



Climate protection report 2024

The following climate protection report and the included quantified balance sheet refer to the emissions caused by the operator of the **Aktioun SuperDrecksKëscht®** at the site (Scope 1 and 2), as well as the emissions from upstream and downstream processes (Scope 3).

The climate protection report is to be seen as a supplementary document to the sustainability report and the environmental statement of the **Aktioun SuperDrecksKëscht®** and **OSL - Oeko-Service Luxembourg SA**, which was commissioned with its implementation. The description of the reporting organisation (organisational boundaries) and other requirements from DIN EN ISO 14064, unless described below, can be found in particular in the environmental statement of **SDK/OSL**. Further information can also be found in the Sustainability Report. This can be viewed at:



Environmental statement 2025
for 2024



Sustainability Report 2024

Since 2020, **SDK** has been preparing a carbon footprint based on the international GHG (Greenhouse Gas Protocol) standard by naming the direct and indirect greenhouse gas emissions caused and quantifying them as far as possible. Since 2022, Scope 3 emissions have also been included and the requirements of ISO 14064 have been taken into account as far as possible. Since 2020, a climate protection officer has been appointed who is responsible for implementing **SDK/OSL's** climate protection strategy in collaboration with the internal climate team.

The carbon footprint takes into account the GHG emissions of all greenhouse gases. The following should be noted with regard to greenhouse gases other than CO₂:

- CH₄ (methane): This greenhouse gas plays no role in **SDK/OSL's** activities.
- N₂O (nitrous oxide): The **SDK/OSL** collects nitrous oxide cartridges from private households and businesses. In 2024, this was already almost 6 tonnes, after only 40 kg were collected in 2022. The quantity of nitrous oxide contained is not known. By capturing, conditioning and forwarding to a product receiver, which feeds the nitrous oxide for further use, the **SDK/OSL** ensures that no further nitrous oxide is released into the atmosphere through uncontrolled treatment.
- NF₃, SF₆: These greenhouse gases do not play a role in **SDK/OSL's** activities.
- HFCs: Fluorocarbons are contained in old refrigerators, among other things, which the **SDK/OSL** collects on behalf of the national producer system **Ecotrel**. Other products also contain HFCs, particularly in insulating foams. The waste products in question are collected, conditioned and forwarded in such a way that no HFCs are released into the atmosphere through uncontrolled treatment. Pentane refrigeration units are also treated in such a way that no additional greenhouse gases are released.

The **SDK/OSL** also collects other containers that contain residual gases, including gas cylinders with household gases such as propane/butane, but also aerosol cans and gas lighters. Here too, the **SDK/OSL** ensures that no gases are released into the atmosphere through uncontrolled treatment by collecting, conditioning

and forwarding the waste products in question.

SDK/OSL collects waste products from private households and businesses, checks, treats and conditions them in its own logistics centre and sends them to recycling/waste treatment plants.

For Scope 3 emissions, category 3.5 (waste) is therefore primarily material, as are categories 1 - 4. Categories 8 (rented or leased property, plant and equipment), 11 (use of products), 12 (end-of-life handling of products), 13 (rented or leased property, plant and equipment), 14 (franchises) and 15 (investments) are classified as not applicable or not material.

The tasks and activities of the **SDK/OSL** have a variety of positive effects and lead to greenhouse gas reductions: Avoidance concepts, education for sustainable development, innovation projects, collection of problem products, reverse production processes.

The reductions resulting from the activities are recognised separately. External compensation is not utilised. Particularly high reductions result from the implementation of the resource potential concept compared to undifferentiated waste treatment. The resource potential concept - certified in accordance with ISO 14024:2018 - favours treatment and recycling processes that guarantee the maximum production of secondary raw materials and, secondarily, substitute fuels in the sense of a circular economy. This avoids the use of energy and the associated greenhouse gas emissions associated with the use of primary raw materials. Further reductions result from:

- the substitution of mineral diesel with biodiesel from used cooking oil
- Substitution of fossil heating oil/gas with used cooking oil and biodiesel in central heating systems
- Use of green electricity instead of electricity from the national electricity mix
- Production of electricity using our own PV system

In addition, regular energy audits are carried out, most recently in 2022, to ensure state-of-the-art energy efficiency.

The 2024 balance sheet resulted in a calculated total footprint of 1,255.33 tonnes of CO₂ equivalents and a calculated reduction of 2,835.13 CO₂ equivalents. In the following climate protection report, the footprint and reductions are shown and explained separately in detail, as required by the standards.

Scope 1 - direct emissions



→ Transport: **41.10 tonnes of CO₂ equivalents** from vehicles (lorries, vans, cars). A high percentage of these vehicles run on biodiesel and are increasingly electric and use self-generated electricity. The share of fossil fuels was 11.32% in 2024. The absolute value in 2019 was still 194.4 tonnes of CO₂ equivalents (decrease of 79.9%). The value was also stable in 2024 and was at the level of 2022 and 2023. The increasing share of biodiesel and, above all, the purchase of more electric vehicles is reflected here.

Avoidance/targets: Further increase in the proportion of electric vehicles and use of biodiesel. The “electric drive before combustion engines” strategy will continue to be pursued.



→ Heating: Through the direct use of collected used cooking oil and biodiesel in the central heating system, a total of **111.19 tonnes of CO₂ equivalents** could be avoided that would have been produced if fossil heating oil had been used. The proportion of used cooking oil was further increased, covering over 90% of heating requirements in 2024.

As part of the energy audit carried out on 21 July 2022, measures were proposed to optimise the heating and hot water management and to make further energy savings. These included separating space heating and process heating/hot water, reducing losses in the local heating system and replacing ceiling fans with ceiling radiators. The most important measures to improve energy efficiency will be implemented at the beginning of 2025.





