CO_2 Progress and Energy Action Plan

Period January 1st 2025 until June 30th 2025

Strukton

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Contents

1 Introduction

This document reports on the developments at Strukton regarding the reduction of carbon emissions in the first half of 2025 (January 1st – June 30th).

In the first half of 2025, we reduced our scope 1 and 2 carbon emissions by 514 tonnes kg CO_2 compared to the first half of 2024, which translates to a 3.6% decrease. Our emissions relative to our revenue decreased by 6.4%. This puts us on track to achieve our goals: reducing our gross emissions by 50% in 2030 compared to 2021 and being climate-neutral by 2040, in line with the goals set in the Paris Agreement. Furthermore, we are committed to further increase our insights gain further insight into our scope 3 emissions, to identify and implement emission reduction measures in our material value chains. Additionally, we are also taking first steps to gain insights into our other controllable emissions.

2 CO_2 emissions

2.1 Goals and targets

Our goal for reducing GHG emissions is set relative to our operating income. With the combined efforts of the measures taken, we aim to reduce our own carbon emissions (scope 1 and 2) by 50% by 2030 compared to 2021. This relative reduction goal is in line with the Paris Agreement (45% reduction by 2030 compared to 2010, and net zero in 2050). This means for Strukton as a whole (all home countries) that the carbon emissions per million euros revenue in 2030 should be no more than 12.50 tonnes (as opposed to 25.00 tonnes in 2021). 2021 is our reference year (base year), as this was the first-year data on carbon emissions was available for all divisions.

Our organisational boundary for this goal includes our operations in the Netherlands, Belgium, the Nordics (Sweden and Denmark) and Italy. In the coming years, we expect to see the results of the changes we made related to the electrification of our fleet, the retrofitting of our equipment to electric propulsion, retrofitting our equipment to electric or hydrogen propulsion - or the use of biofuels in cases where retrofitting is not feasible. Last but not least, all corporate divisions are working on raising awareness regarding sustainability among staff. For a more detailed description of the measures taken, please refer to chapters 3 and 4.

2.1.1 Strukton's sustainability ambitions for 2021-2050

Our ambition to become a more sustainable organisation by 2050 breaks down in the following targets:

By 2030	Our **working locations** (both office and project locations) are **free of harmful emissions** and **residual waste.**
	We design our **products** and **projects** in a **circular way**, re-use materials and build with circular materials.
	All our **projects** contribute to **better soil quality and biodiversity**.
By 2040	We have our first year of business operations with zero **CO_2 emissions** for **scope 1 and 2**.
By 2050	We are a **climate-neutral organisation** for scope 1, 2 and (if material) other controllable emissions.

2.1.2 Targets towards climate neutrality in 2050

Our ambition to be climate-neutral by 2050 for scope 1, 2 and other material controllable emissions breaks down into the following targets to reduce carbon emissions:

By 2030	We have reduced our total gross carbon emissions by **50%** compared to **2021**, relative to our operating income.
	We have reduced our carbon emissions resulting from **business travel** by **50% per FTE** compared to 2016.

We have translated these ambitions into short term targets for the period 2025-2027 (see table 1). These annual targets (expressed as a percentage) are relative reductions compared to the gross emissions of the previous year. When we achieve a target before the date planned, we will update our targets accordingly.

Table 1 – *Year to year CO_2 emission targets*

Percentage reduction compared to previous year	2025	2026	2027
Emissions of car fleet, relative to FTE	5%	10%	10%
Emissions of equipment, relative to operating income	10%	10%	5%
Emissions of natural gas consumption, relative to gross surface area	11%	11%	11%

2.1.3 Value chain targets

For our value chain, we have set the following targets:

By 2030	We have reduced our carbon emissions in our **value chain** for the production and commissioning of **(circular) concrete catenary supports** by **55%** compared to 2023.
By 2035	We have reduced our carbon emissions in **our value chain** to produce **catenary wire** by **55%** compared to 2025.

2.2 Progress on reduction measures

Relative to our operating income, we achieved a significant reduction per million euros due to a decrease in total emissions compared to 2024, while revenues remained stable. Emissions per FTE due to business travel have slightly increased compared to 2024. Table 2 compares the 2024 and 2025 figures.

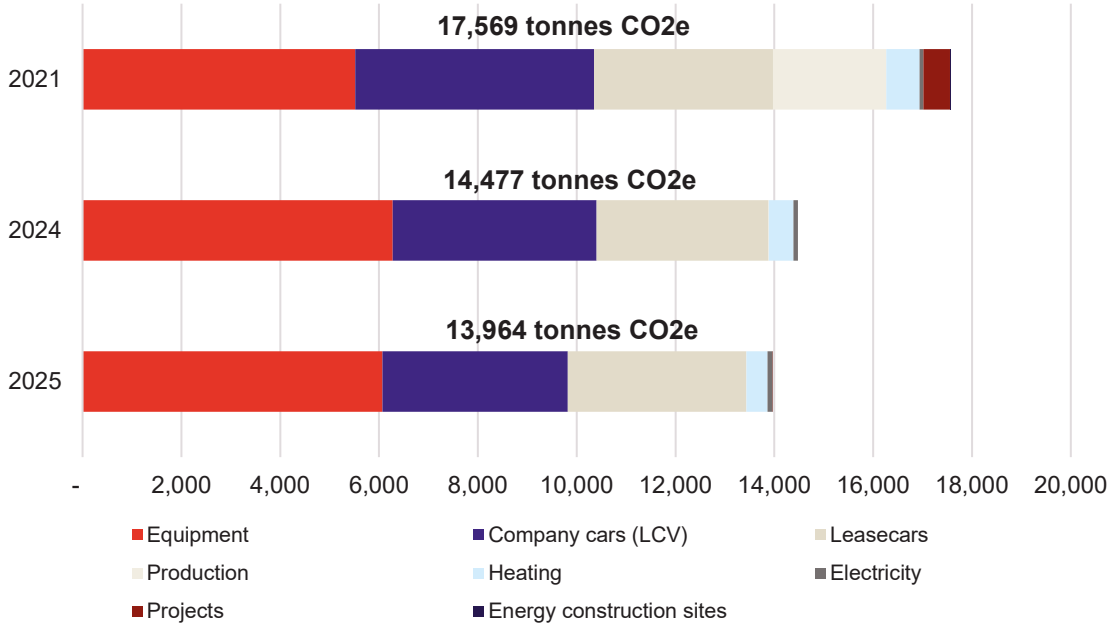
Table 2 – *Actual and relative CO_2 reductions (in kg ton) in the first half of 2025 compared to 2024 (scope 1 and 2)*

