



Climate protection report 2023

Since 2020, the SDK has been preparing a climate balance sheet based on the international GHG (Greenhouse Gas Protocol) standard identifying and quantifying as far as possible the direct and indirect greenhouse gas emissions.

The balance sheet refers to the emissions caused by the operator of the **Aktion SuperDrecksKëscht®** on site (scope 1 and 2), as well as the emissions caused by upstream and downstream processes (scope 3).

The positive effects / greenhouse gas reductions resulting from the tasks and activities themselves – prevention concepts, education for sustainable development, innovation projects, collection of problematic products, reverse production processes - are partially taken into account.

Scope 1 - direct emissions

Direct emissions were:



→ Transport: **27.11 tons of CO₂ equivalents** from vehicles (trucks, vans, cars). A high percentage of these vehicles run on biodiesel and increasingly on electricity. The share of fossil fuels was only 7.58% in 2023. The absolute value in 2019 was still 194.4 tons of CO₂ equivalents (a decrease of more than 86%). In 2023, despite normalization (less frequent home offices and online conferences and meetings than in 2020 and 2021), the value also decreased. This was due to a further increase in the proportion of biodiesel and, above all, the purchase of more electric vehiclege.



Prevention/targets: Further increase the proportion of electric vehicles and the use of biodiesel. The “e-drive before combustion engine” strategy will be consistently pursued.



→ Heating: The direct use of collected used cooking oil and bio-diesel in the central heating system avoided a total of **137.3 tons of CO₂ equivalents** that would have been produced by the use of fossil fuel oil.

As part of the energy audit conducted on July 21, 2022, measures were proposed to optimize heating and hot water management and further energy savings. These included separating space heating and process heating/ rainwater heating, reducing losses in the local heating system and replacing ceiling fans with ceiling heaters. Offers are currently being obtained for the implementation of the proposed projects.



→ Machines: Various measures (replacement of fossil diesel with biodiesel, new second-hand gas sweeper) have reduced emissions to 10-15 tons of CO₂ equivalents. At **12.89 tons of CO₂ equivalents**, the 2023 figure is slightly higher than the 2022 figure.

The purchase of a new electric sweeper is not economical and does not make sense in terms of climate protection and sustainability, given the resources used to manufacture a new sweeper. An efficient used sweeper in mint condition was purchased.

In 2021, the existing gas forklift was replaced by an electric forklift, which significantly reduced gas consumption. Only electric forklifts are thus used at the site.

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

Total Scope 1 GHG emissions were **40.00 tons of CO₂ equivalents**, a further significant decrease from the previous year (**62.13 tons of CO₂ equivalents**).

Scope 2 - indirect emissions (electricity)

Indirect emissions were:



→ Electricity on-site: Total electricity consumption increased by 33.1% to 399,758 kWh in 2023. This is due to the increasing consumption related to the charging of e-vehicles that are made available for commuting. If this charging-related consumption is excluded, the **SDK Center's** electricity consumption increased by 10,1% from 232,037 kWh to 255,587 kWh, which corresponds to the 2021 level and is within the expected fluctuation range. The electricity purchased from the grid, which amounted to 219,517 kWh, is purchased as *enovos naturstrom*. The electricity label (see next page) for this product, in accordance with the Grand-Ducal regulation of 21 June 2010, shows 0 kg CO₂ equivalents. Compared to the national electricity mix, the use of green electricity purchased from the grid saves 180 g/kWh or **39.52 tons of CO₂ equivalents**.



→ Electricity production: The photovoltaic system on Hall 1 with an output of 719.14 kW_{peak} was connected to the grid on Nov. 30, 2022 and produced 575,999 kWh in 2023, resulting in a positive balance of 176,241 kWh, more produced than consumed. The CO₂ savings from the production of green energy amount to **103.7 tons of CO₂ equivalents** compared to the national electricity mix.