→ Machines: Various measures (replacement of fossil diesel with biodiesel, new second-hand gas-powered sweeper) reduced emissions to around 10-15 tonnes of CO₂ equivalents. At **12.14 tonnes of CO₂ equivalents**, the 2024 figure was slightly lower than in 2023.

The purchase of a new electrically powered sweeper is not economical and, as far as resource consumption in the manufacture of a new sweeper is concerned, does not currently make sense in terms of climate protection and sustainability. In 2023, an efficient second-hand sweeper as good as new was purchased.

In 2021, the existing gas-powered forklift was replaced by an electric forklift, which significantly reduced gas consumption. Only electric forklifts that use self-generated electricity are now used at the site.

Prevention/targets: Replace all machines with e-drives or renewable fuels.

In total, the sum of Scope 1 GHG emissions amounted to **53.24 tonnes of CO₂ equivalents**, slightly more than in the previous year (40.0 tonnes of CO₂ equivalents).

Scope 2 - indirect emissions (electricity)

Indirect emissions were:



→ Electricity on-site: Total electricity consumption increased by 7.4% to 418,631 kWh in 2024. This is due to the further increase in the proportion of electricity used to charge electric vehicles due to the provision of company cars for commuting.

If the consumption from charging e-vehicles is excluded, the SDK Centre's electricity consumption rose by just 2.2% from 255,587 kWh to 261,146 kWh, which is within the expected fluctuation range. The electricity purchased from the grid - 229,864 kWh - was purchased as Electris green electricity cat. 1. The 2023 electricity labelling for Enovos nova naturstrom

(see next page, last available certificate / in German) in accordance with the Grand Ducal Regulation of 21 June 2010 shows 0 kg CO₂ equivalents and is applied here. Compared to the national electricity mix, the use of green electricity obtained from the grid saves 177 g/kWh or **40.69 tonnes of CO₂ equivalents**.



→ Electricity production: The PV system on Hall 1 with an output of 719.14 kW_{peak} was connected to the grid on 30 November 2022. This produced 550,123 kWh in 2024, corresponding to a positive balance of 131,492 kWh, which was more produced than consumed.



The CO₂ savings from the production of green energy amount to **97.37 tonnes of CO₂ equivalents** compared to the national electricity mix.

→ Electric vehicles: The goal of equipping the entire car fleet with fuel-efficient vehicles is gradually being put into practice. At the end of 2024, 56 e-vehicles were in the vehicle pool. As part of the SDK climate protection strategy, all employees with more than 2 years of service have been offered an e-vehicle (small car) since autumn 2022. If the use of e-vehicles is not yet possible due to insufficient range (lorries, vans), vehicles with the latest emission control technology (Euro 6d-temp) are used.

The vehicles are mainly charged at the Colmar-Berg site (81.5 % of estimated consumption). Since the installation of the PV system, the company's own electricity has been used to charge the vehicles.

The externally charged vehicle electricity (2024 - 18.5 %) is

a) purchased from Enovos (enodrive). In general, a value of 0 kg CO₂ equivalents is also reported here for the use of e-vehicles (when using the national Chargy system).

b) Charging privately and abroad may have been partially carried out with conventional electricity.

SDK has joined the national initiative "Stroum beweegt - elektresch an d'Zukunft"
<https://stroumbeweegt.lu/en/project/acceleration-of-the-e-mobility-development/>

The aim of the initiative is to actively support electromobility with the aim of reducing emissions that are harmful to health and the climate as quickly as possible.



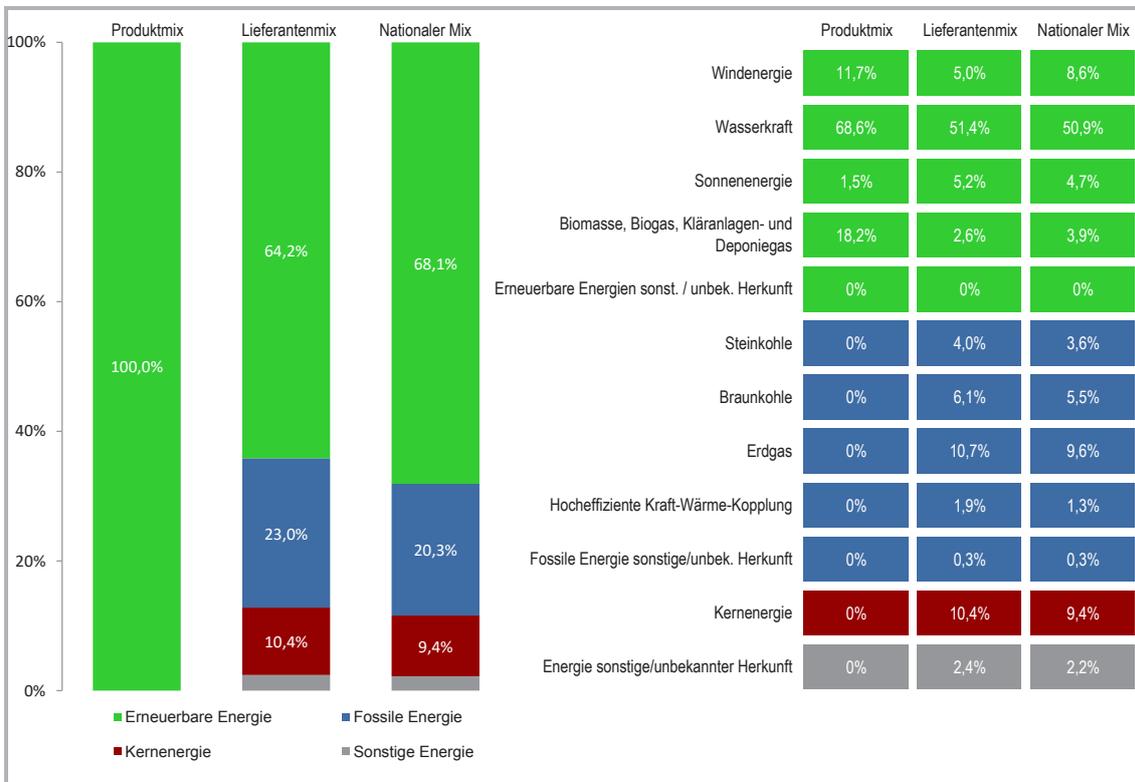
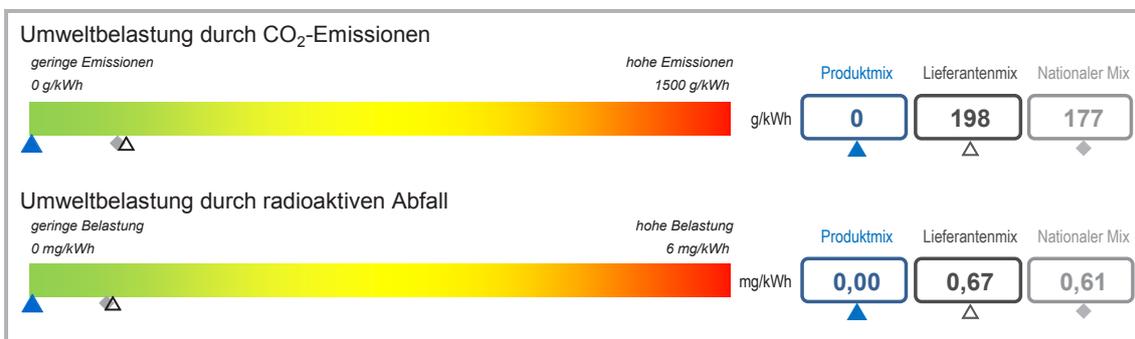
available in German and French