	2024	2025	Difference	% difference
Gross GHG emissions	14,477	13,964	-514	-3.6%
GHG emissions per mln euro	21.0	19.7	-1.3	-6.4%
GHG emissions resulting from business travel per FTE	1.97	1.99	0.02	0.9%

2.3 Footprint base year, prior year and current year scope 1, 2 and business travel

Graph 1 depicts the footprint of our organisation for Q1 and Q2 in our base year (2021), the previous reporting period (2024) and the current reporting period (2025).

Graph 1 - *Scope 1 and 2 footprint development compared to base year and previous years*



2.4 Trend over the years by category

Graph 2 – *CO_2e emissions (kg tonne) from January 1st, 2021 – June 30th (2021-2025)*

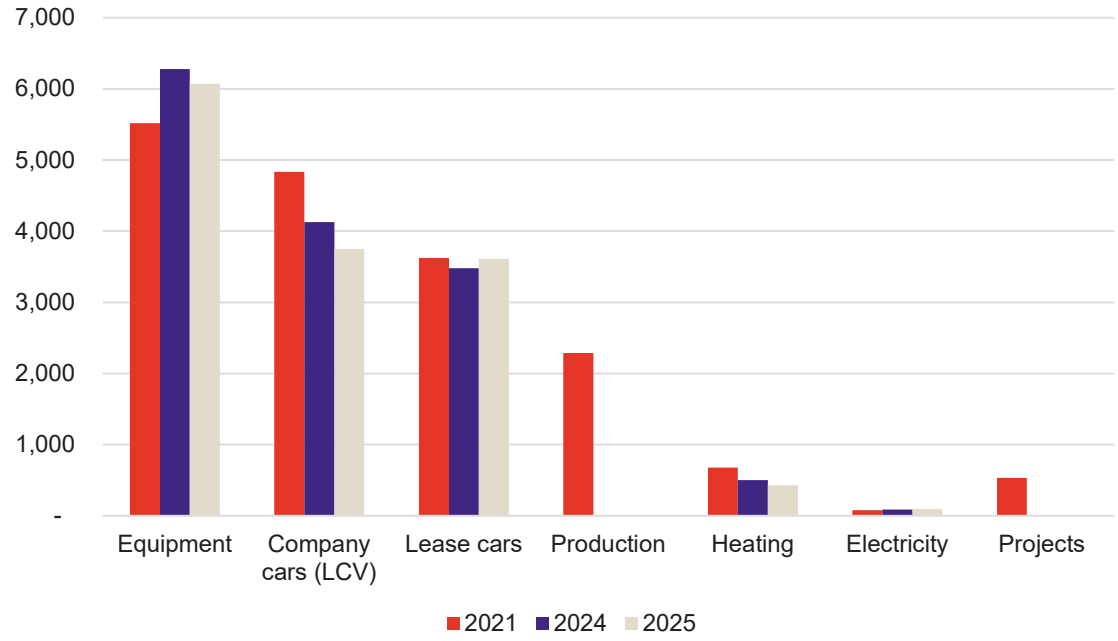


Table 3 – *CO_2e emissions (kg tonne) scope 1 and 2 (2021-2025)*

Function	2021	2022	2023	2024	2025
Company cars	4,835	3,989	3,883	4,127	3,752
Electricity	79	87	71	88	98
Equipment	5,518	6,241	6,614	6,276	6,070
Heating	677	821	617	504	431
Lease cars	3,622	3,654	3,758	3,481	3,611
Production	2,289*	17	2	2	0
Projects	533	3	0	0	0
Total	**17,569**	**14,813**	**14,967**	**14,477**	**13,964**

*These emissions relate to the production of asphalt and bitumen. These emissions have been excluded after 2021, as these were generated by entities that have been divested

The most significant developments in the trend compared to Q2 2024 are highlighted below.

- **Company cars** - Emissions of company cars in the Nordics have decreased significantly due to a decrease in diesel use at Strukton Rail Sweden. This is due a transition at Strukton Rail Sweden from Diesel towards HVO.
- **Equipment** - The emissions from Strukton's equipment show a significant decrease compared to 2024. The decrease is predominately caused by the performance of Strukton Italy's equipment, which has become more energy efficient, while projects were located in relatively flat areas compared to prior years. The latter also caused a decrease in fuel use, as less energy is needed to mobilize the equipment. The decrease follows a downward trend that started in Q1 2024. Strukton will monitor this trend closely to see whether the decrease will continue in 2025.
- **Heating** - The emissions as a result of heating have decreased significantly, despite lower temperatures in Q1 2025 compared to Q1 2024 in the Netherlands. The emission decreasing effects of higher energy label requirements, for example at Strukton Rail Netherlands, and the combining and centralising of offices show positive effects on our emissions.
- **Lease cars** - The emission of lease cars increased slightly compared to Q2 2024, despite the phasing out of fossil fuelled cars and the introduction of more electric cars across the Netherlands and the Nordics. Strukton Rail Italy's emissions are the main driver behind the increase and can partly be attributed to the acquisition of Co.Rac.Fer in Q2 2025. Emissions from lease cars in the Netherlands are expected to decrease by 10% each year until 2030 as a result of our new leasing policy.

3 Reduction measures

3.1 General measures

Strukton Rail Netherlands is in dialogue with ProRail about sustainability requirements in tenders related to zero emission equipment, energy facilities, circularity and room for sustainable alternatives in materials used.This would stimulate more investments in zero emission equipment as it would level the playing field. Additionally, Strukton Roads & Concrete is working on a strategy with the goal of only working with clients that prioritise sustainability in the future, by including sustainability criteria in the selection process.

