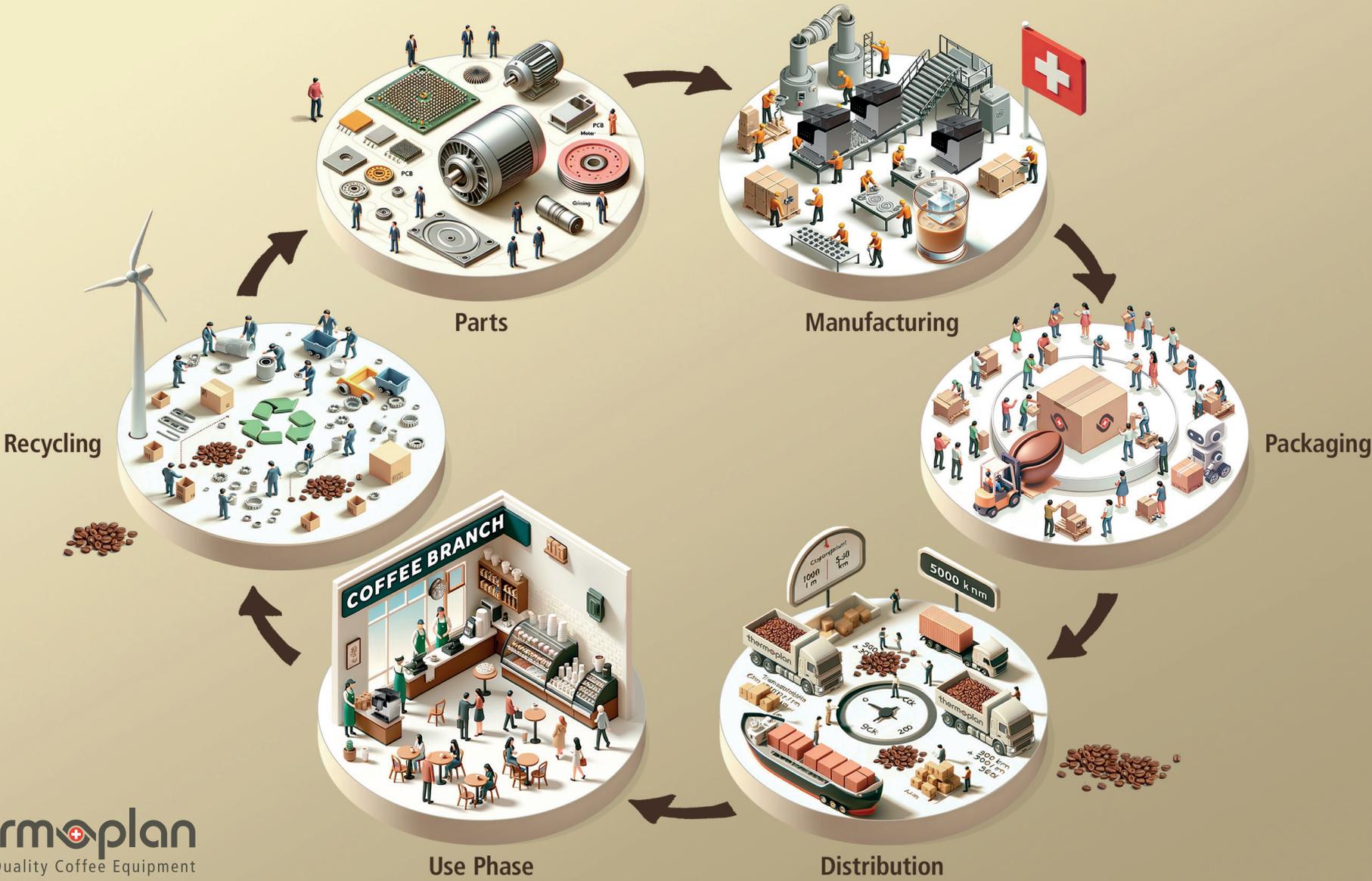


Sustainability report 2023



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A short presentation of this report can be found at:
www.thermoplan.ch/en/thermoplan/sustainability

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Foreword by the CEO – Adrian Steiner

Dear readers,

It is a great pleasure for me to present to you the Sustainability Report for 2023. At Thermoplan, we see ourselves not only as an innovation leader in the development and manufacture of high-quality fully automatic coffee machines, but also as a pioneer in the field of sustainability. Our commitment to sustainability is firmly anchored in our corporate vision. We are proud of what we have already achieved, while at the same time setting ourselves new, ambitious goals.

We are driven by our long-term goal of achieving net zero emissions by 2050. We are committed to a fully circular economy to ensure the responsible use of resources and to fair social and environmental conditions with all our stakeholders. The People, Product and Planet pillars provide the framework for our targeted sustainability work and guide us towards our ambitious goal to cut emissions in half by 2030 and achieve net zero by 2050. We are convinced that transparency is the key to honest and comprehensive sustainability.

At the heart of our efforts is the circular economy, which is highlighted as the focus topic of this annual report. By consistently implementing this principle, we can not only further optimize the quality of our fully automatic coffee machines, but also make a contribution at all levels of people, product and planet.

Our reduction in emissions deserves special mention. It fills me with great satisfaction that we are back on our reduction path and have thus taken a decisive step on our way to net zero emissions. This success is the result of the hard work and commitment of the entire Thermoplan team.

The assessment of our suppliers' sustainability performance and the implementation of the Code of Conduct have confirmed that many of our partners are willing to accompany us on the path to net zero emissions. The direct exchange has shown that we can achieve more together.

Another highlight was the HOST trade fair in Milan, where we presented our new exhibition stand and had the opportunity to make personal contact with many interested parties. The enthusiasm for our technology and our commitment to sustainability was overwhelming and encouraged us in what we are doing.

We have another big event coming up in 2024: the opening of our new LEED-certified plant called unique. This event will be a cause for celebration not only for Thermoplan, but also for our partners and the local community.

Despite our successes, we must also acknowledge challenges. For example, we have not achieved our energy-saving target for 2023 for our machines and at the Weggis site. However, we have done important ground-work for the Weggis site with the planning of the photovoltaic expansion and the energy concept. We are determined to further increase the energy efficiency of our products in the coming years.

I would like to thank you for your trust in Thermoplan and encourage you to actively participate in our sustainability goals. Together we can shape a more sustainable future.

With best regards



Adrian Steiner

Our focus topic 2023



Circular economy at Thermoplan

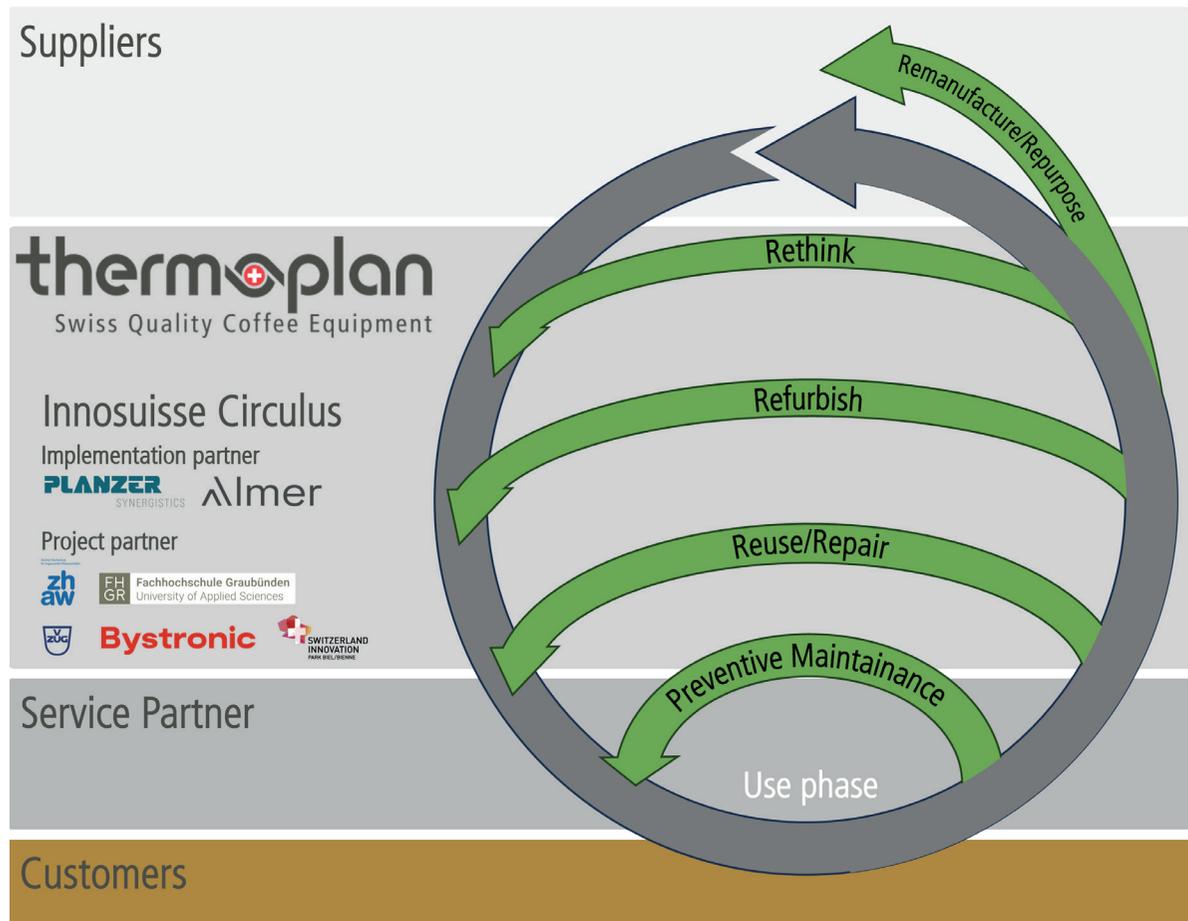
Our commitment to a circular economy is an integral part of our owner's strategy. We are aware of the importance of this strategy on our path to net zero emissions. For this reason, we have been working intensively with this topic internally for several years and want to devote special attention to it in this year's sustainability report. Circular economy is a complex and multi-layered issue that affects the entire company. It is a challenging task to keep resources in circulation in order to maintain a profitable business model that offers added value to all stakeholders. Through the work of students and others, we have already gained initial insights into material selection and possible business models for a circular economy.

We are delighted to be working with other business partners and three universities over the next four years to realize the Circulus flagship project on the circular economy. This project is supported by Innosuisse. In close cooperation with the universities, we will be working in various work packages on topics such as the impact of the circular economy on business models in the value chain, the remanufacturing of machines and components and logistics to and from the customer. Our goal is to create added value for our customers, the environment and Thermoplan.

The illustration on the right shows how the flagship project fits into possible closed-loop concepts that we are already working on or offering and which we will develop.

Focustopic circular economy

This report contains short special articles on the topic of the circular economy in info boxes like this one. These give you an additional insight into how we understand and manage the topic. We hope you enjoy discovering them.



Digital product data

Business model innovation

Description of the R strategies

Preventive Maintenance
 Since the introduction of our modular coffee machines, we have been offering our service partners Preventive Maintenance Kits to extend their service life.

Reuse/Repair
 After the first service life, the machines are checked, cleaned and repaired for the next service life with minimal material costs.

Refurbish
 After the first service life, machines are equipped with new functions for the next service life.

Rethink
 Modularity will be rethought for the next generations in order to offer even greater added value for customers and the environment in terms of resources.

Remanufacture/Repurpose
 Machines and components are refurbished so that they meet the exact quality standards of new machines or can be used for a further service life outside of coffee machines.

Flagship supported by

 (Flagship supported by Innosuisse)

We are Thermoplan

The 2023 highlights of our three pillars: people, product and planet

People



528

Employees
+10% compared to 2022



>3'300 h

Internal English lessons



Ø272 km

Distance of components from suppliers



>500 h

Internal German lessons

Product



34.5k

Machines produced



80 countries

Exported machines



98%

Export share



100%

Product life cycle assessment
for all published machines

Planet



100%

Renewable energy at the Weggis site



June 22, 2024

Opening of our LEED
certified new building unique



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Lowering path recognized by SBTi



25

E-charging stations installed
for free charging

We are Thermoplan

Overview of progress in our sustainability focus areas

As an introduction to the Sustainability Report 2023, we would like to provide an overview of the current status of our priorities, divided into our three pillars - People, Product and Planet. We are aware that our targets are very ambitious and that it will be a challenge to achieve them. It is therefore even more important to regularly check whether we are making the progress we are aiming for, or whether we need to take change course in certain areas. Some of our targets can be clearly quantified and progress can be directly assessed on the basis of measured values. This applies, for example, to our targets relating to CO₂ emissions and electricity and heat consumption. Other targets are qualitative and relate to the area of employees or materials. The assessment below was drawn up jointly by the division managers and is intended to show the current status of the sustainability targets.

			Target achievement
People	Central	Promoting the health and safety of employees as a top priority	●●●●●
	Local	Focus on long-term regional supplier partnerships	●●●●●
	Global	Commitment to partners to fair, social and ecological conditions throughout the supply chain	●●●●●
Product	Milk	Minimization of waste	●●●●●
	Coffee	Maximum efficiency in coffee extraction	●●●●●
	Energy	Continuous increase in the energy efficiency of all machines	●●●●●
	Materials	Enabling the circular economy through ecodesign	●●●●●
	Consumables	50% reduction in the supply chain by 2030	●●●●●
	Water	Reduction of waste water from machines by 50% by 2030	●●●●●
Planet	CO ₂ -emissions	Reduction of 50% by 2030 (Scope 1-3) as an interim target	●●●●●
	Electricity and heat	Production with 100% renewable energy since 2022	●●●●●
	Logistics	Optimization with regard to CO ₂ -free transport	●●●●●
	Mobility	Focus on environmentally friendly transportation for employees	●●●●●
	Water	Reduction of consumption in operation by 50% by 2030	●●●●●
	Waste	Maximizing recycling	●●●●●

●●●●● Achieved
 ●●●●● On course
 ●●●●● Not yet on course
 ●●●●● Not on track and critical
 ●●●●● Not yet started

We are Thermoplan

«Thermoplan: based in Switzerland, in business worldwide – Swiss Quality Coffee Equipment»

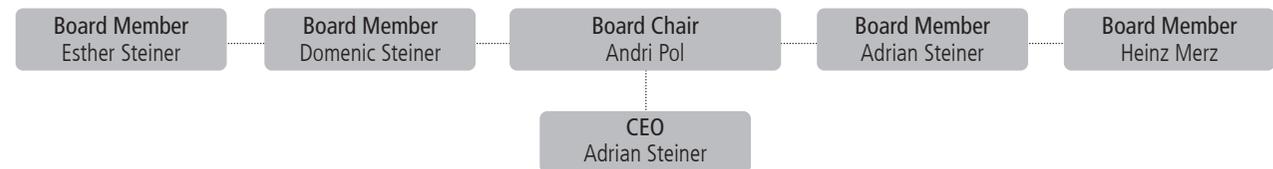
Together with around 530 employees, we develop and produce top Swiss-quality fully automatic coffee machines here in Weggis near Lake Lucerne for professional use in the catering industry and other businesses. More than 200 certified distribution and service partners worldwide make up the Thermoplan network.

The «Made in Switzerland» commitment to quality is more than a promise for us – it is a conviction. With a Swiss cross in our company logo, we are proud to be producing in Switzerland. Thermoplan is a Swiss-made company through and through. Our fully automatic coffee machines are manufactured at our main plant in Weggis and over 70% of our suppliers come from Switzerland.