Stromkennzeichnung

gemäß großherzoglicher Verordnung vom 21. Juni 2010 bezüglich des Systems zur Kennzeichnung des Stroms. Mémorial A N° 98, S. 1802

Lieferant	Enovos Luxembourg S.A. www.enovos.lu	Produkt	nova naturstrom
		Jahr	2023



Produktmix	Zusammensetzung nach Energieträger für das angebotene Produkt « nova naturstrom ».
Lieferantenmix	Zusammensetzung nach Energieträgern für die gesamte Produktpalette des Stromlieferanten Enovos Luxembourg S.A., was der durchschnittlichen Zusammensetzung aller Produkte des Stromlieferanten entspricht.
Nationaler Mix	durchschnittliche Stromzusammensetzung nach Energieträgern aller Stromlieferanten an Endkunden auf dem Gebiet von Luxemburg.

Scope 3 - indirect emissions from upstream activities



[Significant emissions according to the materiality analysis]



→ Purchased goods and services (3.1)

A. Production and processing

Production or extraction, processing and transportation of purchased goods and services such as operating supplies, logistics containers, office/consumables, etc.

Purchasing is carried out in accordance with the guidelines for suppliers and products. Logistics containers and other supplies are purchased according to circular economy / sustainability / reparability / local-regional production criteria. A detailed catalogue of criteria applies.

Logistics containers are classified in scope 3.1. or scope 3.2., depending on their use (single-use/short-term use or multiple use/reusable).

The significance/relevance of consumables in purchasing was determined based on the order/purchase quantity and in consultation with the coordinators. For consumables that are not classified as significant due to low volume, a 10% surcharge was applied to the determined value of CO₂ equivalents [see table in 3.1 C].

The following are currently categorised as essential (production, processing and transport to Colmar-Berg):

- Logistics: collection boxes, drums (PE/metal), plastic bags, edible fat buckets, other containers and logistics materials
- Labels, paper and printed products
- Tyres

→ → Cartons: Data for production and provision are available: Information from the supplier. The data - quantity supplied per year - results in **27.56 tonnes of CO₂ equivalents**.

→ → Barrels: Data for the production and supply of metal and PE barrels was estimated based on literature (UK-DEFRA). The data - quantity supplied per year - results in **84.35 tonnes of CO₂ equivalents**.

→ → Plastic bags (PE films and big bags): Data for the production and supply costs of PE films were estimated using literature data (UK-DEFRA). The data - quantity supplied per year - results in **88.62 tonnes of CO₂ equivalents**.

→ → Cooking oil buckets: Data for the production and supply of PE containers was estimated based on literature (UK-DEFRA). The data - quantity supplied per year - results in **70.87 tonnes of CO₂ equivalents**.

→ → Other logistics materials: Data for production and supply were estimated based on literature (UK-DEFRA). The data - quantity supplied per year - results in **4.65 tonnes of CO₂ equivalents**.

→ → Paper and printed matter: Some of the suppliers/print shops offset paper and printed products automatically, otherwise this has been commissioned. Therefore, **0 tonnes of CO₂ equivalents** are taken into account here.

The savings from using print shops with certified offsetting amounted to **2.97 tonnes of CO₂ equivalents** in 2024. The volume of printed products is falling continuously, partly as a result of digitalisation.

→ → Labels and similar printed products: Labels are an essential consumable (product labels, ADR labels, other logistics labels). Data for production and supply were estimated based on literature (UK-DEFRA). The data - quantity supplied per year results in **0.74 tonnes of CO₂ equivalents**.

→ → Tyres: Tyres are an essential consumable (cars, trucks, forklifts). Data for manufacturing and supply costs were estimated based on literature (UK-DEFRA). The data - quantity supplied per year - results in **15.24 tonnes of CO₂ equivalents**.

Wherever possible, retreaded tyres are gradually being used for trucks in particular. This saves raw materials and energy and therefore also reduces CO₂ emissions.