Strukton Italy has implemented a new energy management system in line with ISO 50001 which will help Strukton Italy identify further reduction opportunities, because of better energy efficiency and less energy consumption.

3.2 Mobility

Electric cars

The new mobility policy came into force in the Netherlands. This includes the possibility for employees to exchange their lease car for a mobility budget. The new policy is expected to reduce the CO_2 footprint of the car fleet on the long term. A new policy for lease bicycles also started in the Netherlands. The new mobility policy includes the possibility for colleagues without a company (lease) car to use electric pool cars at the larger locations.

At Strukton project sites in the Netherlands, electrical charging stations and (e-)bikes are facilitated where possible to reduce mobility related emissions. For the lease of new vans, electric is the standard within Strukton Rail Netherlands. Like with business cars, the impact will be visible on a longer term. A policy was drafted to make an inventory of all available zero emissions alternatives to the current internal combustion engine vehicles. A first batch of 8 electric vans has been delivered, which is being received positively by our colleagues. Additionally, Strukton employees working in Utrecht and Hengelo are given the possibility to use loan cars and -bikes. Strukton has been a participant of Anders Reizen, which is a Dutch coalition with the goal of reducing mobility related emissions in the Netherlands.

Electric company cars in the Netherlands

In Q1 of 2025 Strukton Italy has started a feasibility analysis to see whether part of the car fleet could be replaced with electric cars. Part of this analysis is also the possibility for charging infrastructure at larger office locations.

In Denmark and Sweden, Strukton is working on initiatives to increase the amount of electrical cars and the share of vehicles powered by biofuels. To promote these initiatives, Strukton Rail Sweden has developed its own charging station for electric vehicles for further transition towards an electric vehicle fleet. This is also in line with contract requirements in Sweden, requiring a set percentage of electric vehicles. The switch to renewable fuels has been promoted through an interview with the chief sustainability officer.

Electric charging station in Sweden

Other sustainable mobility

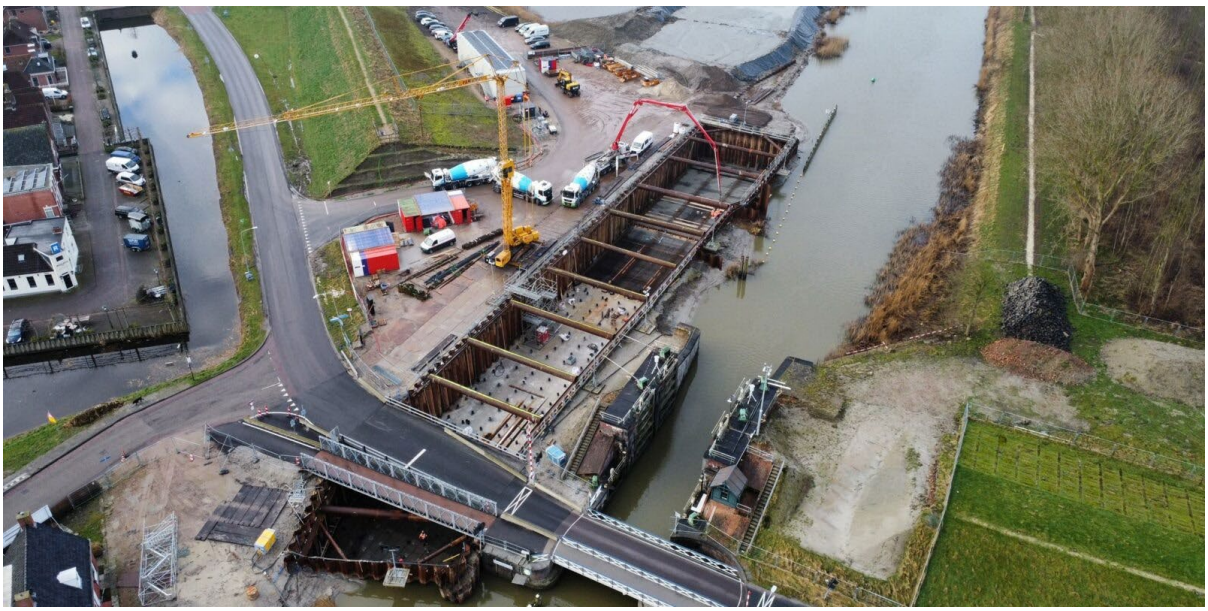
Strukton staff in the Netherlands with a lease car have access to a public transport card. For office staff, remote meetings are encouraged to reduce the amount of car commutes, while electrical bikes are made available for the commute between office and train station. To identify new ways for sustainable mobility, Strukton has ongoing conversations with NGOs related to further improve the mobility situation around the headquarters, focusing on public transport and bike commutes. The mobility policies in both the Netherlands and the Nordics also includes the possibility to lease (electrical) bicycles.

3.3 Equipment

Strukton is working hard to reduce its emissions that follow from the use of equipment. We do so by developing, piloting and implementing emission free and low emission equipment. These solutions range from redefining processes to developing electrical equipment. Apart from reducing CO_2 emissions these solutions also help Strukton reduce its NO_x emissions.

Electrical equipment

On the Dijksgracht project in Amsterdam, SIS has been using more and more low and zero-emission equipment such as an electrical telecrane, which is one of the first in Europe. The intention is to use more low-emission and zero-emission equipment during 2025. This can also be seen on the Zoutkamp project, where an electrical tower crane and telehandler are used. Since the start of 2025 the telecrane that is used at the Zoutkamp project is also used at the Dijksgracht project and at Roads & Concrete projects.



Electrical telecrane in use at the Zoutkamp project

Emission free equipment is being used to some extent at all SIS projects, in particular at the Hubertus tunnel, Zoutkamp and Dijksgracht projects. Currently, 75% of the equipment used at SIS (both own equipment and equipment from third parties) is emission-free. This is a significantly higher percentage than the client requirements set during the tenders. SIS is also identifying how it can reduce emissions for land equipment at the Vaarwegen project. This involves discussions with Rijkswaterstaat on whether the new requirements can be applied to current projects, as well as moving requirements set for 2028 to an earlier moment in time.

