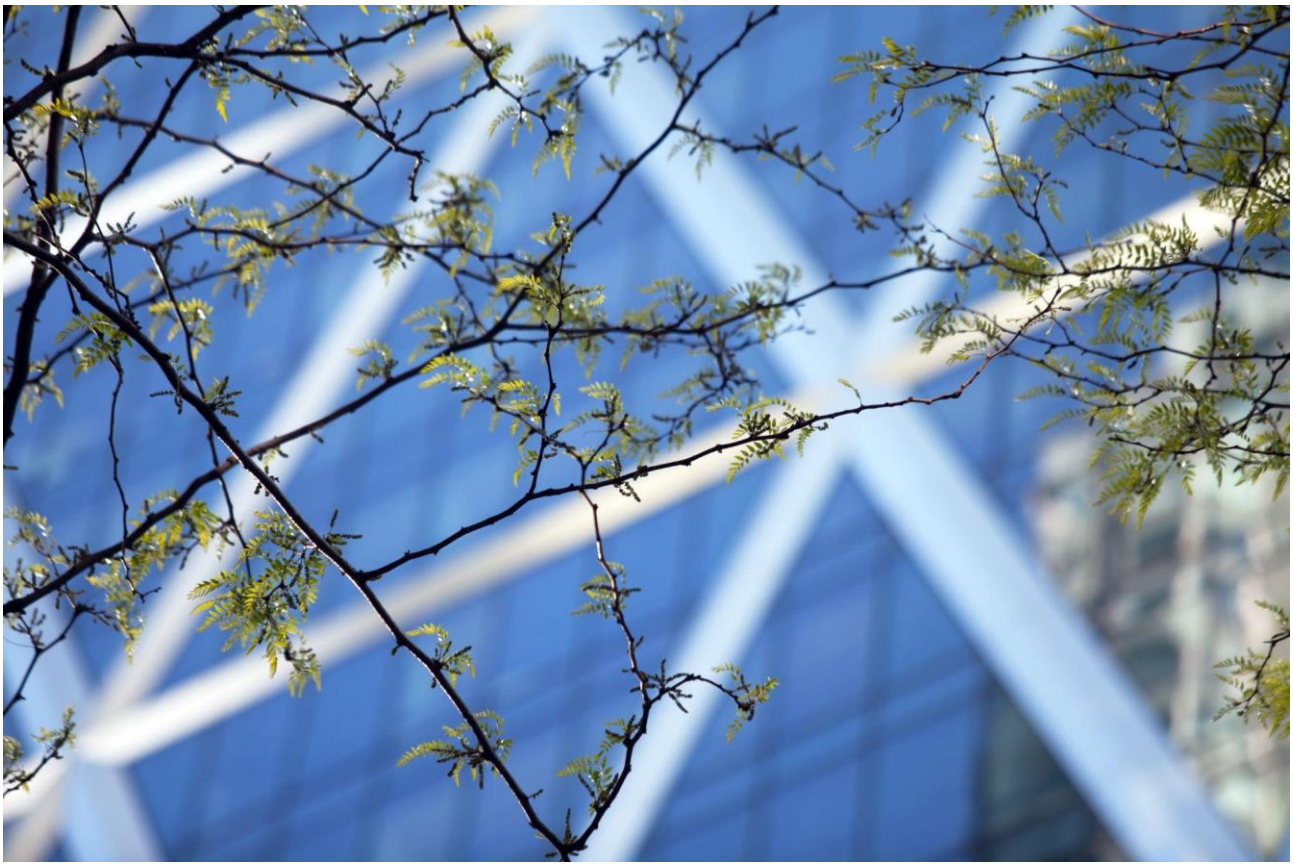
SCHELDEBOUW

CO_2 PERFORMANCE LADDER



Sustainability at Scheldebouw

CO2 Performance Ladder

CO2 Performance Report FY23

211SB-HS-REP-0001 rev. 00

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01 Introduction

The construction industry has realised that we have to act now and start improving the human impact on the environment, if we want future generations to enjoy our planet the same way as previous generations did. Sustainability has finally become a key performance criterion in facade design, which allows us to create solutions and make decisions which were not viable before.

Our mission
Scheldebouw strives to be a front runner in the facade industry with our sustainable approach

To achieve this, we need to:

- Understand our environmental impact
- Develop knowledge and tools
- Deliver what we promise on the projects
- Show it to the world

01.1 CO2 Performance Ladder

The CO2 Performance Ladder is a Dutch initiative for companies in the construction sector that want to be pro-active and set ambitious targets to reduce their carbon footprint as a company. The initiative is chosen by Scheldebouw, because it provides a structured framework to manage our sustainability developments. It is aligned with current and expected European legislation and helps us to stay ahead of what is strictly mandatory.

On 19th October 2023 the initial audit took place and Scheldebouw has been awarded the level 4 certification on the CO2 Performance Ladder. In this report Scheldebouw's CO2 Performance, our CO2 Reduction targets and the plan to achieve these goals are discussed.