B. Transportation of goods and services

Purchased services. The above-mentioned sustainability criteria also apply here. CO₂ equivalents for production or extraction, processing of materials and products used, as well as energy consumption within the scope of the service are classified as non-significant and taken into account by adding 10% to the total value of scope 3.1 emissions.

→ → Transport of goods: Transport/deliveries of purchased goods classified as material. The data was calculated on the basis of the number of deliveries, the distance of the supplier from the site and a standard fuel consumption value. The data results in **20.65 tonnes of CO₂ equivalents**.

→ → Transport performance of service providers: transport/deliveries of purchased services classified as essential. The data was calculated on the basis of the number of deliveries, the distance of the service provider from the site and a standard fuel consumption value. The data results in **2.11 tonnes of CO₂ equivalents**.

Here too, materiality was determined in consultation with the coordinators.

→ → Server capacities: Websites, SDK cloud, mail server (= purchased service)

Although this is not classified as significant, the SDK website was analysed for energy efficiency/balance of server usage. The SDK achieves 80.7% of 100% in terms of energy efficiency and climate relevance (2021 survey).

Together with the 10% surcharge, this results in a total of 346.27 tonnes of CO₂ equivalents for purchased goods and services.



→ Capital goods (3.2)

A. Production and processing

Production or extraction, processing and transportation of purchased capital goods, real estate, machinery, vehicles

Purchases are made in accordance with supplier and product guidelines. Logistics containers and other supplies are purchased according to circular economy / sustainability / repairability / local-regional production criteria. A detailed catalogue of criteria applies.

Logistics containers are classified in scope 3.1. or scope 3.2. depending on their use (single-use/short-term use or multiple use/reusable). All durable and reusable logistics containers are considered capital goods.

Significance was determined in consultation with the coordinators. For capital goods that are classified as non-significant due to their small quantity, a surcharge of 10% was applied to the determined value of CO₂ equivalents [see table in 3.2 C].

The following are currently categorised as essential (production, processing and transport to Colmar-Berg):

- PV system
- Work clothing
- Vehicles
- SAP collection containers
- Metal stanchion pallets
- Paloxes
- ECOBOXes
- Furniture and furnishings
- IT as well as fuel terminal and charging stations

Capital goods are only considered in the year of acquisition.



In 2024, the following major capital goods were acquired:

→ → The photovoltaic system was expanded in 2024. Modules with an output of 99.6 kWp (kilowatt peak) were installed in the remaining gap in Hall 1. PV modules with an output of 356.7 kWp were installed on Hall 2. CO₂ emissions of **369.60 tonnes of CO₂ equivalents** are attributed for production and provision. The newly installed modules cannot be connected to the grid until 2025 due to a transformer that still needs to be installed.

→ → Workwear: Data for production and supply was estimated based on literature (UK-DEFRA). The data - quantity supplied per year - results in **0.82 tonnes of CO₂ equivalents**.

→ → New vehicles

Purchase of a total of 3 Renault Zoe vehicles and a Polestar Model 2 in 2024: Based on the data from the Paul Scherrer Institute's "calculator" and manufacturer data, this results in emissions of 97.7 tonnes of CO₂ equivalents for production and provision. A new lorry trailer was also purchased. Emissions of **10.0 tonnes of CO₂ equivalents** are estimated for production and provision.

→ → SAP collection containers: no new acquisitions in 2024

→ → Metal stanchion pallets: Data for production and supply were estimated based on literature (UK-DEFRA). The data - quantity supplied per year - results in **17.88 tonnes of CO₂ equivalents**.

→ → Paloxes: Data for production and supply were estimated based on literature (UK-DEFRA). The data - quantity supplied per year - results in **18.16 tonnes of CO₂ equivalents**.

→ → ECOBOXes: Data for production and supply were estimated based on literature (UK-DEFRA). The data - quantity supplied per year - results in **10.0 tonnes of CO₂ equivalents**.

→ → Furniture and furnishings: Data for production and supply were estimated based on literature (UK-DEFRA). The data - quantity supplied per year - results in **9.5 tonnes of CO₂ equivalents**.

→ → IT : Data for production and supply were estimated based on literature (UK-DEFRA). The data - quantity supplied per year - results in 2.98 tonnes of CO₂ equivalents.

B. Transportation of goods

→ → Transport of goods: Transport/deliveries of purchased capital goods classified as material. The data was calculated on the basis of the number of deliveries, the distance of the supplier from the site and a standard fuel consumption value. The data results in **3.51 tonnes of CO₂ equivalents**.

Together with the surcharge of 10%, this results in a total of 557.20 tonnes of CO₂ equivalents for purchased capital goods. The new PV modules were not included in the surcharge.



→ Fuel and energy-related emissions not included in scope 1 and 2 (3.3)

Production or extraction, processing and transportation of used energy sources, including the non-fossil energy sources biodiesel and used cooking oils.

According to "Table K.1 - DIN EN ISO 14083:2023 Quantification and reporting of greenhouse gas emissions from transport operations", the following additional emissions are generated for the production of fuels:

Mineral diesel: Tank to wheel 3.17 kg CO₂ equivalents per kg / well to wheel 3.74 kg CO₂ equivalents per kg - results in 0.57 kg CO₂ equivalents per kg for production.

Biodiesel: Well to wheel 1.42 kg CO₂ equivalents per kg, 1.27 kg CO₂ equivalents per kg for production. However, this value is significantly lower for biodiesel from used cooking oils, which is also reflected in the data from the biodiesel producers to which the SDK supplies, and is provisionally assumed here to be 0.5 kg CO₂ equivalents per kg for production.

With the available data, a value of **80.80 tonnes of CO₂ equivalents** can therefore be calculated.