In just under 50 years, entrepreneurship and passion have turned a small family business into an internationally successful market leader in the field of fully automatic coffee machines. Founded in 1974 by Esther and Domenic Steiner, Thermoplan AG began with the production of whipped cream machines and milk frothers. In 1995, the company entered the fully automatic coffee machine business and four years later, as an industry newcomer, became the exclusive supplier for a globally active American coffee house chain.

In 2009, Domenic Steiner handed over the management of the company to Adrian Steiner and retired from operational business in 2010. Adrian Steiner joined the Board of Directors as a co-shareholder and since then has steered the fortunes of Thermoplan AG as CEO. In the years that followed, Thermoplan AG was characterized by new partnerships in the B2B business, technical innovations and growth. The fully automatic coffee machine portfolio was expanded to attract a wider range of customers to our fully automatic coffee machines of the highest Swiss quality. In 2022, Domenic Steiner handed over the chairmanship of the Board of Directors to long-standing Board member Andri Pol. Domenic Steiner remains with Thermoplan AG as a valuable member of the Board of Directors.

Since this internal change, the composition of our board of directors is as follows:



The subsidiaries Thermoplan Germany/Austria and Thermoplan USA also operate under the same strategic management.



We are Thermoplan

Our value chain

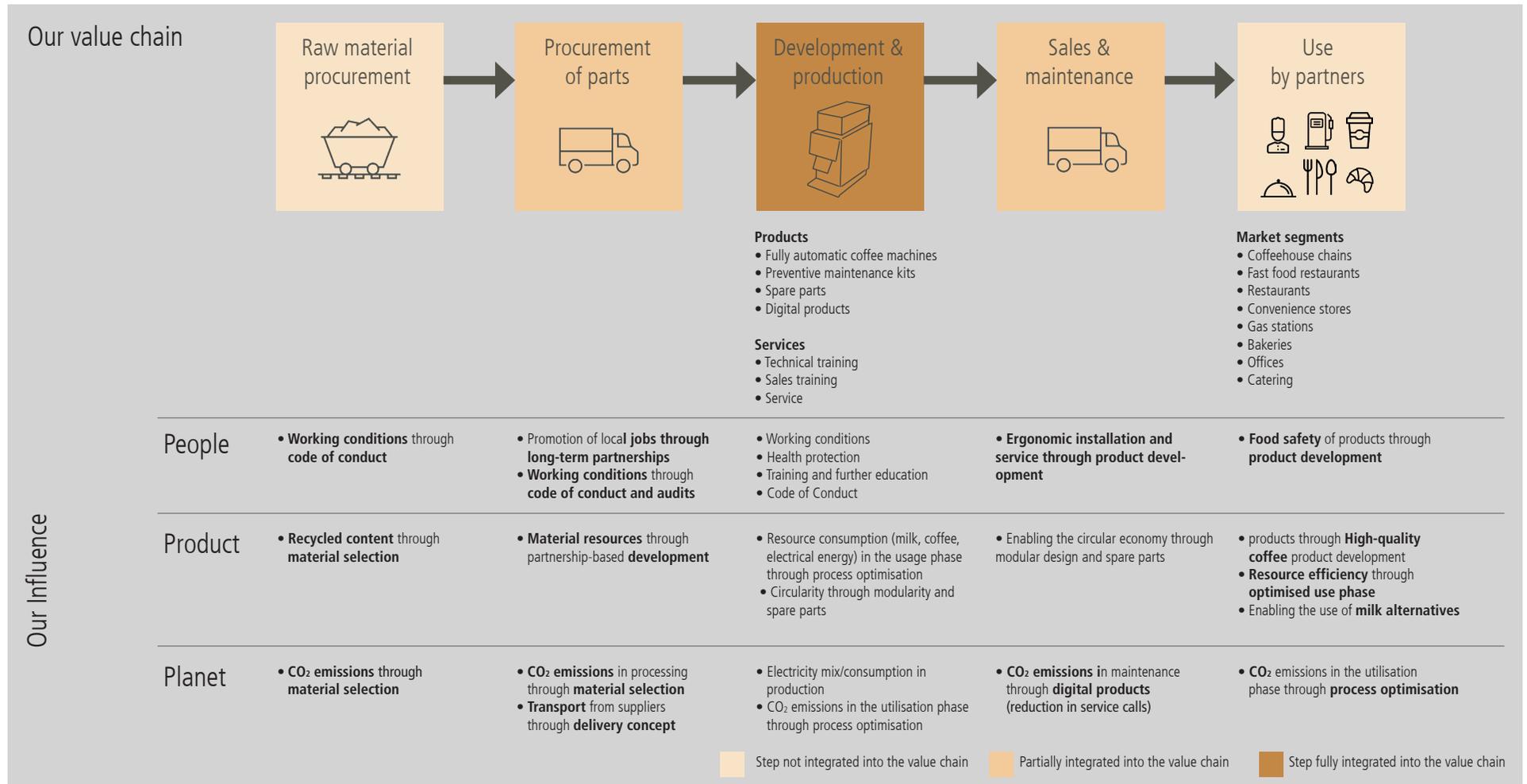
Thermoplan has always been a driver of innovation in the development and manufacture of professional fully automatic coffee machines and this is the focus of our activities. More than a fifth of the entire Thermoplan workforce works in research and development, using innovative technologies to continually improve and advance our products and service. It is important to us to understand the needs of our stakeholders and to develop ourselves accordingly. To this end, we enter into targeted supplier partnerships so that we can benefit from each other's expertise and have high-quality individual parts manufactured. In combination with Swiss precision work performed by our employees in assembly, this results in pioneering solutions that meet the needs of our customers, are convincing on the market and enable outstanding product and service quality.

In order to carry out our main activities, we rely on valuable, long-term partnerships both upstream and downstream. To this end, we are in close contact with our suppliers and create conditions that are right for both parties. We also value long-term partnerships downstream. Thermoplan has a global sales and service network of partners who in turn delight their customers with expert advice and comprehensive services. In addition to manufacturing durable and modular fully automatic coffee machines, we assemble Preventive Maintenance Kits (PM kits) and manufacture spare parts to ensure the longevity of our products. These PM kits and spare parts are installed worldwide by our partners. We enable our partners to perform these services by providing them with technical training at our premises in Weggis. Together with our partners, we provide customer-oriented advice, fast delivery of high-quality fully automatic coffee machines and spare parts all over the world and the highest quality of service.

Influence

As Thermoplan, we influence the integrated and non-integrated value creation steps with our activities and requirements. This influence is shown in the lower part of the illustration, divided into our three pillars of People, Product and Planet. The chart also shows the measures we are taking to have a positive impact.

We are Thermoplan



We are Thermoplan

Our values and cooperation

Our values have been deeply embedded in our day-to-day work since the very beginning and we attach great importance to them, as they are actively observed by our customers and partners.



Flexibility

We adapt to change and are constantly evolving. We react quickly to the needs of our customers and suppliers and provide convincing innovative solutions. Emphasis is always on the customer.



Enthusiasm

We maintain the Thermoplan team spirit. Everyone is important and bears responsibility. We enjoy working for Thermoplan and are proud of the company and its products. Wherever we work, we operate in a spirit of partnership.



Simplicity

We develop and produce products that are easy to use and maintain. Our modularity is an allegory of simplicity. Not only simplicity in our products and service, but also our communication and processes.

Our strong values place our employees at the heart of the business and enable quick decision-making and openness to change. This Thermoplan culture lays the foundations for successful partnerships, which have been a focal point of Thermoplan AG's business activity from the outset.

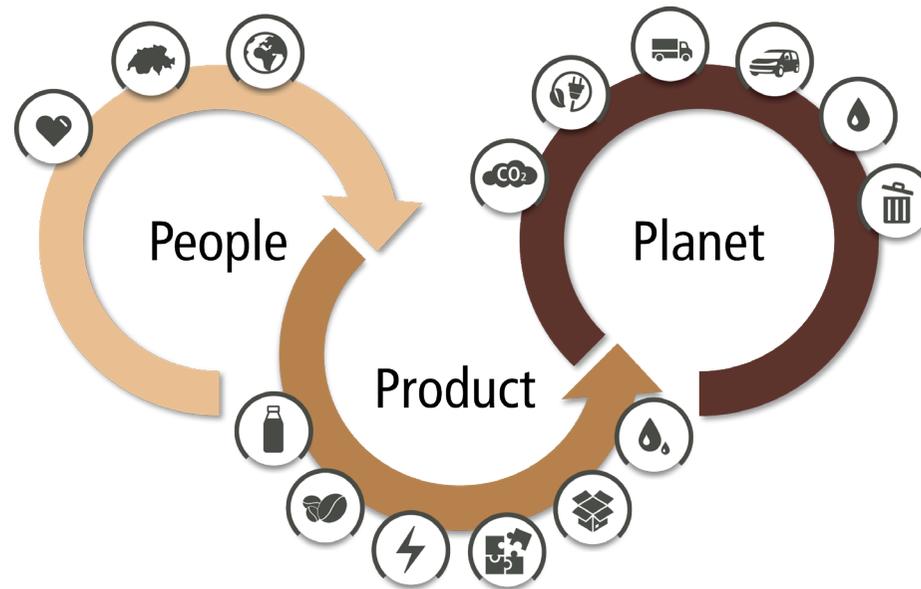
In addition to our strong values, we have a clear understanding of how we want to treat each other. We are committed to complying with the Ethical Trading Initiative (ETI) and have adopted the ETI Basic Code, which is also part of our personnel regulations.

We also have a clear idea of the conditions under which we wish to maintain business relationships. Our Code of Conduct for Suppliers is based on issues that are important to us, that are anchored in our vision and that we also adhere to ourselves. In particular, it takes into account the UN Guiding Principles on Business and Human Rights (UNGPs), the core conventions of the International Labor Organization (ILO) and the ten principles of the UN Global Compact. This Code of Conduct can be viewed on our website and also refers to our complaints procedure, which can be used to report suspected violations anonymously.

Sustainability at Thermoplan

«Excellence. Enjoyment. Responsibility.

Being able to enjoy premium coffee and manufacture top-quality fully automatic coffee machines is a luxury. A privilege that can bring people together, creates special moments and last, but not least, creates employment»



The long-term strategy of the family of owners sets out the future direction of the company. The sustainable development of the business is one of four selected goals in the owners' strategy. This means that our commitment to sustainability and to continuously work on our net zero target is deeply embedded in the firm.

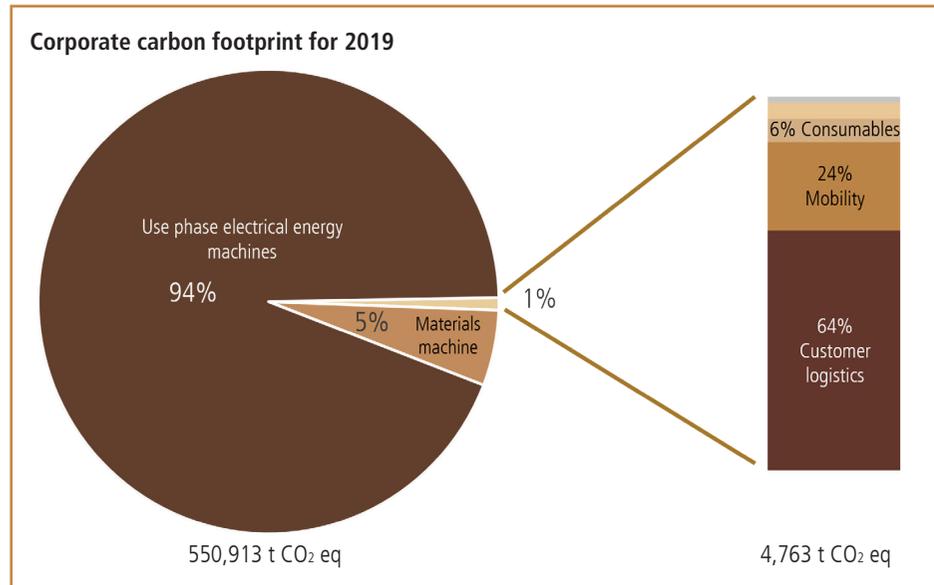
Our SAGO 22–25 company strategy was devised in several workshops by a cross-departmental team. Employees from all company departments, board members and the owners were all represented. This was done to ensure that the company strategy is both far-reaching and implemented across the board. A specific strategic direction of impact in the area of sustainability was defined in the SAGO 22–25 strategy.

This enables us to help future generations enjoy these very same privileges!

Our material topics

In 2020, an interdisciplinary team started to work out the details of our sustainability concept. To ensure that no stone was left unturned, the first step was to perform a materiality analysis. This analysis enabled us to identify areas in which we have the chance to reduce the negative effects of our business activities and reinforce the positive ones. In particular, it was important to be able to have a facts-based focus on setting our sustainability goal in order to assess the influence of our company on the environment and climate. This was possible thanks to an as-is analysis in the form of a corporate carbon footprint and product lifecycle assessments.

The corporate carbon footprint (Scope 1–3 for 2019) shows that the emissions caused by the usage phase and the materials (Scope 3) account for 99% (546,150 t CO₂ eq) of the total emissions. This is because the total emissions (e.g., from electricity consumption) that a fully automatic coffee machine generates in its lifetime (10 years) are factored into the corporate carbon footprint for the production year. If the usage phase is excluded, the greatest influences on the environment come from customer logistics, mobility and consumables.



Corporate carbon footprint at Thermoplan

The corporate carbon footprint is based on the principles of the Greenhouse Gas Protocol and the fundamentals of ISO 14040 and ISO 14044. We apply the Global Warming Potential (GWP) method, based on a 100-year timescale in accordance with the IPCC 2013, and include Scopes 1 to 3. The data used are gathered internally.

