



Sustainability at Scheldebouw ▪

CO₂ Performance Ladder ▪

Intermediate Report FY25

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Proprietary Note

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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 sustainability 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 we present the intermediate results of Scheldebouw's CO2 Performance, Targets and Reduction Plan of Fiscal Year 2025, which runs from 1st April 2024 to 31st March 2025.

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. Their set of standards and guidelines helps target setting on different levels and with different scopes. Scheldebouw sets their short term targets based on the Absolute Contraction Approach with a 1.5°C pathway. The base year is FY22 and the target year is FY31.

Scheldebouw commits to the following set of targets:

	Base year (FY22)	Target year (FY31)	% Reduction
Scope 1	431 tCO ₂ e	241 tCO ₂ e	-44.0%
Scope 2	739 tCO ₂ e	429 tCO ₂ e	-42.0%
Scope 3	25,004 tCO ₂ e	14,502 tCO ₂ e	-42.0%
Total	26,173 tCO ₂ e	15,172 tCO ₂ e	-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

Note: by incorporating the corrections and improvements described in paragraph 02.1, also the values of the base year FY22 and target year FY31 have been updated.

01.3 CO2 reduction approach

Scheldebouw's carbon reduction strategy focusses on:

- Scope 1 & 2: CO₂ emissions that are directly influenced by the company (its own energy use)
- Scope 3: embodied carbon emissions during the production of our façades (value chain emissions)

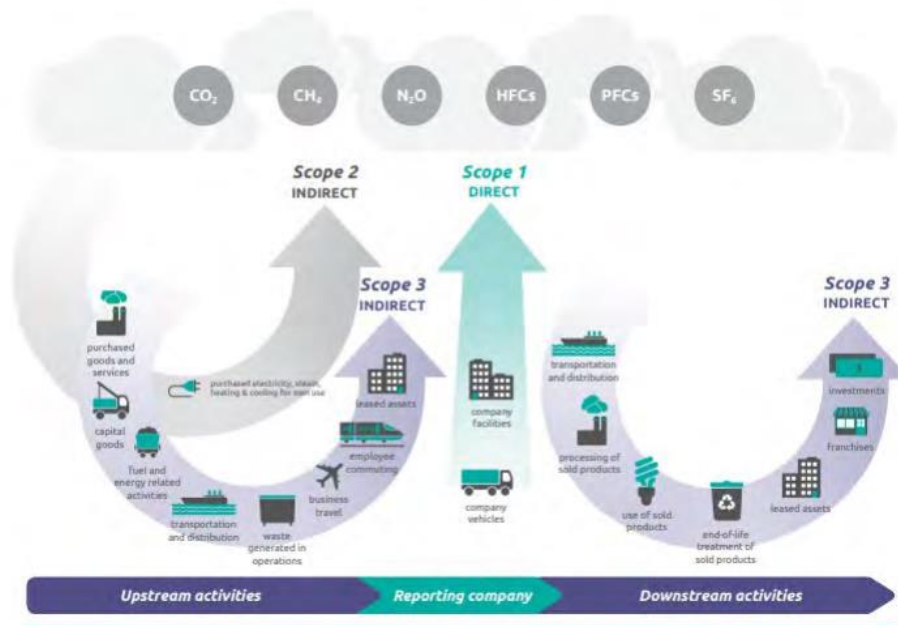
Using the LCA (Life Cycle Analysis) method, we went through the entire life cycle of our façades and mapped out the environmental impact per phase. Our expectation was confirmed that currently the choice of our suppliers and the further agreements with them in particular determine the CO₂ footprint of 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.

The sustainability developments at Scheldebouw therefore focus on providing better insight for the project related design, engineering and purchasing decisions we have to make together with our clients. By comparing the environmental impact of different design and material related alternatives, we are able to make better informed decisions. We provide embodied carbon calculations from the early design stages on, update those regularly during the project execution phase and finalise the process by going through a full third party verification to obtain official Environmental Product Declarations (EPDs) for the specific design of that project. 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.

A key aspect in the above described approach is that we have a clear understanding of the developments in our supply chain. To advise our clients on the design and material choices that have to be made, we have to be able to present a complete picture of all the technical, visual, commercial and planning related impacts of a certain (low-carbon) option. One of our focus points is to improve and maintain this level of knowledge.