01.2 CO2 Reduction targets

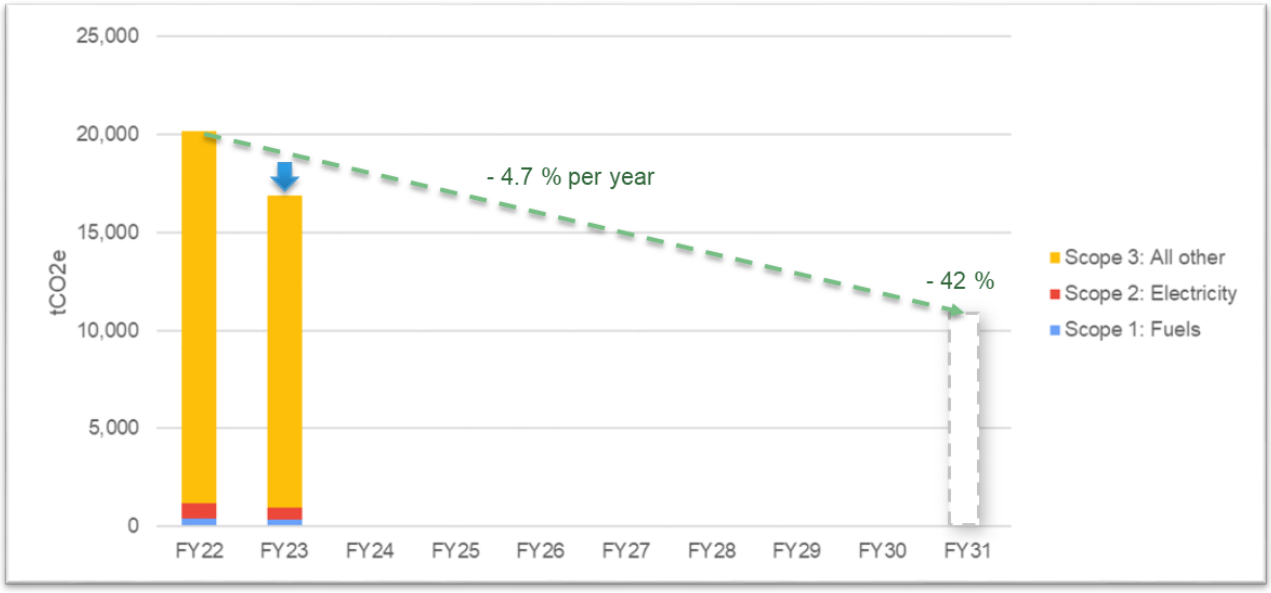
In line with Paris agreements we need to reduce our CO2 emissions and waste to zero before the year 2050. Because this is a worldwide target, the general consensus is that developed countries need to reach this goal well before 2050 (around 2040) to compensate for developing countries. Before 2030 we already need to be halfway our reduction target to make sure that we don't exceed the total "carbon budget".

The Science Based Targets initiative (SBTi) is the most established initiative that encourages organisations to set targets to reduce their Green House Gas (GHG) emissions. They have a set of standards and guidelines to help target setting on different levels and with different scopes. Scheldebouw sets their short term targets based on the following assumptions:

- Absolute Contraction Approach
- 1.5°C pathway
- Base year FY22
- Target year FY31

This leads to the following set of targets:

	Base year (FY22)	Target year (FY31)	% Reduction
Scope 1	419 tCO2e	241 tCO2e	-42.6%
Scope 2	750 tCO2e	435 tCO2e	-42.0%
Scope 3	19,008 tCO2e	11,025 tCO2e	-42.0%
Total	20,177 tCO2e	11,700 tCO2e	-42.0%



Hereby Scheldebouw states that it is committed to achieve the above Carbon Reduction Targets, as part of the CO2 Performance Ladder certification. In the Townhall Meetings on the 28th and 29th of September these targets were introduced and explained to the organisation. To achieve these targets carbon reduction measures have been proposed, which are described in our Carbon Reduction plan and are also summarised in this document. The information will be shared with our employees. We implement these measures to achieve our targets, in collaboration with all our employees.

Jens Mönnikes
General Manager

Janneke Verkerk-Evers
Sustainability Leader

Remco Riemens
HSE Officer

02 Carbon reduction policy

Scheldebouw is not a manufacturer of standard products, but makes custom design solutions for every unique project. The starting point is an architectural design intent and a performance specification. To meet these requirements a new design is made for every project, followed by the selection of suppliers for the specific materials and performance testing of the façade design. The result is a product portfolio with a huge diversity in colours, shapes and materials. Developing a strategy to improve the environmental impact of our products is therefore not as straightforward.

Before starting to apply for the CO2 Performance Ladder initiative the environmental analyses in our organisation focused mainly on the production process of our facades. Using the LCA (Life Cycle Analysis) method, we went through the entire life cycle of our facades and mapped out the environmental impact per phase. Our expectation was confirmed that the choice of our suppliers and the further agreements with them in particular determine the CO_2 footprint of our product. Transportation, waste and the activities in our own assembly facilities and on the building site have a much lower impact. Still they cannot be neglected, if only because they are important for the visibility and awareness of our CO2 reduction policy, both internally and externally.

