Carbon Strategy Report 2022

Ghelamco Group

TABLE OF CONTENTS

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1 WHAT TO FIND IN THIS DOCUMENT: SUMMARY & RECOMMENDATIONS ON CARBON STRATEGY

1.1 WHY THIS REPORT?

Increasingly frequent floods, severe storms, longer droughts and forest fires become more and more difficult to contain. The evidence that the world is warming is showing up more and more often and in recent years in more extreme forms. Since the 6th IPCC report, it has also been scientifically proven that this global warming is caused by human activity.

In 2022, Ghelamco Group has started a strategic exercise leading to the design and implementation of a carbon reduction strategy based on science-based targets. This report summarizes the approach, next steps and long term vision we are planning to implement, together with the very tangible actions that are being taken in order to reduce our carbon footprint.

As a firm, we have joined the Science Based Targets initiative which specifies that a reduction of at least 42% is needed to stay within the Paris targets. We are committed to surpass the SBTi recommendations and achieve at least a 60% reduction in scope 1 and 2 emissions by 2030 with 2021 as the reference year, creating shared value for our clients and stakeholders while safeguarding our planet.

1.2 HOW TO READ THIS REPORT

This report provides a summary of the different steps Ghelamco Group has taken in the implementation of its carbon strategy. It refers to other documents that were developed throughout this process:

- Carbon footprint calculation
- Reduction plan
- SBTi Target Setting Letter

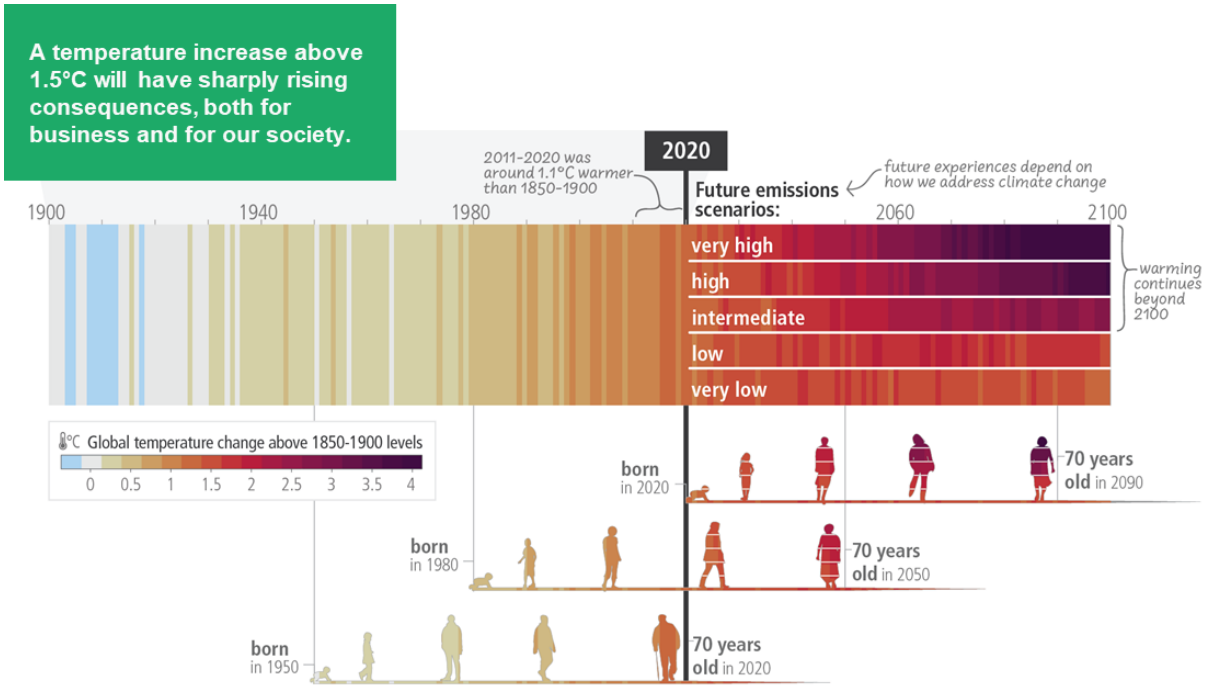
1.3 FOR WHOM IS THIS DOCUMENT MADE?

This report is intended for all who seek insight in how Ghelamco Group takes action to reduce its carbon footprint, in line with the scientific recommendations in order to limit global warming with 1.5 degrees Celsius.