→ Electric vehicles: The goal of equipping the entire fleet with fuel-efficient vehicles is gradually being realized. Following the purchase of 3 additional e-vehicles, the fleet consisted of 56 e-vehicles at the end of 2023. As part of **SDK's** climate protection strategy, all employees with more than 2 years of service have been offered an e-vehicle (small car) since fall 2022. If the use of e-vehicles is not yet possible due to insufficient range (trucks, vans), vehicles with the latest emission control technology (Euro 6d-temp) will be used.

The vehicles are mainly charged at the Colmar-Berg site (78.2 % of the estimated consumption). Since the installation of the photovoltaic system, the **SDK's** own electricity is used to charge the vehicles.

Electricity for externally charged vehicles (2023 – 21.8 %)

- comes from *Enovos* (*enodrive*). In general, a value of 0 kg CO₂ equivalent is also reported here for the use of e-vehicles (when using the national *Chargy* system)
- may be partially conventional when charged at home or abroad.

The **SDK** has joined the national initiative ‚Strom bewegt – elektresch an d’Zukunft‘ <https://strombewegt.lu/sengager/>.

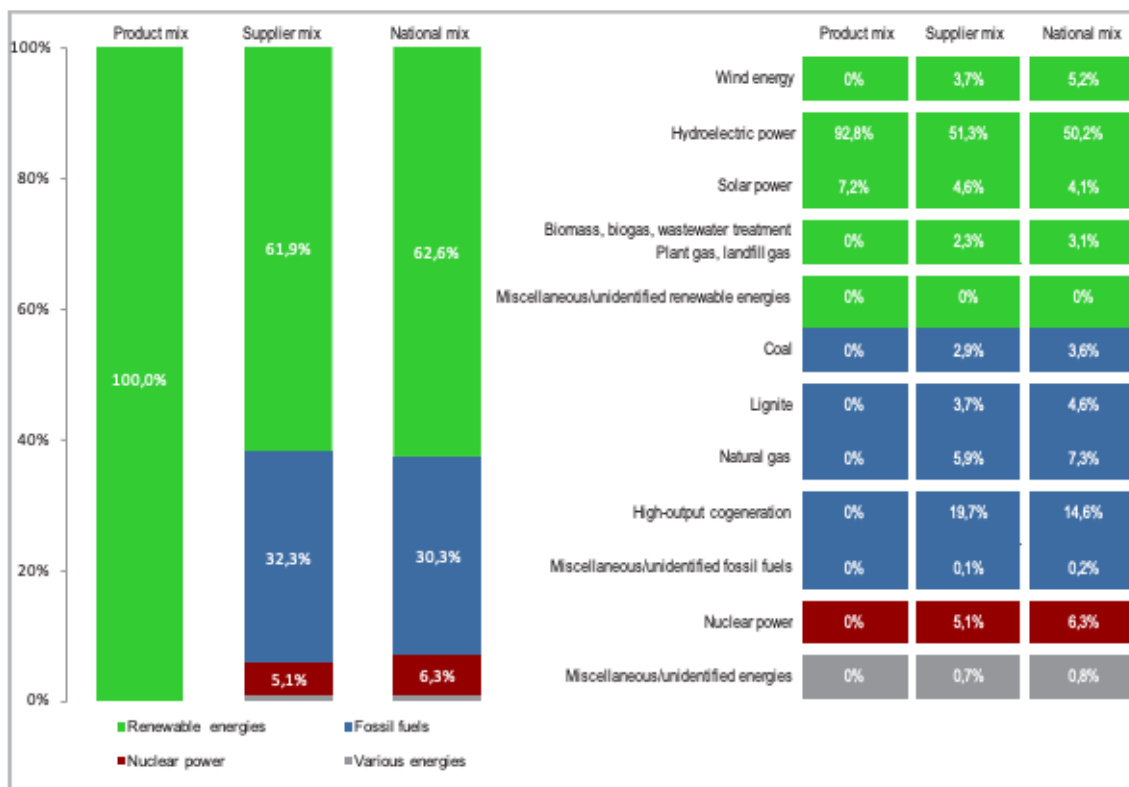
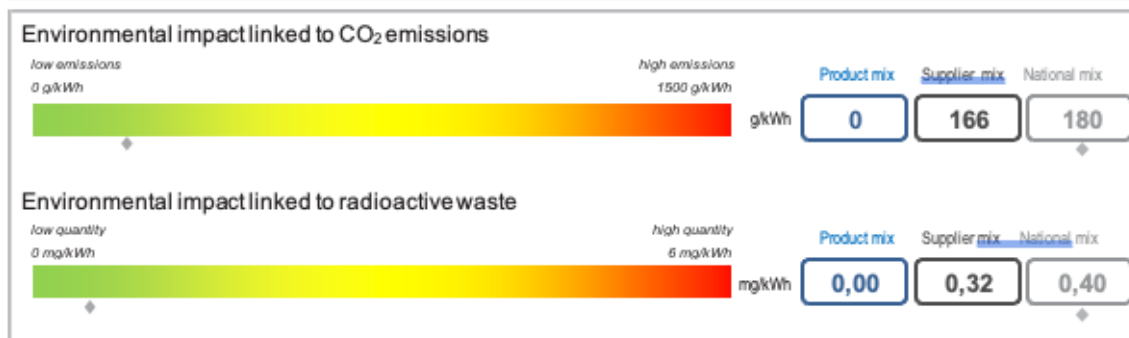
The aim of the initiative is to actively support electromobility in order to reduce emissions that are harmful to health and the climate as quickly as possible.