At Strukton Rail Netherlands the new electric two-way crane is fully operational. More are on the way as Strukton Rail Netherlands has ordered multiple retrofittings of existing cranes. To increase the use time of the electric crane, Strukton uses several battery packs, for example at the BBV Ede-Maarn project. Furthermore, Strukton Rail Netherlands is in the final stage of testing on the main rail lines with their battery-locomotive.

Electric crane at rail renewal project

At Strukton Roads & Concrete, only electric equipment is purchased, unless there is no other possibility. In that case, we purchase equipment that meets EURO 6 standards. Strukton Sweden has ordered additional battery-powered generators, as part of an ongoing initiative to reduce emissions from fossil fuel-powered generators.

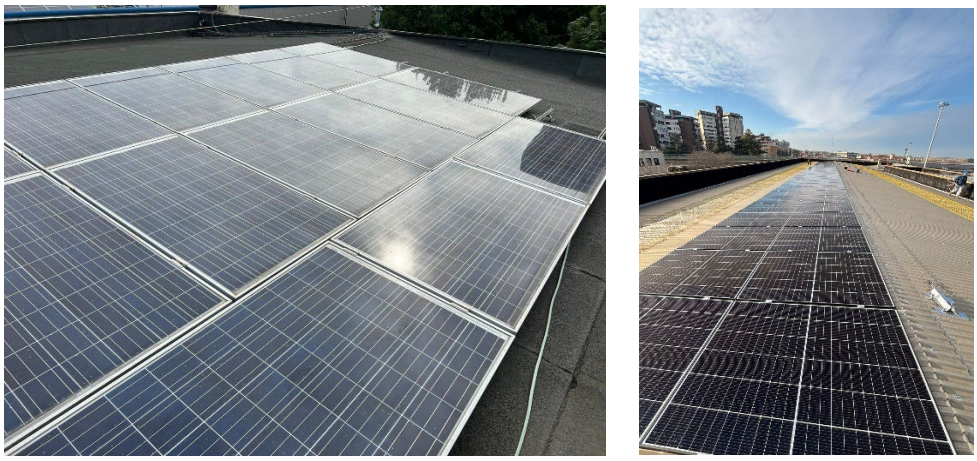
Use of biofuels and energy-efficient equipment
Strukton Infrastructure Specialties (SIS) uses HVO100 as a replacement for regular diesel. Additionally, Strukton Italy has focussed on renewing the equipment fleet throughout 2025. During this exercise one of the focus points was increasing energy efficiency. The new equipment should therefore consume less energy. As part of this renewal new locomotives and profiling machines were purchased in Q1.

3.4 Energy

Strukton Netherlands is transitioning to new office locations with better energy labels and simultaneously we are also identifying how we can achieve better insight into our energy use at our multi-tenant office locations. The insulation of gas pipes and increased use of LED further improves Strukton's energy

efficiency. Strukton Rail Italy is conducting a feasibility study to identify whether it is possible to purchase green certificates of origin for all purchased electricity.

In the Nordics, Strukton only purchases renewable energy to further promote the energy transition and limit emissions associated with non-renewable energy sources.
In 2024, Strukton Italy activated a photovoltaic system in Bologna. Strukton is also working on activation of 2 PV systems at the Reggio Emillia offices in Italy and preparations are being made for activating a photovoltaic system at the Alessandria location. With these PV systems, an increase in renewable energy consumption (from own production) is expected. This should in turn reduce the non-renewable energy purchased from energy providers.



New photovoltaic system in Italy

3.5 Energy at project locations

In the Netherlands, Strukton is minimising their fossil fuel energy usage by using batteries and hybrid generators fuelled by HVO at their project sites. At BBV Ede Maarn, Strukton Rail Netherlands is piloting the use of electric equipment powered by electricity that is generated through green hydrogen generators. In general, hybrid generators are the standard at Strukton Rail Netherlands, with a focus on HVO generators, battery packs and solar panels, where possible. Additionally, we are identifying how we can further improve our insights into our energy usage at construction sites. Based on this, we can formulate clear reduction levers and -goals for the future. Furthermore, a project was started to standardise the facilities for construction sites in the Netherlands, which includes (renewable) energy supply.

For one of our maintenance contracts, Strukton Rail Netherlands has switched to a new location. With this switch we have also moved from a building with poor energy efficiency to a building with energy label A++++. This should result in lower energy consumption from the work on this maintenance contract. Moreover, SIS is placing solar panels on buildings around the project sites on a temporary basis (i.e. Groningen and Zoutkamp), where possible. This enables SIS to further reduce the use of fossil fuels as an energy source.

4 Employee engagement

Strukton is involving its employees in working towards achieving its reduction targets. Through incorporating sustainability in learning & development programs, onboarding program, as well as workshops and shared goal setting, aims to increase employees' involvement in making Strukton more sustainable. Several initiatives are deployed across the organisation to increase employee awareness regarding (the importance of) sustainability. For example, sustainability is a topic during the onboarding of new employees and during quarterly meetings and collaboration sessions across business units. Sustainability is also part of an internal course on rail infrastructure techniques within Strukton Rail Nederland (BORIT).

During the Sustainability & Innovation Roadshow, Strukton employees from different Dutch divisions exchange practical experiences and ideas to make projects more sustainable. At this month's session, site managers from SIS met with colleagues from Strukton Rail Netherlands to discuss packaging-free delivery. Strukton Rail now supplies materials in reusable crates instead of plastic-wrapped wooden boxes—reducing waste, costs, and time. The system also extends through the supply chain, as even upstream suppliers now use crates. Additionally, planners explored how work preparation can drive sustainability. Choosing stocked sustainable materials or second-hand options can make eco-friendly decisions easier and Strukton Roads & Concrete also uses a 'green list' of sustainable materials to support these efforts.