02 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

The CO2 emission inventory of Scheldebouw B.V. is composed of the following activities:

Scope 1

- Stationary combustion: gas for heating factory and office
- Mobile combustion: fuels for company and leased cars

Scope 2

- Purchased electricity for factory and office

Scope 3

- 3.1 Purchased goods and services:
 - Curtain wall materials
 - Production and packaging materials
 - Other (not product related) purchased goods and services
- 3.2 Capital goods:
 - Depreciation of owned and leased assets

- 3.4 Upstream transport:
 - From supplier to production facility
 - From production facility to site
 - Other
- 3.5 Waste in operations:
 - Production waste
 - Office waste
 - Site waste
- 3.6 Business travel:
 - Flights
 - Train
 - Employee owned cars, rental cars and taxis
- 3.7 Employee commuting:
 - Employee owned cars

02.1 Data improvement and corrections

02.1.1 Inflation correction

In the previous reports the financial carbon factors were kept constant over the years. Since the publication of Scheldebouw’s FY24 report we have implemented an inflation correction on the financial carbon factors. Using the Eurostat yearly inflation rates, the correction is as follows:

	2021	2022	2023	2024	2025
Inflation correction relative to previous year	-	9.2 %	6.4 %	2.6 %	0 %*

* Correction over 2025 will be applied as soon as information is available

The correction has a significant impact on the results, because we are still assessing a lot of the emissions with the spent-based method. This is another reason to keep improving our input data and work towards more actual quantities. For a fair comparison also the expected and targeted operating income in FY31 has been updated to 120 mln. (was 100 mln.).

02.1.2 Other corrections and improvements

The following correction has been applied and leads to an update of the values previously reported:

- Aluminium extrusion billets of the project 334 Oxford Street have now been taken into account with the correct carbon factor: 3.06 kgCO₂e / kg aluminium. This is a reduction of 7.17 – 3.06 = 4.11 kgCO₂e / kg aluminium compared to the standard material.

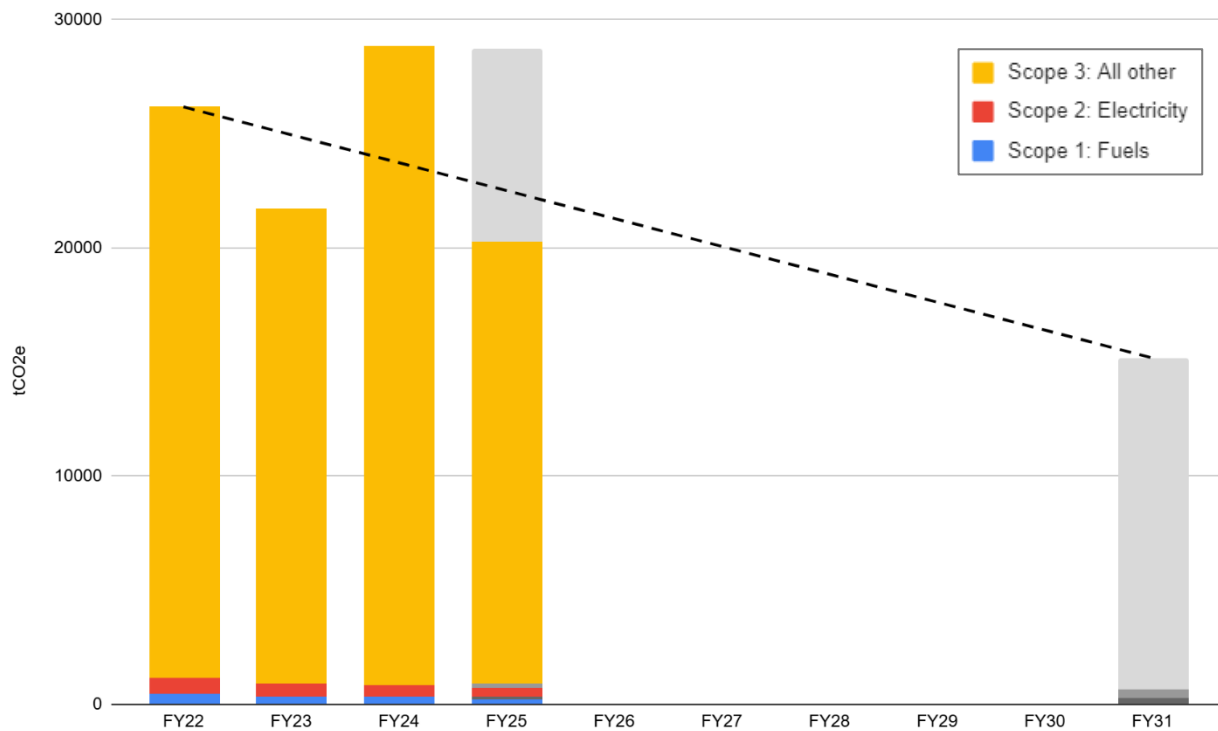
The following actions are in progress or planned:

- Sub-metering of energy consumption between office and factory in Middelburg. Implemented on 1 April 2024, but still working on a proper set up, so results not yet included in this report.
- Survey of site energy consumption. Started April 2024 and first results available, but not sufficient to draw conclusions yet.