Electricity labelling

In accordance with the Grand Ducal regulation of June 21, 2010 on the electricity labelling system. Memorial A No. 98, p. 1802

Supplier	Enovos Luxembourg S.A. www.enovos.lu	Product	naturstrom
		Year	2022



Product mix Composition by energy source of product „naturstrom“.

Supplier mix Composition by energy source of all electricity provided by the supplier Enovos, S.A., which corresponds to the average composition of all products of the electricity supplier.

National mix Average composition of the total electricity provided by all suppliers on the national territory.

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].

Currently classified as significant (production, processing and transport to Colmar-Berg):

- Logistics: collection boxes, barrels (PE/metal), plastic bags, cooking fat buckets, other containers and logistics material
- Tags, paper and printed materials
- Tires

→ → Cardboard: Data for production and supply costs is available: Information provided by supplier. The data show that the delivered quantity per year results in **23.64 tons of CO₂ equivalents**.

→ → Barrels: Data for the production and supply costs of metal and PE barrels were estimated from literature data (UK-DEFRA). The data show that the delivered quantity per year results in **102.12 tons of CO₂ equivalents**.

→ → Plastic bags (plastic foils and big bags): Data for the production and supply costs of PE film were estimated using literature data (UK-DEFRA). The data show that the delivered quantity per year results in **45.71 tons of CO₂ equivalents**.

→ → Kitchen oil/ fat buckets: Data for the production and supply costs of PE containers were estimated from literature data (UK-DEFRA). The data show that the delivered quantity per year results in **29.23 tons of CO₂ equivalents**.

→ → Other logistics materials: Data for production and supply costs were estimated from literature data (UK-DEFRA). The data show that the delivered quantity per year results in **0.85 tons of CO₂ equivalents**.

→ → Paper: Consumption of 223,000 sheets of A4 or equivalent, corresponding to 1,115 kg. Since only certified recycled paper was used, the **CO₂ equivalent is 0.63 tons**.

Printed materials (brochures, etc.): Since mid-2021, CO₂ emissions have begun to be directly or indirectly offset. The suppliers/print shops offset some of the printed products automatically. The savings from using print shops with certified offsetting amounted to **2.27 tons of CO₂ equivalents** in 2023. The volume of printed materials is constantly decreasing, partly as a result of digitalization.

→ → Tags: Tags are a significant consumable (product tags, ADR tags, other logistics tags). Data for production and supply costs were estimated from literature data (UK-DEFRA). The data show that the delivered quantity per year results in **1.07 tons of CO₂ equivalents**.

→ → Tires: Tires are an essential consumable (cars, trucks, forklifts). Data for production and supply costs were estimated from literature data (UK-DEFRA). The data show that the delivered quantity per year results in **12.09 tons of CO₂ equivalents**.