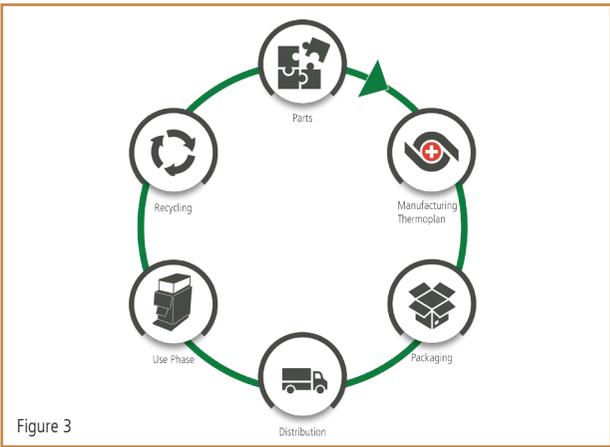
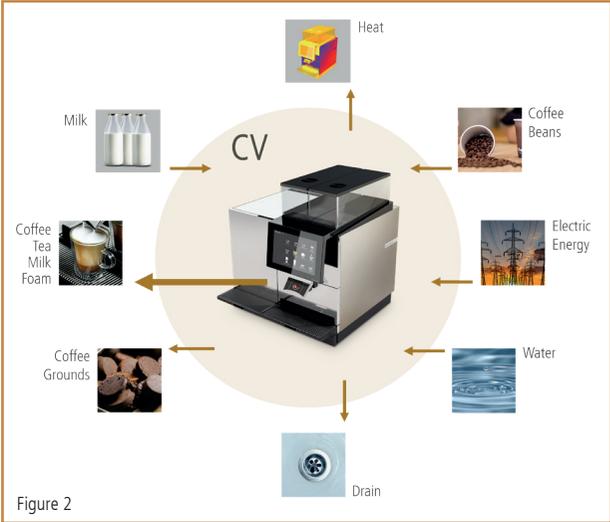
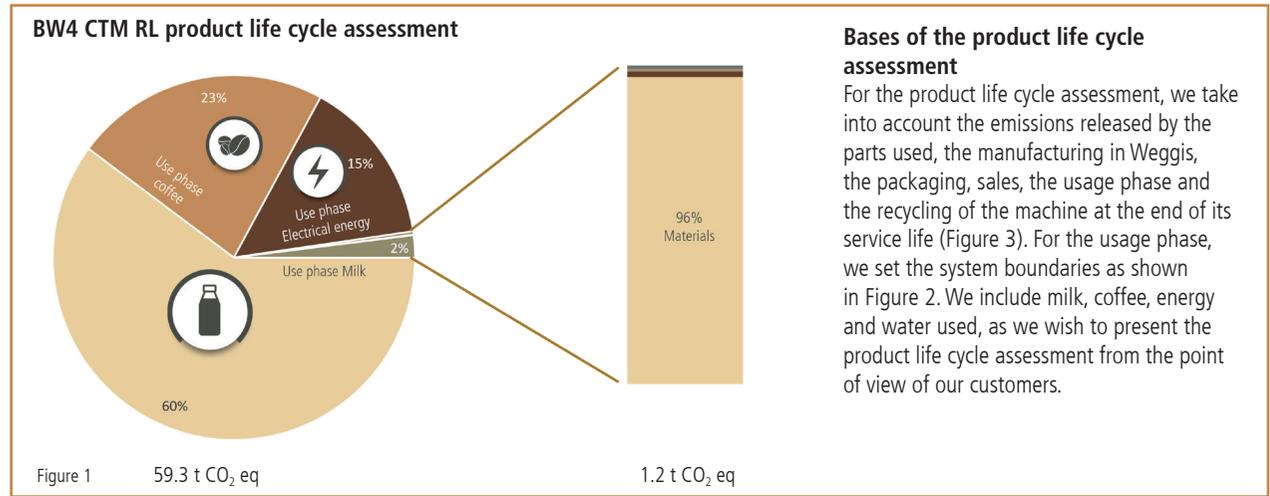
What do Scopes 1 to 3 mean?

These are scopes for calculation and can also be understood as system boundaries. Our ambitious climate targets, and therefore also our corporate carbon footprint calculation, takes into account Scopes 1 to 3.

This means that we take responsibility for the emissions that we generate directly (Scope 1), for example, through the use of our own vehicles or our own energy production using the solar panel system. Scope 2 includes the emissions caused by our purchased energy and Scope 3 accounts for those generated by our upstream and downstream value chain. This therefore concerns, for example, the emissions released by the manufacturing of third-party parts or by the extraction of the necessary raw materials. We are also responsible for the emissions caused by the energy consumption of our fully automatic coffee machines throughout their lifespan due to their inclusion in Scope 3. As we adhere to the definition of this scope, milk and coffee that are not processed by our customers with our fully automatic coffee machines are not included in our corporate carbon footprint; however, they are accounted for in the product life cycle assessment (see below).

Product life cycle assessment

The figure 1, below of the product life cycle assessment, in accordance with the CV (control volume) system boundaries (Figure 2), clearly shows that our products have the greatest influence on the climate in the usage phase. This is due to the processed milk and coffee and the energy that the fully automatic coffee machine consumes. The materials used also have an impact on the environment that we cannot disregard. The diagram (Figure 1) shows this by way of example for our Black&White4 CTM RL (BW4 CTM RL). About 60% of the CO₂ footprint is caused by milk, 23% by coffee and 15% by the energy consumed during the usage phase. The materials account for 96% of the remaining 2%.



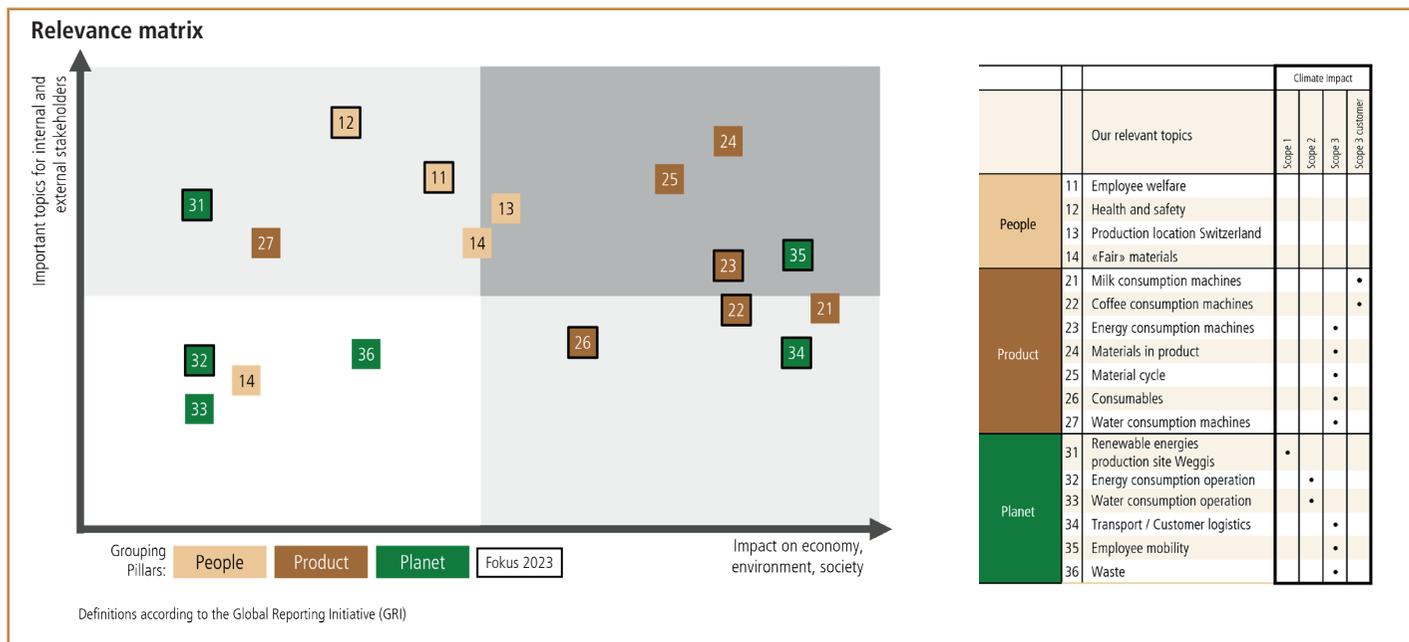
More information
 On the product life cycle assessment can be found at report.thermoplan.ch

Relevance matrix

Based on the findings of the corporate carbon footprint and the product life cycle assessment, we evaluated the effects on the economy and on society, as well as the significance for our stakeholders. The subject areas were quantified in several workshops involving a range of stakeholder representatives. Stakeholders from the following categories were involved:

- national/cantonal/regional regulatory authorities
- employees (current and future)/owners
- suppliers
- customers/sales and service partners

The relevance matrix summarizes the as-is analysis according to importance to our stakeholders and influence on the economy, environment and society. Furthermore, the influence of the different subject areas on greenhouse gas emissions is classified based on the scopes of the GHG protocol. The «Scope 3 customer» column means that the area does not come under our own emissions, but is very important to us as it affects the emissions of our customers.



Our relevant topics	Climate impact			
	Scope 1	Scope 2	Scope 3	Scope 3 customer
11 Employee welfare				
12 Health and safety				
13 Production location Switzerland				
14 «Fair» materials				
21 Milk consumption machines				•
22 Coffee consumption machines				•
23 Energy consumption machines			•	
24 Materials in product			•	
25 Material cycle			•	
26 Consumables			•	
27 Water consumption machines			•	
31 Renewable energies production site Weggis	•			
32 Energy consumption operation		•		
33 Water consumption operation		•		
34 Transport / Customer logistics			•	
35 Employee mobility			•	
36 Waste			•	

As the significance of sustainability areas changes over time, for example, due to changing stakeholder interests and, of course, due to our sustainability measures, we regularly revise our directions of impact and targets and make adjustments where necessary.

Building on our three pillars of impact – **people, product and planet**, we treat each other with respect, optimize and reduce resource consumption in the right places, and improve our products for the benefit of our customers and the environment with the help of the latest technologies. This is how we learn a bit more every day about how to keep our footprint on the earth as small as possible.

Sustainability at Thermoplan

How we manage sustainability

Sustainability issues transcend divisional and departmental boundaries. We have therefore decided to tackle them in an operational, interdisciplinary team. The Head of Sustainability coordinates the team. Each division has a sustainability leader who promotes sustainability in their area and represents them in the decentralized sustainability team. The sustainability leader coordinates measures to increase sustainability in their area and monitors their implementation. Implementation takes the form of impact projects within the divisions and departments.

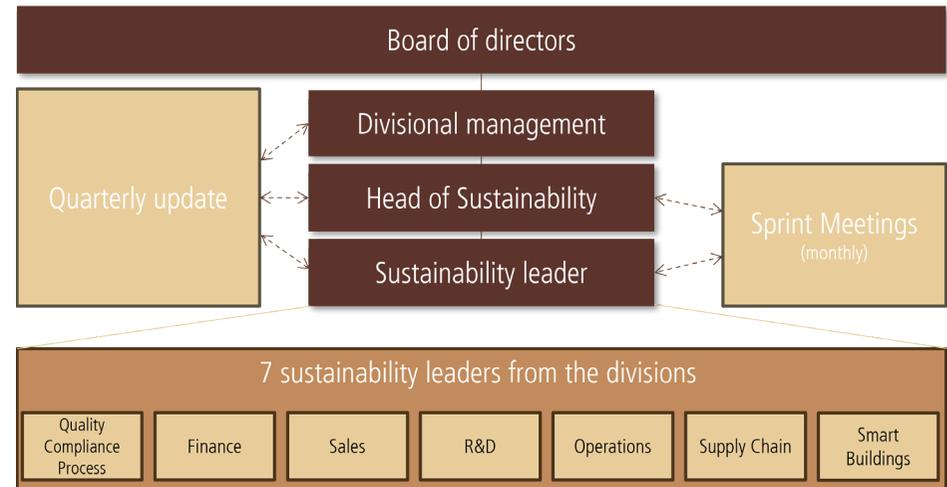
In monthly sprint meetings, the responsible sustainability leader presents the progress of the project and discusses challenges, successes and next steps. Our sustainability team exchanges information with divisional management on a quarterly basis. The resulting take-away messages are communicated throughout the company.

We evaluate the performance of our sustainability management on the basis of the progress assessment within our areas of focus, external sustainability ratings and external audits in the areas of environment, occupational safety and ethics.



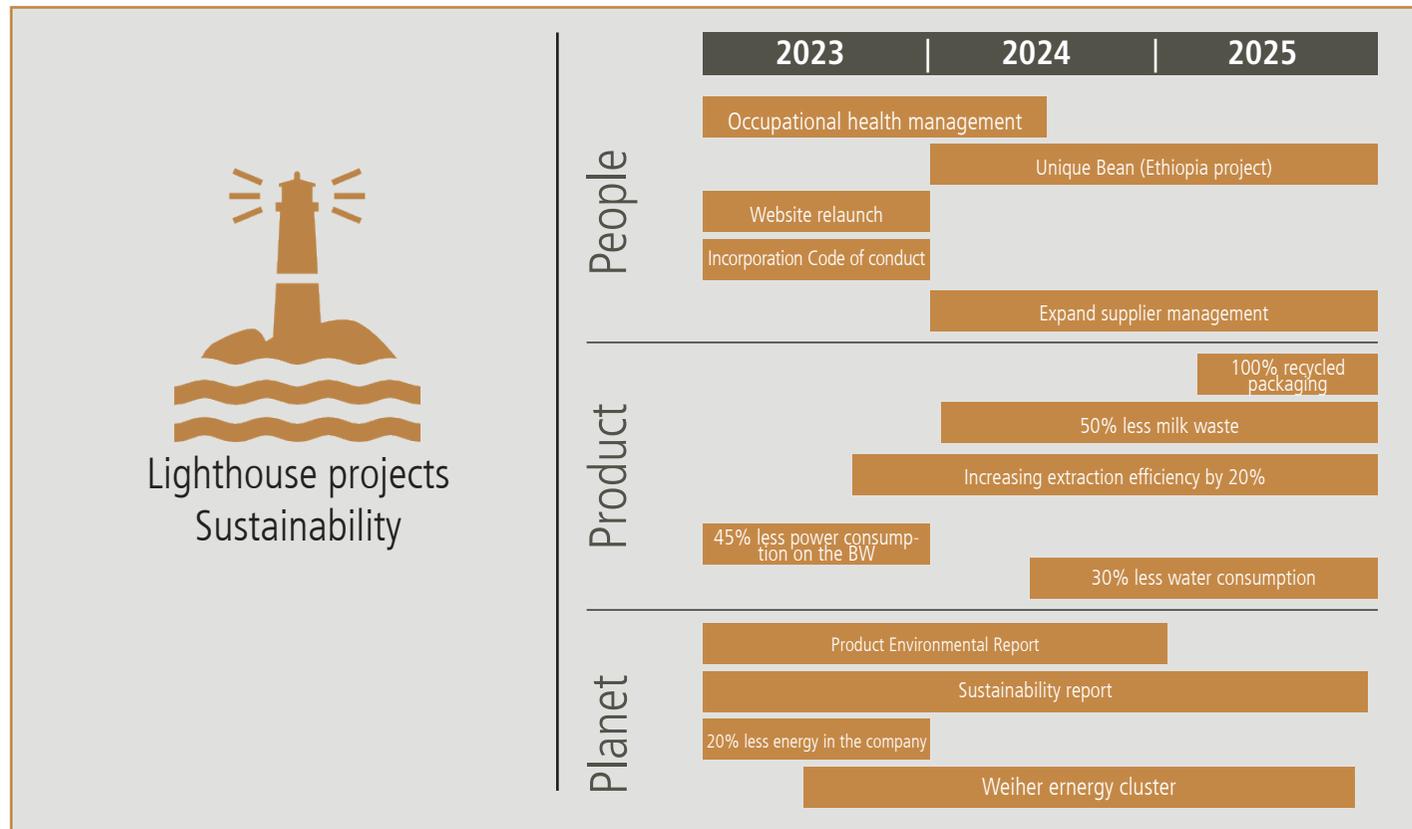
«As the Supply Chain Sustainability Leader, I am privileged to be part of a team that is passionate about driving sustainability within our business. Our collaboration is not only effective, but also inspiring as we motivate and support each other to make positive change happen. Each member brings unique skills and perspectives that help us develop and implement innovative solutions. I firmly believe that we can have a positive impact on the environment and society through our work at Thermoplan. Finally, I am grateful to be part of a team that is so enthusiastic and dedicated to sustainability. Together, we are on a path that is not only important for Thermoplan, but also for our world.»

Kevin Gamma, Sustainability Leader Supply Chain, Team Leader Supply Chain Engineering



←-----> Internal alignment

2023–2025 road map



As a result of the People, Product and Planet focus areas and the defined sub-focus areas, we have drawn up a roadmap for the operational measures and projects that we will develop within the SAGO 22-25 strategy period in 2022. This roadmap was updated for the reporting year and supplemented with the defined focus topics. For example, we have focused on reducing our electricity consumption in Weggis and that of the fully automatic coffee machine in 2023. Our Product Environmental Report was also improved and emissions were communicated and discussed with suppliers.

Key performance indicators within the three focus areas of People, Product and Planet are updated monthly on our internal sustainability dashboard. All employees have the opportunity to view the key figures that interest them on this dashboard.