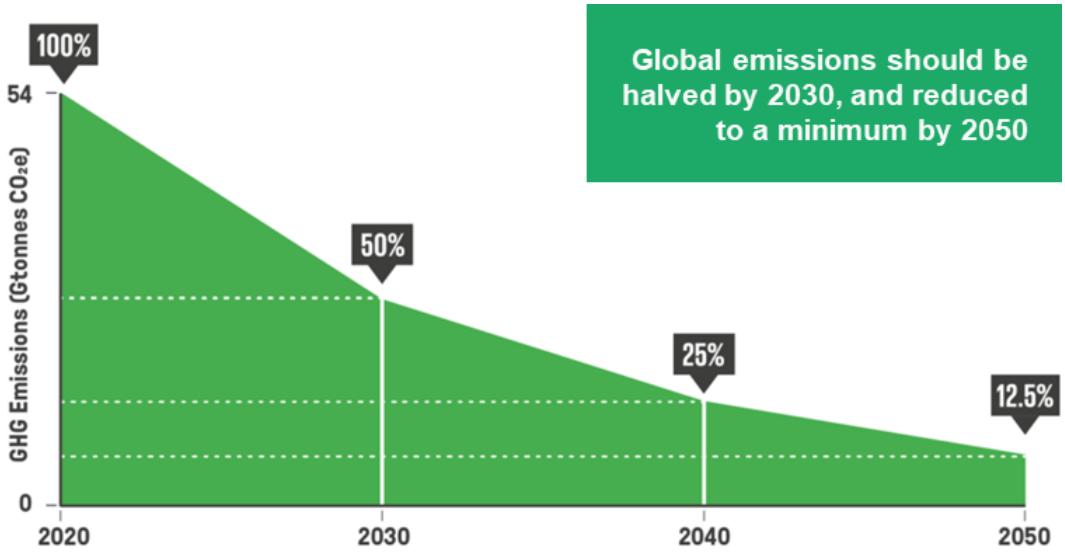
2 BACKGROUND & HOW WE WORK

2.1 FOCUS ON CO2 REDUCTION: COUNTERING GLOBAL WARMING

In recent decades, human activity has had a significant impact on the Earth's temperature: it is changing faster than at any time since the end of the last ice age 12,000 years ago. According to the Intergovernmental Panel on Climate Change (IPCC), temperature increases above 1.5°C entail sharply rising costs and consequences for business and place extreme pressure on our society. To prevent this, a sharp reduction in CO_2 emissions is needed: global emissions must be halved by 2030.



Unfortunately, the opposite is happening at this moment. Between 2009 and 2019, global carbon emissions increased by 1.5% per year. It is even believed that the peak has not yet been reached. Although there is a growing awareness that a reduction in CO_2 emissions is necessary to keep our planet liveable, we see that a strong(er) bend in the curve is needed to keep our emissions within the limits of the global carbon budget.



How much time do we have left? The answer, unfortunately, is: not much. According to a 2017 Carbon Brief study and the latest climate reports, the possibility of meeting the 1.5°C target is increasingly in doubt.

Ghelamco Group takes its responsibility in this regard. In line with the organization's sustainable ambitions, Ghelamco Group has developed a carbon strategy using internationally proven frameworks.

2.2 3 STAGES OF OUR CARBON STRATEGY

1. As-is analysis

What are the different emission sources, which ones are important and how big is the footprint?

2. Reduction plan

How can we realistically reduce our carbon footprint?

3. Target setting, ambition level

What ambitions do we have, how do we want to express and pursue them?

2.2.1 STAGE 1: AS-IS ANALYSIS

In March 2022 we initiated the development of our carbon strategy with the measurement of our carbon footprint for the base year 2021. During a kick-off meeting, we defined the organisational boundaries and shaped the different steps in our strategic approach.

The carbon footprint report includes an extensive analysis of our carbon footprint, explaining in detail how the calculation was done, which databases were used and what the result means for us.

2.2.2 STAGE 2: REDUCTION PLAN

Together with our partner Encon we developed a credible and ambitious reduction plan, which we finalised in November 2023. This report includes an extensive analysis of the reduction measures that will be implemented.

2.2.3 STAGE 3: TARGET SETTING & AMBITION LEVEL

Based on the information of our current footprint and the ways in which we can reduce it, we defined our reduction target. We made sure that the targets covering greenhouse gas emissions from Ghelamco Group's operations (scopes 1 and 2) are consistent with reductions required to keep warming to 1.5°C, the most ambitious goal of the Paris Agreement.

i. Technical information on the SBT

During the calculations of our carbon footprint, we defined the year 2021 as our base year. The target year (i.e. the year aimed at for the fulfilment of our reduction target) is set at 2030. In order to comply with the Paris Climate Agreement, our goal is to reduce emissions with at least 60% in this timespan. Furthermore, the emission scopes that are included in the target are scope 1 and 2. However, our scope 3 emissions will also be addressed in the coming years.

2.3 THE FRAMEWORK THAT IS USED: THE SCIENCE BASED TARGET INITIATIVE

In order to make our ambition regarding the CO_2 reduction of our activities clear, we have chosen to commit to the Science Based Targets Initiative (SBTi). The SBTi is a collaboration between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF).

The SBTi defines science-based reduction pathways and promotes best practice in science-based target setting and independently assesses companies' targets.

