

# DEME | Energy Performance Booklet

2022



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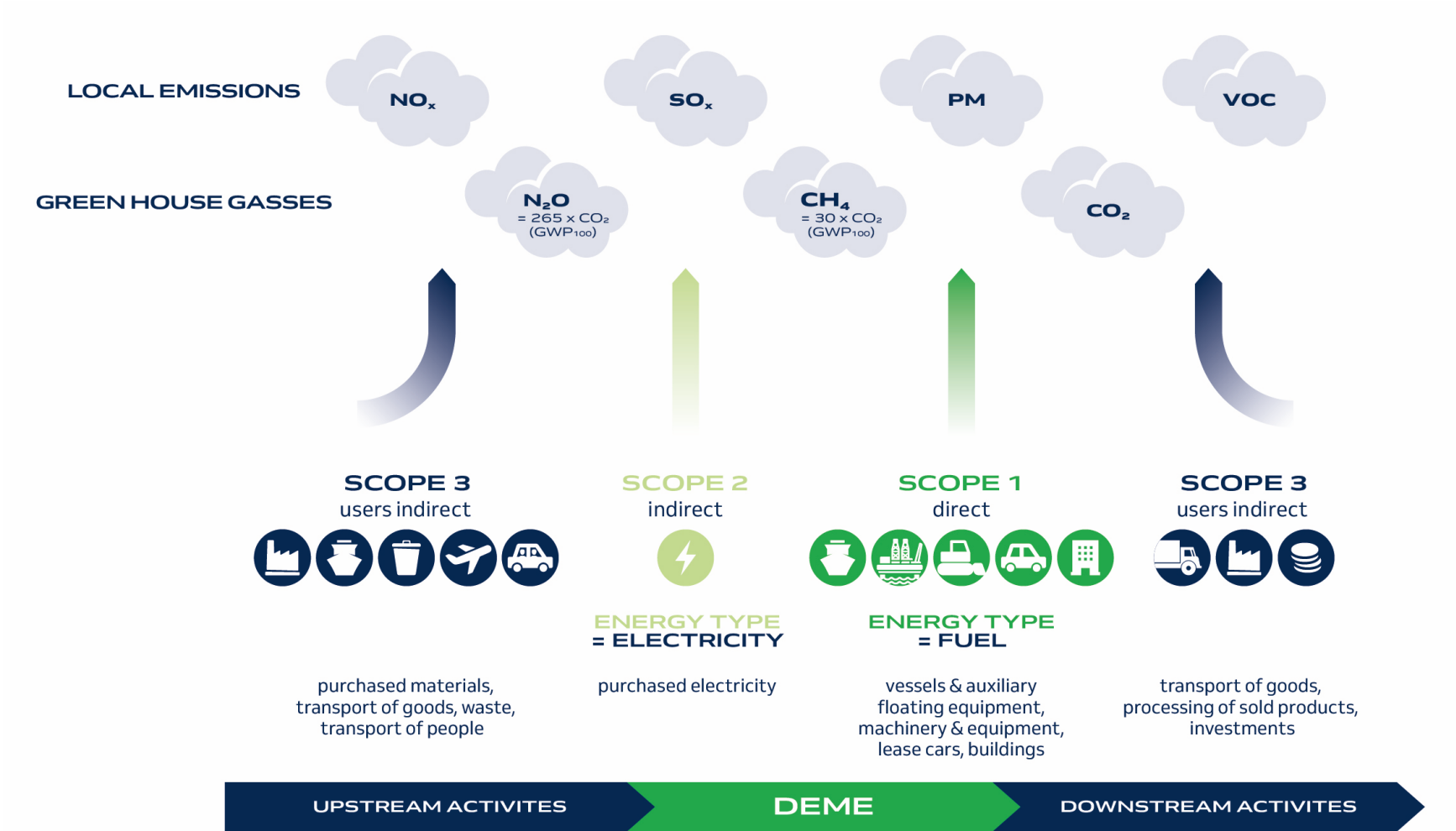
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# WHAT ARE SCOPE 1, 2 AND 3 EMISSIONS?

Extern



**Note:** this visual is based on the GHG Protocol Scope 3 Standard and focuses on the most important aspects relevant to DEME

Scope 1 emissions are direct emissions from DEME managed or controlled sources

Scope 2 emissions are indirect emissions from the generation of purchased electricity from a utility company

Scope 3 emissions are indirect emissions from sources managed or controlled by DEME