Strategic cooperation with universities of applied sciences

Exchange of know-how and innovation

As an innovation leader in the fully automatic coffee machine sector, cooperation with universities is particularly important to us.

We particularly value collaboration on practical and concrete issues. Students who work with us gain detailed insights into our specialist field and have the opportunity to work with experts in the respective disciplines. We, in turn, benefit from the exchange with clever minds with an outside perspective and the knowledge gained from a wide range of degree courses. On this page, we would like to give you a brief look at some of the work we carried out in 2023 and which degree programs and universities were involved. The list is not exhaustive.

Topic	Kind	University	Study program	Mention in the report
Business model development for the circular economy	Master thesis	Lucerne University of Applied Sciences and Arts	Engineering	Product - Focus topic
Mobility concept - potential survey by means of an employee survey	Bachelor thesis	Zurich University of Applied Sciences	Transportation systems	Planet - Mobility
Optical detection	Bachelor thesis	University of Applied Sciences Graubünden	Photonics	-
UX improvement of the Product Environmental Report	Term paper	Lucerne University of Applied Sciences and Arts	Computer science	-
Optimization of the circular economy	Term paper	University of Applied Sciences Northwestern Switzerland	Energy and environmental technology	-
Innovative packaging solution PM-Kit	Term paper	Lucerne University of Applied Sciences and Arts	Machine technology	Product- Consumables
Sustainability-oriented innovations in companies	Term paper	University of Applied Sciences Northwestern Switzerland	Energy and environmental technology	-
Sustainable choice of materials	Term paper	Lucerne University of Applied Sciences and Arts	Machine technology	Product - Material



«The collaboration with Thermoplan is extremely valuable for our technical Bachelor's and Master's degree programs. The students who write their term paper or Bachelor's thesis on a Thermoplan topic work on complex problems in the context of sustainability and energy efficiency. Be it in the fields of thermodynamics and fluid dynamics, process engineering, control engineering, innovations in new business models or the constructive design of products. For the future engineers, this is a great enrichment and an essential step on the way to their professional qualification.»

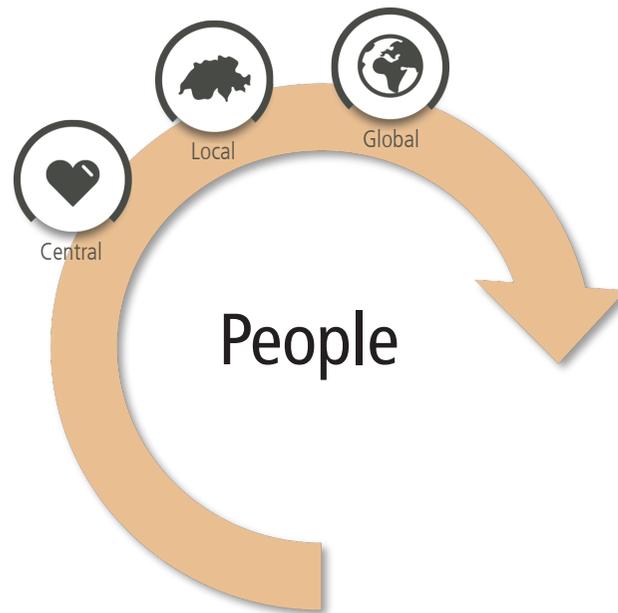
Janssen Volker, Vice Director of Bachelor's and Master's Education, Faculty of Engineering, Lucerne University of Applied Sciences and Arts

People



Managing social responsibility

We are committed to the health and safety of our employees as well as fair relationships with our partners



We are aware of our social responsibility as an employer. This responsibility applies to our employees, but also to other groups whose lives are affected by our activities. Our three pillars in the area of people (central, local, global) focus on our employees as well as our partners and their suppliers. We are aware that environmental and social conditions vary greatly around the world and that ecological problems can often lead to social injustice and vice versa. We are therefore committed to fair, social and ecological conditions throughout the entire supply chain. Our occupational health management (People & Health), which is based on the pillars of occupational health and safety, workplace health promotion and care management, aims to promote the health and well-being of each individual and is therefore in line with the central pillar. We have been a SEDEX member for a number of years and have our performance regularly audited.

Central

Promoting employee health and safety as a top priority

Local

Focus on long-term regional supplier partnerships

Global

Commitment to partners on fair social and environmental conditions throughout the supply chain

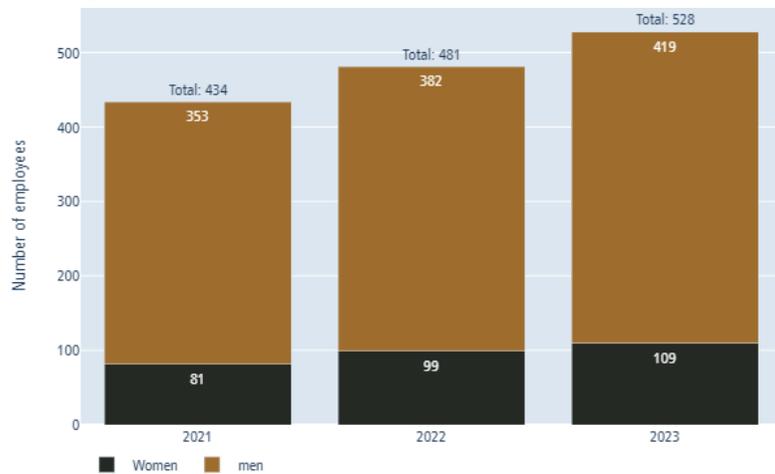
Central – Promoting the health and safety of employees as the top goal

We employees

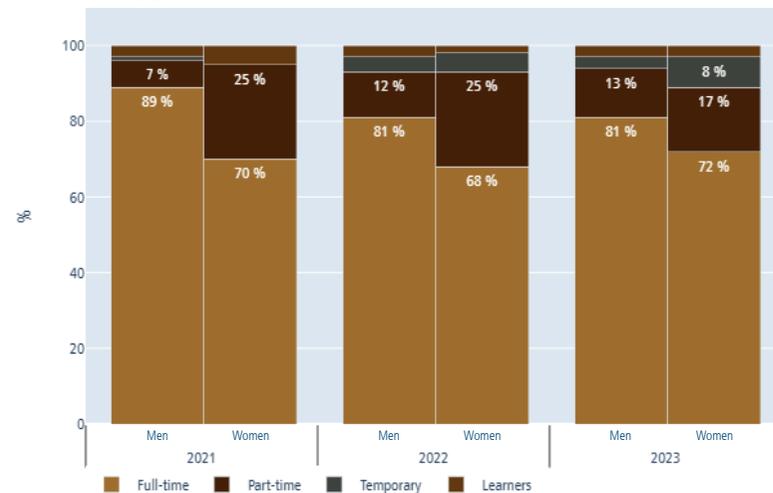
At the end of 2023, we had 528 employees and 17 apprentices at our Weggis site. Details of our employee structure can be found in the charts opposite.

We have always attached great importance to developing our employees and recruiting specialists from within our own ranks. As a company dedicated to our employees professional development, we are highly committed to investing in the training of the next generation of professionals, we support all our employees in their development and agree corresponding annual targets with each other. For example, employees in assembly learn new skills in a targeted manner, which are consolidated in a skills matrix for each assembly line. Employees who need to have English language skills for their work attend internal English courses and, since 2023, we have also offered a similar program for German as a foreign language. We also support the employee-specific further training of our employees outside the of the company financially and with time made available. This is always in line with our training regulations. In 2023, 0.5% of the total payroll was used to cover external training costs.

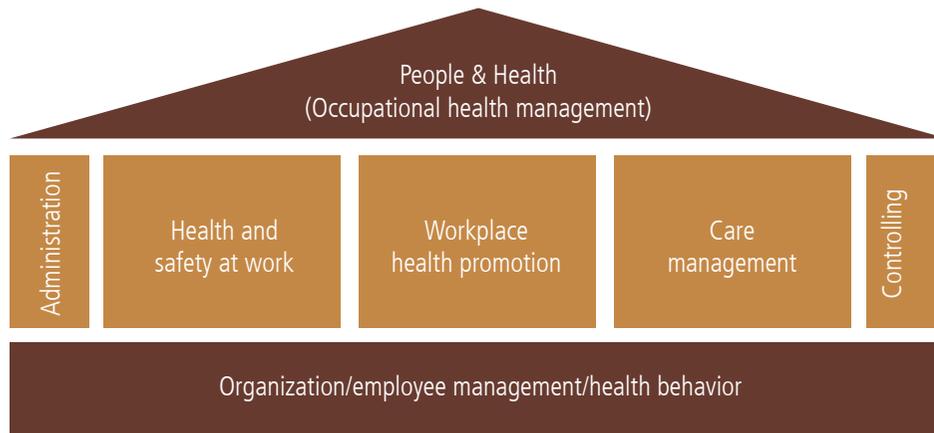
Our employee structure



Employment by gender



Managing social responsibility



German courses for our employees

We actively promote the importance of understanding and speaking in our company. We enable our employees to be and remain fit for current and future challenges in the workplace and in everyday life. The German course is free of charge for the employee and takes place during working hours. The employee completes the internally organized German course in order to improve their basic work skills. This is funded by the «Einfach besser! ...am Arbeitsplatz» program from the federal government.

Health protection & occupational safety

Our occupational safety management system has been ISO 45001 certified since 2011 and covers all our employees. We also comply with Swiss legislation, observe industry recommendations and review the effectiveness of our activities by collecting and interpreting relevant key figures.

In regular safety rounds with the occupational safety officer (KOPAS) and the respective process manager, potential hazards are identified, assessed and, if necessary, measures are introduced. This serves to systematically prevent hazardous situations. Each individual employee also has the opportunity to report a directly identified hazard at their workplace to their line manager or via a form. In the event of danger, work must be interrupted, the danger eliminated and only then may work continue.

In the event of an accident, an accident report is recorded in order to evaluate and document the cause and measures for future prevention.

In addition to the safety instructions communicated by managers on a situational basis, our employees also receive regular training. Mandatory training courses include occupational health and safety as well as what to do in an emergency. There are also workplace-specific and specialist training courses (occupational health and safety). Key figures on absences due to illness and accidents are collected and evaluated. This results in concrete measures. Many factors play a role in the evaluation of absences. These become known during site and return-to-work meetings and are dealt with on a case-by-case basis. Here we measure success individually on the basis of documented support and specific measures as part of workplace health promotion.

Our pre-assembly team

A changing and evolving company presents its employees with challenges. We take our social responsibility for those employees who are unable to meet the requirements. The aim of our pre-assembly team is to take the pressure off employees and offer them the chance to continue working under changed conditions. The pre-assembly team produces small assemblies that are required in large quantities or performs other tasks with reduced complexity. These tasks can vary depending on the ability of the employee performing them.

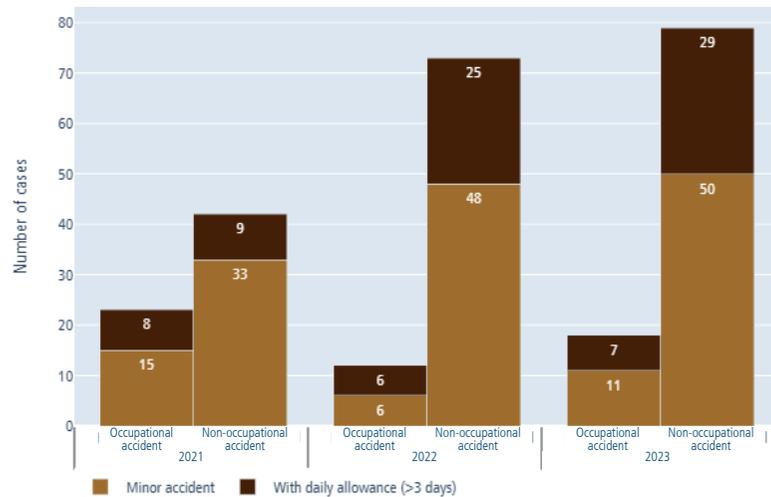
Number of occupational and non-occupational accidents

The left table below shows the occupational and non-occupational accidents we have recorded. At the bottom right, these are extrapolated to 1,000 full-time employees so that we can compare our accident figures with SUVA's industry-specific figures. These are published in the middle of each year. Based on these comparative figures, we formulate annual targets for occupational and non-occupational accidents and derive appropriate measures.

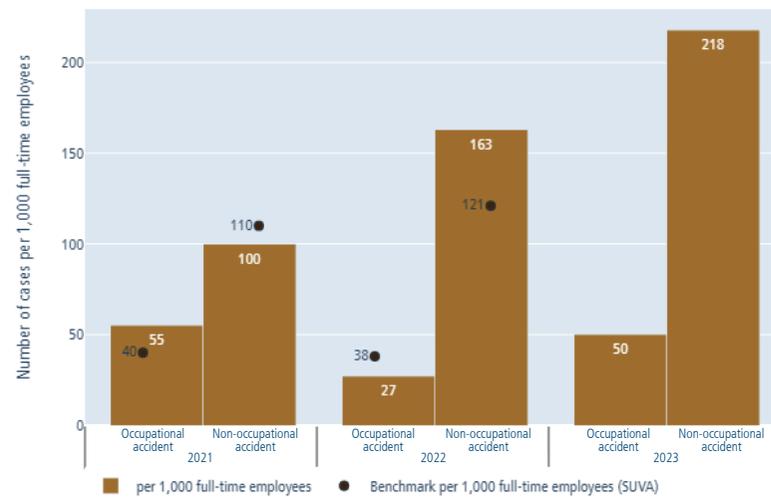
**Focus topic circular economy
Use phase of IT infrastructure**

We are experts in developing and manufacturing fully automatic coffee machines with a long service life. We also focus on maximizing the use phase of our IT devices. We have our devices repaired whenever it makes sense to do so, so that they can be used for a long time. We are currently looking into how we can sensibly pass on our devices.

Number of occupational and non-occupational accidents at work



Extrapolated number of occupational and non-occupational accidents at work



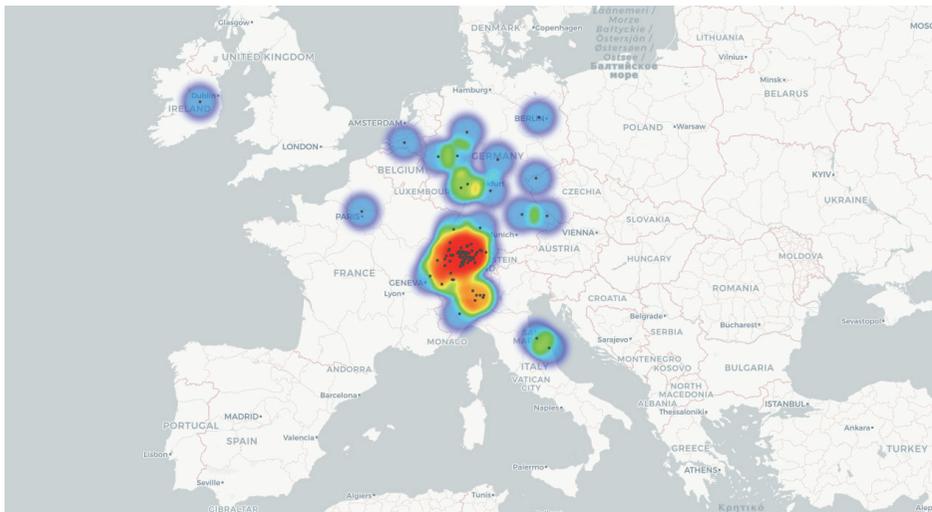
Local – focus on long-term regional supplier partnerships

Thermoplan is proud of its long-standing partnerships. Together we develop innovative solutions for the challenges of the coffee industry. This close cooperation enables Thermoplan to offer its customers high-quality fully automatic coffee machines that meet the highest standards of taste, functionality and design. The past few years have impressively shown us that ever stronger supply chains will be necessary in the future. We will remain successful in the long term by knowing our supply chains, improving them in a targeted manner, and positioning ourselves to withstand crises. We are happy to be able to count on many long-standing, suppliers from Switzerland and neighboring countries, who sometimes make the impossible possible for us. Together, we were able to ensure the availability of materials for production throughout the year.