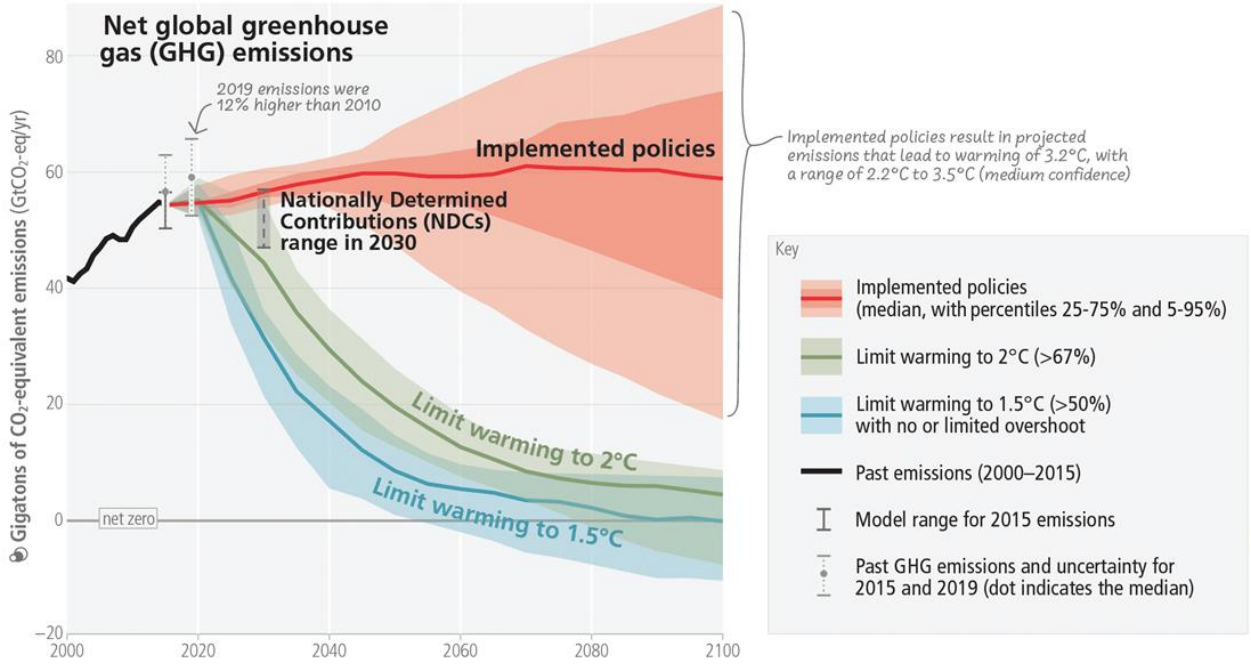


Figure 1: Global greenhouse gas emissions and warming scenarios

3 AS-IS ANALYSIS GHELAMCO GROUP: CURRENT CARBON FOOTPRINT

3.1 DEFINITIONS & BACKGROUND

Every company has a carbon footprint: the annual greenhouse gas emissions of an organization, particular activity, event, product or person. The carbon footprint is calculated according to the GHG Protocol, an international standard followed by more than 90% of Fortune 500 companies reporting to the Carbon Disclosure Project (CDP). The latter encourages organizations to report their emissions transparently and publicly. In order to compare the impact of each greenhouse gas as defined in the Kyoto Protocol, all emissions are converted to CO_2 equivalents based on their impact on global warming. In other words, a carbon footprint is always expressed in kg or tonnes of CO_2 equivalents (CO_2e). The emissions can be divided into:

Scope 1: includes the direct CO_2 emissions, caused by sources internal to the organization. This concerns emissions from building heating, transport and production-related activities. In the case of Ghelamco Group, these include mainly the combustion of natural gas for building heating and the use of fossil fuels for company cars.

Scope 2: includes the indirect CO_2 emissions due to the generation of self-purchased and self-consumed electricity or heat. The organization uses this energy internally, but does not generate it internally. That generation physically takes place elsewhere.

Scope 3: includes indirect emissions of CO_2, caused by business activities of another organization within the company's value chain. This concerns emissions from sources that are not owned by the organization and over which it also has no direct influence. In addition, the distinction is also made between upstream and downstream emissions.

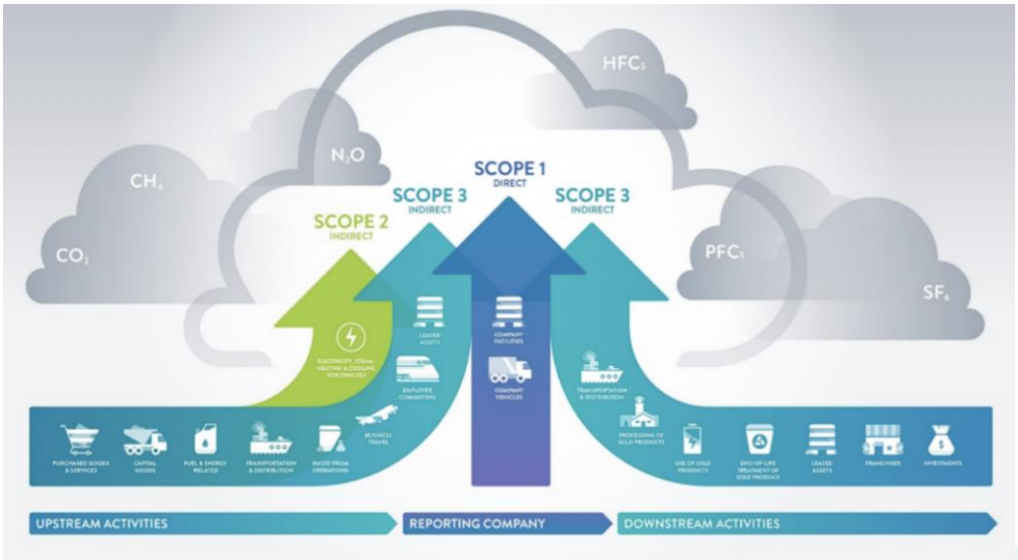


Figure 2: GHG Protocol Corporate Value Chain Standard

The figure below illustrates the link between these different scopes and the process flow of Ghelamco Group. The frame in the middle represents our core activities, which are related to scope 1 and 2 emissions. The scope 1 emissions include the stationary emissions such as the combustion of natural gas and mobile emissions such as the combustion of diesel and gasoline for company cars. The scope 2 emissions of Ghelamco Group comprise the emissions from the purchase of grey electricity in the offices. The outer frames of the figure represent the scope 3 emissions of Ghelamco Group. These include respectively all upstream and downstream emissions, which are explained in more detail in chapter 3.2.