02.2 Overall performance evaluation

02.2.1 Absolute results

In the following figure the results are shown of the CO₂ emission inventory for the financial years FY22, FY23, FY24 and FY25. For FY25 the actual results of quarter 1, 2 and 3 are shown and a forecast is made for quarter 4 by using the values of the preceding year.



Updated performance evaluation of FY24

By incorporating the corrections as explained in chapter 02.1 the values of the previously reported year FY24 change, but the overall conclusions remain the same. The reduction targets for Scope 1 and 2 were achieved with a big margin. The Scope 3 emissions, on the other hand, increased due to an increase of purchased materials corresponding with an increased operating income. For that reason the Scope 3 emissions will be analysed further in relation to the operating income.

	Base year FY22	Target FY24		Achieved FY24	
Scope 1	431 tCO ₂ e	389 tCO ₂ e	-9.8%	356 tCO ₂ e	-17.3%
Scope 2	739 tCO ₂ e	670 tCO ₂ e	-9.3%	459 tCO ₂ e	-37.8%
Scope 3 total	25,004 tCO ₂ e	22,670 tCO ₂ e	-9.3%	27,953 tCO ₂ e	+11.8%
Scope 1, 2 & 3 total	26,173 tCO ₂ e	23,728 tCO ₂ e	-9.3%	28,769 tCO ₂ e	+9.9%

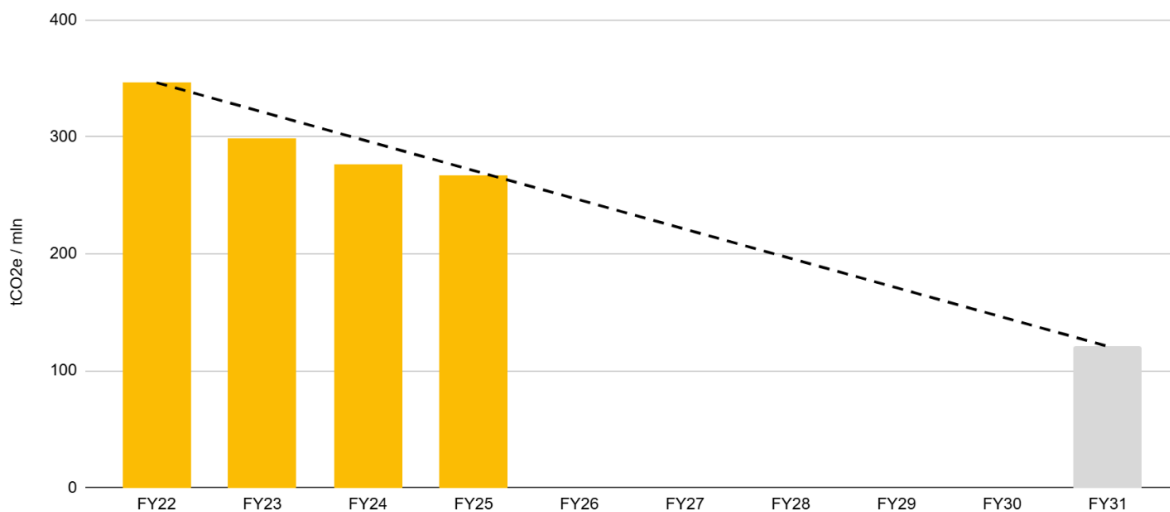
Intermediate performance evaluation of FY25

Based on the results of the first three quarters of FY25 we expect a slight increase of our Scope 1 and 2 emissions at the end of FY25 compared to the previous year FY24. Our earlier reductions were sufficient so that we still expect to achieve our targets over this year. FY25's Scope 3 emissions are expected to be approximately equal to the previous year FY24, which is not sufficient to achieve our targets. We see a similar effect as in the previous year, where the increased operating income compared to the base year is related to an increase of purchased materials and thus an increase of our emissions.