Strukton Roads & Concrete has set up an organisation wide sustainability program to push sustainability and inform all employees about the role they can play. The three main goals of this program are to reduce emissions by 60% in 2030 compared to 1990, to implement circular measures in at least 50% of the projects in 2030 and to implement climate adaptation measures in all projects. To implement this throughout the whole organisation, a list of preconditions has been created, which involves the inclusion of sustainability in all existing business processes and a knowledge sharing program.

In Belgium, Strukton has formulated collective targets for all employees. When these targets are met, every employee will be rewarded. The 2024 collective targets focused on 4 different themes having to do with sustainability (from taking the train, organising bike days to checking the tyre pressure of vans to collecting waste). The 2024 collective targets were such a success that the same themes are repeated in the collective targets for 2025.

At SIS, sustainability and more specifically CO_2 reduction is discussed at the department meetings. In January and June, SIS also organized the Sustainability Game for trainees of Strukton Roads & Concrete. The game involves multiple rounds where participants take on different roles (e.g. client or contractor), to analyze how sustainability plays a role in the tender process. Additionally, SIS participated in a collaboration day within the sector, where several workshops were held regarding sustainability.

5 Scope 3 emissions

5.1 Value chain analysis

Strukton has carried out a double materiality analysis to determine which activities lead to the highest emissions in scope 3 and which supply chains have the greatest impact. The activities with the greatest impact are our rail activities in the Netherlands[1]. The category 'purchased goods and services' and specifically the use of materials is making the biggest impact within our scope 3 emissions. Within this category we have mapped the extent to which Strukton can influence the value chain emissions of certain specific products and materials. Sometimes this influence is limited to bringing it up for discussion with our clients or by supporting pilots (e.g. the pilot with sustainable steel in rail tracks at a project of ours). For other products our possibilities to reduce emissions in the value chain are bigger, for example in copper catenary wire and concrete. Our goal is to reuse as many materials as possible and then refurbish and recycle them (as far as our clients allow). We have analysed the supply chains of these materials and formulated specific CO_2 reduction targets and measures which are documented and published.

5.2 Scope 3 emissions 2021-2025

The table below depicts our scope 3 emissions for the first half of 2021-2025 that are connected to the scope 1 and 2 emissions stated in chapter 2, in line with the requirements of the CO2 Performance Ladder. These emissions consist of our emissions from business travel and the Well To Tank (WTT) emissions related to our company cars, lease cars, production, equipment and heating.

Table 4 – *Scope 3 CO_2e emissions (kg tonne) from January 1st – June 30th (2021-2025)*

Function	2021	2022	2023	2024	2025
Air traffic business travel	0.0	0.0	8.1	24.3	37.9
Commuting	146.6	158.5	278.3	173.7	151.0
Company cars	1,141.5	913.3	914.3	799.0	807.3
Electricity	106.2	30.8	142.1	111.0	99.2
Energy construction sites	23.8	38.8	17.8	7.9	0.0
Equipment	448.9	622.8	694.3	600.2	614.7
Heating	40.5	135.9	102.9	100.0	85.3
Lease cars	601.8	605.7	614.6	553.3	522.7
Private vehicles business travel	135.6	59.6	57.9	112.3	109.0
Production	252.8*	5.0	0.3	0.2	0.0
Projects	172.7	0.4	0.2	0.0	0.1
Public transportation business travel	0.2	0.6	0.9	1.4	1.4
Total	**3,070.6**	**2,571.4**	**2,831.2**	**2,483.1**	**2,428.6**

*These emissions relate to the production of asphalt and bitumen. As these emissions were registered under the entity Civiel Regio West, we are not able to specify whether these emissions were generated by one of our divested entities. As we are unable to do so, we have included the emissions in our base year, to prevent any understatement of base year figures.

[1] The rail orientated companies outside of the Netherlands mostly use materials purchased and delivered by the client. Therefore, the associated emissions are not included in our scope 3 emissions.

5.3 Value chain involvement

Apart from reducing scope 1 and 2 emissions, Strukton is working hard to reduce its scope 3 emissions.

- Despite the sale of Strukton Prefab Beton we are still involved in the pilots with catenary constructions made of circular concrete. Because this is a topic that is important for Strukton agreements were made to continue the sustainable initiatives that Prefab Beton was involved in.
- By carrying out (preventative) maintenance on time, we strive to prevent large-scale maintenance or renewal, which means that fewer materials are needed.
- If the client allows it, we reuse elements (switches, sleepers, gantries, transitions) and materials in our projects (such as circular concrete for platforms). We proactively approach relevant stakeholders in our value chain to discuss options for reusing elements.
- Strukton is part of the sector wide initiative Groene Liggers V.O.F., which is focused on increasing the reuse rate for concrete beams. Where prior pilots have shown that circular beams are technically possible, Groene Liggers' goal is to upscale this towards a mature market.
- GBN is working on a circular resources corridor, with the goal of connecting material use demands between different projects within a region. Through this corridor, material use is approached from a regional perspective to reduce material transportation emissions and material costs.
- Strukton Rail Sweden is a member of the Fossil Free Sweden initiative, which has the goal of transitioning the Swedish industrial sector to create more jobs and export opportunities, while going fossil free.

Reused concrete beams through Groene Liggers

5.4 Value chain developments

Circular material use

Strukton is actively involved in conversations with value chain partners (for instance the 'sustainable railways chain dialogue' (ketenoverleg duurzaam spoor) in the Netherlands that were initiated by GBN. Strukton is also organizing sessions with value chain partners to discuss challenges in the value chain surrounding sustainability. Strukton Rail Netherlands participated in the Circo next steps workshop and the Circonnect event. Both had the objective of identifying circular solutions regarding equipment, equipment production and data collection.

Strukton Rail Netherlands has participated in a pilot with a client to implement circular steel rail tracks. The implementation of circular steel significantly reduces the scope 3 emissions of steel as well as other non-CO2 related impact that the extraction and production of steel have. Furthermore, Strukton Rail Netherlands and supplier voestalpine Track Solutions Netherlands are collaborating closely to promote circularity and reuse of products within the rail sector. This collaboration has also sparked interest from organizations outside of our own sector, resulting in information exchanges on best practices. Together with Rijkswaterstraat, Strukton Roads & Concrete organized a knowledge sharing session regarding the use of geopolymer concrete at the N226 Ecopassage project. Geopolymer has a significantly lower CO2 footprint compared to regular concrete, as it does not contain cement.