We maintain a close, partnership-based relationship with our suppliers to ensure quality, delivery reliability, procurement security and competitiveness. We treat suppliers as partners and communicate our concerns openly and clearly. We give existing suppliers the opportunity to make improvements before we award contracts to new suppliers. Beginning this year, we have also been consciously requiring aspects of sustainability from our suppliers. We can only achieve the goals we have set ourselves together with our partners and it is therefore of central importance to raise their awareness and take them on the journey with us. A prime example of this is SMPtec AG in Nidwalden, a small company that has consciously set itself sustainability goals and shares them with us transparently.

We have around 70% Swiss suppliers in our portfolio. This has several advantages: It boosts the regional economy, reduces transport distances and costs, improves quality assurance and encourages personal contact.

The heat map shows where the suppliers (tier 1) for our BW4 CTM RL are located within Europe. This is to make it clearer where our suppliers come from.



«We have been supplying Thermoplan with turned and milled parts for 10 years. Through mutual appreciation and flexible cooperation, we are not only able to create attractive jobs «locally» in the canton of Nidwalden, but also to continuously develop our technological expertise. The sustainability debate is currently providing us with the initiative to create transparency, thereby using resources more efficiently and avoiding unnecessary waste in production. Through ambitious projects, we are jointly driving forward «local» innovations and strengthening the regional economy in a responsible manner.»

Thomas Ott, Managing Director SMPtec AG

Managing social responsibility

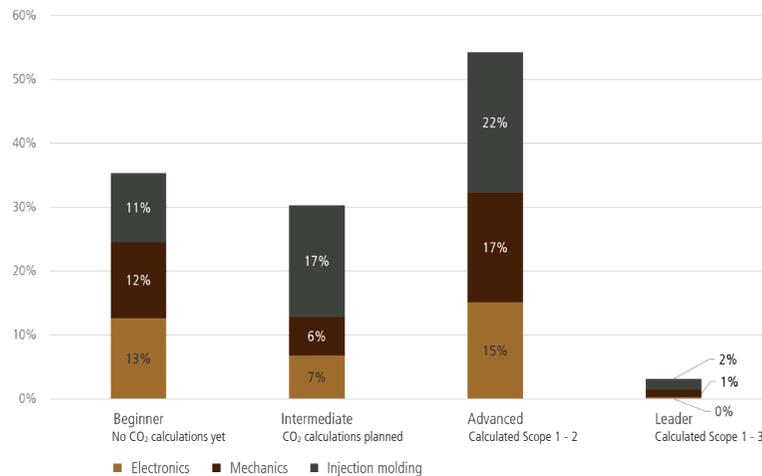
Global – responsibility along our supply chain

In our relevance assessment along the value chain, the upstream value chain steps (raw material extraction, procurement of parts) were identified as those with the highest risk of negative impacts on human rights. As these are not fully integrated value chain steps, we do not directly cause the potentially negative impacts on human rights, but are directly linked to them through our activities. For a closer look, we have installed a supplier risk management system to identify potential risks relating to the environment, human rights and corruption, among others, at an early stage and minimize them in a targeted manner. This is supplemented by traceability audits, which in turn contribute to the transparency of supply chains right down to Tier 3 suppliers.

We use our opportunities to exert influence and rely on long-term supplier partnerships in which our requirements are communicated transparently. Our Code of Conduct for Suppliers was implemented in the first quarter of 2023. This defines how we want to work together (business integrity), as well as the human rights requirements that must be complied with. In addition, our suppliers are required to pass these requirements on to their suppliers. In this way, together with other economic players, we intend to make it clear that compliance with human rights and business integrity is necessary along the entire supply chain. Our anonymous complaints procedure (whistleblowing) for external parties is an important part of this. No reports were submitted via this channel in 2023. No measures or further clarifications were therefore required.

The topic of sustainability was integrated into the annual supplier assessment for the first time in 2023. Based on our product life cycle assessments, we calculated the CO₂ emissions of the products delivered by our suppliers over a period of twelve months and communicated this to each supplier. The emissions were checked by our suppliers and any deviations were discussed together. This value now serves as a starting point for jointly achieving net-zero emissions by 2050. From a comprehensive survey, which was answered by 90% of our suppliers, we know that more than half of our purchasing volume comes from suppliers who already calculate CO₂ emissions for Scope 1 and 2 or even Scope 1-3 (Advanced and Leader). Almost half of the suppliers who have not yet calculated their components CO₂ emissions are planning to do so in the next two years. We are now developing strategies in the individual product groups to further develop our suppliers and jointly reduce emissions.

Result supplier Survey



Product



Managing sustainable product development

We are committed to the responsible use of resources and the circular economy



It is important to us to take responsibility for the impact our products have. That is why we are constantly working to improve our products and offer our customers added value.

As mentioned in the introduction, we have drawn up product life cycle assessments for our products so that we know the biggest emissions and can take measures based on this. The facts show that the use phase of our fully automatic coffee machines is by far the biggest contributor to emissions. The milk used, the coffee and the electricity required during use are the main drivers. We can positively influence the consumption of these resources by our partners through targeted product development. We are therefore working on improvements along our value chain and on increasing resource efficiency for ourselves and our customers.

Milk
Reduction of waste to a minimum

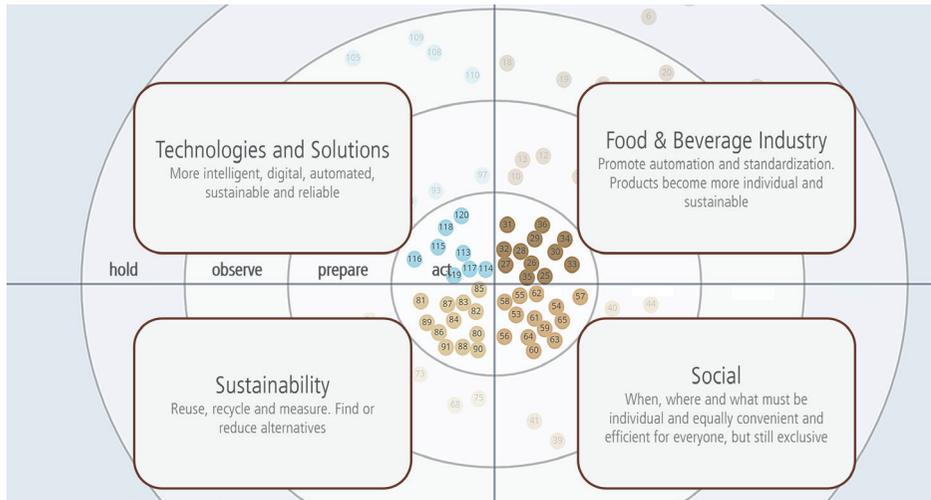
Coffee
Maximum efficiency in coffee extraction

Energy
Continuous increase in energy efficiency across all machines

Materials
Enabling the circular economy through ecodesign

Consumables
Reduction in supply chain by 50% by 2030

Water
Reduction of machine wastewater consumption by 50% by 2030



Sustainability as a driver of innovation

We want to be the right long-term partner for our customers. To achieve this, we look ahead and try to recognize and understand future customer needs before they arise. Sustainable products also play a key role in this context. One tool for recognizing future customer needs is our trend radar, which applies a 360° view on the part of Thermoplan and acts as a link between vision, strategy and day-to-day research business.

An interdisciplinary team has been working on this for around two years. Trends are identified and categorized into segments to combine and better interpret similar trends (technologies and solutions, food and beverage industry, social issues, sustainability). The trends are also categorized according to importance and degree of maturity.

The trends evaluated as relevant define the guidelines for new innovative solutions that will inspire our customers in the future. Many identified trends can be clearly assigned to sustainability and are thus incorporated into our research. The development of sustainable products is close to our hearts and we know that this is increasingly being demanded by our customers and is thus becoming a real customer need.

The topics are addressed by the Technology & Innovation Center This seven-person team researches how new technologies and solutions can be used in our fully automatic coffee machines. This research work is relevant to achieving sustainability targets, particularly in terms of reducing emissions. For example, new heating and cooling technologies are being developed that require even less energy and therefore better meet future customer needs. With the help of these themes, Thermoplan is able to develop the innovations of tomorrow for its customers quickly and with high quality.

Our trend radar will continue to develop over the next few years and we are sure that we will be able to continue to inspire our customers in the future thanks to this and other tools.

Managing sustainable product development

Living transparency with our products

Since 2022, we have been publishing the model-specific Product Environmental Report for our fully automatic coffee machines. This interactive report transparently shows the climate impact of our products throughout their life cycle. Starting with the components used, through assembly in Weggis, packaging and transportation, to the use phase and recycling.

This report can now also be specifically adapted to the needs of individual customers. For example, a specific usage profile of the fully automatic coffee machine can be entered and the report calculates the specific CO₂ footprint for the customer. This specificity offers direct added value to customers who calculate their Scope 3 emissions at machine level. Customer-specific design adaptations are also possible, as shown in the adjacent illustration for our customer migrolino AG. This means that our customer can also work with specific data and use the report for their own communication.

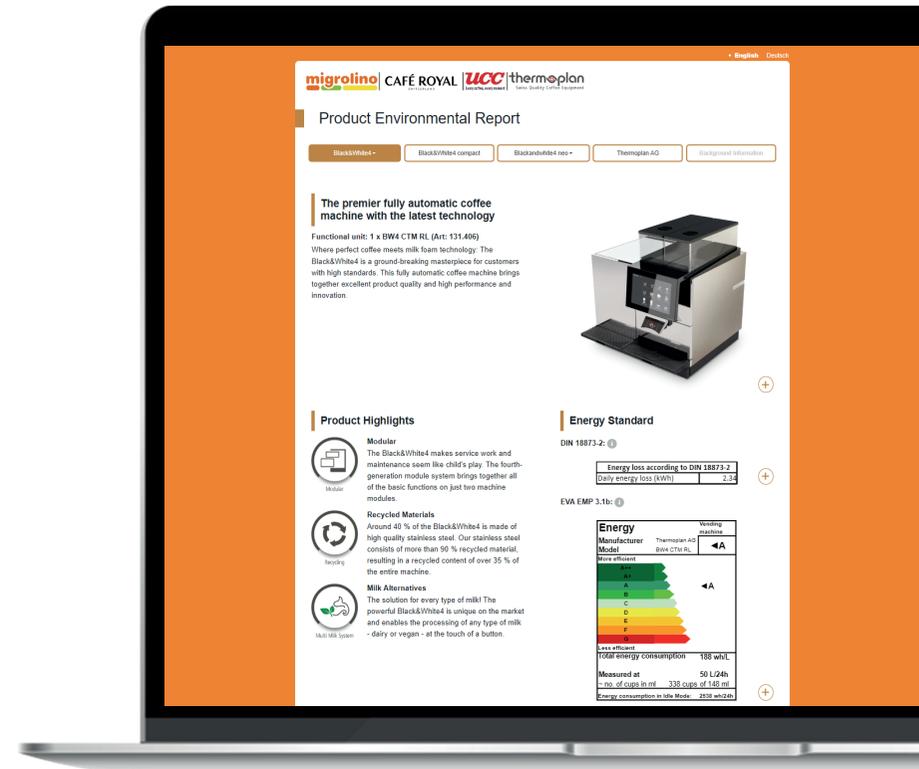


«When choosing the new coffee concept for the migrolino AG stores, it was important for us to rely on local suppliers from Switzerland. In the new partnership between migrolino AG, Café Royal, UCC Switzerland and Thermoplan, we are relying on a machine manufacturer that also uses local suppliers. Thermoplan sources the components for the coffee machine from within a radius of around 270 km, thereby strengthening the regional economy and creating jobs. Thermoplan publishes these facts together with detailed emissions calculations in the Product Environmental Report. We have also strengthened sustainability in the overall concept by using completely plastic-free cups. It goes without saying that the coffee beans are produced with respect for people and nature and are certified accordingly.»

Lukas Bürge, Head of Product Management Fresh Food at migrolino AG



You can find emissions data for our individual models at report.thermoplan.ch



Managing sustainable product development

Below we report in more detail on our 2023 activities in the Product area. Our focus in the reporting year was on the sub-areas of coffee, energy, materials and consumables. The milk and water sub-themes are not explained in more detail in this report.

Coffee – Maximum efficiency in coffee extraction

The Innosuisse project to increase the efficiency of coffee extraction continued this year. In collaboration with two universities, various experiments, analyses and evaluations were carried out to better understand the physical process of coffee extraction. Based on the knowledge gained so far, an initial version of a tool has been developed that can be used to optimize the design of future fully automatic coffee machines. This tool will be further developed over the next few years and then used in the concept phase of fully automatic coffee machine product development.

When you drink coffee from a Thermoplan fully automatic coffee machine, you get a cup of coffee of the best and most consistent quality. In some of our fully automatic coffee machine models, this is supported by the ISQ algorithm (Intelligent Shot Quality). The taste (e.g. acidity, bitterness) of the coffee is influenced by the extraction time, which in turn depends on the degree of grinding and the corresponding coffee dosage. The ISQ algorithm adjusts the grind within a fixed sequence of successive products so that a constant extraction time is achieved. External influencing factors, such as the changing quality of the coffee beans, are therefore regularly compensated for. The algorithm was significantly improved in 2023. By incorporating millions of real data points from the field, it was possible to develop a model for a faster and more precise adjustment frequency. Up to 50% less coffee is now needed to adjust the grinding rate. This can significantly reduce the resources required, for example when commissioning a machine.

Energy – Continuous increase in energy efficiency across all machines

Our goal for 2023 was to reduce our electricity consumption by 30%. To achieve this, we have developed a new standby mode that reduces the energy consumption of our fully automatic coffee machines by 20%. This function is now available for all machines. Machines that are already in use can also use it via a software update.

We are continuing our research project in the area of cooling and heating systems in order to increase the energy efficiency of our fully automatic coffee machines in the future. In 2023, we gained important insights that we can now build on. We are analyzing the heat recovery potential of different usage profiles of the fully automatic coffee machine using simulations and evaluating which technological concepts offer the greatest benefits.

Focus topic circular economy Turning coffee grounds into biogas and fertilizer

We at Thermoplan love good coffee! And we drink a lot of it. We collect the coffee grounds and pass them on to a regional partner for recycling. This partner ferments the coffee grounds and produces biogas from them. The leftovers are returned to the soil as fertilizer. This closes the natural cycle again.

Managing sustainable product development

Materials – Enabling the circular economy through ecodesign

In the product life cycle assessment, the materials used in our fully automatic coffee machines are of secondary importance in terms of climate emissions. However, if you disregard the use phase, they are the key factor for reducing the emissions of our machines.