In short Scheldebouw's carbon reduction policy is based on four pillars, which will be explained in the following paragraphs:

- Building related energy use of our own facilities
- Travel movements of our employees
- Waste management
- Embodied carbon reduction of our products

02.1 Measures list and the global measure

In the table below the global measure of the company is given. It is the CO2 emission of the company for the "level 3" assessment of the CO2 Performance Ladder, expressed as an absolute value and also related to the turnover, number of employees and m^2 of produced façade panels in Financial Year 2023 (1st April 2022 to 31st March 2023).

Global measurement

CO_2 emissions, scope 1 and 2 + scope 3.6 "business travel" (= level 3 assessment)		1 224.9 tons
Revenue	69.7 million euros	17.574 tons/million euros
Staff members	297 FTE	4.124 tons/FTE
Area of produced facade units	37 163 m2	0.033 tons/m2
Sectors	Construction – Utility, Consultancy, Industry	

All carbon reduction measures that our company has taken or planned are submitted to the SKAO-website in the measures list. They are categorised as A, B or C measures:

- **Category A:** a 'standard' level of implementation, more than 50% of organisations (for whom the activity included in this measure is relevant) have implemented this measure at this level.
- **Category B:** an 'advanced' level of implementation, 20% to 50% of organisations (for whom the activity included in this measure is relevant) have implemented this measure at this level.

- **Category C:** an 'ambitious' level of implementation, only a few (maximum 20%) organisations have implemented this measure at this level

Below listed are the measurements implemented and planned in the above mentioned categories. "Planned measures" are meant to be implemented before 01-04-2024, which is the end of our financial year.

	Implemented	**Planned**
Category A	3	12
Category B	6	6
Category C	2	3
Own added measures	2	-
Total	**13**	**21**

The standard requires to assess the position of the company amongst peers in the sector. Because there are not many peers/competitors in our business (who are working in the same niche-market as we do) and/or they are not certified for the CO2-performance ladder it is hard to perform this assessment.

We implemented 13 measures and planned 21 measures, so by counting the number of measures we do not see Scheldebouw acting on an ambitious level at the moment. On the other hand, we think that our reduction strategy for the embodied carbon of our products is quite ambitious. Balancing these two observations, we qualify Scheldebouw in category B "advanced".

02.2 Building related energy use ("stationary" scope 1 & scope 2)

Scheldebouw owns premises in Middelburg, where an office and factory are present. An office space is rented in Heerlen, half a floor in a multi-storey building. Natural gas is used for heating the buildings, electricity is used throughout the buildings and the outdoor area.

The temperature in the offices is controlled by a central building management system, in Heerlen controlled by the building owner. The amount of energy used is being measured in Middelburg by means of own meters, in Heerlen the amount is calculated afterwards based on the occupancy of the building. Due to the above described situation, we are better able to influence our energy consumption in Middelburg rather than in Heerlen.

Measures taken and planned:

- Setpoint of factory heating: the setpoint of the heating in the factory was lowered from 18 to 17 degrees Celcius in FY2023.
- Thermal insulation: to prevent heat loss from our buildings, we invested in thermal insulation. This was done in several phases between 2014 and 2023 both for the office and the factory in Middelburg.
- Solar panels: in June 2023, 738 solar panels were installed. These will supply approximately 300,000 kWh of electricity per year.
- Towards all-electric: as a result of the new office facade, the existing air conditioners were removed and will be replaced by a new air treatment system for heating, cooling and ventilation in autumn 2023. For

production there are ideas to replace the gas-fired heaters with heat pumps in the long term. This will Scheldebouw allow to remove the gas connection.

02.3 Travel Policy ("mobile" scope 1, scope 3.6 & scope 3.7)

Within Scheldebouw various transport options are used for various trips. Trips can be distinguished in: commuting, work-work trips and business trips. Transport options are: bicycle, private car, business car, lease car, rental car, taxi, bus, train, plane.

- Current situation and policy
  - Commuting by public transport and/or bike is limited due to the fact that a large number of employees do not live close to their workplace and the fact that public transport is hardly available in the area of the Scheldebouw premises.
  - Business travel is dominated by project locations, so if there are more projects abroad, more travel is also required, the same goes for distance.
- Effect of Covid
  - Less business travel and more VCs on the projects during the Covid situation and directly after. But the trend is returning to more face-to-face meetings.
  - After Covid situation more work from home is done, limiting commuting.
- Encouragement measures
  - Train instead of airplane: for relatively short distances employees are encouraged to take the train instead of the plane
  - Bike plan: the bike plan means that employees are eligible to buy a bicycle once every 5 years through a financially favourable scheme.

02.4 Waste management (scope 3.5)

There are four locations where waste is generated: the office in Heerlen, the office in Middelburg, the production in Middelburg and the construction sites. As far as possible the generated waste will be collected separately and separately disposed. The possibilities of waste separation depend on the possibilities waste companies offer. Scheldebouw has frequent contact with their waste companies to investigate new possibilities. This results in the last action of separating waste of organic waste, plastic and residual waste in the office in Middelburg, were in the Heerlen office this was already accomplished earlier by the building owner. In the future we want to consistently improve the way we separate waste and also conduct research into reducing waste, for instance by improving our packaging strategy.