	Base year FY22	Target FY25		Forecast FY25 (achieved)	
Scope 1	431 tCO2e	367 tCO2e	-14.7%	362 (231) tCO2e	-15.9%
Scope 2	739 tCO2e	636 tCO2e	-14.0%	507 (349) tCO2e	-31.4%
Scope 3 total	25,004 tCO2e	21,503 tCO2e	-14.0%	27,827 (19,420) tCO2e	+11.3%
Scope 1, 2 & 3 total	26,173 tCO2e	22,506 tCO2e	-14.0%	28,697 (20,000) tCO2e	+9.6%

02.2.2 Results related to operating income

In the following figure and corresponding table the CO2 emissions relative to the operating income are shown for the financial years FY22, FY23, FY24, FY25 and for the target year FY31. The relative CO2 emissions show a decreasing trend, although the curve is flattening. For FY25 we expect to stay just below the target line.



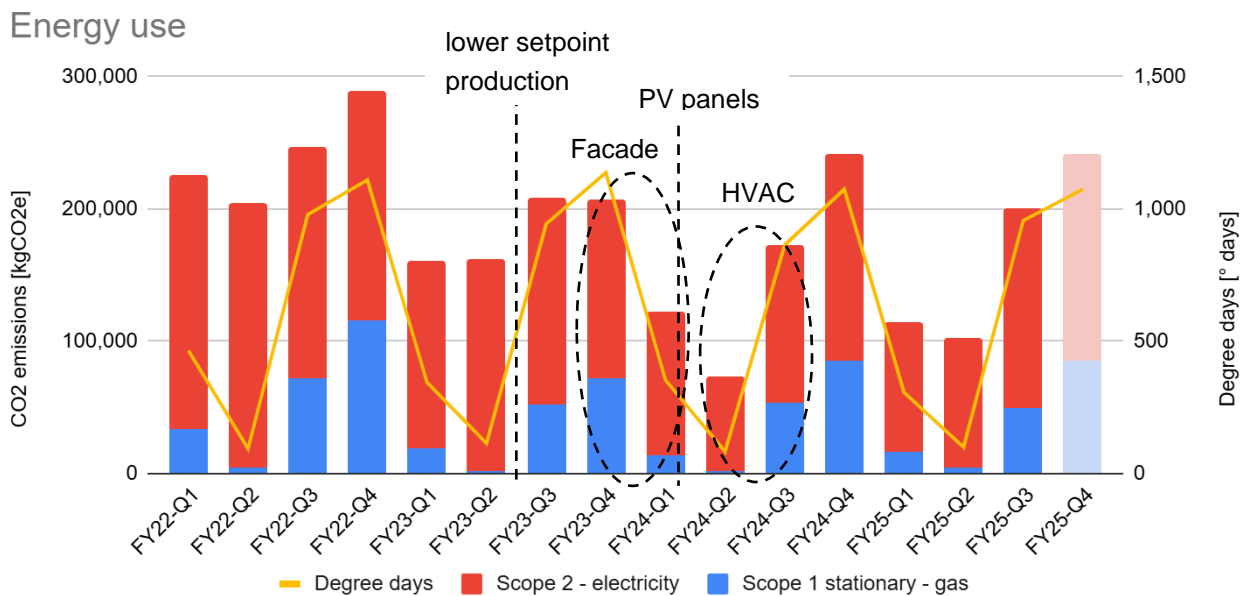
	FY22	FY23	FY24	FY25 (Q1-2-3)	Target FY31
Scope 3 emissions total [tCO2e]	25,004	20,832	27,953	19,420	14,502
Operating income [€]	72 mln.	70 mln.	101 mln.	73 mln.	120 mln.
Emissions relative to turnover [tCO2e / mln. €]	346	299	276	267	121
Reduction from base year FY22 [%]	-	-13.7	-20.3	-22.8	-65.1

02.3 Energy use of factory and offices

In the following figure the CO2 emissions of Scope 1 Stationary and Scope 2 activities are shown per quarter. Due to the seasonal fluctuations of the external temperatures, also the emissions fluctuate over the year. The degree days method accounts for this effect. In the graph the degree days are plotted for reference (on a different scale). On the timeline also the interventions that have been done in our Middelburg facility are indicated.

Completed energy reduction measures in Middelburg:

- Setpoint of factory heating: the setpoint of the heating in the factory was lowered from 18 to 17 degrees Celsius in autumn 2022.
- Facade renovation: removal of the existing office façade and replacement with a better performing façade in the period January-May 2023
- Solar panels: in June 2023, 738 solar panels were installed. These supply approximately 300,000 kWh of electricity per year.
- HVAC renovation: following the installation of the new office facade, the existing air conditioners were removed and replaced by a new air treatment system for heating, cooling and ventilation in autumn 2023.