Wherever possible, retreaded tires are gradually being used, especially for trucks. This saves raw materials and energy and 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.

→ → Transportation of goods: transportation/delivery of purchased goods classified as significant. The data were calculated based on the number of deliveries, the distance of the supplier from the site and a standard fuel consumption value. The data result in **17.40 tons of CO₂ equivalents**.

→ → Transportation performance of service providers: transportation/delivery of purchased services classified as significant. The data were calculated based on the number of deliveries, the distance of the service provider from the site, and a standard fuel consumption value. The data result in **2.28 tons of CO₂ equivalents**.

Again, significance was determined in consultation with the coordinators.

→ → Server capacities: websites, the **SDK** cloud, mail server (= purchased services)

Although not considered as significant, the **SDK** website was still analyzed for energy efficiency/balance of server usage. The SDK scores 80.7% out of 100% in terms of energy efficiency and climate relevance (2021 survey).

Together with the 10% surcharge, this results in a total of 264.60 tons 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].

Currently classified as significant (manufacturing, processing and transport to Colmar-Berg):

- Photovoltaic system
- Work clothes
- Vehicles
- SAP collection containers
- Metal stanchion pallets
- Pallet boxes
- ECOBOXes
- IT as well as fuel terminal and charging stations

Capital goods are only considered in the year of acquisition.



In 2023, the following major capital goods were acquired:

→ → Photovoltaic system – installation in 2022, no more acquisitions in 2023

→ → Work clothes: Data for production and supply costs were estimated from literature data (UK-DEFRA). The data show that the delivered quantity per year results in **4.63 tons of CO₂ equivalents**.

→ → New vehicles

Purchase of 3 Renault Zoe in 2023: Based on the data from the Paul Scherrer Institute's 'calculator', this results in a CO₂ equivalent of 25.1 tons per Renault Zoe for production, operation and disposal. That equals 75.3 tons of CO₂ equivalents for 3 vehicles.

→ → SAP collection containers: no new acquisitions in 2023

→ → Metal stanchion pallets: Data for production and supply costs were estimated from literature data (UK-DEFRA). The data show that the delivered quantity per year results in **18.12 tons of CO₂ equivalents**.

→ → Pallet boxes: no new acquisitions in 2023

→ → ECOBOXes: Data for production and supply costs were estimated from literature data (UK-DEFRA). The data show that the delivered quantity per year results in **10.29 tons of CO₂ equivalents**.

→ → IT: Data for production and supply costs were estimated from literature data (UK-DEFRA). The data show that the delivered quantity per year results in **2.25 tons of CO₂ equivalents**.

B. Transportation of goods

→ → Transportation of goods: transportation/delivery of purchased capital goods classified as significant. The data were calculated based on the number of deliveries, the distance of the supplier from the site, and a standard fuel consumption value. The data result in **1.66 tons of CO₂ equivalents**.

Together with the 10% surcharge, this results in a total of 123.47 tons of CO₂ equivalents for purchased capital goods. In 2022, this figure was significantly higher at 1,559.68 tons of CO₂ equivalents due to the purchase of 31 vehicles and the installation of the photovoltaic system.



→ 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 chain 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 made from used cooking oil, which is also reflected in data from biodiesel producers supplied by **SDK**, and is provisionally assumed here to be 0.5 kg CO₂ equivalents per kg for production.

With the available data, a value of **68.87 tons of CO₂ equivalents** can thus 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): In 2023, the Avista-Oil collection vehicle drove 734 km for the **SDK**. According to Avista-Oil, 198.03 liters of diesel were consumed. This results in a value of **0.62 tons of CO₂ equivalents** (basis for calculation: table K.1 - DIN EN ISO 14083:2023 Quantification and reporting of greenhouse gas emissions from transport chain operations).