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ISO14064-1 §9.3.1

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# GENERAL

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# GENERAL

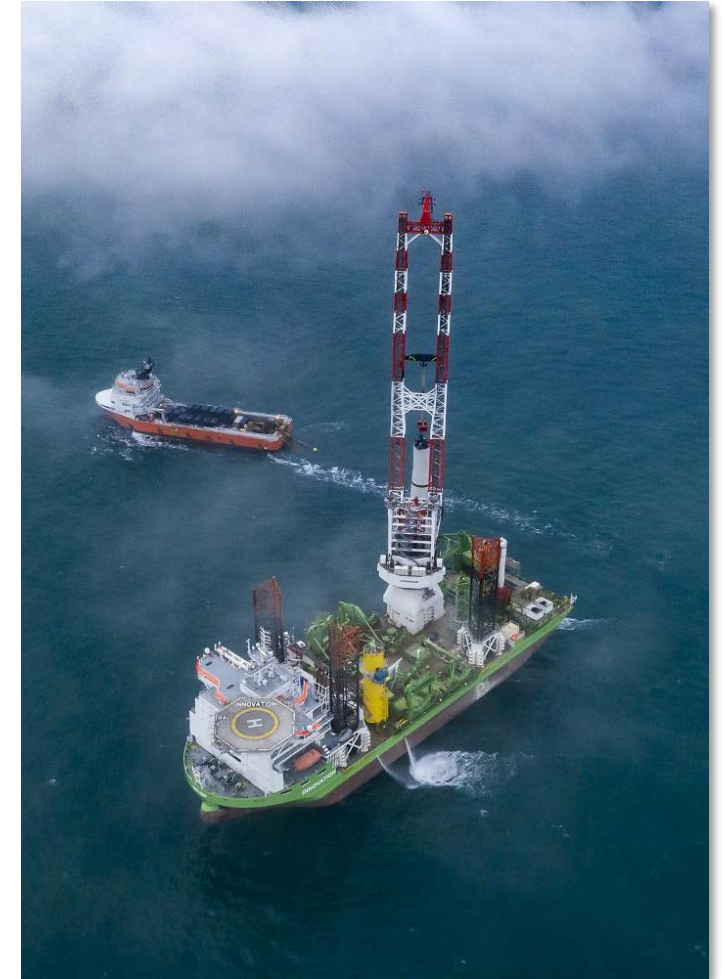
## 01. COMPANY PROFILE

DEME is a world leader in the highly specialised fields of dredging, solutions for the offshore energy industry and infrastructure and environmental works. The company has more than 140 years of knowledge and experience and throughout its history as a leader in innovation and new technologies has always taken a pioneering approach.

DEME's vision is to work towards a sustainable future by offering solutions to global challenges: rising sea levels, a growing population, reduction of CO2 emissions, polluted rivers and soils and the scarcity of minerals.

DEME has its roots in Belgium but has a strong presence on all seas and continents of the world and is active in more than 90 countries. The company can count on 5,200 highly skilled professionals around the world. With a versatile and modern fleet of more than 100 ships, backed by a wide range of auxiliary equipment, the company can provide solutions for even the most complex projects.

DEME achieved a turnover of 2.65 billion euros in 2022.



# PROGRESS AND CARBON FOOTPRINT REPORT (BENE)

## 03. REDUCTION TARGETS SCOPE 1, 2 AND 3 EMISSIONS

### DEME'S GLOBAL AMBITION

As stated in our Energy and GHG Policy, the following ambitions and goals are set on DEME worldwide level.

We want to continuously challenge ourselves to develop more sustainable solutions within our portfolio and at the same time excel in our operations. This two-dimensional approach is anchored in our sustainability strategy, which is also aiming to help to achieve the United Nations' 17 Sustainable Development Goals.

In order to achieve these ambitions DEME has set long-term goals to:

- strive for a climate-neutral organisation by 2050 and to reduce GHG emissions in the project value chains
- minimize the environmental impact of our operations
- strive for a net positive impact on biodiversity and ecosystems

When it comes to CO<sub>2</sub> and GHGs we have chosen to take IMO's current strategy into account and to even go above and beyond its requirements. More specifically we aim to:

- keep improving the energy efficiency in our operations;
- work towards climate neutral operations by 2050 (scope 1 & scope 2)
- reduce the GHG emissions generated by our operational fleet by 40% by 2030 in relation to 2008 per unit of work (scope 1 & scope 2)
- reduce the GHG emissions in our project value chains (scope 3)





# GENERAL

## 02. POLICIES AND STATEMENTS

DEME's core values reflect our unshakable belief in the quest to deliver excellence. They serve as a compass that guides the way we work with our business partners, within communities, and with each other. Detailed information regarding our core values (STRIVE) is expressed in DEME's mission, vision and values statement.

As part of this belief, DEME has developed an Energy & Green House Gas emissions policy.

This policy describes:

- what we aim for
- how we will do it
- how we will measure it
- what we have to do

To describe how we will achieve our predetermined goals, we developed an annual action plan that follows our energy user structure.



SAFETY



TECHNICAL  
LEADERSHIP



RESPECT  
& INTEGRITY



INNOVATION



VALUE  
CREATION



ENVIRONMENT

ENERGY & GREEN HOUSE  
GAS EMISSIONS POLICY

**Mission, Vision & Core Values - STRIVE**

This policy is based on DEME's STRIVE statement. In this statement we describe what we want to be, what we want to achieve and what we believe in.

**Objectives - What we aim for**

DEME develops solutions and initiatives to address global challenges and megatrends such as rising sea level, growing population, reduction of CO<sub>2</sub> emissions, polluted rivers, desert and soil and the scarcity of natural resources. Alongside this, we want to do our work in a responsible way. Therefore, we have a continual focus on maintaining our impact and on demonstrating a sustainable performance in our daily operations.

We want to continuously challenge ourselves to develop more sustainable solutions within our portfolio and at the same time excel in our operations. This two-dimensional approach is anchored in our sustainability strategy, which is also aiming to help to achieve the United Nations' 17 Sustainable Development Goals.

In order to achieve these ambitions DEME has set long-term goals to:

- strive for a climate neutral operation by 2050 and to reduce GHG emissions in the project value chain
- minimise the environmental impact of our operations
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When it comes to CO<sub>2</sub> and GHGs we have chosen to take IMC's current strategy into account and to even go above and beyond its requirements. More specifically we aim to:

- keep improving the energy efficiency in our operations
- work towards climate neutral operations by 2050 (scope 1 & 2)
- reduce the GHG emissions generated by our operational fleet by 40% by 2030 in relation to 2020 (scope 1 & 2)
- reduce the GHG emissions in our project value chain (scope 3)

Our internal processes and management system is systematically evaluated and improved and continuously reviewed in order to improve.

Our system meets all legal obligations and requirements defined in the following standards:

- ISO 14001 - environmental management system
- ISO 14064 - greenhouse gas reporting & verification
- CO<sub>2</sub> performance leader - management system and tender tool (NL)
- ISO 50001 - energy management system

**Strategy - How we will do it**

The DEME energy management team includes representatives from different supporting services and ensures resources are available for achieving energy objectives and targets.