		Q1	Q2	Q3	Q4	Total
Scope 1 stationary – gas [kgCO2e]	FY22	33,958	4,025	72,428	116,282	226,694
	FY23	19,040	2,518	52,602	72,330	146,489
	FY24	14,361	1,675	54,131	84,689	154,856
	FY25	15,848	5,172	49,595	84,689*	155,304*

Scope 2 – electricity [kgCO ₂ e]	FY22	191,116	200,906	174,538	172,475	739,035
	FY23	142,200	159,824	156,040	134,858	592,922
	FY24	107,850	72,163	118,851	157,510	456,374
	FY25	98,722	97,550	151,178	157,510*	504,960*
Degree days [° days]	FY22	464	94	978	1,110	2,647
	FY23	345	114	944	1,138	2,540
	FY24	353	83	864	1,075	2,375
	FY25	307	100	956	1,075*	2,437*

* Forecast of Q4 by using the values of the preceding year

In the past year we see an increase of the CO₂ emissions related to the energy use of our buildings, whereas there was a significant decrease in the two years before. Looking at the timeline of the interventions, it is clear that the end of FY23 and the beginning of FY24 must be a period with a lot of abnormalities in energy consumptions due to the ongoing construction works.

In reality only part of the CO₂ emissions in the graph are related to degree days i.e. heating. Another part of the emissions are related to either cooling, lighting, office equipment or manufacturing activities for façade production. For a more detailed analysis of our energy consumption separate meters were installed for different activities. The readings from the installed submeters are not ready for analysis yet, but we hope to have this information available for the analysis of the final results of FY25.

The most important questions to answer are whether the implemented measures have been effective and which additional measures we should consider to take.

Energy reduction measures under investigation:

- Solar panels: in June 2023, 738 solar panels were installed. These generate approximately 300,000 kWh of electricity per year. Under investigation if we want to install more solar panels.
- Towards all-electric: replacement of the gas-fired heaters by heat pumps is being investigated for the production department. This will allow Scheldebouw to remove the gas connection.

02.4 Embodied carbon of our products

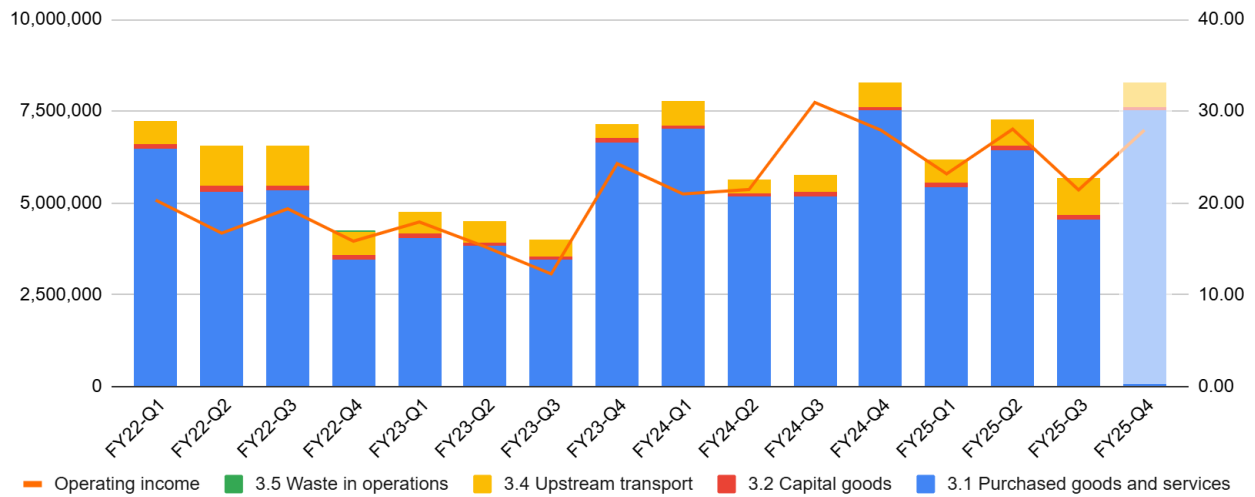
The sustainability developments at Scheldebouw focus on providing better insight to our clients about the environmental impact that different design alternatives have, so that they (and we) are able to make better informed decisions.

The design options 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

In the following figure the CO2 emissions in our value chain (Upstream Scope 3) are shown per quarter. On a different scale also the operating income is plotted in the same graph.