02.5 Embodied carbon engineering on the projects (scope 3.1 and scope 3.4)

Like in most companies, the majority of Scheldebouw's CO2 emissions occur in the value chain (Scope 3), more specifically during the production processes of the components we purchase for the assembly of our facades. The sustainability developments at Scheldebouw, therefore, focus on providing better insight to our clients about the environmental impact that different design alternatives have, so that they (and we) are able to make better informed decisions. We do that by making embodied carbon calculations from the early design stages on, updating those regularly during the project execution phase and finalising the process by going through a full third party review to obtain official Environmental Product Declarations (EPDs) for the specific design of that project.

The design options usually focus on a combination of the following aspects to achieve the biggest impact:

- Optimising the design to reduce the quantities of a material
- Comparing different materials, e.g. aluminium sheets vs. terracotta
- Comparing different suppliers and/or production methods, e.g. low-carbon aluminium billets

The following aspects are also part of the embodied carbon assessment of our products, but currently have a much more limited impact:

- Transportation distances
- Façade assembly activities in our own production facility
- Façade installation on the building site

All of this in close collaboration with our client's project team to make sure that we meet their expectations, requirements and architectural design intent. With this approach we try to reduce the embodied carbon of our products in a holistic way instead of focussing on specific solutions.

02.6 Visibility and awareness

In Scheldebouw we will not only put effort in carbon reduction measures which will have a significant impact on our carbon footprint, but we also want to achieve visibility and awareness among our employees. This is done by adding some carbon reduction or sustainable measures. Those measures will not lead into a recognizable reduction in our carbon accounting, but will have an impact on the mindset of the employees.

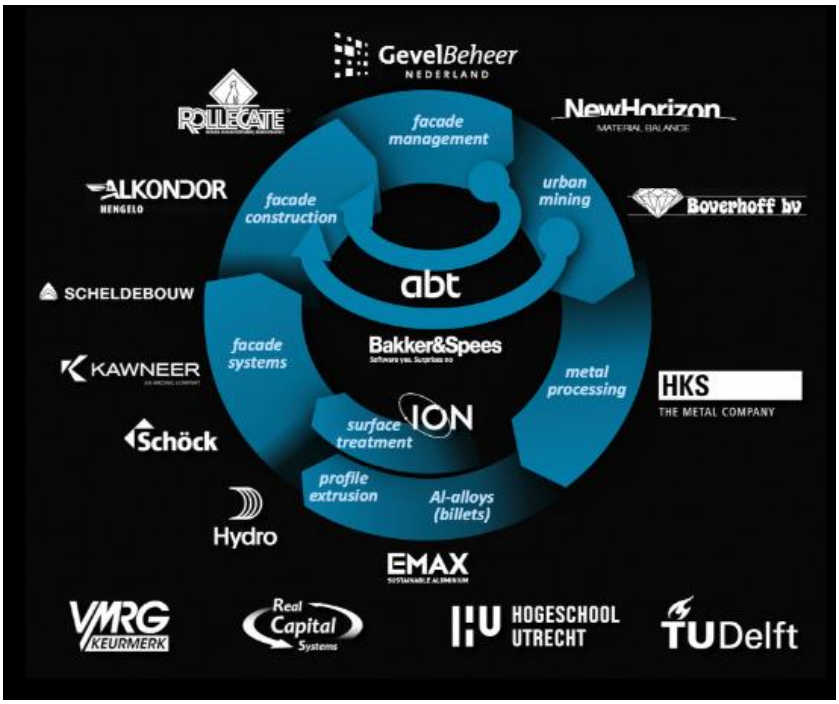
Two examples of these visibility and awareness measures we took are: introducing waste separation in the Middelburg office and plans for replacing the cardboard coffee cups for ceramic mugs in Middelburg, where Heerlen is already implemented.

02.7 Sector initiative "PerpetuAl"

Scheldebouw's carbon reduction strategy first focusses on the short term effects by reducing the CO2 emissions that are directly influenced by the company (its own energy use and travel policy) and by reducing the embodied carbon emissions during the production of our products (upstream scope 3). The design and material choices of our products also have a huge effect on the re-use and recycling potential of the materials at the end of the service life (scope 3.12 "end-of-life treatment of sold products").

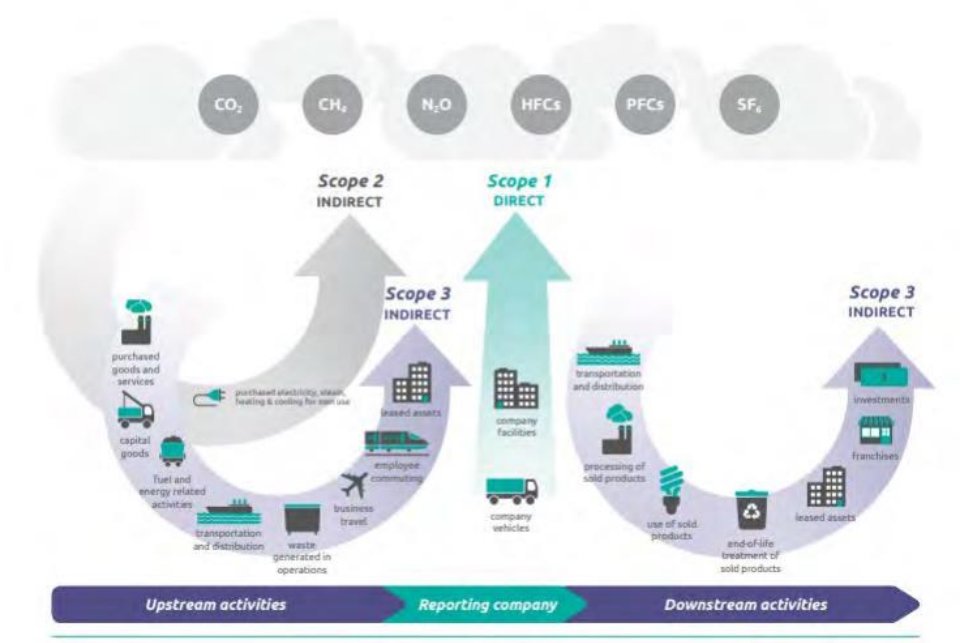
To gain better insight in the options to reduce this impact, Scheldebouw is part of the sector initiative "PerpetuAl". Its aim is to set up a system in which all aluminium that was once part of a façade will remain in the loop and become part of a façade again in its next life cycle.