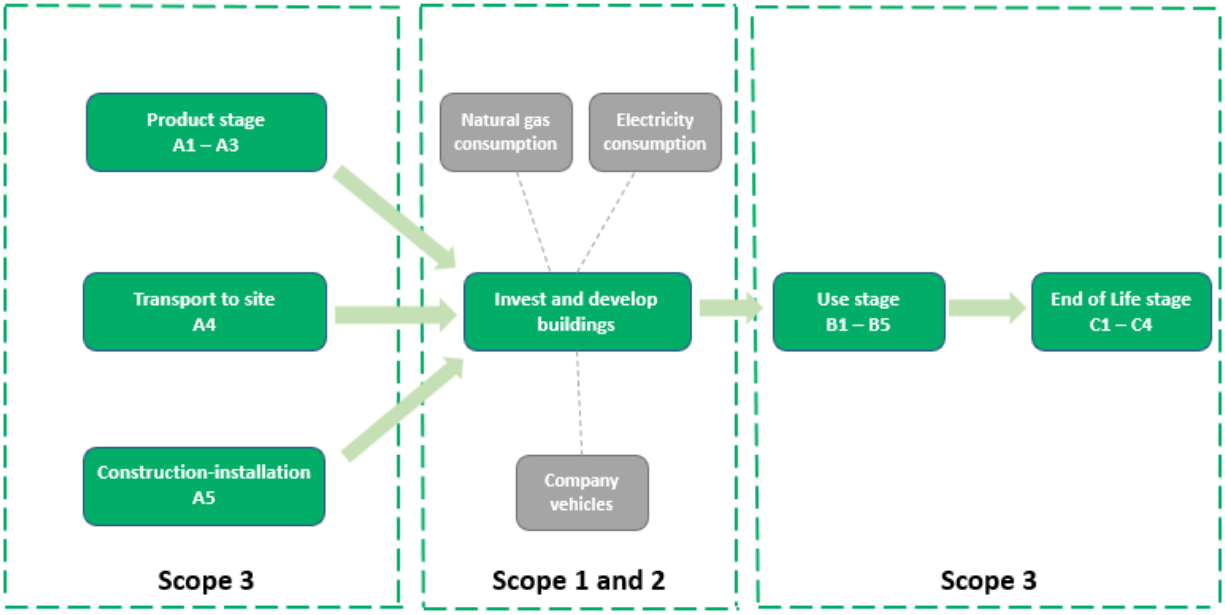


Figure 3: Process flow Ghelamco Group

3.2 CARBON FOOTPRINT GHELAMCO GROUP

Company name	Ghelamco Group
Scope	Site 1: Belgium Site 2: Poland Site 3: UK
Footprint calculation according to:	Greenhouse Gas Protocol – Corporate standard
Used database	EcoInvent 3.6
Scope 1	233,36 tonnes CO_2e
Scope 2	417,73 tonnes CO_2e
Scope 3	1.217.989,97 tonnes CO_2e
Analysed period	31/12/2020 – 31/12/2021
Assumptions and exclusions	The entire scope 1 and 2 emissions of Ghelamco Group are calculated for the base year 2021, as well as at least 90% of the scope 3 emissions. To make the scope 3 calculations, data from the administrative system of Ghelamco Group were used as much as possible to avoid estimations. International databases such as EE-IOLCA and EcoInvent 3.6 were used to accurately calculate the CO_2 impact of purchased materials, services, and the transport of goods and services.

3.2.1 SCOPE 1 AND 2

The table below shows the consolidated carbon footprint of Ghelamco Group for the year 2021. There can be seen that scope 2 of Poland and scope 1 of Belgium have the biggest impact on the CO_2 footprint with a share of 52,52% and 30,13% respectively.

Scope	Tonnes CO_2e	%
Scope 1 - Belgium	196,19	30,13
Scope 2 - Belgium	52,01	7,99
Scope 1 - Poland	37,17	5,71
Scope 2 - Poland	341,95	52,52
Scope 1 - UK	0,00	0,00
Scope 2 - UK	23,77	3,65
Total	**651,09**	**100,00**

Table 1: Carbon footprint Ghelamco Group 2021

The total overview, including all sub categories, is being shown in the figure below:

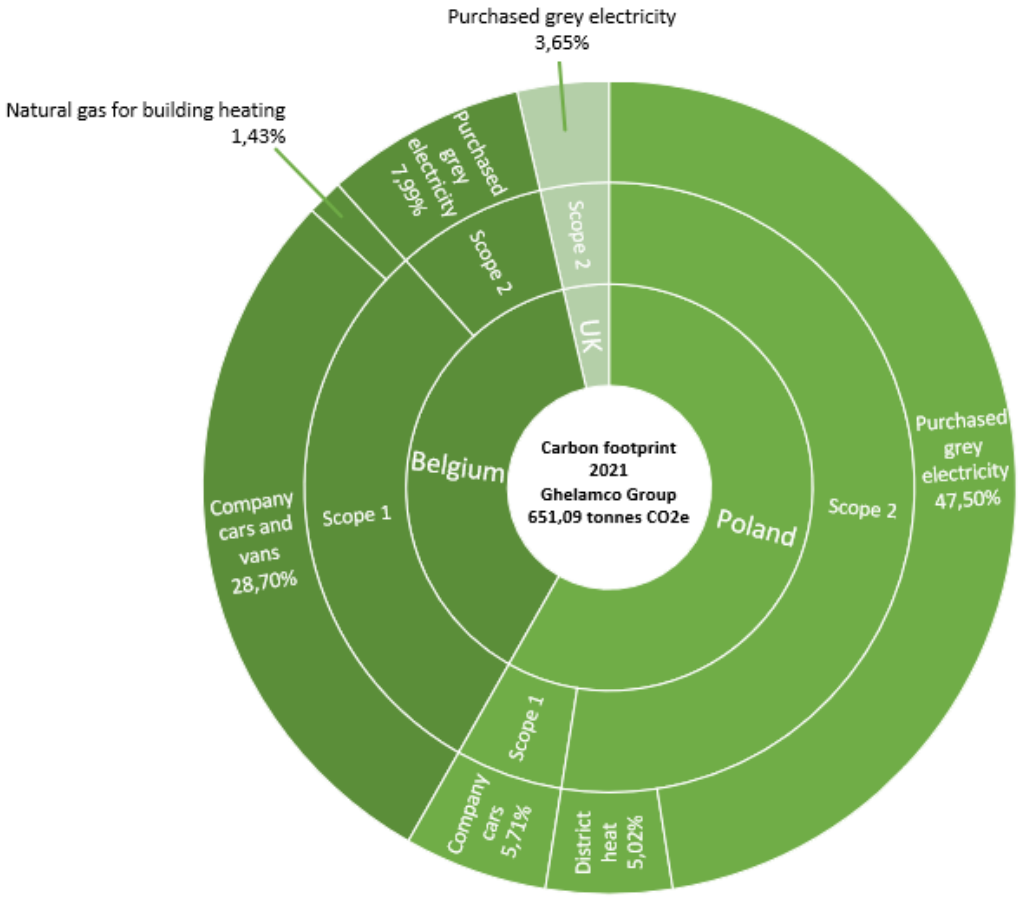


Figure 4: Overview of scope 1 and 2 emissions

3.2.2 SCOPE 3

From the 15 different scope 3 emission categories, 10 categories turned out to be relevant, which are discussed in detail below. Furthermore, it is estimated that more than 90% of the total scope 3 impact has been included in the calculation. The table below gives an overview of the different subcategories under the scope 3 emission category in tonnes CO_2 equivalents.

	Belgium	Poland	UK	%Scope 3
Category 01: Purchased materials and services	15,12	12,01	14,82	<0,01%
Category 02: Capital goods	17.870,00	127.610,67	/	11,94%
Category 03: Fuel and energy related activities, not included in scope 1 or 2	71,78	25,55	2,38	0,01%
Category 04: Upstream transport and distribution	747,41	3.201,20	0,65	0,32%
Category 05: Waste generated in operations	6,43	1,23	/	<0,01%
Category 06: Business travel	3,44	1,08	9,70	<0,01%
Category 07: Employee commuting	76,45	/	5,72	0,01%
Category 11: Use of sold products	53.629,00	1.010.824,96	/	87,39%
Category 12: End of Life of sold products	579,00	3.135,37	/	0,30%
Category 15: Investments	146,00	/	/	0,01%
Total	**73.144,63**	**1.144.812,07**	**33,27**	**100%**

Table 2: Scope 3 emission categories Ghelamco Group 2021

The following figure clarifies the different categories of scope 3 with examples, specifically for Ghelamco Group:

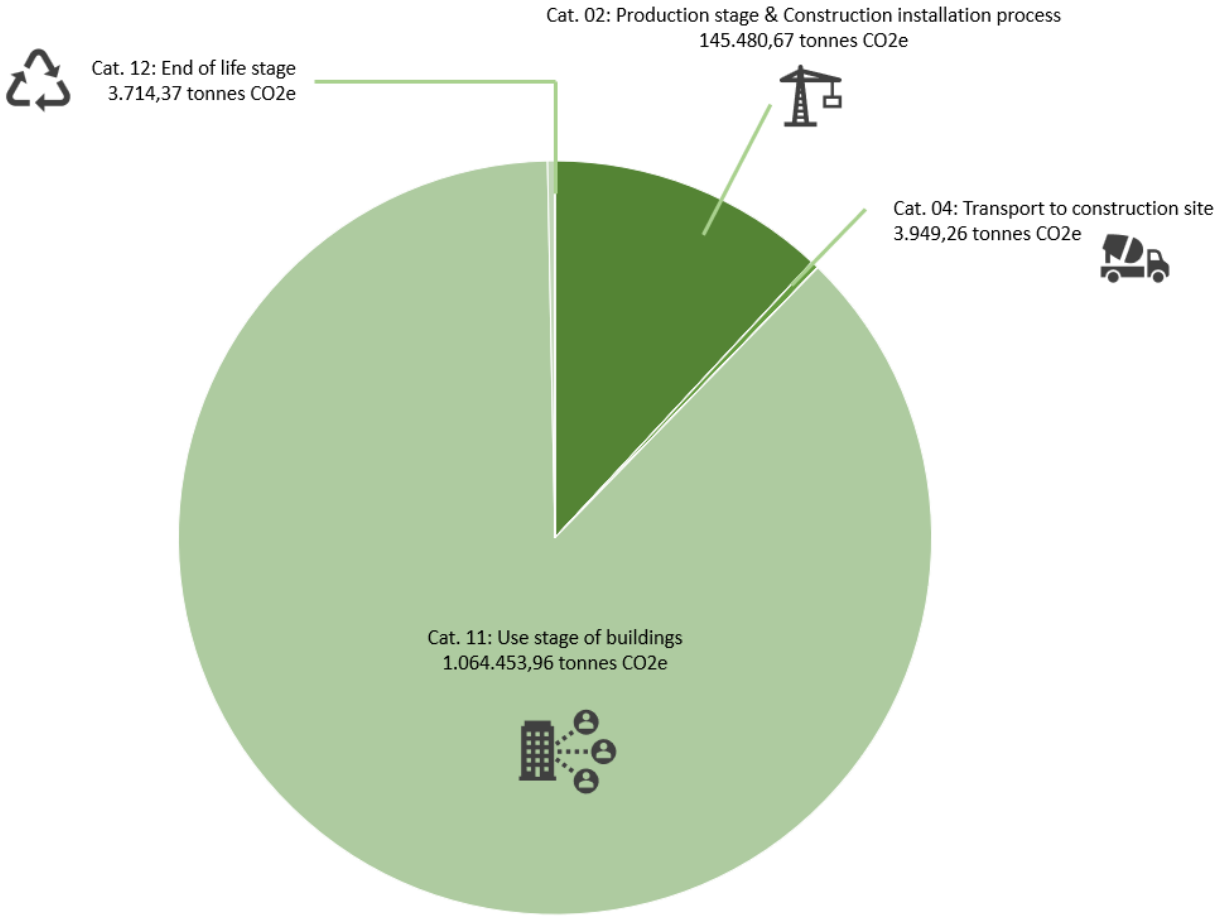


Figure 5: Examples of scope 3 emissions

4 CO2 REDUCTION ROADMAP: HOW GHELAMCO GROUP CAN MAKE A DIFFERENCE

4.1 SUMMARY & MEASURES

This section includes the reduction plan in which specific reduction measures are scheduled over the next few years. The reduction plan covers a period of 8 years (2023-2030) with the goal of achieving the absolute emission reduction target set according to the Science Based Targets Initiative at the SME level. Achievement of this target will be reassessed on an annual basis, whereby the reduction plan will be adjusted if necessary.

The objective of the reduction plan is to reduce the organization's footprint according to the established ambition level of 1,5°C. Ghelamco Group is taking actions in order to be subscribed to the 1,5°C level where we will commit to achieve an absolute CO_2 reduction of at least 42% by 2030, compared to the 2021 base year. We are committed to surpass the SBTi recommendations and achieve at least a 60% reduction in scope 1 and 2 emissions by 2030 with 2021 as the reference year.

	Target	SBTi target from base year 2021 (%)	Our target from base year 2021 (%)
SBTi	1,5°C	42% by 2030	60% by 2030

Table 3: Absolute reduction targets

Ghelamco Group has developed a strategy in which several elements will be addressed to reduce the organization's carbon footprint. The different measures are summarized in the tables presented on the next page. Each measure has a certain CO_2 reduction target and a year (or period) in which they will be implemented:

Scope	Location	Reduction measure	Year	% scope 1+2 red.	Reduction tonnes CO_2e
Scope 1	BE	Electrification passenger cars (assuming green power)	2024-2028	> 6%	90,32
	BE	Electrification and elimination company vans (assuming green power)	2024-2028	> 6%	96,54
Scope 2	PL	New building with 100% renewable energy use	2027	48%	309,20

Table 4: Reduction plan scope 1 and 2 Ghelamco Group

The figure below shows the carbon footprint of Ghelamco Group as a function of time. Currently, future growth of the organization is not taken into account. For this reason, it is important to look for additional ways to reduce emissions by 2030 in the coming years.