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

Schirra (disposal of used oils): In 2023, Schirra calculated a consumption of 3,240 liters diesel. This results in a value of **10.08 tons of CO₂ equivalents** (basis for calculation: table K.1 - DIN EN ISO 14083:2023 Quantification and reporting of greenhouse gas emissions from transport chain 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 2023, the following transport service was provided by Transports Hein:

Total mileage of 218,790 km and total diesel consumption of 81,494 liters. Of these, 78,516 liters of mineral diesel and 2,978 liters of biodiesel were used.

These figures include:

- Transport to product receivers
- Type of truck (container, semi-trailer)
- Outbound journey only or outbound and return journey (Aller Retour). Departure from Hein site (for outbound journeys) and departure/arrival from/to Hein site (for outbound and return journeys)

This results in a value of **244.33 tons of CO₂ equivalents** (taking into account the upstream chain - Well to Wheel; basis of calculation: table K.1 - DIN EN ISO 14083:2023 Quantification and reporting of greenhouse gas emissions from transport chain operations).

Transports Arthur Welter consumed 514.50 liters of diesel for the transportation to **SDK** product receivers. This results in a value of **1.60 tons of CO₂ equivalents** (basis of calculation: table K.1 - DIN EN ISO 14083:2023 Quantification and reporting of greenhouse gas emissions from transport chain 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)

→ → Internal waste/end-of-life products (A)

In 2023, the amount of internal waste was 70.69 tons, of which 32.36 tons were oil-water emulsions from separators/cleaning and 24.02 tons were waste products from reverse production. The waste from offices/administration amounted to 4.38 tons. The proportion of non-recyclable residual waste was only 1.1 tons.



Based on Zero Waste Scotland and UK-DEFRA figures, a value of **142.36 tons of CO₂ equivalents** was calculated.

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

Prevention activities carried out in the past (examples):

- Elimination of single-use plastic packaging (self-commitment statement of 2018)
- Treatment of drinking water from the water supply
- Coffee in large reusable packaging (PE barrels)

→ → Collected and treated waste/end-of-life products from private households and businesses, handled by our own vehicle fleet (B)

CO₂ equivalents were calculated using 2023 stock levels and figures from Zero Waste Scotland and UK-DEFRA. In addition, partners and product receivers are increasingly providing specific information. Compared to the previous year, the calculated figures are therefore even more reliable. The positive effects of recycling, production of substitute fuel or thermal recovery (net energy gain) have been offset against those products that are incinerated in high-temperature incinerators and therefore require additional energy input. Details of the calculation are available upon request.

The balance results in a saving of **417.92 tons of CO₂ equivalents** compared to undifferentiated waste treatment.

→ → Collected and treated waste/end-of-life products from private households and businesses, handled by partners (C)

CO₂ equivalents were calculated using 2023 stock levels and figures from Zero Waste Scotland and UK-DEFRA. The positive effects of recycling, production of substitute fuel or thermal recovery (net energy gain) have been offset against those products that are incinerated in high-temperature incinerators and therefore require additional energy input. Details of the calculation are available upon request.

The balance results in a saving of **63.46 tons of CO₂ equivalents** compared to undifferentiated waste treatment.

The goal is to further reduce this value using the Resource Potential tool and to achieve net CO₂ savings through recognized certified credits.

→ Business travel (3.6)



Status: Business trips abroad that are not made in company cars are rare. In total, business travel (air, rail, rental car) by 9 employees in 2023 resulted in emissions of **1.10 tons of CO₂ equivalents**.

Current and future prevention measures:

- Distance-based use of transportation (no short-haul flights)
- Use of video conferencing for meetings, conferences and training

→ Employee commuting (3.7)



Due to the provision of company cars for more employees to commute to work, the majority of commuting trips fall under Scope 1 or 2. The remaining CO₂ equivalents were calculated based on the employees' distance from home to the Colmar-Berg site. Data from the UK Government's GHG Conversion Factors for Company Reporting were used to calculate the CO₂ equivalents. The estimated proportion of employees working from home and the use of transport (mainly private cars) as determined by the 2021 employee survey were taken into account.

After evaluating the available data and taking into account the above-mentioned criteria, the emission value is **36.47 tons of CO₂ equivalents**.