To give structure to our strategy, we set up an energy card and defined 6 energy values:

- Vessels & Auxiliary fleet/equipment
- Machinery & Equipment
- Buildings
- Transport of people
- Purchased materials
- Waste generated by operations

In practice this means:

- anticipate changes in legislation and be aware of new working methods and energy saving measures
- look for energy saving opportunities and reduction options in processes & projects, including design and procurement
- transparency about our emissions and communicate in a structural way
- make agreements with our subcontractors and suppliers that impact our energy performance

**Scorecards - How we will measure it**

DEME uses various Energy Performance Indicators and Energy Baselines for its energy users that are subject to a periodic follow-up, and adjusted when necessary.

**Plans & Actions - What we have to do**

During the yearly Energy & Greenhouse gas emissions Management Review the foundation is laid for the Energy and greenhouse gas action plan. This plan is set up in line with the energy card, internal and external context and the most relevant risks and opportunities. The plans are executed on various levels within the organization, bearing in mind the priorities and significant energy users.

Luc Vandenbulcke  
Chief Executive Officer  
DEME

Koen Vanderbeke  
Strategic Operations Director  
DEME

Magali Bruggeman  
Energy & GHG Manager

DEME-GHGS-POL-003  
Rev. 2021-05-17

2021-2022

Energy & Green House  
Gas Emissions  
YEAR ACTION PLAN

**1. VESSELS**

1.1 Verify use of combinator curve on existing hopper fleet to increase the energy efficiency

1.2 Promote and develop the fuel shift (energy efficiency & alternative fuels) for Project Managers Tender Departments and Vessel Masters

1.3 Startup Energy Efficiency by Design Manual

1.4 Demonstrator project of mobile GPS set-up that runs methanol as an alternative fuel

**2. BUILDINGS & OFFICES**

2.1 Integrate on-site produced green electricity at DEME Campus\*

2.2 Procure green electricity for offices and other sites in BeNeLux\*

**3. MACHINERY & EQUIPMENT**

3.1 Purchase and hire Machinery & Equipment with stage V engines in BeNeLux\*

3.2 Increase energy registration of Machinery & Equipment on project sites worldwide

**4. TRANSPORT OF PEOPLE**

4.1 Monitor business travel for air distances below 500km\*

4.2 Evaluating and adjusting car policy according to needs every 6 months (Focus on climate neutral\*)

4.3 Encourage use of frame agreements for site lease cars to gather insight in worldwide car fleet emissions

**5. PURCHASE OF GOODS & SERVICES**

5.1 Qualitatively analyze most material scope 3 emissions (Worldwide, DEME + Activity Line level\*)

5.2 Select a data collection & evaluation tool for Green Procurement for our most impactful suppliers

5.3 Reduce GHG emissions from use of concrete in the project value chain by signing "Betonakkoord" (NL)\*

5.4 Investigate ecodesign steel reduction programs in collaboration with steel manufacturers\*

This action plan is linked with the Sustainability Programs on Climate & Energy.

Luc Vandenbulcke  
Chief Executive Officer DEME

Koen Vanderbeke  
Strategic Operations Director DEME

Magali Bruggeman  
Energy & GHG Manager

DEME-GHG-YAP  
REV 2021-05-17



# GENERAL

## 02. REPORT RESPONSIBILITIES AND REPORTING PERIOD

The Energy and carbon footprint described in this report is intended for the use within the ISO 50001 and CO<sub>2</sub> Performance ladder boundary. The Energy and GHG inventory is compiled under the responsibility of the DEME Corporate QHSE-S Manager and in accordance with the ISO 14064 principles.

The source of the data can always be found in a tag near the chart or table.

### REVIEW TABLE

ACTION	RESPONSIBLE	FUNCTION	DATE
PREPARATION	NICK DEBOEVER	QHSE-S ENGINEER	1/03/2023
REVISION 1	MAGALI BRUGGEMAN	ENERGY DIRECTOR	9/03/2023
FINAL REVISION	KAREL HUYBRECHTS	DEME QHSE-S MANAGER	13/03/2023

