451.77t CO2*

This means that all relevant greenhouse gases, as stated in the IPCC Assessment Report, were taken into account in the calculations. These include carbon dioxide (CO2), methane (N2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulfur hexafluoride (SF6), and nitrogen trifluoride (NF3). Each gas has a different ability to warm the earth's atmosphere, and each remains in the atmosphere for different lengths of time. To make their effect



We set off 496 950 kg CO₂ (our emissions plus a 10% safety margin), by supporting indigenous people in the Mataven jungle in Colombia to avoid deforestation. This initiative protects 1 150 200 hectares of tropical forests, safeguarding its biodiversity. It provides education, healthcare, sanitation, and further social benefits for 16 000 indigenous people.

We are proud to have offset our emissions and becoming ClimatePartner Certified. We recognize that the offset of emissions is not the route that leads to a carbon-neutral world. The goal should be, to not emit carbon at all. While reducing our carbon emissions is our priority, we will not reach zero overnight. It requires fundamental changes with many stakeholders involved, which takes time.

Unfortunately, climate change won't wait for that. Therefore, the financing of climate projects in addition to the reduction of emissions is urgent and necessary. In this way, we want to take responsibility for the emissions we are still emitting today, while continuously reducing them.

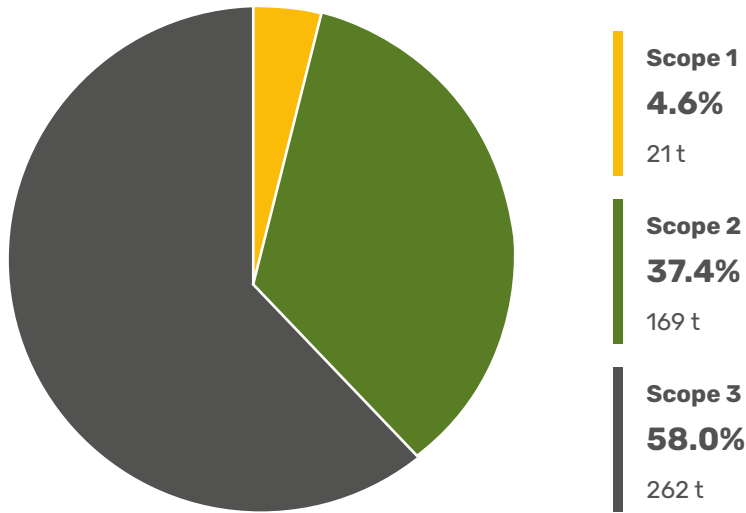
Corporate Carbon Footprint 2022



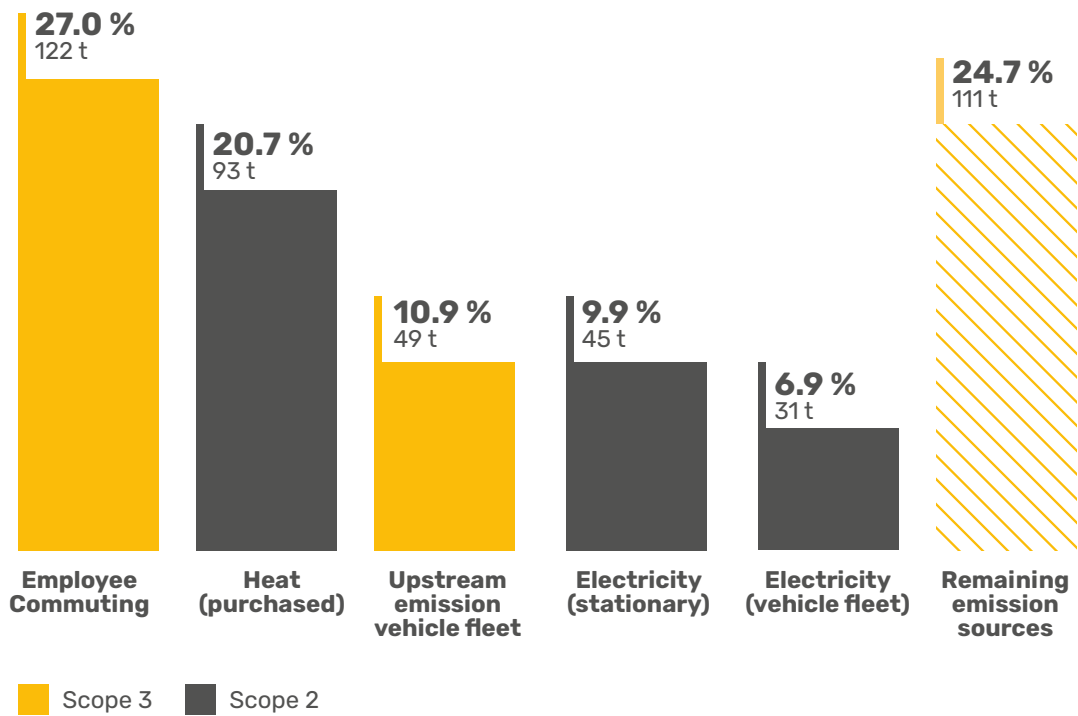
Overall results for the period **01/2022 - 12/2022**