This year, we also gained further insights into sustainability in our choice of plastics through research conducted in collaboration with students. We carefully select the materials for components based on a variety of technical requirements. As part of a term paper, the material selection process was analyzed using a specific component and aspects relating to sustainability were added. The evaluation took into account new aspects such as the CO₂ footprint and the recycled content of the material. It became clear that the choice of material depends heavily on the weighting of the properties in the utility value analysis. In this particular case, an alternative plastic with a lower CO₂ footprint and a recycle content of 25% is the optimal alternative material, taking into account the sustainability requirements. A requirement for 100% recycled material from the outset would have hindered the search for the optimal solution. It became clear that sustainability requirements must be considered holistically. A choice with a 100% recycled content is not necessarily the one with the lowest emissions.



«In procurement, we don't just think in terms of offers and prices, but also in terms of ecological responsibility. Our strategic orientation integrates sustainability as a key component for long-term success.»

Sandro Hurschler, Commodity Manager Injection Molding



Focus topic circular economy

Do our fully automatic coffee machines get a second life?

Being innovative means disrupting the status quo with new ideas in order to solve a need or a problem. The BW3 «Re-Use» preliminary project, which was launched in 2023, is creating the foundations and experience for a new circular business model. Used BW3 machines at the end of their service life are retrieved from the field, analyzed, refurbished and tested with the clear aim of reusing them. This allows a great deal of knowledge to be gained for new machines. The first results of the preliminary project are expected in early 2024.

Consumables – 50% reduction in the supply chain by 2030

To make further progress in the area of consumables, we have made the packaging for spare parts for our coffee machines more sustainable. We have set ourselves the target of reducing consumables in the supply chain by 50% by 2030. We will achieve this ambitious target by using consumables made from recycled or renewable materials.

In 2023, an action plan was drawn up to convert a wide range of consumables in the spare parts service. Based on thorough research, all packaging made from non-recycled material was identified with the aim of replacing it with 100% recycled content. Together with our existing suppliers, we looked for possible alternatives and found one for almost all items. For some items, the proportion of recycled material cannot yet be achieved due to the manufacturing process. All plastic film, strapping, various bubble wrap and the document bag are now made from 100% recycled or renewable material.

The switch to more sustainable packaging alternatives has brought with it various other positive points. Be it in the reduction of CO₂ emissions, a more favorable purchase price or the avoidance of the Plastic Tax for our customers. For this reason, we will continue to consciously pursue this topic in 2024, with the clear aim of converting further items to 100% recycled content or renewable material.



Sustainable packaging in the spare parts service	2022	2023
Of the packaging is reusable or recyclable	100%	100%
Of the packaging is made from recycled or renewable materials	25%	43%

Focus topic circular economy Innovative packaging for our PM kits

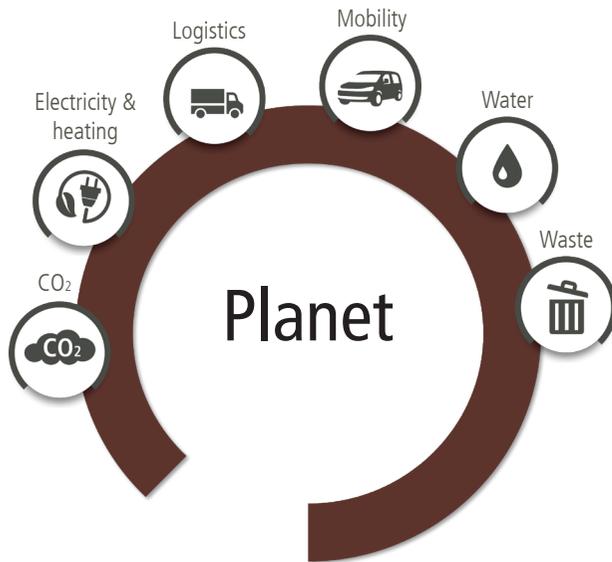
One reason why our fully automatic coffee machines have a long service life is the Preventive Maintenance Kits, which are used for maintenance. The components to be used are packed in a blister pack made from recycled PET. There is currently only a good collection system for PET in a few parts of the world. For this reason, a student project was used to evaluate a renewable material that is collected worldwide in a material cycle and thus makes a contribution to our circular economy.

Planet



Managing climate targets

As a Swiss innovation company, we will achieve net zero emissions along the entire value chain (Scope 1-3) by 2050.



The reduction pathway we are following to achieve net-zero emissions by 2050 was defined based on the corporate carbon footprint of our base year 2019. Key areas have been identified in order to successfully stay on course on the reduction path.

To ensure that we do not lose sight of our emissions, we visualize our emissions with monthly updates on an internal dashboard that can be viewed by all employees.

Our reduction path to net zero was also recognized by the Science Based Target Initiative (SBTi). Furthermore, our operational environmental management has been ISO 14001 certified since 2011.

CO₂ emissions

Reduction by 50% by 2030 (Scope 1-3) as an interim target

Electricity and heat

Production with 100% renewable energy since 2022

Logistics

Optimisation in terms of CO₂-free transports

Mobility

Focus on environmentally friendly transport for employees

Water

Reduction of operational usage by 50% by 2030

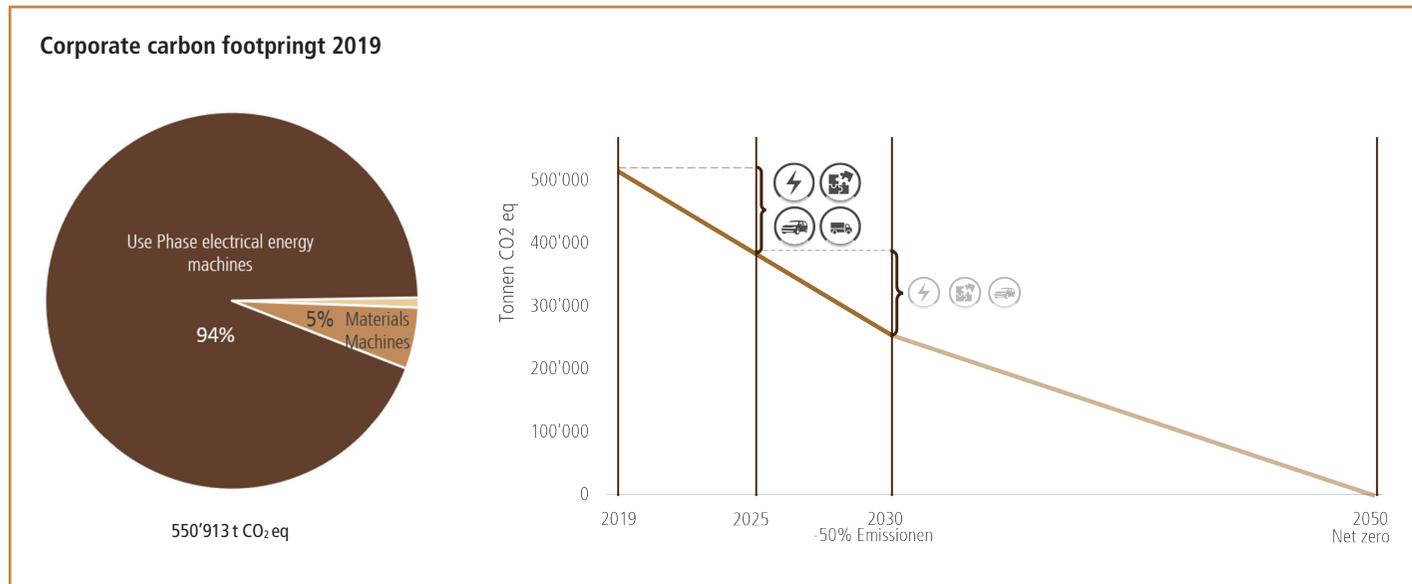
Waste

Maximise recycling

Managing climate targets

CO₂ reduction path road map

To achieve our emission reduction targets of -50% by 2030 and net zero by 2050 based on the base year 2019, we have a predefined reduction pathway. We prioritize measures that promise a major impact and that we can influence directly. We are initially focusing on the energy efficiency of coffee machines during the use phase, followed by the materials used, employee mobility and customer logistics. Together, these four factors account for over 99% of all emissions (see pie chart below). By clearly focusing on the most important measures, we were able to achieve the reduction pathway target in 2023 (see next page). In the coming years, there is further potential for optimizing the electricity consumption of our fully automatic coffee machines. The focus topics will be continuously adapted based on the progress achieved by 2025 and new innovations and technologies will then be developed in stages for the years up to 2050.

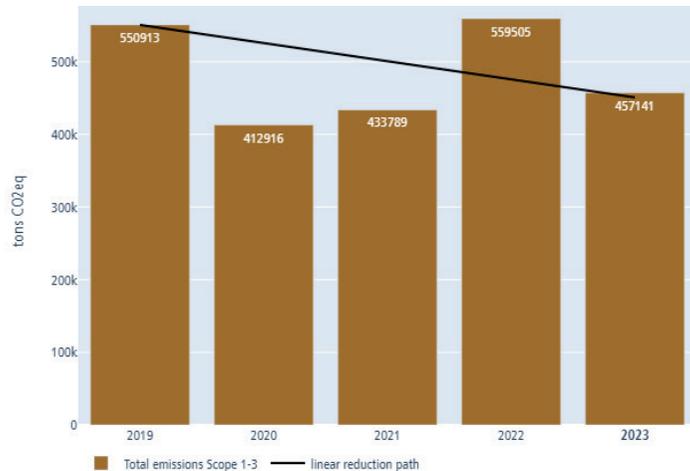


CO₂ emission Scopes 1 to 3 – Reduction by 50% by 2030 (Scope 1-3) as an interim target

The graph below shows our calculated total emissions (Scope 1-3) in tons of CO₂ eq over the last five years. The previously explained reduction path (black line) is also shown. It is easy to see that we were below the target reduction path in 2020 and 2021. This was due to a reduced order volume in connection with the Covid pandemic. After missing our emissions reduction target in 2022, we were able to achieve the target in 2023 with the same strong order volume. Thanks to the increased energy efficiency of our fully automatic coffee machines (see page xx), we were able to reduce our CO₂ emissions so much that we were able to compensate for the slight increase in customer logistics, another important aspect of our emissions.

Over 99% of the emissions caused are generated in Scope 3. Scope 3 includes emissions that are generated in the upstream and downstream stages of our value chain. For example, the energy consumption of all our manufactured machines, the materials used and the customer logistics for their worldwide distribution. As illustrated on the previous page, these topics are currently in focus, as this is where the greatest savings potential lies. Nevertheless, we are not ignoring Scope 1 and 2 and present them in more detail on the following page.

Scope 1–3 Emissions and reduction path

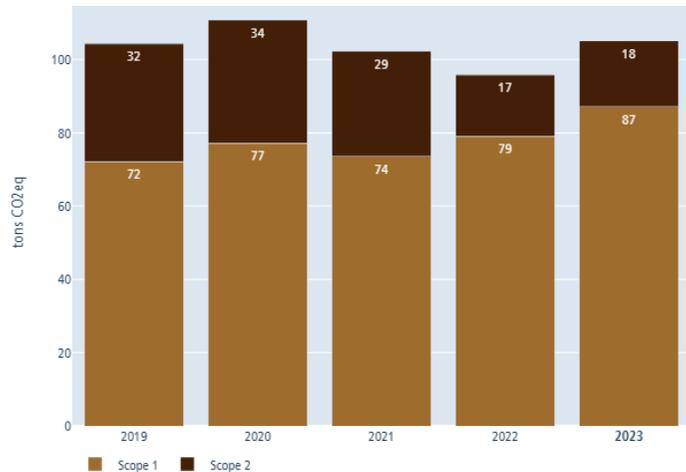


Managing climate targets

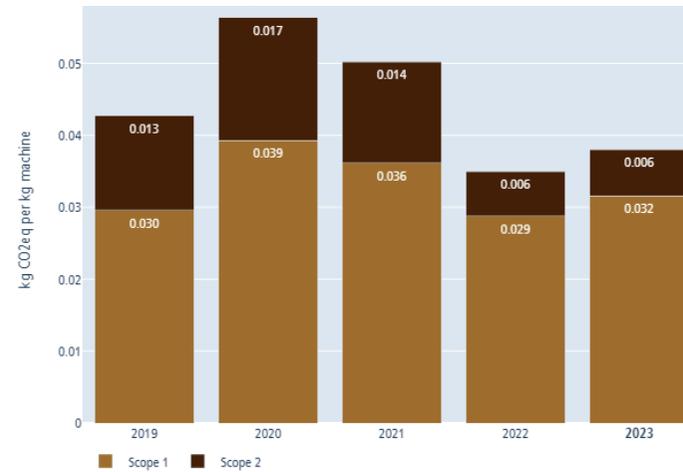
The graph on the right shows the intensity of our emissions, calculated in relation to the kilograms of machines produced in the reporting year. We manufacture machines and modules with very different weights, which is why this unit was chosen. The direct (Scope 1) and indirect (Scope 2) emissions are shown. It can be seen that we emitted 0.038 kg CO₂ eq per kg of machine in 2023. This is slightly higher than in the previous year, but lower than in the base year 2019. In 2022 and 2021, the intensity per kg of machine was higher, as less was produced and the emissions generated could therefore be allocated to fewer kg of machines produced.

On the way to our long-term net-zero target by 2050, we have set ourselves the interim target of halving emissions from the base year 2019 by 2030. Both targets are very ambitious, especially when you consider the growth trajectory we are aiming for. As we are growing and our production volume is increasing, we will need more energy and water in future, for example, and the higher number of machines produced will also have a significant impact on total emissions.

Scope 1–2 Emissions



Scope 1–2 Emissions per kg of machines produced



Managing climate targets

Electricity and heat – Production with 100% renewable energy since 2022

We use 100% renewable energy

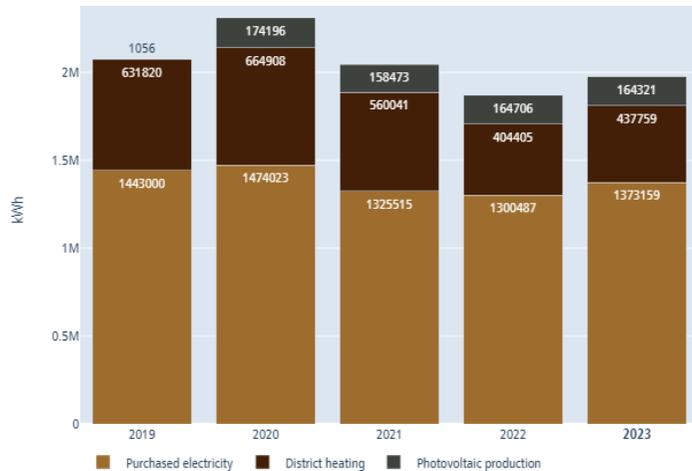
We actively support forward-looking technologies. We have therefore set ourselves the goal of only using energy from only use energy from 100% renewable sources at our Weggis site. We take responsibility for the environmental impact of the energy we purchase and have therefore opted for Hydro energy (hydropower). Since 2022, we have been sourcing 100% of our energy from renewable sources. We have therefore achieved this goal. We ensure the purchase of this energy with certificates. In addition, we have carried out an initial analysis of future energy procurement at the Weggis site as part of the Weiher energy cluster project. The aim of this analysis was to produce as much electricity as possible ourselves and in the immediate vicinity and to purchase the rest on the market. The existing photovoltaic system on our shuttle warehouse covers around 10% of our needs. We still have unused roof space on the existing plants 2 and 3, for which we are planning to build a new roof. Together with the new area on the

new unique building, we will then be able to produce up to 700,000 kWh of energy. The proportion of PV electricity will therefore rise sharply from 2024 and reach around 35%.