The contributing companies in this initiative represent the complete circular loop of aluminium production, application in a facade, dismantling, re-use and recycling.


GevelBeheer
NEDERLAND
ROLLECATE
NewHorizon
MATERIAL BALANCE
facade management
urban mining
ALKONDOR
HENGELO
facade construction
Boverhoff bv
SCHELDEBOUW
abt
facade systems
Bakker&Spees
KAWNEER
metal processing
HKS
THE METAL COMPANY
ION
surface treatment
Schöck
profile extrusion
Al-alloys (billets)
Hydro
EMAX
VMRG
KEURMERK
Real Capital Systems
HOGESCHOOL UTRECHT
TUDelft

03 CO2 Performance of Scheldebouw

The CO2 emission inventory for the CO2 Performance Ladder is drawn up in accordance with ISO 14064-1 §9.3.1. Depending on the level on the CO2 Performance Ladder, the CO2 emission inventory comprises direct and indirect emissions as a result of the organisation's activities, subdivided in scope 1, 2 and 3 emissions. Indirect scope 3 emissions can originate upstream as well as downstream. As of CO2 Performance Ladder level 3, the organisation has to map out the CO2 emission (scope 1 & 2 emissions and business travel (in scope 3)) of the organisation. As of level 4, an organisation must also report about its scope 3 emissions.



Scope diagram of the GHG Protocol Scope 3 Standard

03.1 Activities included in the CO2 emissions inventory

Before starting to apply for the CO2 Performance Ladder initiative the environmental analyses in our organisation focused mainly on the production process of our facades. Using the LCA (Life Cycle Analysis) method, we went through the entire life cycle of our facades and mapped out the environmental impact per phase. The LCA studies show that our biggest environmental impact is in the CO2 emissions that are not included in the assessment for level 3 of the CO2 Performance Ladder. Therefore we think that it is important to extent the CO2 emission inventory of our company beyond our own activities and start including the value chain, which is why our company aimed for the level 4 certification.

The level 3 assessment for the CO2 Performance Ladder requires that a company first focusses on the activities that it can directly influence, the scope 1 and 2 emissions and its travel movements (scope 3.6). For level 4 an additional assessment was made to understand the order of magnitude of the other Scope 3 emissions. This assessment is based on our financial accounts (the so-called "economic input-output" method). The financial values have been corrected to exclude purchased goods and services that are already part of the other activities in the CO2 emissions inventory (e.g. purchased fuels, electricity and travel tickets) to avoid double counting. Below the emissions are summarised, which are included in Scheldebouw's level 3 and level 4 assessments.