Emission sources	t CO ₂	%
SCOPE 1	20.82	4.6
Direct emissions from company vehicles	20.45	4.5
Vehicle fleet	20.45	4.5
Direct emissions from company facilities	0.37	0.1
Refrigerant leakage	0.37	0.1
SCOPE 2	168.92	37.4
Purchased heating, steam and cooling for own use	93.41	20.7
Heat (purchased)	93.41	20.7
Purchased electricity for own use³	75.52	16.7
Electricity (stationary)	44.57	9.9
Electricity (vehicle fleet)	30.95	6.9
SCOPE 2	262.03	58.0
Employee commuting	140.47	31.1
Employee commuting	122.07	27.0
Home office	18.41	4.1
Fuel- and energy-related activities	75.96	16.8
Upstream emissions vehicle fleet	49.37	10.9
Upstream emissions heat	16.62	3.7
Upstream emissions electricity	9.97	2.2
Waste generated in operations	28.42	6.3
Operational waste	25.79	5.7
Transport to disposal facility	2.64	0.6
Business travel	10.82	2.4
Flights	8.16	1.8
Hotel nights	1.88	0.4
Rail	0.76	0.2
Rental and private vehicles	0.03	0.0
Purchased goods and services	6.36	1.4
Electronic devices	6.36	1.4
OVERALL RESULTS	451.77	100.0

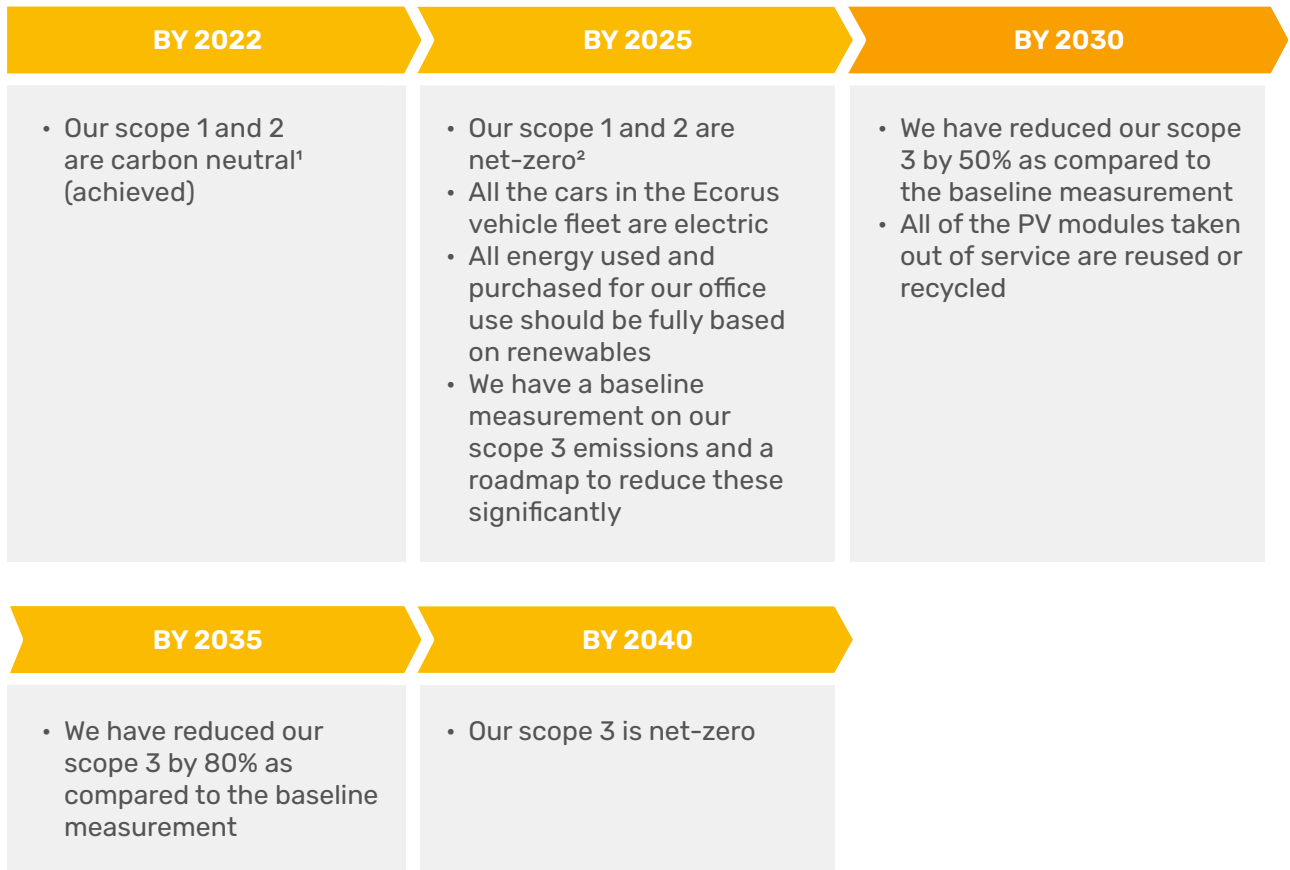
CO2 EMISSIONS CATEGORISED BY SCOPE 1, 2, AND 3



THE LARGEST CO2 EMISSION SOURCES



Our CO2 roadmap



¹Carbon neutral: any CO2 released we emit into the atmosphere from our activities is balanced by an equivalent amount being removed through offsetting

²Net zero: our activities release net-zero carbon emissions into the atmosphere

How will we get there?