### Our DEME Reporting Principles

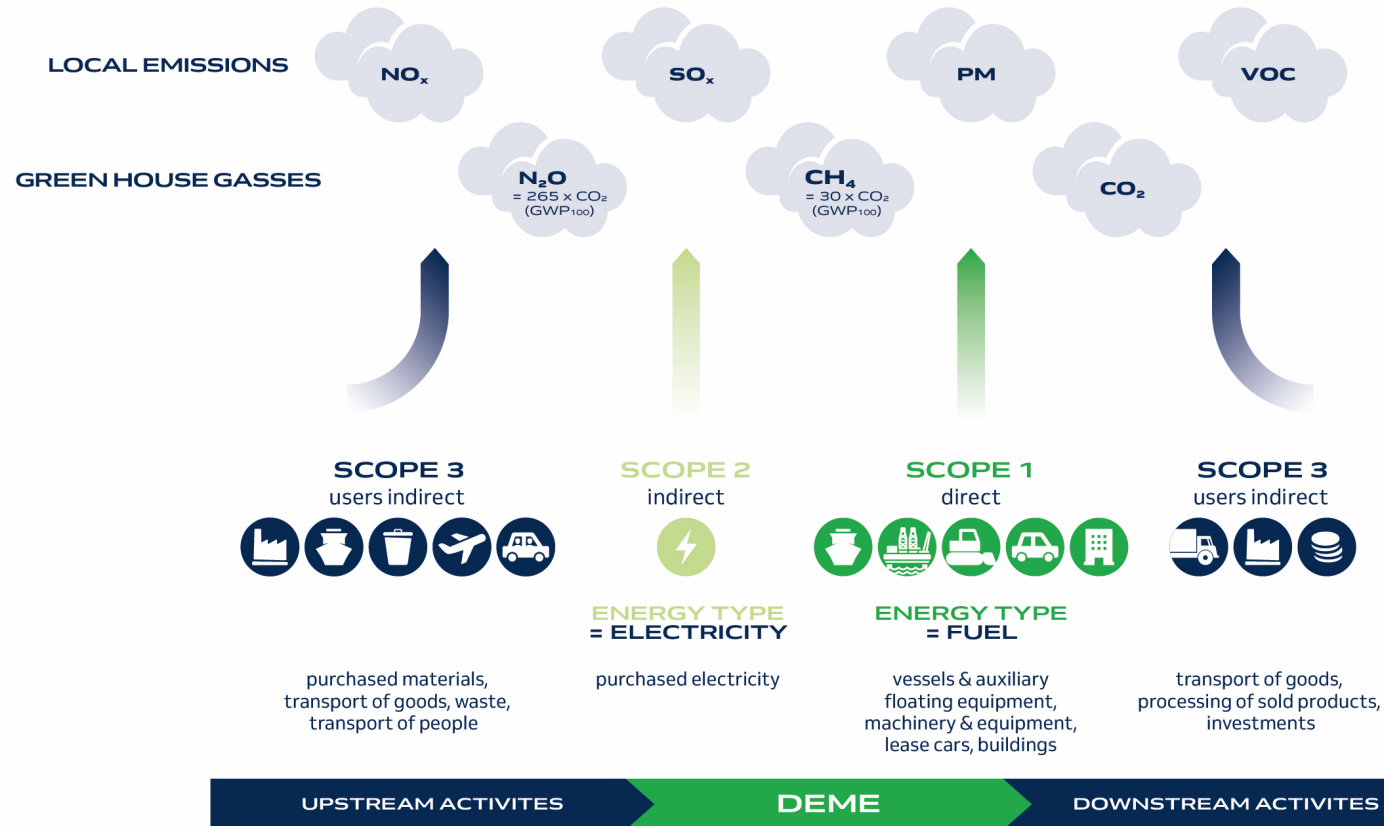


# GENERAL

## 03. ORGANIZATIONAL BOUNDARIES AND REPORTING BOUNDARIES

To define the operational boundaries, the CO<sub>2</sub> emissions are categorized in different scopes as determined by the GHG Protocol:

- **Scope 1:** contains all direct emissions. Direct emissions occur from sources that are owned or controlled by the company, such as the consumption of fuel and natural gas.
- **Scope 2:** covers indirect emissions from the consumption of purchased electricity. Scope 2 emissions physically occur at the facility where electricity is generated.
- **Scope 3:** is a reporting category that includes all other indirect emissions. Scope 3 emissions are a consequence of the activities of the company but occur from sources not owned or controlled by the company. This includes air travel and subcontractor's equipment for example.



**Note:** this visual is based on the GHG Protocol Scope 3 Standard and focuses on the most important aspects relevant to Deme





# GENERAL

## 03. ORGANIZATIONAL BOUNDARIES AND REPORTING BOUNDARIES

The boundary determination is based on the GHG protocol method 'operational control'. A company has operational control over an operation if the company (or one of its subsidiaries) has the full authority to introduce and implement its operating policies at the operation. Under the operational control approach, 100% of scope 1 (direct emissions) and scope 2 company emissions from operations over which the company has operational control are accounted for.

To eliminate double counting and allow cross verifications with the operational parameters of DEME's fleet under its control, joint operations (mainly joint venture projects) require a specific approach. A difference is made between emissions due to mutually operated equipment and emissions due to separate equipment.

If DEME has operational control over an entity: all the mutual emissions are taken up into DEME's carbon footprint, in addition to the emissions from DEME equipment used. If DEME has no operational control, only emissions from DEME equipment are taken up in the DEME inventory.