→ Transportation and distribution of goods and services (3.4)

→ → Fuels Collection of waste products by partners

This is done directly on behalf of the SDK as part of **SDK fir Bierger** and **SDK fir Betriber**. The well-to-wheel value is used to calculate the CO₂ equivalents, i.e. the effort required to produce the fuels (upstream chain) is also taken into account.

Avista Oil (disposal of used oils): According to Avista Oil, 1,164.10 litres of diesel were consumed in 2024. This results in a value of **3.62 tonnes of CO₂ equivalents** (calculation basis: Table K.1 - DIN EN ISO 14083:2023 Quantification and reporting of greenhouse gas emissions from transport operations).

ENTEK (disposal of coolant and brake fluid): In 2024, ENTEK's collection vehicle travelled 4,250 km for SDK. According to ENTEK, 723 litres of diesel were consumed. This results in a value of **2.25 tonnes of CO₂ equivalents** (as in the previous year; calculation basis: Table K.1 - DIN EN ISO 14083:2023 Quantification and reporting of greenhouse gas emissions from transport operations).

Schirra (disposal of waste oils): In 2024, Schirra calculated a consumption of 3,675 litres of diesel. This results in a value of **11.44 tonnes of CO₂ equivalents** (calculation basis: Table K.1 - DIN EN ISO 14083:2023 Quantification and reporting of greenhouse gas emissions from transport operations).

→ → Fuels Transports to product receivers

Transport of waste products to the product receiver: National/regional partners are commissioned in accordance with the criteria mentioned in point B.6. Reusable containers are used whenever possible.

In 2024, Transports Hein provided the following transport service:

Total number of kilometres travelled 191,785 km and total diesel consumption 63,021 litres. Of this, 41,489 litres of mineral diesel and 21,532 litres of biodiesel were used.

These figures include

- Transport to the product recipients
- Collection of paper/cardboard nationally on behalf of SDK
- Type of lorry (container, semi-trailer)
- Outward journey only or outward and return journey (Aller Return); departure from Hein site (for Aller journeys) and departure / arrival from / to Hein site (for Aller Return journeys)

This results in a value of **129.19 tonnes of CO₂ equivalents** (fossil diesel - consideration of the upstream chain - well to wheel; biodiesel - tank to wheel; calculation basis: Table K.1 - DIN EN ISO 14083:2023 Quantification and reporting of greenhouse gas emissions from transport operations).

Transports Arthur Welter consumed 2,342 litres of diesel for the transports to SDK product recipients. This results in a value of **7.29 tonnes of CO₂ equivalents** (calculation basis: Table K.1 - DIN EN ISO 14083:2023 Quantification and reporting of greenhouse gas emissions from transport operations).

Prevention: The proportion of biodiesel used to transport waste products to the product receiver is to be further increased. The target is 100 %.

Scope 3 - Indirect site-related emissions



→ Waste (3.5)

→ → own waste, not processed via logistics centre (A)

With a few exceptions, waste from offices and administration as well as from reverse production (i.e. sorting, treatment, conditioning, etc. of the collected waste) is processed via the logistics centre. Waste that is not processed via the logistics centre currently only concerns a small amount of waste in connection with the treatment of used cooking oil and green waste from the maintenance of green spaces.



The waste recipients are selected specifically in terms of the circular economy and climate protection, if possible using the resource potential tool. Based on the values from Zero Waste Scotland, a saving of **0.48 tonnes of CO₂ equivalents** was calculated compared to undifferentiated waste treatment.

Prevention: The management of self-produced waste is carried out in accordance with the SDK fir Betriber concept and is focused on prevention.

Avoidance activities carried out in the past (examples):

- Avoidance of single-use plastic packaging (self-commitment declaration 2018)
- Drinking water from the water pipe
- Coffee in reusable bulk packaging (PE barrel)
- Organisation of company celebrations according to the Green Events concept

→ → collected and treated waste incl. own waste, handled via logistics centre (B)

To calculate the CO₂ equivalents, the 2024 warehouse output and the values from Zero Waste Scotland, UK-DEFRA and literature references were used. In addition, there is increasing concrete information from the cooperation partners and product recipients (life cycle assessments). Compared to the previous year, the calculated values are therefore even more reliable. The positive effects from recycling, production of substitute fuel or thermal utilisation (net energy gain) were offset against the products that are incinerated in (high-temperature) incineration plants and therefore require an additional energy supply. Details of the calculation are available on request.

The balance results in a saving of **2,582.43 tonnes of CO₂ equivalents** compared to undifferentiated waste treatment.

The aim is to use the resource potential tool to further reduce savings and achieve net CO₂ savings through recognised certified credits.

→ → Collected and treated waste/used products from private households and businesses handled by cooperation partners (C)

In contrast to fuels (Scope 3.4), the treatment of waste products collected by cooperation partners is not taken into account in Scope 3.5, as they fall under Scope 3. However, savings are also achieved here compared to undifferentiated waste treatment.

→ Business travel (3.6)



*Status: Business travels abroad that are not made with our own vehicles are rare. In total, business trips (flights, train journeys, hire cars) by 7 employees generated emissions of **1.02 tonnes of CO₂ equivalents** in 2024.*

Current and future avoidance measures:

- Distance-appropriate use of transport (no short-haul flights)
- Use of video for conferences, meetings and training

Scope 3 - Indirect site-related emissions

→ Commuting by employees (3.7)



Due to the provision of company vehicles for commuting to work for other employees, the majority of commuting falls under Scope 1 or 2. The distance travelled by employees from their place of residence to their workplace in Colmar-Berg was used to calculate the remaining CO₂ equivalents. The data from UK Government GHG Conversion Factors for Company Reporting was used to calculate the CO₂ equivalents. The estimated proportion of employees working from home and the use of transport as determined in the 2021 employee survey (mainly private cars) were taken into account.

After evaluating the available data and taking the above criteria into account, the resulting emissions value is **26.16 tonnes of CO₂ equivalents**.