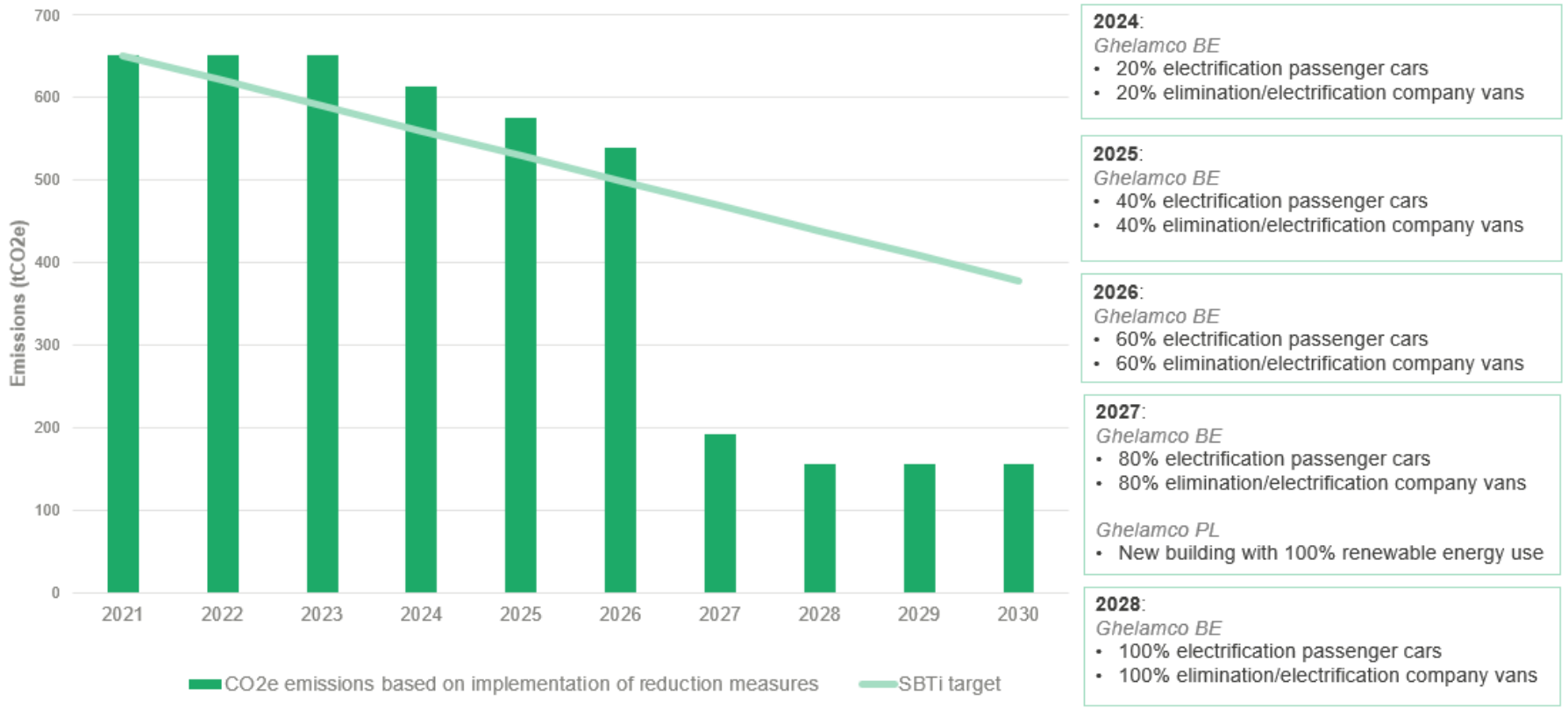


Figure 6: Carbon footprint of Ghelamco Group as a function of time

Based on the figure above, it can be seen what effect each measure has on Ghelamco Group's target for the SBTi trajectory.

The figure below shows the carbon footprint of Ghelamco Group as a function of the possible reduction measures. On the left, the baseline emissions for 2021 and on the right the target emissions for 2030 are shown. In between, the impact of the different reduction measures can be seen. The figure shows that the implementation of these reduction measures will lead to the achievement the SBTi target in 2030.