# GENERAL

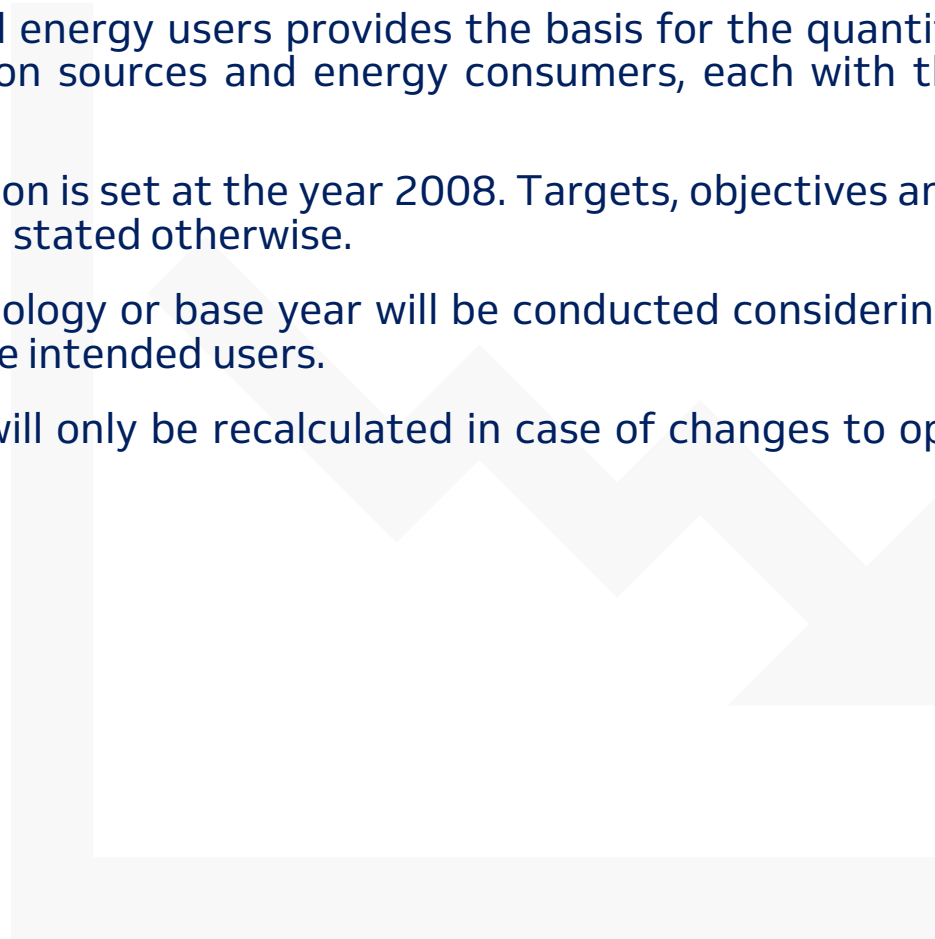
## 04. QUANTIFICATION METHODOLOGY, BASE YEAR AND BASE YEAR CHANGES

The identification of GHG sources and energy users provides the basis for the quantification of the emitted GHGs. Multiplying the data from the emission sources and energy consumers, each with their relevant emission factor, results in the carbon footprint.

The base year for the DEME organisation is set at the year 2008. Targets, objectives and goals are always considered in relation to this year, unless explicitly stated otherwise.

Changes in the quantification methodology or base year will be conducted considering quality improvement to the reported data, transparent towards the intended users.

The emission inventory or base year will only be recalculated in case of changes to operational boundaries or fixed emissions factors.












# GENERAL

## 05. ENERGY MANAGEMENT APPROACH

To give structure to our strategy, we set up an energy card and defined 5 significant energy users:

### ASSET TYPE

VESSELS & AUXILIARY FLOATING EQUIPMENT	
MACHINERY & EQUIPMENT	 
BUILDINGS	
TRANSPORT OF PEOPLE	  
PURCHASED GOODS AND SERVICES	 

The energy card contains emission factors that are linked to these asset types. For each of those energy users, we have defined objectives, targets and specific action plans.





# GENERAL

## 06. EXCLUSION OF CO2 EMISSION SOURCES

According to ISO 14064-1, direct or indirect GHG sources whose contribution to GHG emissions or removals is not material or whose quantification would not be technically feasible or cost effective, may be excluded from quantification.

The following GHG sources were excluded from the DEME carbon footprint.

- a) **Cutting & welding gases:** Gases such as acetylene and oxygen are occasionally used on worksites and on ships for cutting and welding purposes when repairing equipment. The research on the significance of cutting and welding gases indicates that the data collection would not be proportional with the significance in the carbon footprint report at this time.
- b) **Lubricants:** Various sorts of lubricants are used in normal conditions i.e. to protect internal combustion engines and reduce friction between moving surfaces. Waste oil is processed according to IMO MARPOL requirements. Lubricants are not included in the GHG emission inventory at this time.
- c) **Air condition refrigerants:** Air conditioning refrigerants are purchased on an ad hoc basis. Their consumption can be found in offices and on-board ship's logs. However, the leakage of these gases is minimal and not material.
- d) **Scope 3 emissions:** Not all scope 3 emissions are reported by DEME. Only the most essential emissions that can be monitored and for which reduction measures can be taken, are considered. For more details see Document [DEME-QHSE-DOC-002].



# GENERAL

## 07. ASSESSING AND REDUCING UNCERTAINTIES

The qualitative influences of uncertainty on the DEME GHG emission inventory (or in this case GHG - carbon footprint) are the following:

1. Source data consists of invoices and delivery records. If the source data on purchased quantities is not available, actual or estimated energy consumption data is used. Estimations are always conservative. It may occur that fuel supply to third (non-DEME) equipment is not separately registered when the fuel is included in the invoice/delivery record of the DEME equipment or DEME project reported figure.
2. Vessels in co-ownership are considered as subcontracted, however accounted for in scope 1 when their consumption could not be separately identified.
3. Energy supplied to third equipment is not registered separately when shared fuel tanks are used on site.
4. The quantity of gas consumed is reported in GCV (higher or gross calorific value), not NCV (lower or net calorific value).
5. For each flight, the total of air miles is provided by the travel agency.
6. The fuel consumption of cars is based on the data provided by the fuel supplier (invoices). Here, all invoices from the fuel supplier are considered (i.e., including use of the car for private purposes).
7. The use of private cars for business purposes is compiled from the reimbursed expenses for employees.
8. The fuel consumption for the ships of DEME Building Materials includes the total energy consumption of all their activities throughout Europe.
9. Except for the emissions for maritime & fluvial transport and chartered vessels all the scope 3 emissions are calculated based on the total cost of sales and by applying average CO2 emission conversion factors [DEME- QHSES-DOC-002].



# GENERAL

## 08. INVENTORY VERIFICATION AND GLOBAL WARMING POTENTIAL VALUES

Depending on our reporting purposes, we use different emission factors.

Most of the GHG emissions are calculated based on the GHG emission factors listed on the website [www.CO2emissiefactoren.nl](http://www.CO2emissiefactoren.nl) as prescribed by the CO<sub>2</sub> Performance ladder handbook 3.1.

For activities which are not listed on the website, different sources are consulted. The table below gives an overview of the other sources.

ACTIVITY	CO2 EMISSION FACTOR	SOURCE REFERENCE
PROCUREMENT OF STEEL	2100 KG CO2/TON STEEL	STUDY CRADLE TO GATE TATA STEEL
PROCUREMENT OF CONCRETE	54 KG CO2/TON CONCRETE	SBK DATABASE
RESIDUAL WASTE PROCESSING	21.28 KG CO2/TON WASTE	RESIDUAL WASTE-COMBUSTION(UK DEFRA)

To guarantee the quality of the CO<sub>2</sub> emission inventory, internal routine checks are performed in combination with external verification assessments (2019).