Prevention: A mobility concept was drawn up by the Mobility Centre in 2018. Since 2020, there have been extended options for working from home and flexible working hours, including the possibility of a 4-day week.

→ Rented or leased assets (3.8)

Status: not applicable /not significant

Scope 3 - indirect emissions from downstream activities

→ Transportation and distribution (3.9)



Classified as significant are:

Visitors for training and visits, as well as the commuting of Ligue HMC employees to their workplace in Colmar-Berg.

To calculate the CO₂ equivalents of the visitors, an average distance of 40 km from the place of residence to the SDK center in Colmar-Berg and visitor registration statistics were used. It was taken into account that visitors also come to the SDK center by bus and carpool.

After evaluating the available data and considering the above criteria, the emission value is **17.60 tonnes of CO₂ equivalents**.

An average distance of 25 km from home to the **SDK** center in Colmar-Berg was used to calculate the CO₂ equivalents of Ligue HMC employees. The number of working days and the use of public transport and car-pools were also taken into account.

After evaluating the available data and considering the above criteria, the emission value is **19.26 tons of CO₂ equivalents** (value as previous year, as no material change).

→ Processing of end-of-life products / Processing of sold products (3.10)

→ → Waste products from the collection of problematic products from households and from the collection of waste products from businesses. The CO₂ equivalents are included in scope 3.5 (B and C).

→ Use of sold products (3.11)

→ → concerns SDK products: OEKO-Pur, LECOBOX, Ecobelle, ECOBOX, as well as sales products for waste collection and logistics

OEKO-Pur does not cause significant direct CO₂ emissions during use, nor do LECOBOX and Ecobelle. ECO-BOX causes CO₂ emissions during the cleaning process (dishwasher). This is also not considered significant. The logistics materials sold are also not considered significant.

→ End-of-life treatment of sold products (3.12)

→ → concerns SDK products: OEKO-Pur, LECOBOX, Ecobelle, ECOBOX, as well as sales products for waste collection and logistics

OEKO-Pur: use by fire brigades, garages, etc. - This is included in 3.5. as the disposal of used OEKO-Pur is handled by the SDK.

LECOBOX, Ecobelle, ECOBOX – not significant, all products are durable and not yet waste products. Damaged ECOBOXes or lids have so far only occurred in small quantities.

Sales products related to waste collection and logistics (collection containers, collection infrastructure): not significant. The products are partly taken back and then fall under 3.5.

→ Leased or rented assets (3.13)

Not applicable

→ Franchises (3.14)

In general, all concepts include climate-friendly and sustainable behavior in line with the slogan “climate protection in practice”.

This also applies to consulting/coaching/know-how transfer through innovation projects.

→ Investments (3.15)

Status: not applicable /not significant

Following pages:

Summary table with notes for 2024

Development of the CO2 balance sheet 2019 - 2024

Summary

Summary CO₂ balance sheet 2024

not significant: n.s., not applicable n.a.