Prevention: In 2018, a mobility concept was created by the mobility center. Since 2020, there have been expanded opportunities for home office 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 **13.73 tons 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 carpools 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**.

→ 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. ECOBOX 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 2023

Development of the CO2 balance sheet 2019 - 2023

Summary

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	40,00				
1.1 Cat. 1: Heating (stationary combustion)	0,00	0,00%	0,00%	-137,34	0, since no fossil resources are used; savings compared to use of fossil heating oil
1.2 Cat. 2: Transport (mobile combustion)	27,11	67,77%	2,82%		excluding e-mobility
1.3 Cat. 3: Machines	12,89	32,23%	1,34%		
Scope 2: Energy-related indirect emissions	0				
2.1 Cat.1: Electricity	0	0,00%	0,00%	-39,52	Savings through the use of natural electricity compared to the national electricity mix (amount purchased from the grid)
Production of electricity				-103,68	Production of electricity (Production of 575,999 MWh)
Scope 3: Other indirect emissions and removals	922,65				
Scope 3a					
3.1 Cat. 1: Purchased goods and services	258,52				Production and supply
A: Production and processing of goods					
→ Collection boxes made of cardboard	23,64	2,56%	2,46%		Cartonnerie de Lintgen
→ Barrels (PE/Metal)	102,12	11,07%	10,61%		Krüger
→ Foil bags and big bags	45,71	4,95%	4,75%		Versis / Reinert
→ Cooking fat bucket 5 l and 30 l	29,23	3,17%	3,04%		Wolf Plastics / Alpla
→ Various containers and materials	0,85	0,09%	0,09%		Kayser Systems
→ Paper and printed materials	0,63	0,07%	0,07%	-2,27	Muller&Wegener, Reka Print
→ Tags	1,07	0,12%	0,11%		Reka, Buschmann, ServoPack
→ Tires	12,09	1,31%	1,26%		Thommes, Goedert, Schaefer, Graas
B: Transportation of goods and services					
→ Goods	17,40	1,89%	1,81%		Total of the most important suppliers
→ Services	2,28	0,25%	0,24%		Service de l'Entraide and Schiereener Atelier
C: 10 % surcharge for all other items of 3.1	23,50	2,55%	2,44%		
3.2 Cat. 2: Capital goods	123,47				Production and supply
A: Production and processing of goods					
→ Photovoltaic system	0,00	0,00%	0,00%		
→ Work clothes	4,63	0,50%	0,48%		Various suppliers according to list
→ Vehicles (cars)	75,30	8,16%	7,82%		Thommes - 3 Renault Zoé
→ SAP collection container	0,00	0,00%	0,00%		Bauer Südlöh - no new acquisitions in 2023
→ Metal stanchion pallets	18,12	1,96%	1,88%		Kruizinga
→ Pallet boxes	0,00	0,00%	0,00%		Cargoplast - no new acquisitions in 2023; only repairs
→ ECOBOXes	10,29	1,12%	1,07%		Ornamin
→ IT	2,25	0,24%	0,23%		Various suppliers according to list
B: Transportation of goods					
→ Goods	1,66	0,18%	0,17%		
C: 10 % surcharge for all other items of 3.2	11,22	1,22%	1,17%		
3.3 Cat. 3: Fuel and energy-related emissions not included in scope 1 and 2	68,87	7,46%	7,15%		Cradle to Tank; incl. Biodiesel Hein
3.4 Cat. 4: Transportation and distribution (upstream)	258,88				
→ Hein	244,33	26,48%	25,38%		2023: low proportion of biodiesel / Well to Wheel
→ Arthur Welter	1,60	0,17%	0,17%		Well to Wheel
→ Avista-Oil	0,62	0,07%	0,06%		Well to Wheel
→ ENTEK	2,25	0,24%	0,23%		Well to Wheel
→ Schirra	10,08	1,09%	1,05%		Well to Wheel
Scope 3b					
3.5 Cat. 5: Waste	142,36				
→ A: Internal waste	142,36	15,43%	14,79%		based on data from ZWS Scotland 2020
→ B: Collected and treated waste	0,00	0,00%	0,00%	-417,92	based 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.
→ C: Waste collected and treated on behalf of partners	0,00	0,00%	0,00%	-63,46	based on ZWS Scotland 2020 data; new in 2023; not included in 2022
3.6 Cat. 6: Business travel	1,10	0,12%	0,11%		Minimal, business trips abroad predominantly by company car (scope 1.2)
3.7 Cat. 7: Employee commuting	36,47	3,95%	3,79%		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)	32,99				
→ Participants of trainings and meetings	13,73	1,49%	1,43%		Recalculated compared to previous year with improved data basis
→ Employees of Ligue HMC	19,26	2,09%	2,00%		Recalculated 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 and scope 3	962,65				
Savings from heating with used cooking oils and biodiesel	-137,34				
Savings through use of natural electricity	-39,52				
Savings through production of electricity	-103,68				
Savings through the use of a print shop with certification for offset printing	-2,273				
Savings in waste treatment through resource potential	-416,92				
Savings in waste treatment through resource potential	-63,64				
Total scope 1, scope 2 and scope 3 incl. savings	199,28				