To identify significant emissions, DEME uses the ranking method as described in section §4.A.1 of the CO<sub>2</sub> Performance ladder.





# GENERAL

## 09. WHAT IS ENERGY?

Energy comes in many forms and is literally everywhere. In this report, energy (E) is either expressed in Joules (J) or Kilowatt Hours (kWh). A common mistake is using the unit Watt (W) to express energy. Watt is however the unit of power (P), and power is an amount of energy used during a certain time period.

There is a fixed relationship between the above units that can be expressed as follows:

$$P = 1\text{ W} = 1 \frac{\text{J}}{\text{s}}$$

$$E = 1\text{ kWh} = 1000 \frac{\text{J}}{\text{s}} * 3\,600\text{ s} = 3\,600\,000\text{ J}$$

Note that 1J is a very small amount of energy. That is why we often talk about Giga Joules (GJ) or Terra Joules (TJ). Burning 1m<sup>3</sup> of Marine Diesel Oil, releases 36 GJ of energy. If this amount of fuel is burned in 1 hour, the average power that is released during that hour is 10 MW.

ACTIVITY	CO2 EMISSION FACTOR	SOURCE REFERENCE
PROCUREMENT OF STEEL	2100 KG CO2/TON STEEL	STUDY CRADLE TO GATE TATA STEEL
PROCUREMENT OF CONCRETE	54 KG CO2/TON CONCRETE	SBK DATABASE
RESIDUAL WASTE PROCESSING	21.28 KG CO2/TON WASTE	RESIDUAL WASTE-COMBUSTION(UK DEFRA)

Energy sources can be categorised as renewable or non renewable. Renewable energy sources can easily be replenished, while non renewable cannot.



# GENERAL

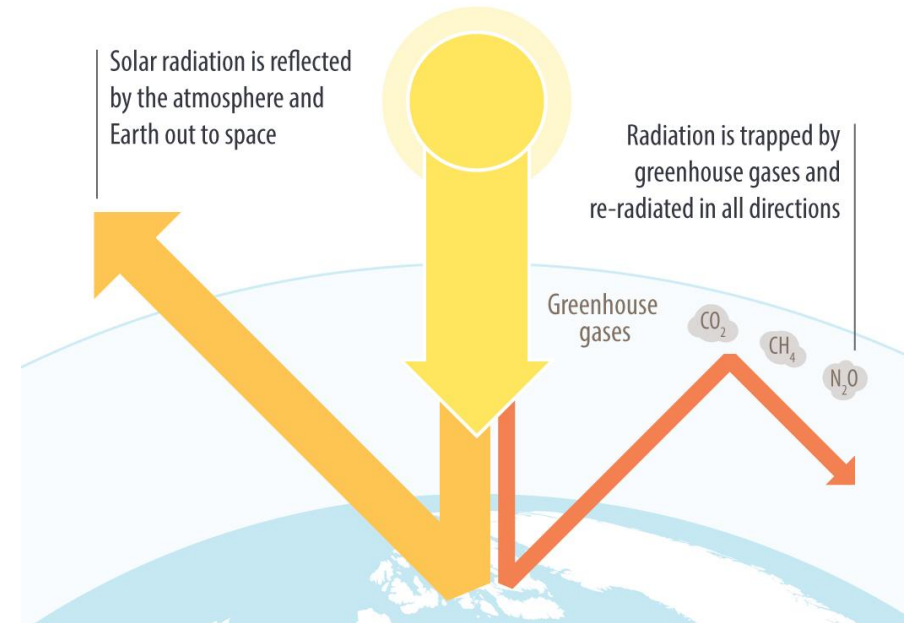
## 10. WHAT IS CO<sub>2</sub>?

Carbon dioxide is a gas consisting of one part carbon and two parts oxygen. It is one of the most important gases on the earth because plants use it to produce carbohydrates in a process called photosynthesis. It is however also a Greenhouse Gas (GHG). This means that it contributes to climate change by trapping solar radiation in our atmosphere, together with other GHGs like Nitrous Oxide (N<sub>2</sub>O) and Methane (CH<sub>4</sub>) which are the most common ones<sup>1</sup>.

In this report, the unit 'kTon CO<sub>2</sub>' and 'kTon CO<sub>2</sub>eq' are used. 'kTon' is the combination of 'kilo' (thousand) and 'ton' (thousand kg). Multiplying those two terms, results in 'Million kg' or 'kTon'.

The difference between CO<sub>2</sub> and CO<sub>2</sub>eq is that CO<sub>2</sub>eq (where eq stands for equivalents) also includes the Global Warming Potential (GWP) of N<sub>2</sub>O and CH<sub>4</sub>. The effect of these GHGs is calculated in terms of amount of CO<sub>2</sub>. The GHG effect of 1kg N<sub>2</sub>O is the same as 265 kg CO<sub>2</sub>, while for 1 kg CH<sub>4</sub> this translates to 30 kg CO<sub>2</sub>. This might seem like a lot, but it is important to note that most of our DEME GHG emissions (>90%) are CO<sub>2</sub>.

<sup>1</sup>Except for water vapour





# PROGRESS AND CARBON FOOTPRINT REPORT

## BELGIUM & THE NETHERLANDS

Extern

- 00 SCOPE OF ENTITIES
- 01 EVOLUTION SCOPE 1 EMISSIONS
- 02 EVOLUTION SCOPE 2 EMISSIONS
- 03 REDUCTION TARGETS SCOPE 1 AND 2 EMISSIONS
- 04 SCOPE 1 TARGET PROGRESS
- 05 SCOPE 2 TARGET PROGRESS
- 06 SCOPE 3 TARGET PROGRESS
- 07 ENERGY MANAGEMENT ACTION PLAN
- 08 EMISSIONS AND REDUCTIONS – PROJECT LEVEL
- 09 SCOPE 1 AND 2 CARBON FOOTPRINT
- 10 REFERENCES CO2 PERFORMANCE LADDER





# PROGRESS AND CARBON FOOTPRINT REPORT (BENELUX)

## 00. SCOPE OF ENTITIES

The scope of the Progress and Carbon Footprint Report limits to the entities of CO<sub>2</sub> Performance ladder.