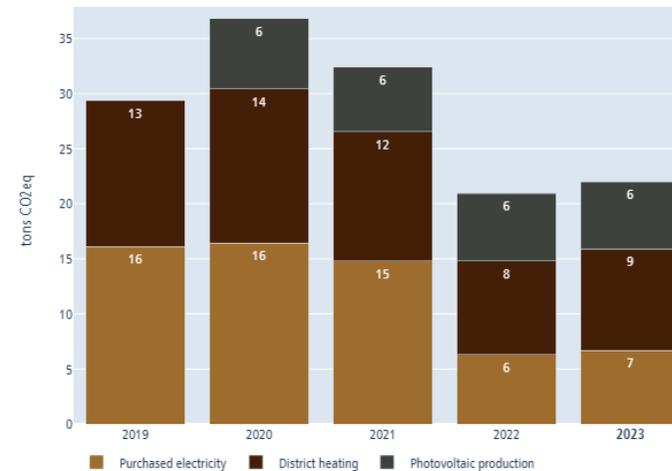
The graph on the left shows our consumption of electricity and heat since 2019, broken down into purchased electricity, district heating and our PV system's own production. The graph on the right shows the resulting emissions. It can be seen that we commissioned our PV system on the shuttle warehouse at the end of 2019. It can also be seen that the amount of purchased electricity remained very stable in 2021 and 2022, but the resulting emissions have more than halved.

This is due to the fact that we have only purchased electricity from hydropower since 2022 and have therefore been able to reduce our emissions.

Energy



Emission – Energy



Managing climate targets

Energy intensity of our products

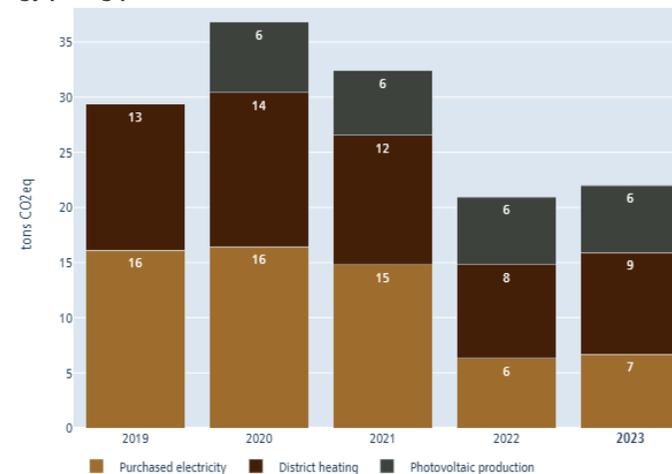
The graph on the right shows the energy intensity. This is the energy consumed in our organization per kilogram of machine produced. The energy intensity in 2023 was lower than in the base year (2019), but slightly higher than in the previous year.



Our target for 2023 was to reduce energy consumption by 30%. Unfortunately, energy consumption in our own operations has risen by 5%. It even rose by 12% per kg of machine produced. This is partly due to the purchase of district heating due to a cold winter. In addition, the offer for our employees to charge their private electric vehicles at our premises was used more frequently. The 3% increase in energy consumption could not be offset despite the energy-saving measures taken.

In order to reduce consumption, the lighting controls were adapted at various locations and LED lighting was installed throughout plants 3 and 4. This not only reduced energy consumption by around 50%, but also made the lighting in the production areas more uniform. To ensure standardization in the future, the same light source was used as planned for the unique plant.

Energy per kg produced machines



Managing climate targets

New building – unique

unique is the name of our new building project. The name is a reference to the heavy involvement of all individuals since the start of the project for the purpose of achieving the best possible success together. By using this name, we are also expressing our openness to new technologies and our focus on sustainability. A building of this kind and using these methods is not yet a standard affair in Switzerland. With unique we will have another seven integrated production areas and more logistics facilities and offices. Our new building unique is LEED® certified. We are aiming for LEED platinum level.

The intelligent facade

Anyone who comes to Weggis will have noticed the impressive glass facade of our new building unique. This facade not only looks good, but is also intelligent. The electrochromic glass darkens automatically as the sun's rays increase, reducing the amount of heat that enters the building in summer. Conversely, this technology ensures that more heat is conducted into the rooms via the glass in winter. As part of the building strategy, heating and cooling energy can be saved. In addition, the glass ensures pleasant lighting conditions in the rooms and thus increases comfort for us employees.

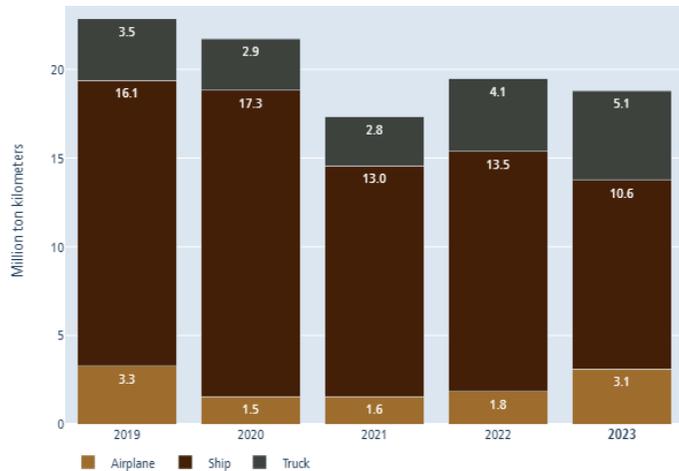


Logistics – Optimisation in terms of CO₂-free transports

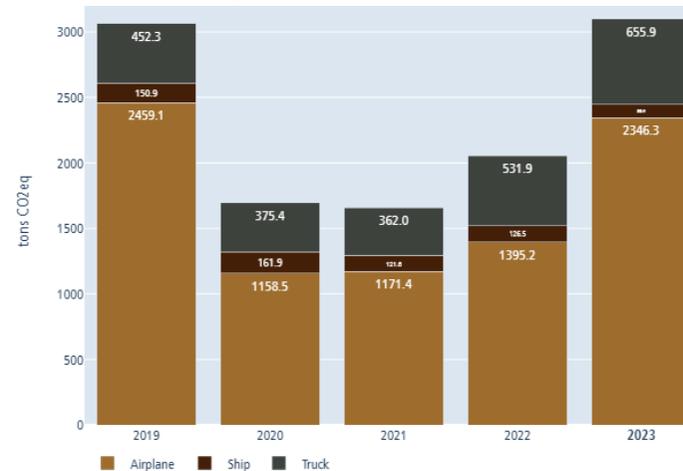
The transportation of our finished fully automatic coffee machines has a major impact on emissions in our Scope 3, but emissions caused by the delivery of parts should also be reduced. The Operations division has therefore anchored the sustainable further development of the delivery concept in divisional targets 22-25. Further optimizations will also be developed in the coming months with regard to the new unique building. Customer logistics, or outbound logistics, is regulated by Ex Works. This means that the customer buys the fully automatic coffee machines ex works and is therefore responsible for transportation from our site. This means that we cannot determine the type of transport (truck, cargo ship, air freight) ourselves and choose the lowest-emission transport.

The graphs below show the millions of ton-kilometers per type of transport that our customer logistics has generated in the years since 2019 and the resulting emissions [tons CO₂ eq] in the graph on the right. We differentiate between transport by ship, truck and plane. Ton-kilometer is a transport performance unit for freight, which is calculated by multiplying the transported mass (ton [t]) by the distance covered (kilometers [km]). Total emissions increased by around 50% in 2023 compared to the previous year. This was mainly due to the almost doubling of air freight ton-kilometers, while the total number of ton-kilometers fell slightly. Around 16% of all ton-kilometers were transported by air. However, this mode of transport is responsible for ¾ (76%) of the total calculated emissions. Of course, these figures are heavily dependent on where our customer is located and how quickly deliveries have to be made.

Consumer logistics



Emissions – consumer logistics

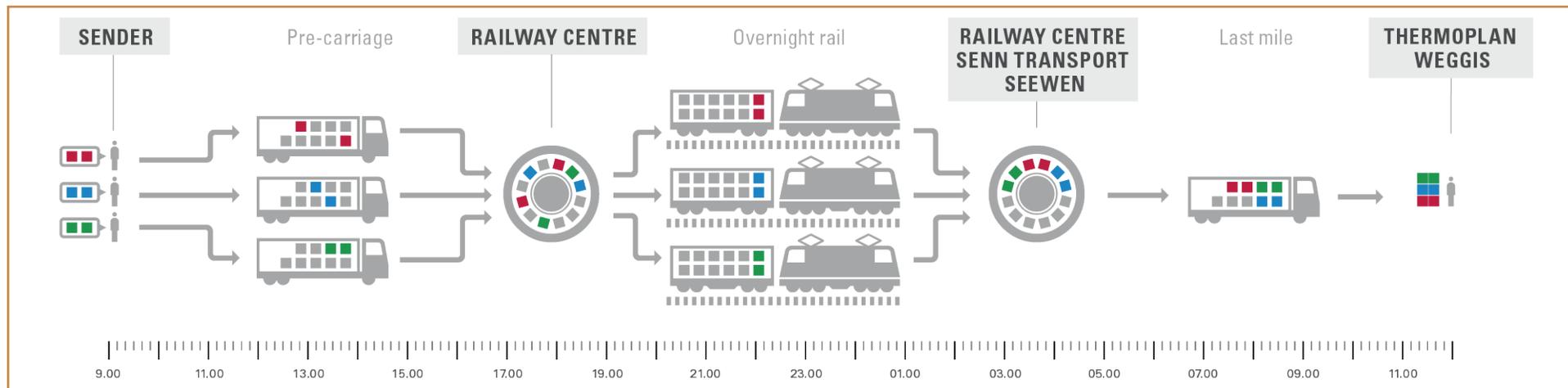


Efficient procurement logistics with Planzer

We rely on innovative partnerships to achieve our ambitious goals. Planzer Transport AG is such a partner for us. Together, we and the environment benefit from the intelligent procurement logistics that have emerged from this partnership.

Planzer collects components for our fully automatic coffee machines from around 25 of our Swiss suppliers and transports them to the nearest transshipment platform with a rail connection. From there, the goods reach the Planzer rail center in Seewen by overnight rail. There they are transshipped, bundled and then delivered to us on time.

Thanks to the efficient bundling of goods flows in the rail network, expensive and CO₂-intensive empty kilometers are avoided. The distance covered by road has fallen from 100 to 50 kilometers per pallet. Combined with the partial shift of transportation from road to rail, this logistics concept saves the environment massive CO₂ emissions. What's more, instead of around 50 deliveries from different suppliers per week, there is now only one bundled delivery per day from Seewen using a fully loaded truck.



To the article at Planzer
Efficiency freshly brewed –
Planzer & Thermoplan (plan-p.swiss)

Mobility – Focus on environmentally friendly transport for employees

A mobility concept in the making

As our corporate carbon footprint clearly shows, our employees' mobility on the way to and from work is a major driver of emissions. There are a number of ways in which we can improve this as a company, while each and every one of us can also make the decision for ourselves to make our commute to work less polluting. Many of us are already making a more sustainable choice by switching to public transport cycling, or joining a carpool.

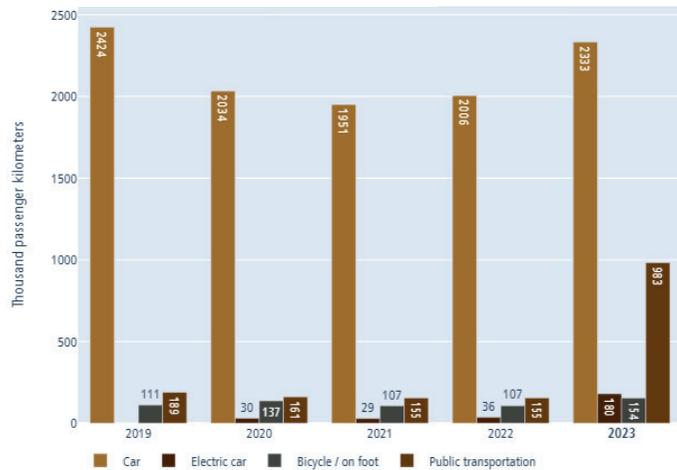
Building on the semester work in 2022, a student at the Zurich University of Applied Sciences (ZHAW) used an employee survey to determine the effective potential for changes in traffic behavior for a bachelor's thesis. Over 380 employees took part in the survey and answered questions about their own commute to work and their opinion on possible measures. This work provided valuable insights and made it clear that the promotion of carpooling is the best accepted measure.

It was therefore decided to adapt the parking regulations so that some of the most popular parking spaces are reserved exclusively for car pools.

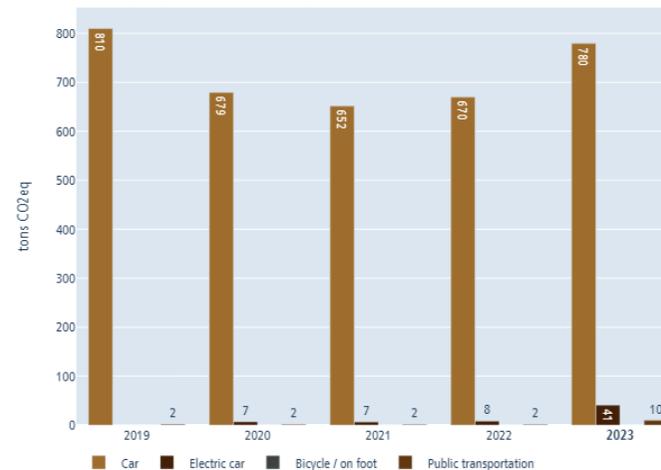
The mobility of our employees has these effects

The employee survey for the bachelor's thesis was also used to update our data for the calculation of our employees' passenger kilometers. These were previously extrapolated from data collected in 2019. This more up-to-date data led to an apparent jump in the use of public transport from 2022 to 2023. It is immediately apparent that by far the most passenger kilometers are covered by car, and that this is the main driver of emissions. However, public transport has also become much more important for our employees.

Employee commuting



Emissions – employee commuting



Managing climate targets

Own vehicle fleet and business trips

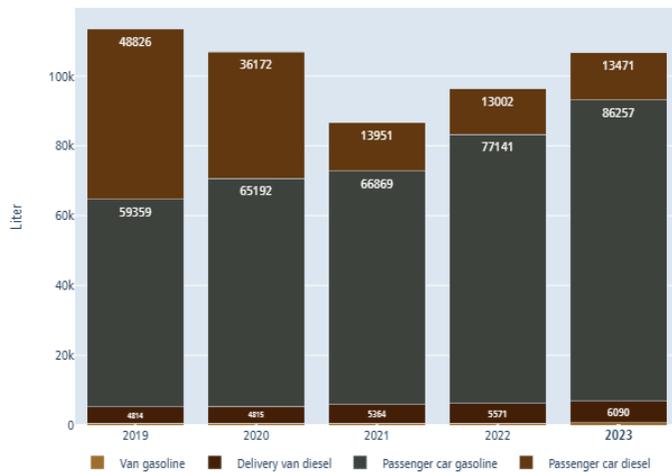
Our employees travel around Mount Rigi in service vehicles and currently still use petrol and diesel as fuel. Fuel consumption for these vehicles increased by around 10% in 2023 compared to the previous year, as we acquired new customers around Mount Rigi. The emissions caused by this also increased accordingly, as can be seen in the graph on the right.

The number of passenger kilometers traveled and the resulting emissions for business trips also increased by around 30% compared to the previous year.