Area	GHG (t CO ₂ e)	Share in scope	Total share	Savings in t CO ₂ e	Remarks
Scope 1: Direct emissions	53,24				
1.1 Cat. 1: Heating (stationary combustion)	0,00	0,00%	0,00%	-111,19	0, since no fossil resources are used; savings compared to use of fossil heating oil
1.2 Cat. 2: Transport (mobile combustion)	41,10	77,20%	3,27%		excluding e-mobility
1.3 Cat. 3: Machines	12,14	22,80%	0,97%		
Scope 2: Energy-related indirect emissions	0				
2.1 Cat. 1: Electricity	0	0,00%	0,00%	-40,69	Savings through the use of natural electricity compared to the national electricity mix (amount purchased from the grid)
				-97,37	Production of electricity (Production of 575,999 MWh)
Scope 3: Other indirect emissions and removals	1.202,10				
Scope 3a					
3.1 Cat. 1: Purchased goods and services	346,27				Production and supply
A: Production and processing of goods					
→ Collection boxes made of cardboard	27,56	2,29%	2,20%		Cartonnerie de Lintgen
→ Barrels (PE/Metal)	84,35	7,02%	6,72%		Krüger
→ Foil bags and big bags	88,62	7,37%	7,06%		Versis
→ Cooking fat bucket 5 l and 30 l	70,87	5,90%	5,65%		Wolf Plastics / Alpla
→ Various containers and materials	4,65	0,39%	0,37%		Kayser Systems, Reinert, Lockweiler Plastic Werke
→ Paper and printed materials CO ₂ neutral	0,00	0,00%	0,00%	-2,97	Muller&Wegener, Reka Print, Imprimerie Centrale
→ Labels, paper and print products	0,74	0,06%	0,06%		Buschmann, ServoPack
→ Tires	15,24	1,27%	1,21%		Thommes, Goedert, Graas, Gloden
B: Transportation of goods and services					
→ Goods	20,65	1,72%	1,65%		Total of the most important suppliers
→ Services	2,11	0,18%	0,17%		Service de l'Entraide and Schiereener Atelier
C: 10 % surcharge for all other items of 3.1	31,48	2,62%	2,51%		
3.2 Cat. 2: Capital goods	557,20				Production and supply
A: Production and processing of goods					
→ Photovoltaic system	369,60	30,75%	29,44%		Joma Solar
→ Work clothes	0,82	0,07%	0,07%		Various suppliers according to list
→ Vehicles (cars)	97,70	8,13%	7,78%		Thommes - 3 Renault Zoé; 1 Polestar
→ Vehicles (lorry trailer)	10,00	0,83%	0,80%		Estimate for standard trailer
→ SAP collection container	0,00	0,00%	0,00%		Bauer Südlohn - no new acquisitions in 2024
→ Metal stanchion pallets	17,88	1,49%	1,42%		Kruizinga
→ Pallet boxes	18,16	1,51%	1,45%		Cargoplast
→ ECOBOXes	10,00	0,83%	0,80%		Ornamin
→ Furniture and furnishings	9,50	0,79%	0,76%		Various suppliers
→ IT	2,98	0,25%	0,24%		Various suppliers according to list
B: Transportation of goods					
→ Goods	3,51	0,29%	0,28%		
C: 10 % surcharge for all other items of 3.2	17,05	1,42%	1,36%		(without PV system)
3.3 Cat. 3: Fuel and energy-related emissions not included in scope 1 and 2	80,80	6,72%	6,44%		Well to Tank; incl. Biodiesel Hein
3.4 Cat. 4: Transportation and distribution (upstream)	153,78				
→ Hein	129,19	10,75%	10,29%		Well to Wheel except biodiesel TtW
→ Arthur Weiter	7,29	0,61%	0,58%		Well to Wheel
→ Avista-Oil	3,62	0,30%	0,29%		Well to Wheel
→ ENTEK	2,25	0,19%	0,18%		Well to Wheel
→ Schirra	11,44	0,95%	0,91%		Well to Wheel
Scope 3b					
3.5 Cat. 5: Waste	0,00				
→ A: Own waste not handled via logistics centre/through external waste disposal companies	0,00	0,00%	0,00%	-0,48	Low, as mainly via item B; data from the 2023 and 2024 climate balance sheets were subsequently corrected
→ B: Collected and treated waste including own waste handled via logistics centre	0,00	0,00%	0,00%	-2.582,43	Based primarily on ZWS Scotland 2020 data; recalculated compared to previous year with improved data basis. For the sake of simplicity, the waste categories for which revenue is generated through sales (3.10) are also included here.
3.6 Cat. 6: Business travel	1,02	0,08%	0,08%		Minimal, business trips abroad predominantly by company car (scope 1.2)
3.7 Cat. 7: Employee commuting	26,16	2,18%	2,08%		further reduction, as the vast majority of employees use company cars (e-vehicles) (Scope 1); fuel emission factor: Well to Wheels (production and operation)
3.8 Cat. 8: Rented or leased assets	n.a.	n.a.	n.a.		not applicable
Scope 3c					
3.9 Cat. 9: Transportation and distribution (downstream)	36,86				
→ Participants of trainings and meetings	17,60	1,46%	1,40%		Recalculated 2023 compared to previous year with improved data basis
→ Employees of Ligue HMC	19,26	1,60%	1,53%		Recalculated 2023 compared to previous year with improved data basis
3.10 Cat. 10: Processing of end-of-life products / Processing of sold products	in 3.5 B	in 3.5 B	in 3.5 B		All end-of-life products were considered in 3.5B.
3.11 Cat. 11: Use of products	n.s.	n.s.	n.s.		no significant emissions
3.12 Cat. 12: End-of-life treatment of products	n.s./in 3.5	n.s./in 3.5	n.s./in 3.5		> OEKO-Pur: is returned and goes in 3.5 > ECOBOXes: are returned and go in 3.5 > Waste bins, shelves and other aids: very durable, are also partly returned and go in 3.5.
3.13 Cat. 13: Leased or rented assets	n.a.	n.a.	n.a.		not applicable
3.14 Cat. 14: Franchises	n.a.	n.a.	n.a.		not directly applicable
3.15 Cat. 15: Investments	n.a.	n.a.	n.a.		not applicable
Total scope 1, scope 2 und scope 3	1.255,33				
Savings					
Savings from heating with used cooking oils and biodiese	-111,19				
Savings through use of natural electricity	-40,69				
Savings through production of electricity	-97,37				
Savings through the use of a print shop with certification for offset printing	-2,97				
Savings in waste treatment through resource potential	-0,48				
Savings in waste treatment through resource potential	-2.582,43				
Total savings	-2.835,13				

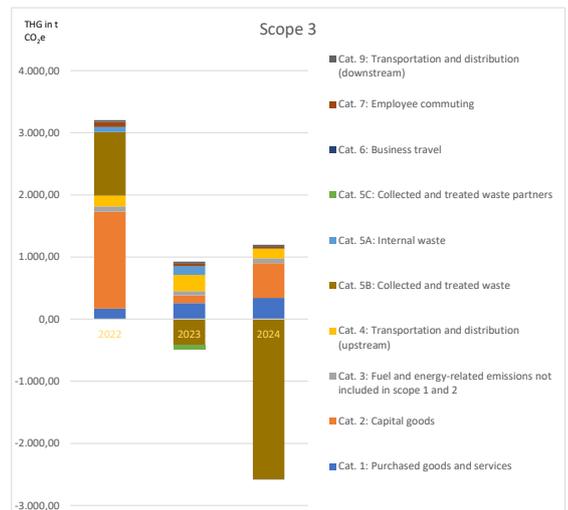
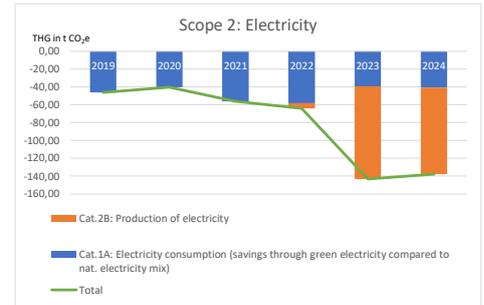
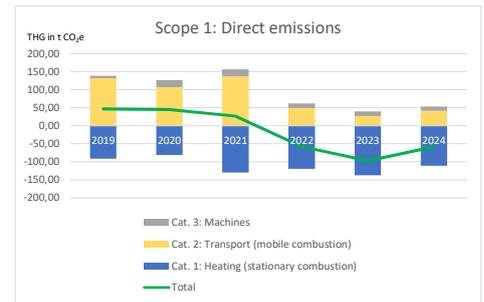
Overview 2019 - 2024