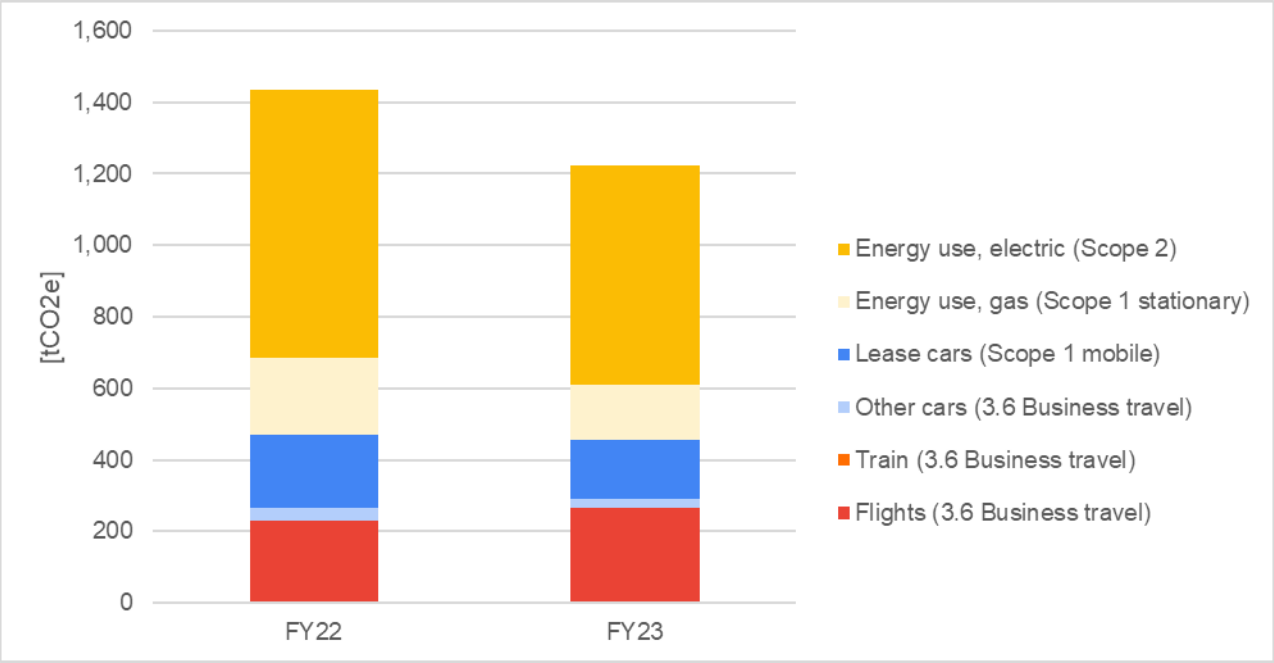
Activity	Description	Level 3	Level 4	Amount x Carbon factor = kg CO_2e
Scope 1				
Stationary combustion Mobile combustion	Gas for heating (factory + office) Fuels for company and lease cars	x	x	
Scope 2				
Purchased electricity	Factory Office	x	x	
Upstream Scope 3				
3.1 Purchased goods and services	Curtain wall materials Production + packaging materials Other purchased goods + services	-	x	
3.2 Capital goods	Owned and leased assets	-	x	
3.4 Upstream transport	Supplier – Factory Factory – Building site Other	-	x	
3.5 Waste in operations	Factory waste Office waste Site waste	-	x	
3.6 Business travel	Flights Train Employee owned cars / Rental cars & taxi	x	x	
3.7 Employee commuting	Employee owned cars	-	x	

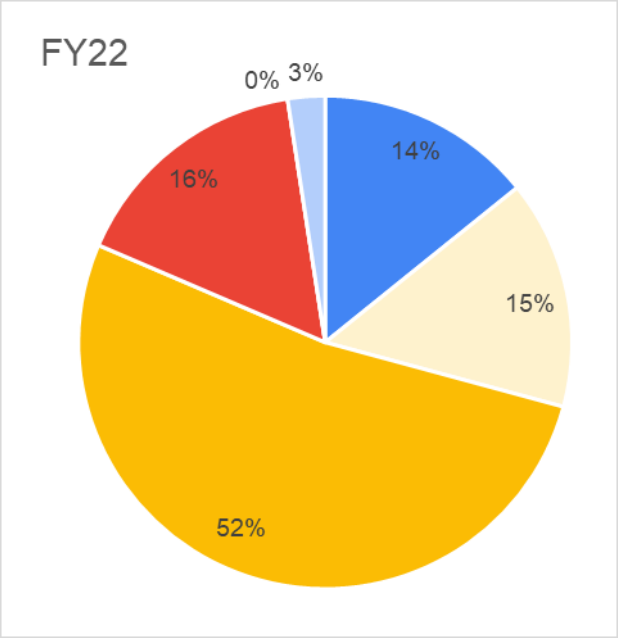
x = included - = not included

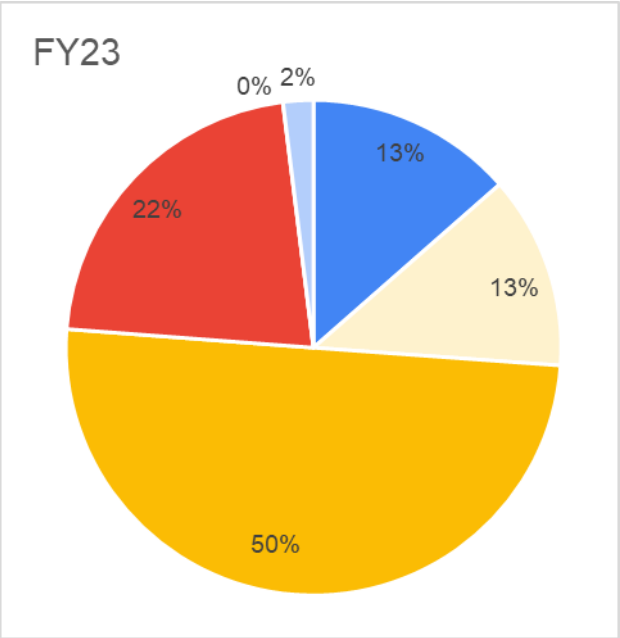
03.2 CO2 emissions directly influenced by the company (level 3 assessment)

03.2.1 Results

In the following figures the results are shown of the CO2 emission inventory for the financial years FY22 and FY23 for the different activities included for the level 3 certification of the CO2 Performance Ladder.







03.2.2 Analysis

In the table below the achieved performance for FY23 is compared to that of the base year FY22.