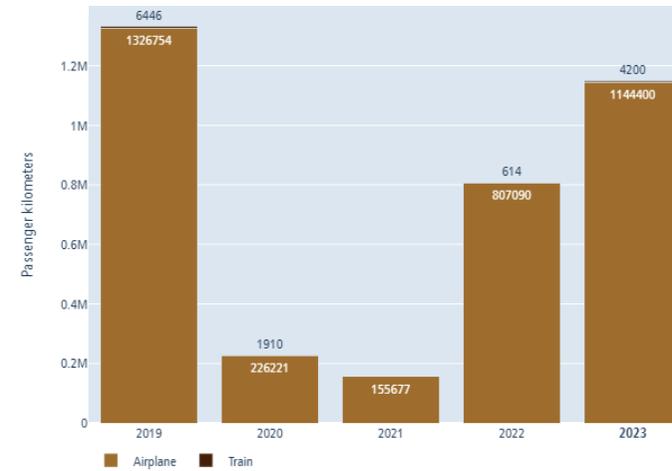
Status of internal CO₂ fund

In the [2022 Sustainability Report](#), we presented our internal CO₂ fund on page 38. In 2023, 222.8 t of CO₂ from our air travel were offset, generating a total of CHF 33,426 for the fund.

Own vehicle fleet



Emissions – own vehicles and business trips



Water - reducing consumption in operations by 50% by 2030

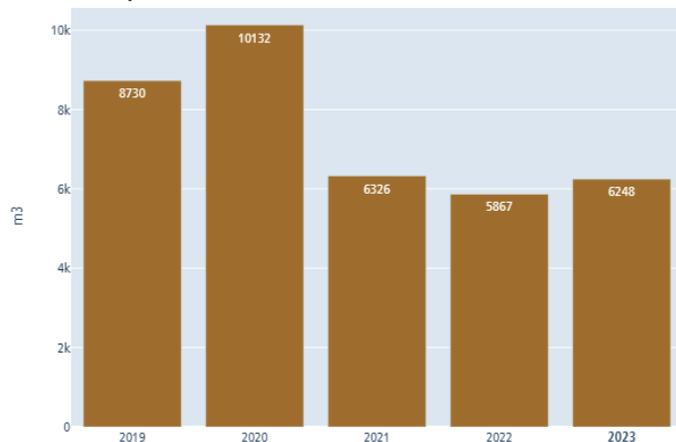
We are aware of the global importance of water as a resource and are committed to using it responsibly. Despite the favorable conditions at our production site (no recognized water stress) and no water-intensive processes, we have set ourselves the ambitious goal of reducing our water consumption by 50% by 2030. In doing so, we are making an active contribution to more sustainable and resource-conserving production. We obtain our water from the municipality of Weggis. It states that 80% of this is spring water (groundwater) and 20% lake water (surface water). It is also returned directly, without internal pre-treatment, to the Weggis municipal sewage system.

The chart below shows our water consumption. It shows that our water use fell sharply from 2020 to 2021. This is due in particular to the dismantling of Plant 1. Compared to the previous year, the amount of water used increased slightly in 2023.

In 2023, we installed water-saving nozzles at the hand-washing facilities. These have less than 10% of the flow rate per minute than a conventional nozzle. These will also be installed in the hand washing facilities in our new plant.

The water purchased has no influence on emissions. For this reason, it is not shown here. The amount of water is read monthly from a meter at each plant and entered in our dashboard. In Weggis, the quantity of water purchased also corresponds to the decisive quantity for the billing of water recirculation/waste water. As we currently obtain all our water from the municipality, the amount of water consumed is equal to the amount of water recirculated.

Water consumption



Managing climate targets

Waste – Maximise recycling

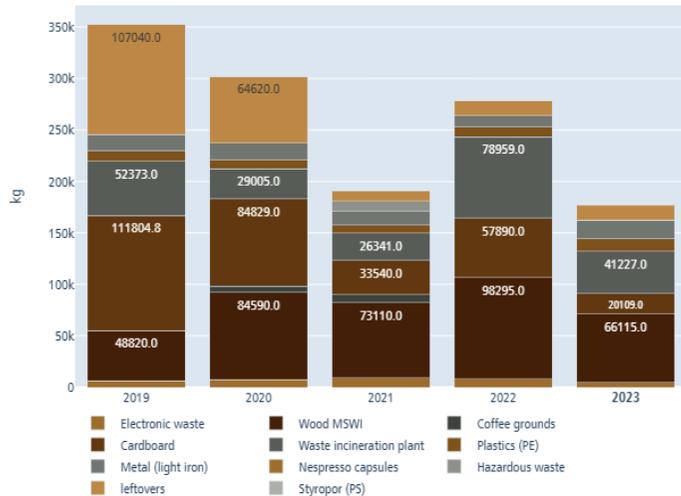
Waste avoidance and disposal of recyclable materials

Recycling and waste separation are fundamental components of our waste management. The waste streams generated are separated and collected by type of material until they are collected for recycling by our recycling partners. These procedures are firmly integrated into our processes. In this way, we divert as many recyclable materials as possible away from waste. Large quantities of cardboard and wood in particular accumulate here.

Of course, we also want to prevent the generation of waste. Be it through the use of returnable packaging or the reduction of food waste. Since 2022, waste streams have been systematically recorded on the basis of invoices from our waste recyclers and are very detailed. Previously, the various waste masses were recorded using an additional document. As a result, the waste data situation varied in previous years and consistent data quality is not fully guaranteed.

The chart on the left shows the development of recyclables collection over the last five years. In 2023, a total of 41,000 kg of waste incineration waste and 126,000 kg of separately collected recyclable materials such as cardboard, wood, polyethylene (PE) and metal were collected. This volume fell by around 40% compared to the previous year, although the order situation remained high. Wood and cardboard continue to be the largest value streams, mainly due to packaging material for delivered parts. The collected wood is thermally recovered, while the cardboard is recycled. The volume of wood has been reduced through the targeted handling of defective pallets, and the use of returnable packaging has significantly reduced the volume of cardboard. The delivery of components in our own containers by the supplier means that almost no waste is generated. Waste for incineration is the main source of waste streams. By reducing the amount of waste by around 40% in 2023 compared to the previous year, emissions have also been significantly reduced.

Waste



Focus topic circular economy returnable packaging

The proportion of suppliers who deliver in returnable packaging is constantly increasing. This allows us to save on packaging material, particularly cardboard, and reduce the amount of repackaging required in our incoming goods department. You can find out exactly how this works with returnable packaging in the [Sustainability Report 2022](#) on page 20.

GRI index

GRI standard	Disclosure	Further information	Page	Reference [chapter in report]
GRI 2: General information 2021				
The organization and its reporting practices				
2-1	Organization profile	Further information		
2-1 a	Organization name	Thermoplan AG		
2-1 b	Ownership and legal form	Family-owned stock corporation		
2-1 c	Headquarters of the organization	Weggis, Switzerland		
2-1 d	Business premises	Thermoplan Germany, Thermoplan USA		
2-2	Companies included in the organization's sustainability reporting			
2-2 a	Entities included in sustainability reporting	Thermoplan AG (Thermoplan DE, AT, USA not taken into account for operational measures and life cycle assessment calculation)		
2-2 b	Entities included in the consolidated financial statements	no published consolidated financial statements		
2-3	Reporting period, frequency and contact point			
2-3 a	Reporting period and reporting cycle of sustainability reporting	January 1, 2023 to December 31, 2023		
2-3 c	Release date	09.04.2024		
2-3 d	Contact person if you have any questions about the report	Matteo Trachsel mtrachsel@thermoplan.ch		
2-4	Restatement of information			
2-4 a	Explanation of the reasons and effects	Correction of the data presented on employee mobility for 2022, which was approx. 10% too high in the last report. This was due to an error in the basic data collection.		
2-5	External audit			
2-5 a	Politics and practice	No external audit		
2-5 b	Link to the external audit report, description of the audited topics, audit standards, level of audit, limitations, description of the relationship	No external audit		
Activities and employees				
2-6	Activities, value chain and other business relationships			
2-6 b	Value chain		9	Our value chain
2-7	workers			
2-7 a	Total number of employees by gender and region		21	Central – We employees
2-7 b	Total number of permanent employees, temporary employees, employees with non-guaranteed working hours, full-time and part-time employees by gender and region		21	Central – We employees
2-7 c	Methodologies and Assumptions	Headcounts at the end of the reporting period	21	Central – We employees
2-7 d	Contextual information	Due to the strong growth, we are dependent on some temporary employees. There are part-time employees due to flexible working models	21	Central – We employees
2-7 e	Significant fluctuations	no significant fluctuations	21	Central – We employees
2-8	Workers who are not employees			
2-8 a	Total number of workers who are not employees (type, contractual relationship)		21	Central – We employees
2-8 b	Methodologies and Assumptions	not relevant because there are no such workers		not applicable
2-8 c	Significant fluctuations	not relevant because there are no such workers		not applicable
Governance				
2-9	Management structure and composition of the highest control body and its committees		8	We are Thermoplan
2-10	Nomination and selection process for the highest control body	not applicable because it is family owned		
2-11	Chairman of the highest control body		8	We are Thermoplan
2-12	Role of the highest control body in setting goals, values and strategies		12	Sustainability at Thermoplan

2-13	Delegation of authority to manage impacts		16	How we manage sustainability
2-14	Role of the highest control body in sustainability reporting		12	Sustainability at Thermoplan
2-15	Conflicts of interest			not applicable
2-16	Communicating critical concerns		11	Our values and cooperation
2-17	Collected knowledge of the highest control body			not applicable
2-18	Evaluation of the performance of the highest control body			not applicable
2-19	Compensation policy			confidential
2-20	Procedure for determining remuneration			confidential
2-21	Ratio of total annual compensation			confidential
Strategy, policy and practice				
2-22	Sustainable Development Strategy Statement		3	Foreword by the CEO
2-23	Political commitments		11	Our values and cooperation
2-24	Embedding political commitments		11	Our values and cooperation
2-25	Procedures for eliminating negative effects		11	Our values and cooperation
2-26	Mechanisms for obtaining advice and reporting concerns		11	Our values and cooperation
2-27	Compliance with laws and regulations	No fines were levied against Thermoplan AG during the reporting year.		
2-28	Memberships	<ul style="list-style-type: none"> - Europa-Forum Lucerne - GS1 Switzerland - Gwärb Weggis - IHZ - Industry Association for Home, Heating and Kitchens - procure.ch - Brändi Foundation - SVBL - Swiss American Chamber - Swissmem - Lucerne Economic Development Agency 		
Involvement of stakeholders				
2-29	Approach to stakeholder engagement		15	Relevance matrix
2-30	Collective agreements	We don't have collective agreements. We refer to the applicable labor law.		
GRI 3: Material topics 2021				
3-1	Procedure for determining material topics		13	Our material topics
3-2	List of essential topics		13	Our material topics
204 - Procurement practices				
204-1	Share of spending on local suppliers		24	Local – focus on long-term regional supplier partnerships
205 - Anti-corruption				
205-1	Business establishments that have been checked for corruption risks	Recently implemented complaint mechanism, no evaluation possible yet	25	Global – responsibility along our supply chain
301 - Materials				
301-1	Materials used by weight or volume	Can be viewed for our BW models in the Product Environmental Report. Without division into renewable/non-renewable		
301-2	Recycled raw materials used	Data basis currently only available for stainless steel	31	Materials – Enabling the circular economy through ecodesign
			32	Consumables - Reduction in supply chain by 50% by 2030
302 - Energy				
302-1	Energy consumption within the organization		38	Electricity and heat – production with 100% renewable energy since 2022
302-3	Energy intensity	Outlook for 2023 corporate goal	38	Electricity and heat – production with 100% renewable energy since 2022
302-4	Reducing energy consumption	Outlook for 2023 corporate goal	38	Electricity and heat – production with 100% renewable energy since 2022
302-5	Reducing energy requirements for products and services		30	Energy – Continuous increase in energy efficiency across all machines
303 - Water and Wastewater (2018)				
303-1	Water as a shared resource		45	Water – Reduction of operational usage by 50% by 2030
303-2	Dealing with the effects of water recirculation		45	Water – Reduction of operational usage by 50% by 2030

303-3	Water extraction		45	Water – Reduction of operational usage by 50% by 2030
303-4	Water return		45	Water – Reduction of operational usage by 50% by 2030
305 - emissions				
305-1	Direct GHG emissions (Scope 1)	Since Weggis is our production site and over 95% of all our employees work in Weggis, the offices of Thermoplan Germany and Thermoplan USA were not taken into account in the calculation of the company's ecological balance.	36	CO2 emissions Scopes 1-3 – reduction by 50% by 2030 (Scope 1-3) as an interim target
305-2	Indirect energy-related GHG emissions (Scope 2)		37	CO2 emissions Scopes 1-3 – reduction by 50% by 2030 (Scope 1-3) as an interim target
305-3	Other indirect GHG emissions (Scope 3)		36	CO2 emissions Scopes 1-3 – reduction by 50% by 2030 (Scope 1-3) as an interim target
305-4	Intensity of GHG emissions	Intensity per kg machine for scopes 1 and 2	37	CO2 emissions Scopes 1-3 – reduction by 50% by 2030 (Scope 1-3) as an interim target
305-5	Reducing GHG emissions	Overall reduction as well as reduction in the individual support directions.	13	Our material topics - Corporate carbon footprint
			35	CO2 reduction path roadmap
			36	Planet – Managing climate goals
306 - Waste (2020)				
306-1	Waste generated and significant waste-related impacts		4	Our focus topic
			46	Waste – Quantities of recyclables handed in
306-3	Management of significant waste-related impacts		4	Our focus topic
			31	Materials – “Enabling the circular economy through ecodesign”
			46	Waste – maximizing recycling
306-3	Waste generated		46	Waste – Quantities of recyclables handed in
306-4	Waste diverted from disposal		46	Waste – Quantities of recyclables handed in
306-5	Waste forwarded for disposal		46	Waste – Quantities of recyclables handed in
308 - Environmental assessment of suppliers				
308-1	New suppliers verified based on environmental criteria		25	Global – responsibility along our supply chain
308-2	Negative environmental impacts in the supply chain and measures taken		25	Global – responsibility along our supply chain
403 - Occupational Safety and Health				
403-1	Management system for occupational safety and health protection		22	Central – Health and Safety Management
403-2	Hazard identification, risk assessment and incident investigation		22	Central – Health and Safety Management
403-3	Occupational health services		22	Central – Health and Safety Management
403-4	Employee participation, consultation and communication on occupational safety and health protection		22	Central – Health and Safety Management
403-5	Employee training on occupational safety and health protection		22	Central – Health and Safety Management
403-6	Promoting employee health		22	Central – Health and Safety Management
403-8	Employees covered by an occupational health and safety management system		22	Central – Health and Safety Management
403-9	Work-related injuries		23	Central – Number of occupational and non-occupational accidents at work
403-10	Work-related illnesses		23	Central – Number of occupational and non-occupational accidents at work
404 - Training and further education				
404-2	Programs to improve employee skills and for transitional assistance		21	Central – We employees
			22	Central – Health and Safety Management
404-3	Percentage of employees who receive regular performance and professional development reviews		21	Central – We employees
414 - Social evaluation of suppliers				
414-1	New suppliers verified based on social criteria		25	Global – responsibility along our supply chain
414-2	Negative social impacts in the supply chain and actions taken		25	Global – responsibility along our supply chain
Human rights due diligence				
	UN Guiding Principles on Business and Human Rights		25	Global – responsibility along our supply chain

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Subject to errors and changes at any time.