Other value chain developments
In collaboration with students from Citys Consultancy, Strukton Infrastructure Specialties is researching how to standardize CO2 reduction measures across all its projects. Additionally, a second group of students is analyzing how to implement Duspot in Strukton's activities. Duspot is a matching tool, where the supply and demand for circular and sustainable construction materials from different organizations are matched.

In the Netherlands, Strukton has set up a framework agreement with Argo360 for dealing with IT waste in a sustainable manner (recycling IT waste as much as possible), while also providing opportunities for SROI.

Strukton Italy has launched CLF's ESG questionnaire for suppliers and supply chain partners. Part of the questionnaire is a section on emission monitoring. Through this questionnaire Strukton Italy aims to gain more insight in its ESG impacts in the value chain.

5.5 Value chain analysis

In 2023 and 2024, Strukton initiated value chain analyses for circular concrete catenary pillars and circular catenary. An update regarding the progress made on these analyses in the first half of 2025 can be found below. For the full value chain analyses, please refer to **our website.**

5.5.1 Circular concrete catenary pillars

Strukton has prepared the value chain analysis for circular concrete catenary pillars with the clear ambition to produce and deploy approximately 200 circular concrete catenary supports annually within rail infrastructure projects. This ambition aligns with Strukton's broader sustainability objectives and represents a concrete step towards the transition to a circular construction and rail sector. Within the organization, the necessary preparations have been made: knowledge, product development, and execution capacity are in place to apply the circular catenary supports on a large scale in the short term.

However, an important challenge is that this innovative product has not yet been included in ProRail's Standard Product Catalog (SPC). As long as it is not included, its use in regular projects is formally not permitted. Nevertheless, with ProRail's permission, Strukton conducted an initial pilot in 2023 in which six circular concrete catenary supports were successfully installed. This pilot provided valuable insights into technical performance, feasibility, and collaboration processes.

The fact that the circular concrete catenary supports cannot yet be applied structurally has a major impact on the progress of the value chain analysis and further scaling up. To address this issue, Strukton has undertaken various initiatives to actively involve ProRail and other stakeholders in the development. A key moment was March 2025, during the Circular Economy Week, when Strukton extensively shared the pilot

results with all relevant parties. This knowledge sharing contributed to awareness and created support for the next steps.

In parallel, ProRail itself is conducting additional tests on the circular elements to objectively determine whether the products meet the required quality standards, safety criteria, and lifespan expectations. These test results are crucial for obtaining formal approval and inclusion in the SPC.

It is also encouraging that ProRail, in its 2025 sustainability annual plan, has designated both concrete and catenary products as spearheads within the transition paths ‘Rail’ and ‘Structures’. This means that the development of circular concrete catenary supports directly aligns with ProRail’s strategic priorities.

Strukton expresses the hope and expectation that the joint efforts—pilots, testing, knowledge sharing, and strategic anchoring—will lead to the inclusion of circular concrete catenary supports (and similar innovative elements) in the SPC in the near future. Once this is the case, Strukton can truly fulfill its ambition to apply approximately 200 circular catenary supports annually, making a substantial contribution to the circular economy and the sustainability of the rail sector.

Circular concrete catenary supports

Below, we describe the progress achieved per phase:

A1 – Extraction of raw materials	For the pilot projects, gravel, sand, and cement substitutes were produced using the pilot installations. These pilot installations have since been moved to Ukraine to conduct various pilots there with concrete recycling. The design for the commercial factory with a capacity of about 150,000 tons per year in ’s Gravendeel is ready, and part of the machines and components has already been delivered. However, there has been a delay in applying for a nature permit for building and commissioning the factory. The expectation is that operations can start in 2026. The pilots with alternative reinforcement are complete; this application now needs to be included in ProRail’s SPC.
A2 – Transport to production sites	On production sites, transport is increasingly carried out using electric locomotives and electric Krols (rail-road vehicles). No large quantities of catenary portals have yet been transported by rail, as these have not yet been approved in ProRail projects.

A3 – Production	For the first half of 2025, there is no progress to report in this phase regarding CO2 reduction.
A4 – Transport to project site	Transport from the production location in Utrecht to the project site in the first half of 2025 was 80% by truck and 20% by rail. With 200 circular catenary supports per year and 100% transport by rail, 1.7% CO2 could be reduced in the chain.
A5 – Construction and installation	The goal for 2025 was to reduce CO2 in the chain by 6.75% by switching to HVO50 (a type of biofuel) for the equipment used for installation. In 2025, HVO50 was used within Strukton Rail for the Krols and HVO100 for the hybrid generators. The realized CO2 reduction in the chain is 3.30%.
C1 – Dismantling	The goal for 2025 was to reduce CO2 in the chain by 6.75% by switching to HVO100 for the equipment used for removing old catenary supports. In 2024, HVO50 was used within Strukton Rail for the Krols and HVO100 for the hybrid generators. The realized CO2 reduction in the chain is 3.30%.
C2 – Transport to waste handler	For the first half of 2025, there is no progress to report in this phase regarding CO2 reduction.
C3 – Waste handling	An innovation subsidy has been received for electrifying the recycling machines; this started at the beginning of 2024, and the results will contribute to electrifying the commercial factory planned for 2026. See the news item below: everox Joins CITADEL Project to Fully Electrify its Process - everox

5.5.2 Circular catenary

Strukton has prepared the value chain analysis for circular catenary to promote the use of more sustainable overhead lines and thereby substantially reducing CO_2 emissions throughout the entire chain. This ambition aligns with the broader sustainability objectives of both Strukton and the rail sector.