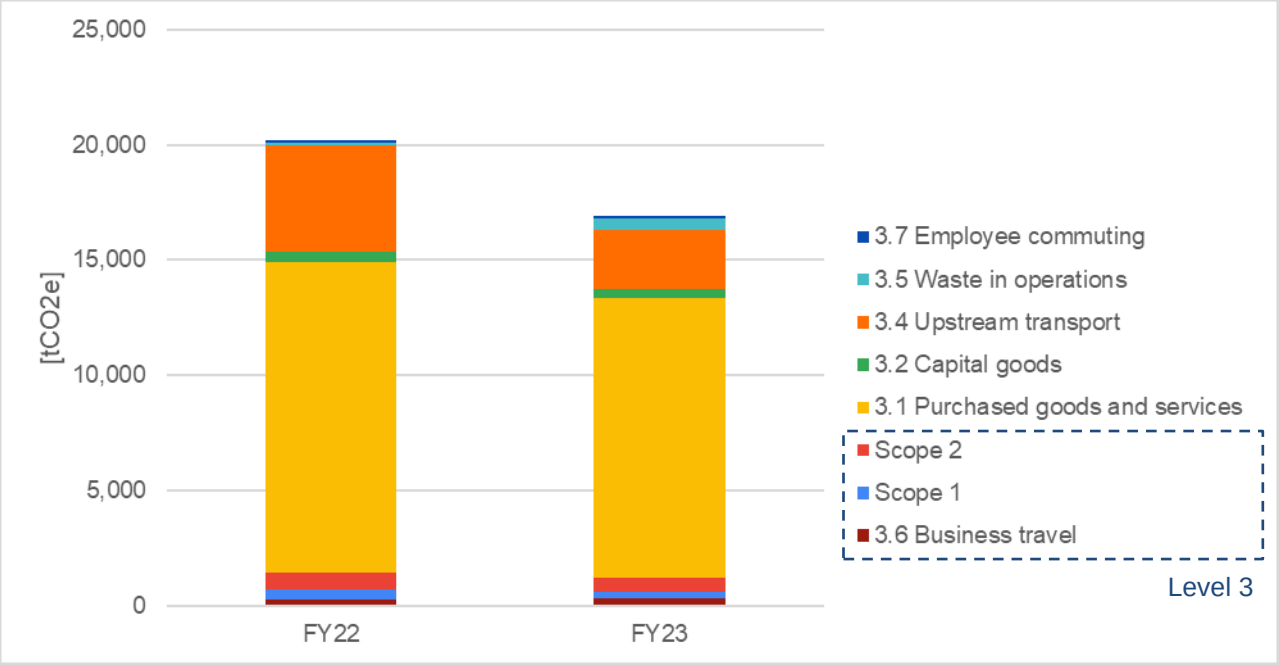
	Base year FY22	Achieved FY23	Reduction
Scope 1	419 tCO2e	320 tCO2e	-23.6%
Scope 2	750 tCO2e	613 tCO2e	-18.2%
Scope 3.6	266 tCO2e	292 tCO2e	+9.5%
Total	1436 tCO2e	1225 tCO2e	-14.7%

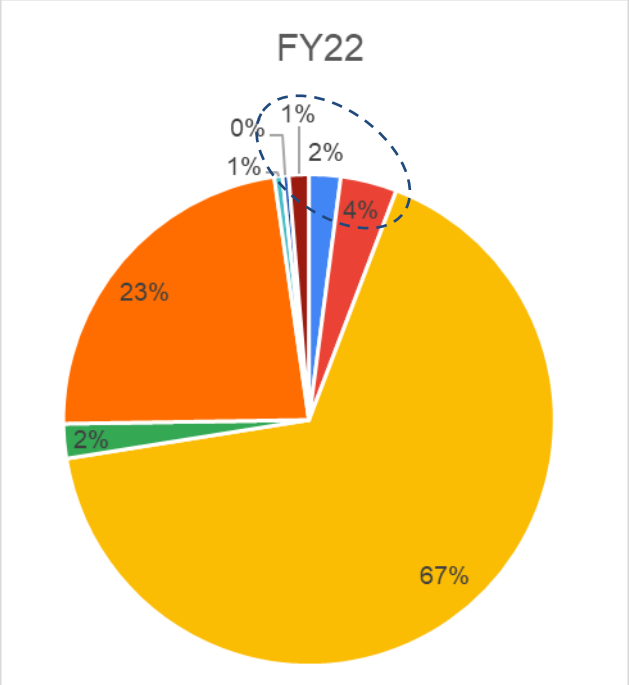
For scope 1 and 2 emissions we see a reduction of 23.6% resp. 18.2% in FY23 compared to the base year FY22, which is a good result showing the effectiveness of our carbon reduction measures. For scope 3.6 “business travel” there is an increase in emissions compared to the base year FY22. The explanation for this increase is the fact that we are still recovering from the Covid pandemic, during which period the amount of travelled kilometres was very limited. We are gradually getting back to what was “normal” during pre-Covid times. On top of that, FY23 was an exceptional year with regards to intercontinental flights for two projects that were located in the US.