Entity	Expiry date	Expiry status
AANNEMINGSMAATSCHAPPIJ DE VRIES & VAN D...		
CO2 prestatieladder	13/03/2024	Certificate valid
BAGGERWERKEN DECLOEDT & ZON NV (BDC)		
CO2 prestatieladder	13/03/2024	Certificate valid
DE VRIES & VAN DE WIEL BEHEER BV		
CO2 prestatieladder	13/03/2024	Certificate valid
DE VRIES & VAN DE WIEL KUST- EN OEVERWERKE...		
CO2 prestatieladder	13/03/2024	Certificate valid
DEME BLUE ENERGY NV (DBE)		
CO2 prestatieladder	13/03/2024	Certificate valid
DEME BUILDING MATERIALS BV		
CO2 prestatieladder	13/03/2024	Certificate valid
DEME BUILDING MATERIALS NV		
CO2 prestatieladder	13/03/2024	Certificate valid
DEME ENVIRONMENTAL NV		
CO2 prestatieladder	13/03/2024	Certificate valid
DEME INFRA NL		
CO2 prestatieladder	13/03/2024	Certificate valid
DEME INFRA NV		
CO2 prestatieladder	13/03/2024	Certificate valid
DEME OFFSHORE BE NV		
CO2 prestatieladder	13/03/2024	Certificate valid
DEME OFFSHORE HOLDING NV		
CO2 prestatieladder	13/03/2024	Certificate valid
DEME OFFSHORE NL BV		
CO2 prestatieladder	13/03/2024	Certificate valid
DEME OFFSHORE PROCUREMENT & SHIPPING LU ...		
CO2 prestatieladder	13/03/2024	Certificate valid
DREDGING INTERNATIONAL NETHERLANDS BV		
CO2 prestatieladder	13/03/2024	Certificate valid
DREDGING INTERNATIONAL NV		
CO2 prestatieladder	13/03/2024	Certificate valid

Entity	Expiry date	Expiry status
DREDGING, ENVIRONMENTAL & MARINE ENGINE...		
CO2 prestatieladder	13/03/2024	Certificate valid
ECOTERRES SA		
CO2 prestatieladder	13/03/2024	Certificate valid
GRC ZOLDER NV		
CO2 prestatieladder	13/03/2024	Certificate valid
GROND RECYCLAGE CENTRUM NV (GRC)		
CO2 prestatieladder	13/03/2024	Certificate valid
MILIEUTECHNIEK DE VRIES & VAN DE WIEL B.V		
CO2 prestatieladder	13/03/2024	Certificate valid
ZANDEXPLOITATIEMAATSCHAPPIJ DE VRIES & VA...		
CO2 prestatieladder	13/03/2024	Certificate valid