In the first half of 2025, there has not yet been any application of circular contact wire in projects. However, during this period, significant progress was made in analyzing transport options. For example, it was investigated to what extent intermodal transport can contribute to sustainability. The analysis shows that when circularly produced overhead lines are transported from Spain using intermodal methods (a combination of truck and train), the CO_2 emissions are almost equal to those of transport by truck from Germany. This finding provides valuable new insights into the considerations between production location, mode of transport, and the ultimate environmental impact.

Regarding fuel use, Strukton has not yet switched to using HVO100 during the installation and removal of overhead line components in the reporting period. The main reason for this is that using HVO100 would void the manufacturer's warranty on the equipment, which poses too great a risk. Based on this, it was decided not to switch to HVO100 in the longer term either. This decision has led to a revision of the previously calculated reductions.

At the same time, there is a strong focus on further electrification of equipment. The expectation is that the transition to electric equipment will ultimately deliver a greater reduction potential than initially anticipated. The actual savings will be better quantified in the next reporting period.

In summary, it can be stated that in the first half of 2025, valuable and improved insights have been gained into the value chain of sustainable overhead lines. Although the application of circular contact wire has not yet taken place, important steps have been taken in exploring transport options and in strategic choices regarding fuel use and electrification. These insights form a solid foundation for further sustainability and concrete application in the coming years.

Below, we describe the progress achieved per phase:

A3 – Production	**Current emissions: 4,35 kg CO_2/kg** ▪ La Farga / Genius: further developments are expected by the end of 2025 ▪ No progress on this objective in the first half of 2025
A4 - Transport to project sites	**Current emissions: 0,132 kg CO_2/kg** ▪ Improved insight into this objective has been gained by including the possibilities of intermodal transport in the reduction options.
A5 – Construction and installation	**Current emissions: 0,107 kg CO_2/kg vs 0,105 kg CO_2/kg** ▪ The current machines required for installing the contact wire run by default on HVO50. Starting from 2027, or earlier if technically possible, a switch will be made to electric equipment
C1 – Dismantling	**Current emissions: 0,107 kg CO_2/kg vs 0,105 kg CO_2/kg** ▪ The current machines required for installing the contact wire run by default on HVO50. Starting from 2027, or earlier if technically possible, a switch will be made to electric equipment.
C2 – Transport to waste handler	**Current emissions: 0,132 kg CO_2/kg** ▪ Planned voor 2027

For phase C3, C4 and phase D, no reduction measures have been identified.

5.6 Value chain initiatives and actions

Please refer to the list below for additional initiatives and actions, where Strukton is an active participant:

- Battery powered locomotive on industry train tracks
- Europe's Rail Joint Undertaking
- Fossil Free Sweden initiative
- Closing the Loop initiative for circular viaducts / Groene Liggers
- Coalitie Anders Reizen
- Manifest Duurzaam GWW 2030
- Green Deal Verduurzaming Betonketen (Betonakkoord - national concrete deal)
- De Duurzame leverancier
- Asfalt Impuls
- Bewuste Bouwers
- Emissieloos Netwerk Infra (ENI)

- De Groene Koers
- Bereikbaarheidsalliantie A2
- Programme Natural Capital in Construction Sector
- Transition paths of ProRail and Rijkswaterstaat
- Nature Builders (part of Infranatuur – Delta plan recovery of biodiversity)
- Ketenoverleg Duurzaam Spoor
- Circulaire Grondstoffencorridor Utrecht

6 Results in the past

Strukton has been performing at the highest level of the CO_2 Performance Ladder for over 10 years. Having successfully reduced the carbon footprint in the Netherlands by 47% between 2009 and 2021, we have reformulated our ambition for 2030. Reduction measures in the past included:

- Mobility – adjustments of car fleet (from standard petrol to diesel and promotion of electric)
- Mobility – implementation of public transport pass
- Promotion of hybrid working (also before and after COVID)
- Closure of asphalt plant
- Implementation of biofuels for specific equipment
- Investments in retrofitting equipment for electrification
- Reuse of materials
- Implementation of circular design and production methods

7 Description of the organisation

Strukton contributes to the transition to a climate-neutral and circular economy through co-facilitating the energy transition, re-using materials, including and encouraging circularity and sustainability throughout the supply chain in which we operate, increasing the percentage of sustainable energy and making a positive ecological impact with our activities.

We are a service provider in sustainable infrastructure, with a focus on green transport and electrification. It is with passion and energy that we combine over a century of craftsmanship with the latest technology and innovation. We prioritize safety, quality and sustainability. We have developed a strong base in our home countries: Belgium, Denmark, Italy, the Netherlands, and Sweden. We wish to contribute to the safety, quality and sustainability of infrastructure. Rail, roads and energy. In order to do so we develop and integrate technologies and solutions, challenging customers to opt for contracts with room for sustainability and innovation. We are committed to operate with care and integrity and in a sustainable way and encourage our sector and value chain partners to do the same. We combine this approach with a focus on functionality, quality, life span and a good price-quality ratio.

7.1 Responsible officers

Below is an overview of the officers responsible for the data per entity (see table 5).

Table 5 – *Responsible officers per entity*

Name	Actors
Strukton Groep N.V.	CSR Analyst Strukton Group
Portfolio Investment Holding B.V.	CSR Analyst Strukton Group
Strukton Roads & Concrete	Financial Controller Strukton Roads & Concrete
Strukton Infrastructure Specialties B.V.	Financial Controller Strukton SIS
Strukton Groep Enkelvoudig	Manager Shared Service Center
Strukton Power B.V.	Financial Controller Strukton Power
Strukton Rail B.V.	Administrator Shared Service Center
Strukton Rail Italy B.V.	CSR Coordinator Strukton Rail Italy
Strukton Rail Nordics	CSR Coordinator Strukton Rail Sweden

7.2 Base year

Below is an overview of the default reference year per entity (see table 6).

Table 6 – *Default reference year per entity*

Name	Default reference year
Strukton Groep N.V.	2021
Portfolio Investment Holding B.V.	2021
Strukton Roads & Concrete	2021
Strukton Infrastructure Specialties B.V.	2021
Strukton Power B.V.	2021
Strukton Rail B.V.	2021
Strukton Rail Italy B.V.	2021
Strukton Rail Nordics	2021

7.3 Reporting period

This report covers the period from January 1st, 2025 till June 30th, 2025.