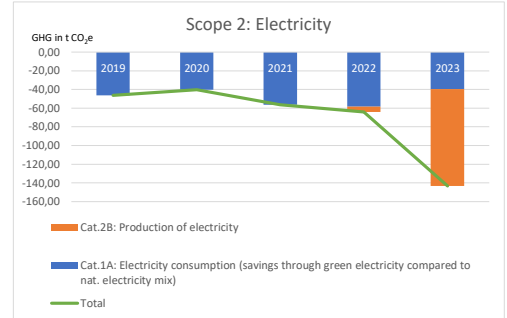
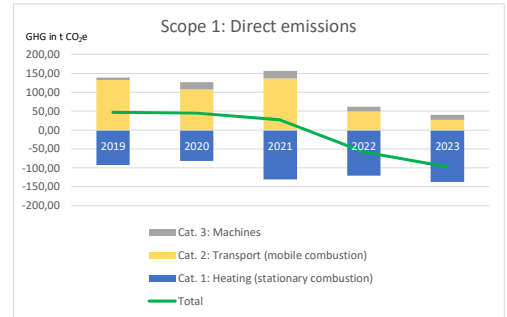
Overview 2019 - 2023

Summary CO₂ balance sheet

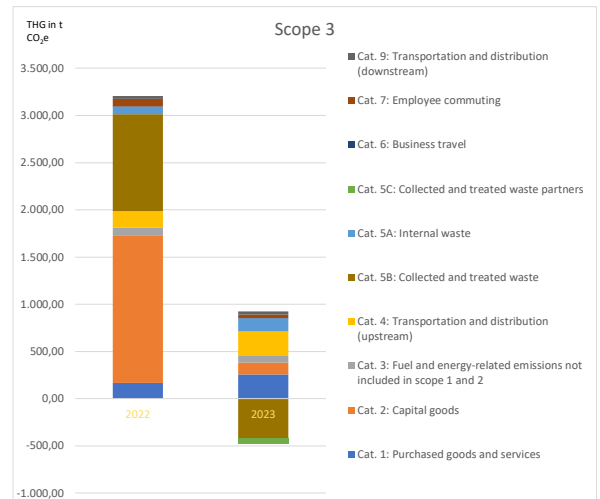
Scope 1: Direct emissions	THG (t CO ₂ e)				
	2019	2020	2021	2022	2023
Cat. 1: Heating (stationary combustion)	-91,91	-81,54	-129,78	-119,90	-137,34
Cat. 2: Transport (mobile combustion)	131,75	107,10	136,36	49,27	27,11
Cat. 3: Machines	6,89	19,32	20,17	12,76	12,89
Total	46,73	44,88	26,75	-57,87	-97,34

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

Scope 3: Other indirect emissions and removals Σ	2021	2022	2023
Total	0,00	3.203,48	442,52



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



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