Summary CO2 balance sheet

Scope 1: Direct emissions	THG (t CO2e)					
	2019	2020	2021	2022	2023	2024
Cat. 1: Heating (stationary combustion)	-91,91	-81,54	-129,78	-119,90	-137,34	-111,19
Cat. 2: Transport (mobile combustion)	131,75	107,10	136,36	49,27	27,11	41,10
Cat. 3: Machines	6,89	19,32	20,17	12,76	12,89	12,14
Total	46,73	44,88	26,75	-57,87	-97,34	-57,95

Scope 2: Energy-related indirect emissions	THG (t CO2e)					
	2019	2020	2021	2022	2023	2024
Cat.1A: Electricity consumption (savings through green electricity compared to nat. electricity mix)	-46,37	-40,27	-56,26	-58,295	-39,52	-40,69
Cat.2B: Production of electricity	0	0	0	-5,74	-103,68	-97,27
Total	-46,37	-40,27	-56,26	-64,04	-143,20	-137,96

Scope 3: Other indirect emissions and removals Σ	THG (t CO2e)					
	2019	2020	2021	2022	2023	2024
Scope 3a			0,00	3.203,48	442,52	442,52
3.1 Cat. 1: Purchased goods and services				169,17	258,52	343,30
A: Production and processing of goods						
→ Collection boxes made of cardboard				24,41	23,64	27,56
→ Barrels (PE/Metal)				86,54	102,12	84,35
→ Foil bags and big bags				6,28	45,71	88,62
→ Cooking fat bucket 5 l and 30 l				17,24	29,23	70,87
→ Various containers and materials				1,06	0,85	4,65
→ Paper and printed materials				0,55	0,63	-2,97
→ Tags				0,23	1,07	0,74
→ Tires				0,00	12,09	15,24
B: Transportation of goods and services						
→ Goods				15,63	17,40	20,65
→ Services				1,85	2,28	2,11
C: 10 % surcharge for all other items of 3.1				15,38	23,50	31,48
3.2 Cat. 2: Capital goods				1.559,68	123,47	557,20
A: Production and processing of goods						
→ Photovoltaic System				582,50	0,00	369,60
→ Workwear						0,82
→ Vehicles (cars)				767,90	75,30	97,70
→ Vehicles (lorry trailers)						10,00
→ SAP collection container				36,30	0,00	0,00
→ Metal stanchion pallets				0,00	18,12	17,88
→ Pallet boxes				3,69	0,00	18,16
→ ECOBOXes				11,63	12,29	10,00
→ Furniture and furnishings						9,50
→ IT/Fuel terminal and charging stations				13,06	2,25	2,98
B: Transportation of goods						
→ Goods				2,81	1,66	3,51
C: 10 % surcharge for all other items of 3.2				141,79	11,22	17,05
3.3 Cat. 3: Fuel and energy-related emissions not included in scope 1 and 2				83,97	68,87	80,80
3.4 Cat. 4: Transportation and distribution (upstream) Σ			407,29	174,19	259,12	153,79
→ Hein				158,28	244,33	129,19
→ Arthur Welter				3,34	1,60	7,29
→ Avista-Oil				0,30	0,62	3,62
→ ENTEK				5,96	2,50	2,25
→ Schirra				6,31	10,08	11,44
Scope 3b						
3.5 Cat. 5: Waste Σ				1.108,96	-338,02	-2.582,91
→ A: Internal Waste				38,27	82,91	142,36
→ B: Collected and treated waste				1.026,05	-416,92	-2.582,43
→ C: Collected and treated waste partners				0,00	-63,46	0,00
3.6 Cat. 6: Business travel		2,6		0,34	1,10	1,02
3.7 Cat. 7: Employee commuting		115,8		78,85	36,47	26,16
3.8 Cat. 8: Rented or leased assets				n.a.	n.a.	n.a.
Scope 3c						
3.9 Cat. 9: Transportation and distribution (downstream) Σ				28,33	32,99	36,86
→ Participants of trainings and meetings				20,00	13,73	17,60
→ Employees of Ligue HMC				8,33	19,26	19,26
Cat. 10: Processing of end-of-life products /						
3.10 Processing of sold products				in 3.5 B	in 3.5 B	in 3.5 B
3.11 Cat. 11: Use of products				n.s.	n.s.	n.s.
3.12 Cat. 12: End-of-life treatment of products				n.s./in 3.5	n.s./in 3.5	n.s./in 3.6
3.13 Cat. 13: Leased or rented assets				n.a.	n.a.	n.a.
3.14 Cat. 14: Franchises				n.a.	n.a.	n.a.
3.15 Cat. 15: Investments				n.a.	n.a.	n.a.



Note on Scope 3: The calculation method for 3.5 Waste in particular was gradually adjusted/corrected. The values for 2022, 2023 and 2024 are therefore not directly comparable.

	2022	2023	2024
3.1 Cat. 1: Purchased goods and services	169,17	258,52	343,30
3.2 Cat. 2: Capital goods	1.559,68	123,47	557,20
3.3 Cat. 3: Fuel and energy-related emissions not included in scope 1 and 2	83,97	68,87	80,80
3.4 Cat. 4: Transportation and distribution (upstream)	174,19	259,12	153,78
3.5 Cat. 5A: Internal waste	82,91	142,36	-0,48
3.5 Cat. 5B: Collected and treated waste	1.026,05	-416,92	-2.582,42
3.5 Cat. 5C: Collected and treated waste partners	0,00	-63,46	0,00
3.6 Cat. 6: Business travel	0,34	1,10	1,02
3.7 Cat. 7: Employee commuting	78,85	36,47	26,16
3.9 Cat. 9: Transportation and distribution (downstream)	28,33	32,99	36,86
Total	3.203,48	442,52	-1.383,78