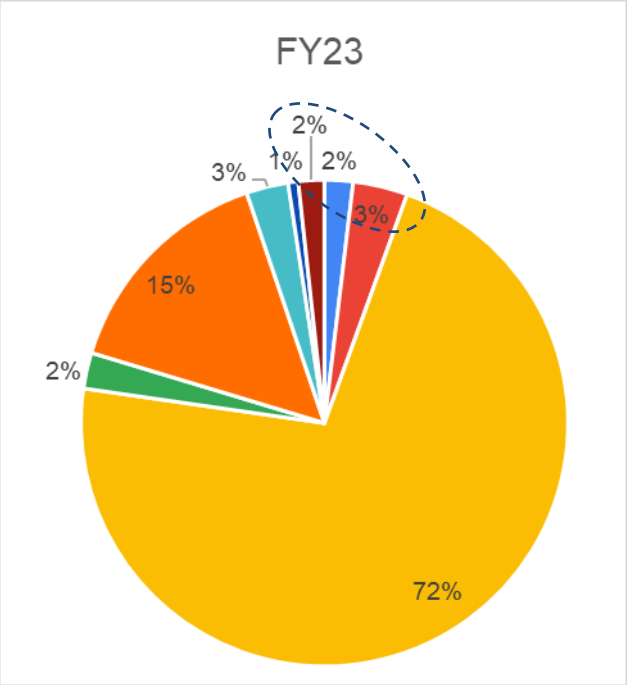
03.3 CO2 emissions in the value chain (level 4 assessment)

03.3.1 Results

In the following figures the results are shown of the CO2 emission inventory for the financial years FY22 and FY23 for the different activities included for the level 4 certification of the CO2 Performance Ladder.







	CO2 emissions FY22		CO2 emissions FY23	
	[tCO2e]	part of total	[tCO2e]	part of total
Scope 1	419	2.1%	320	1.9%
Scope 2	750	3.7%	613	3.6%
3.6 Business travel	266	1.3%	292	1.7%
Subtotal (level 3)	**1,436**	**7.1%**	**1,225**	**7.2%**
3.1 Purchased goods and services	13,455	66.7%	12,138	71.8%
3.2 Capital goods	459	2.3%	404	2.4%
3.4 Upstream transport	4,638	23.0%	2,563	15.2%
3.5 Waste in operations	108	0.5%	472	2.8%
3.7 Employee commuting	82	0.4%	113	0.7%
Total	**20,177**	**100.0%**	**16,914**	**100.0%**

03.3.2 Analysis

The assessment of our company's CO2 footprint including Scope 3 emissions confirms our initial assumption that our biggest environmental impact lies in our value chain. The CO2 emissions of the activities included in the level 3 assessment for the CO2 Performance Ladder (Scope 1, 2 & Scope 3.6 business travel) only contribute to approx. 7% of our company's total carbon footprint. The biggest portion (67-72%) is taken up by the purchased goods and services (Scope 3.1), followed by transportation of goods (Scope 3.4).

03.4 Evaluation of Scheldebouw's CO2 performance

In paragraph 01.2 of this report our company's carbon reduction targets are stated. To derive the targets for every individual year, linear interpolation should be used between the base year and the target year. In the table below the achieved performance for FY23 is compared to the targets.

	Base year FY22	Target FY23		Achieved FY23	
Scope 1	419 tCO2e	399 tCO2e	-4.7%	320 tCO2e	-23.6%
Scope 2	750 tCO2e	715 tCO2e	-4.7%	613 tCO2e	-18.2%
Scope 3 total	19,008 tCO2e	18,121 tCO2e	-4.7%	15,981 tCO2e	-15.9 %
Scope 1, 2 & 3 total	20,177 tCO2e	19,235 tCO2e	-4.7%	16,914 tCO2e	-16.2%

The measures to reduce our scope 1 and 2 emissions were very effective and we achieved our reduction targets for FY23 with a big margin. Overall our total scope 3 emissions also reduced more than sufficiently to achieve our targets.

We know, however, that the CO2 emissions related to our travel movements even increased when comparing FY23 to FY22. This is mainly caused by the fact that we saw an increase of travel movements after the dip during the Covid-pandemic, which was even higher because of the intercontinental flights related to two projects located in the US. This increase was compensated by reductions of the other emissions, so that we still achieve our targets.

04 Conclusion

The CO_2 performance ladder is a Dutch initiative for companies in the construction sector that want to be pro-active and set ambitious targets to reduce their carbon footprint as a company. The initiative is chosen by Scheldebouw, because it provides a structured framework to manage our sustainability developments. It is aligned with current and expected European legislation and helps us to stay ahead of what is strictly mandatory. On 19th October 2023 the initial audit took place and Scheldebouw has been awarded the level 4 certification on the CO2 Performance Ladder.

Scheldebouw's LCA studies show that our biggest environmental impact is in the CO2 emissions that are not included in the assessment for level 3 of the CO2 Performance Ladder. Therefore we decided to extend the CO2 emission inventory of our company beyond our own activities and started to include the value chain, leading to a level 4 assessment.

Scheldebouw's carbon reduction policy is based on four pillars:

- Building related energy use of our own facilities
- Travel movements of our employees
- Waste management
- Embodied carbon reduction of our products

Based on the guidelines and standards of the Science Based Targets initiative (SBTi) carbon reduction targets have been defined so that we can check if our reduction measures are sufficiently effective. The measures to reduce our scope 1 and 2 emissions were very effective and we achieved our reduction targets for FY23 with a big margin. Overall our total scope 3 emissions also reduced more than sufficiently to achieve our targets.