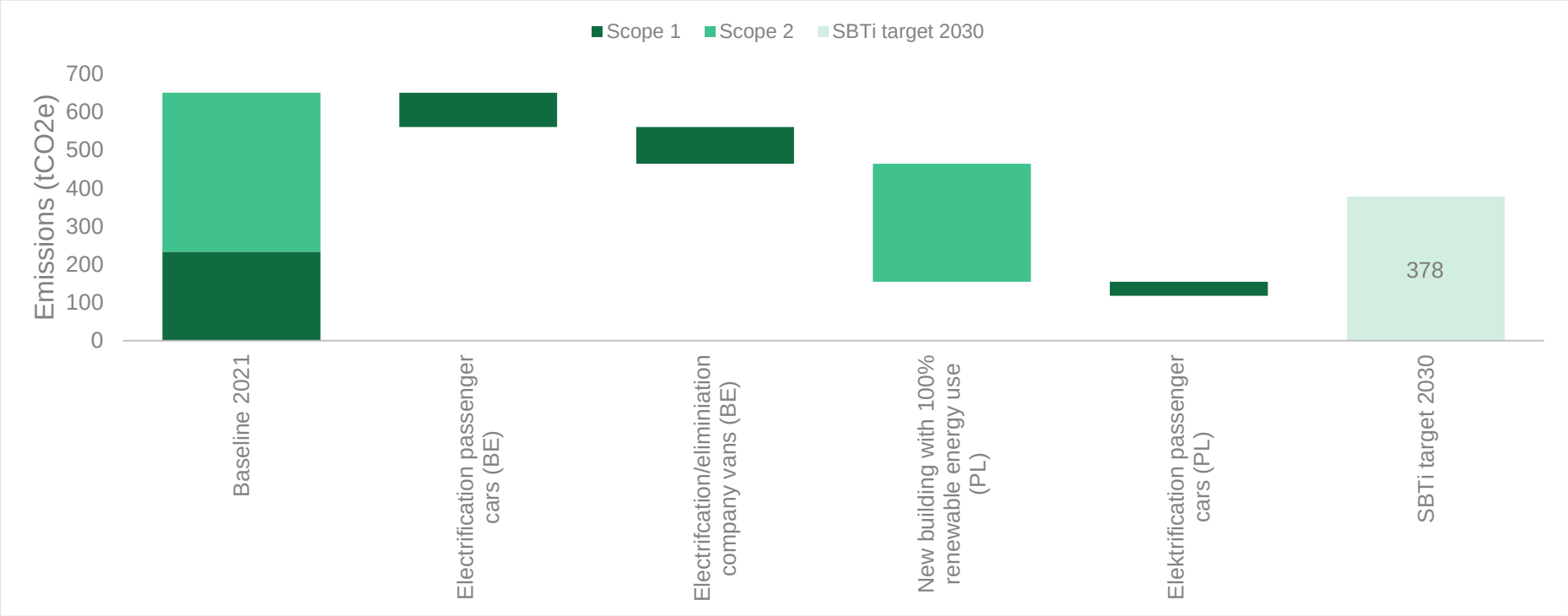


Figure 7: Carbon footprint of Ghelamco Group in function of implemented reduction measures

Ghelamco Group is also taking steps to reduce scope 3 emissions, which are the carbon emissions of a building over its lifecycle. These emissions can be divided into two groups: operational and embodied carbon. For both groups, reduction measures are being taken and presented in the table below:

Scope	Type of emissions	Reduction measure	Comment
Scope 3	Operational carbon	The 4-Step Ghelamco Energy Strategy	Use less energy > Supply and use energy efficiently > Zero-carbon energy sources > Monitor, verify and report on energy
		Ready for Zero Operation emissions by 2025	We recommend our buyers secure long-term (>10 years) green power purchase agreements (PPA).
		Preventing stranded assets using CRREM pathways	All our projects need to be built in a way that ensures they are safe from stranding until at least 2050.
	Embodied carbon	Always considering renovation options	Before any demolition takes place, a study is conducted on how the building could be renovated.
		Conducting an LCA early in each development process	LCA studies are performed and followed by updates as the project progresses.
		Adhering to the principles of circularity	We strive to apply the principles of the circular economy. To help implement this strategy, every new development will feature an elaborate Material Passport by 2025.
		Working on a strategy with clear goals for embodied carbon per m²	Our ambition is to work not just with a financial budget for our projects, but also with a carbon budget.

Table 5: Reduction plan scope 3 Ghelamco Group

5 CO2 STRATEGY OF GHELAMCO GROUP: TARGETS & AMBITION LEVEL

5.1 TARGET SETTING: THE SCIENCE BASED TARGET INITIATIVE

More and more companies are setting targets regarding the reduction of their carbon emissions. However, when will a company know if it is doing enough to actually combat climate change? The Science Based Target initiative (SBTi) offers an answer to this question.

The initiative is a collaboration between CDP, United Nations Global Compact (UN Global Compact), World Resources Institute (WRI) and World Wide Fund for Nature (WWF), and presents a methodology to calculate how fast and to what extent companies need to reduce their CO_2 emissions to be in line with the Paris Climate Agreement targets.

Ghelamco Group is one of the 130 Belgian companies that has successfully joined the SBTi. Our commitment is as follows:

Ghelamco Group has had its emissions reduction targets approved by the Science Based Targets initiative as consistent with levels required to meet the goals of the Paris Agreement.

The targets covering greenhouse gas emissions from Ghelamco Group's operations (scopes 1 and 2) are consistent with reductions required to keep warming to 1.5°C, the most ambitious goal of the Paris Agreement.

The SBTi specifies that a reduction of at least 42% is needed to stay within the Paris targets. We are committed to surpass the SBTi recommendations and achieve at least a 60% reduction in scope 1 and 2 emissions by 2030 with 2021 as the reference year.

Our commitment can be viewed on the SBTi website at:

https://sciencebasedtargets.org/companies-taking-action

In order to make this registration possible, we have had the entire scope 1, 2 and 3 emissions of 2021 mapped out and a comprehensive reduction plan drawn up (see previous chapter). In order to continue to comply with the conditions of the SBTi, we commit ourselves to recalculate the CO_2 footprint each year and to closely follow up the reduction plan. The reduction plan will be adjusted if necessary, so that the commitment of at least 60% CO_2 reduction between 2021 and 2030 can be met.

This reduction plan currently focuses mainly on scope 1 and 2, but our scope 3 emissions will also be addressed in the coming years.

	Tonnes CO_2e base year 2021	**SBTi target 2030**		**Ghelamco Group target 2030**	
Scope 1	233,36	Total absolute reduction of 42%		Total absolute reduction of 60%	
Scope 2	417,73				
Scope 1 + 2	**651,09**	**377,63**	**58%**	**260,44**	**40%**

Table 6: Summary table Ghelamco Group

If Ghelamco Group's operations are maintained as they are in 2021, the intended reduction target in the scope 1 and 2 emissions can be achieved by 2030 with the measures included in the reduction plan. However, it is important to monitor the realized reduction annually, since a growth of the company and therefore its activities, can cause unpredictable increases in CO_2 emissions.