CO2 REDUCTION ACTIONS COMPLETED 2023:



Improve on-site waste management to enhance recycling possibilities.



Switched fuel of our domestic logistical transportation to HVO100, a renewable and fossil-free fuel based on waste streams that emit 90% less CO2 than fossil fuels.

CO2 REDUCTION PLAN 2024:



Implement a mobility plan for employee commuting



Implement energy-efficiency measurements at our office buildings



Proceed with the electrification of our company car fleet



Create roadmap towards 2030, 2040 and 2050 targets

Next Year

In 2024, we will focus on the following projects:

1. MATERIALITY ASSESSMENT

We will perform a materiality assessment, as a basis for our future sustainability plans. A materiality assessment is an exercise with our stakeholders (both internal and external), to find out which Environmental, Social and Governance (ESG) issues are important to them. The primary objective of this assessment is to identify the social and environmental areas that hold the most significance for our company, investors, and stakeholders. The outcome of this materiality assessment will be the base for our new sustainability strategy.

2. ENVIRONMENTAL, SOCIAL, GOVERNANCE (ESG) STRATEGY

With our material topics defined, we will further develop ESG policies as well as set measurable KPIs and targets.

3. DATA COLLECTION

In 2023, we developed a new ERP (enterprise resource planning) system. This will help us collect all the relevant ESG data to track and report our progress better.

4. ROADMAP FOR CO² REDUCTION

We already have the biggest milestones of our CO₂ reduction defined in our roadmap: carbon neutral by 2025 (achieved), net-zero by 2030, net-zero suppliers by 2040 and net-zero customers by 2050. In 2024, we will develop yearly KPIs and targets to track our reduction progress.

5. IMPLEMENTING REDUCTION PROJECTS

In addition to policy and strategy building and data collection, we will focus on reducing our carbon footprint. Our main projects for next year are taking energy-efficiency measurements in our office buildings, implementing a mobility plan for employee commute and further electrifying our company vehicle fleet.

Closing Letter

Dear Stakeholders,

I am pleased to present our Impact Report for the year 2023, building upon the strides we made in 2022. As we reflect on the past year's achievements and challenges, it is evident that our commitment to sustainability remains steadfast, propelling us to innovate and evolve.

In 2023, we continued to build upon the foundation laid in 2022, including our commitment to the UN Global Compact and our 1% profit pledge. Notably, we took proactive steps towards reducing our environmental footprint. Recognizing the urgency of the climate crisis, we pledged to achieve carbon neutrality for the majority of our Scope 1 and Scope 2 emissions, as well as a portion of our Scope 3 emissions. This commitment reflects our dedication to mitigating the impact of our operations on the environment while contributing to global efforts to combat climate change.

Looking ahead to 2024, we embark on an ambitious journey to address the entirety of our Scope 3 emissions. We understand that this task presents unique challenges,

but we are fully committed to mapping our entire value chain and implementing measures to reduce emissions across all stages of our operations. Furthermore, we recognize that collaboration is key to accelerating our transition to a net-zero future while also safeguarding human rights and labour rights across our supply chain.

Therefore, we will actively engage with our main suppliers to jointly identify opportunities for emission reductions and foster a culture of sustainability throughout our supply chain, including mapping their factory locations and



"We are fully committed to mapping our entire value chain and implementing measures to reduce emissions across all stages of our operations."

conditions, as well as those of their sub-suppliers. This ensures a clear conscience for us and our customers, demonstrating our commitment to conducting business in a fair, ethical, and respectful manner.

As we embark on this next phase of our sustainability journey, we remain guided by our core values and principles. Our commitment to transparency, accountability, and continuous improvement will continue to drive us forward as we strive to create a lasting positive impact for our planet and future generations.

In closing, I extend my sincere gratitude to our stakeholders for their unwavering support and partnership. Together, we have achieved remarkable progress, and I am confident that by working collaboratively, we will overcome the challenges that lie ahead and emerge as leaders in sustainability.

Sincerely,



Fubin Lu
Chief Procurement Officer
Ecorus



About this Impact Report

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Executive editor: Fubin Lu



Want to talk about our impact?

Mail Tahnee!

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References

- [ClimatePartner: results of calculation](#)
- [Fairphone goes Siemens](#)
- [Materiality assessment: a guide to a better ESG performance. By Tara Bernoville.](#)
- [What is the difference between carbon-neutral, net-zero and climate positive? By Tara Bernoville.](#)