7.4 Verification

The CO_2 footprint in this document has not been verified by an (external) auditor. This happens once every year in line with the certification audit by an external certifying body (CI).

8 Demarcation

8.1 Organisational boundaries

Below is an overview of the different entities within the organisational boundary and their consolidation percentage (see table 7).

Table 7 – *Overview of entities and their consolidation percentage*

Name	Type	Consolidation percentage
Strukton Groep N.V.	Group	100%
Portfolio Investment Holding B.V.	Department	100%
Strukton Roads & Concrete	Department	100%
Strukton Infrastructure Specialties B.V.	Department	100%
Strukton Power B.V.	Department	100%
Strukton Rail B.V.	Department	100%
Strukton Rail Italy	Department	100%
Strukton Rail Nordics	Department	100%

8.2 Organisational changes

In Q2 2025, Strukton Rail Italy has acquired CO.RAC.FER.

In Q2 2025, the Dutch organisational structure has been revised to relocate all portfolio companies under our Dutch rail and civil business units. As of Q2 2025, Strukton Power B.V., Molhoek Infratechniek B.V. and Terracon Funderingstechniek B.V. are part of Strukton Rail Netherlands. Additionally, GBN Holding B.V., Strukton Milieutechniek B.V. and Unihorn B.V. fall under Strukton Roads and Concrete B.V.

8.3 Projects tendered with CO2 Performance Ladder component

Once a year, a list of won projects that included a CO2 Performance Ladder component is published on the SKAO website.

9 Calculation method

9.1 Current calculation method and conversion factors

The conversion factors to calculate the CO2-footprint were derived from several sources, in line with the local standards:

- For the Netherlands: https://www.co2emissiefactoren.nl
- For Belgium: https://www.co2emissiefactoren.be
- For Italy: Association of Issuing Bodies (AIB)
- For the Nordics: Swedish Energy Authority

9.2 Changes in calculation method

In Q1 Strukton has implemented a new calculation method. In its energy and management system, Strukton now works with 2 separate conversion factors (scope 1 or 2 and scope 3). This enables Strukton to calculate its scope 1, 2 and 3 emissions more accurately. As a result scope 1 and 2 emissions may

deviate slightly in comparison with previous reporting years. However, we report on the scope 3 emissions (previously part of the scope 1 and 2 footprint) in a separate chapter in this report.

Additionally, fuel usage figures related to our Swedish car fleet have been estimated for May and June. In 2024, only June was estimated. This has changed due to the deadline for CSRD reporting, which took place earlier in the year. At the moment of this deadline, the May data was not yet available for Sweden.

9.3 Exclusions

Similarly to previous years, the electricity used for the trains deployed by Strukton Rail Equipment is excluded from the footprint. The electricity consumed by these trains is not included by the Group. This is due to the way in which the electricity is purchased, whereby a general distribution key is received from ProRail. This key does not give us an insight into the usage figures per train. However, as this concerns green energy this has no influence on our footprint.

9.4 Absorption of CO_2

Strukton develops commercial concrete products made with miscanthus grass. This grass absorbs 4 to 5 times as much CO_2 during growth as a forest of similar dimensions. After processing, the CO_2 remains captured within the grass.

Strukton pilots a new type of railway element – a railway sleeper made out of bamboo composite - at an industrial track. Over its life cycle this bamboo composite sleeper has a significantly lower carbon footprint compared to commonly used alternatives. This is due to the absorption of carbon during the growth of bamboo that remains captured within the product after production.

9.5 Biomass

Strukton does not use biomass.

10 Conclusion

In Q1 and Q2 2025, we made significant progress toward our CO_2 reduction and sustainability goals. We achieved a 3.6% reduction in Scope 1 and 2 emissions compared to the same period in 2024, underlining our commitment to achieving a 50% reduction by 2030 and climate neutrality by 2040, in line with the Paris Agreement. This was accomplished through the implementation of reduction measures focused on fleet electrification, equipment retrofitting, biofuel adoption, and employee engagement initiatives. In the remaining quarters of 2025 we will keep on working to ensure we will reach our reduction targets.

Strukton is actively engaged in reducing Scope 3 emissions, focusing on sustainable value chain initiatives such as circular concrete catenary supports and sustainable catenary production. While some challenges remain - including regulatory approvals and data accuracy improvements - we remain committed to driving sustainability across our value chains. An important prerequisite is gathering more insight into these value chains, which we will further pursue in the coming years. Moving forward, Strukton will continue monitoring trends, refining reduction measures, and strengthening partnerships to accelerate its transition to a low-carbon future.

APPENDIX: Glossary and abbreviations

- CI – Certifying body
- CO_2 – Carbon dioxide
- CO_2e – Carbon dioxide equivalent
- E-LCV – Electric light commercial vehicles
- EV – Electric vehicle
- FTE – Full-time equivalent
- HVO - 'Hydrotreated vegetable oil'. This type of diesel is, next to the vegetable oils, produced from waste, residue oils and fats, such as used cooking oil.
- PV panel – A device that converts sunlight into electricity by using photovoltaic (PV) cells. PV cells are made of materials that produce excited electrons when exposed to light
- SKAO – Stichting Klimaatvriendelijk Aanbesteden en Ondernemen

This periodic report is part of the control cycle within the energy management system that has been introduced in the context of the CO_2 Performance Ladder. This periodic report includes all matters described in §9.3.1 points a to t of the NEN-EN-ISO 14064-1:2018: Description of the Organisation (a), Responsible Persons (b), Reporting period (c), Organisational boundaries (d), Current calculation method and conversion factors (f, m, n , o, r, t), Uptake of CO_2 (g, h), Biomass (f, g), Direct and indirect emissions (i, j), Reference year (k, l), Changes in calculation method (k,), Exclusions (h), Recalculate base year and historical data (j, k), Uncertainties (p) and Verification (s).

Strukton