Scope 3 upstream



		Q1	Q2	Q3	Q4	Total
3.1 Purchased goods and services [tCO2e]	FY22	6,461	5,304	5,351	3,463	20,579
	FY23	4,056	3,823	3,442	6,644	17,964
	FY24	7,024	5,160	5,188	7,521	24,893
	FY25	5,415	6,426	4,546	7,521*	23,908*
3.2 Capital goods [tCO2e]	FY22	160.0	171.9	126.1	134.1	592.0
	FY23	118.6	112.5	111.5	107.3	449.9
	FY24	97.5	104.0	122.0	109.6	433.0
	FY25	117.7	123.5	111.1	109.6*	461.8*
3.4 Upstream transport [tCO2e]	FY22	625	1,099	1,076	631	3,431
	FY23	582	564	429	384	1,959
	FY24	673	391	460	664	2,188
	FY25	638	720	1,027	664*	3,048*
3.5 Waste in operations [tCO2e]	FY22	2.03	1.97	1.55	2.79	8.33
	FY23	4.32	13.57	10.23	5.83	33.93
	FY24	2.15	0.98	3.30	1.62	8.05
	FY25	1.94	1.89	2.20	1.62*	7.65*

Operating income [mln €]	FY22	20.29	16.70	19.35	15.83	72.18
	FY23	17.92	15.21	12.26	24.28	69.67
	FY24	20.97	21.45	30.95	27.94	101.30
	FY25	23.17	28.05	21.41	27.94*	100.56*

* Forecast of Q4 by using the values of the preceding year

Recently completed and planned actions to reduce the embodied carbon of our products:

- Embodied carbon calculation now standard part of tender bid, even without client request (implemented)
- Engagement with suppliers to stay informed about developments and technical and commercial feasibility. (First overviews created and working on a more structured approach with the involvement of procurement.)
- Using aluminium extrusions in our facades from billets produced by hydro-electricity (three projects under execution). In the table below the total amount of purchased aluminium extrusions and the portion low-carbon are shown, together with the achieved emission reduction.

	FY22	FY23	FY24	FY25 (Q1-2-3)
Total aluminium extrusions [t]	836	785	1,549	753
Low-carbon aluminium extrusions [t]	0	1	398	342
Portion low-carbon	0.0%	0.1%	25.7%	45.4%
Emission reduction [tCO2e]	0	4	1400	1760

02.5 Sustainable company culture

To engage internal and external stakeholders we believe that it's not sufficient to focus on measurable quantities and numbers alone, but our actions should also be visible. For this reason we have a working group from various people of all departments throughout the company that come up with initiatives to improve our sustainable company culture and that collect ideas from other employees. They are also involved in the Sustainability Newsletter that is circulated three times per year.

A recent initiative is to investigate how we can improve car sharing of employees. There are a lot of travel movements between our facilities in Middelburg and Heerlen and often people are not aware that a colleague is travelling on the same day. The idea is to create a platform in which we make this information available for the employees, so that they can reach out to each other and make arrangements.

03 Conclusion

The CO₂ performance ladder is a Dutch initiative for companies in the construction sector that want to be proactive 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 carbon reduction strategy focusses on:

- Scope 1 & 2: CO₂ emissions that are directly influenced by the company (its own energy use)
- Scope 3: embodied carbon emissions during the production of our façades (value chain emissions)

Currently the choice of our suppliers and the further agreements with them in particular determine the CO₂ footprint of our product. Transportation, waste and the activities in our own assembly facilities and on the building site have a much lower CO₂ impact. By providing in house Life Cycle Analysis (LCA) services to optimise the design we try to reduce the embodied carbon of our facades in a holistic way instead of focussing on specific solutions. The process is finalised by obtaining project specific, fully externally verified Environmental Product Declarations (EPDs).

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. Based on our predicted results over FY25 the measures to reduce our scope 1 and 2 emissions were effective and we will achieve our reduction targets for FY25. In the next period we will analyse our results in more detail to see which measures we need to take in future.

Our scope 3 emissions of FY25, however, are predicted to be approximately equal to FY24, which means that we are not achieving our absolute reduction targets. When we express our emissions in relation to our operating income, we expect to end up just below the target line. By purchasing an increasing portion of our aluminium extrusions from billets produced with hydro-electricity, 1400 tCO₂e emissions have been avoided during FY24 and already 1700 tCO₂e in the first three quarters of FY25. We expect this number to increase during the last quarter of the year.