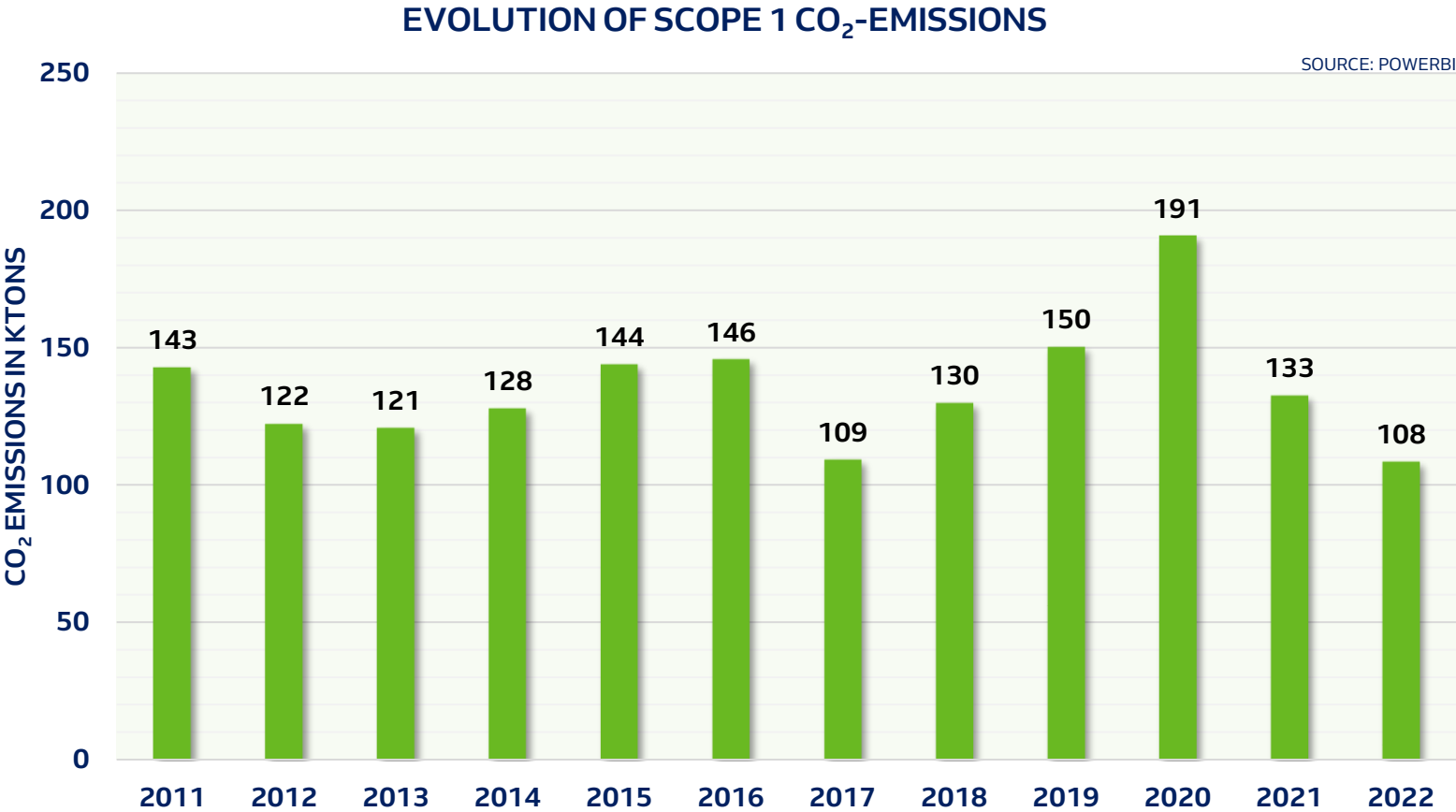




# PROGRESS AND CARBON FOOTPRINT REPORT (BENELUX)

## 01. EVOLUTION OF SCOPE 1 EMISSIONS

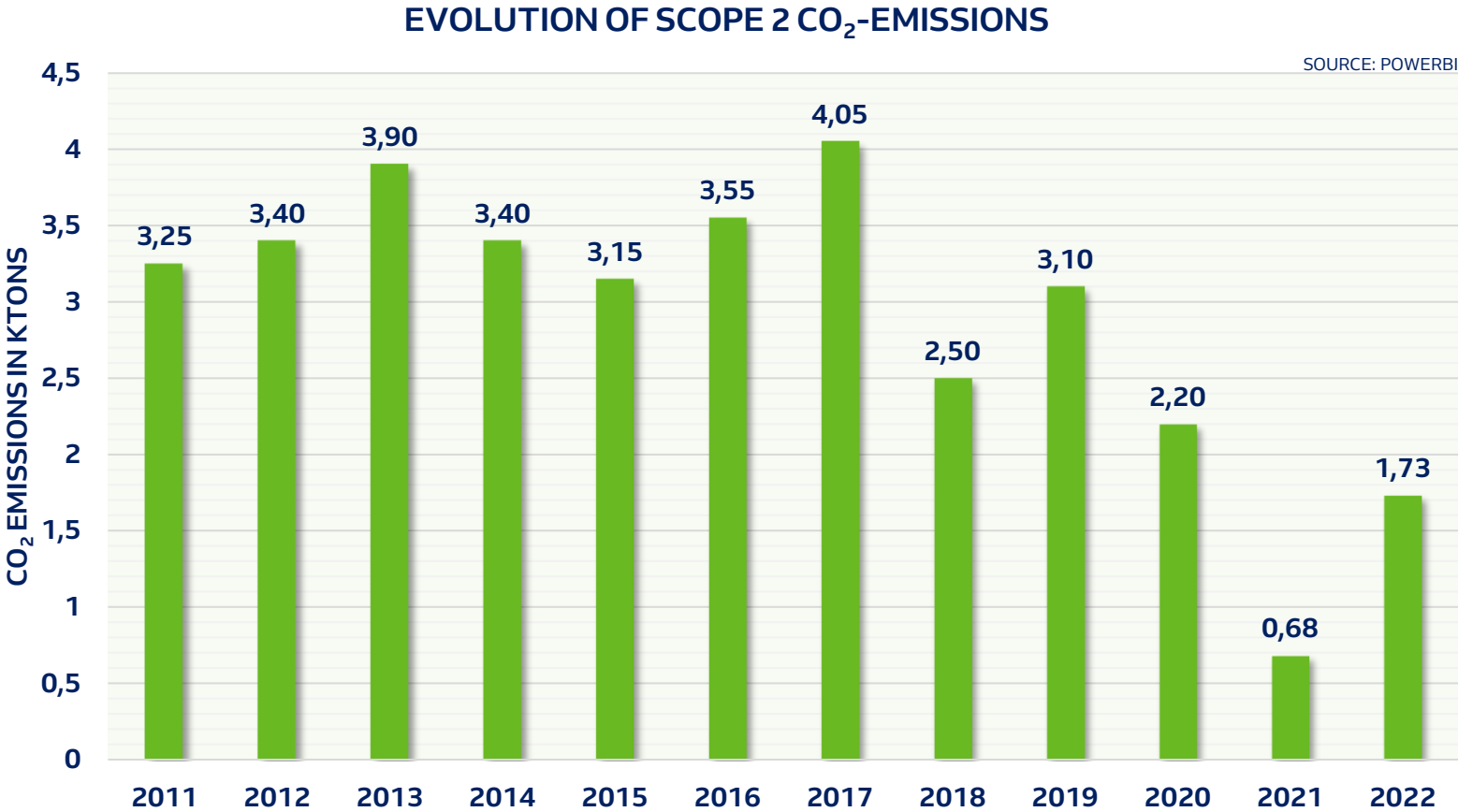
During 2022,  
**108 kTon**  
of scope 1 CO<sub>2</sub> emissions  
were emitted in Belgium,  
Luxembourg and The  
Netherlands as a result of  
our activities.



# PROGRESS AND CARBON FOOTPRINT REPORT (BENELUX)

## 02. EVOLUTION OF SCOPE 2 EMISSIONS

During 2022,  
**1.73 kTon**  
of scope 2 CO<sub>2</sub> emissions  
were emitted in Belgium,  
Luxembourg and The  
Netherlands as a result of  
our activities.



# PROGRESS AND CARBON FOOTPRINT REPORT (BENELUX)

## 03. REDUCTION TARGETS SCOPE 1, 2 AND 3 EMISSIONS

### DEME'S AMBITION BELGIUM AND THE NETHERLANDS

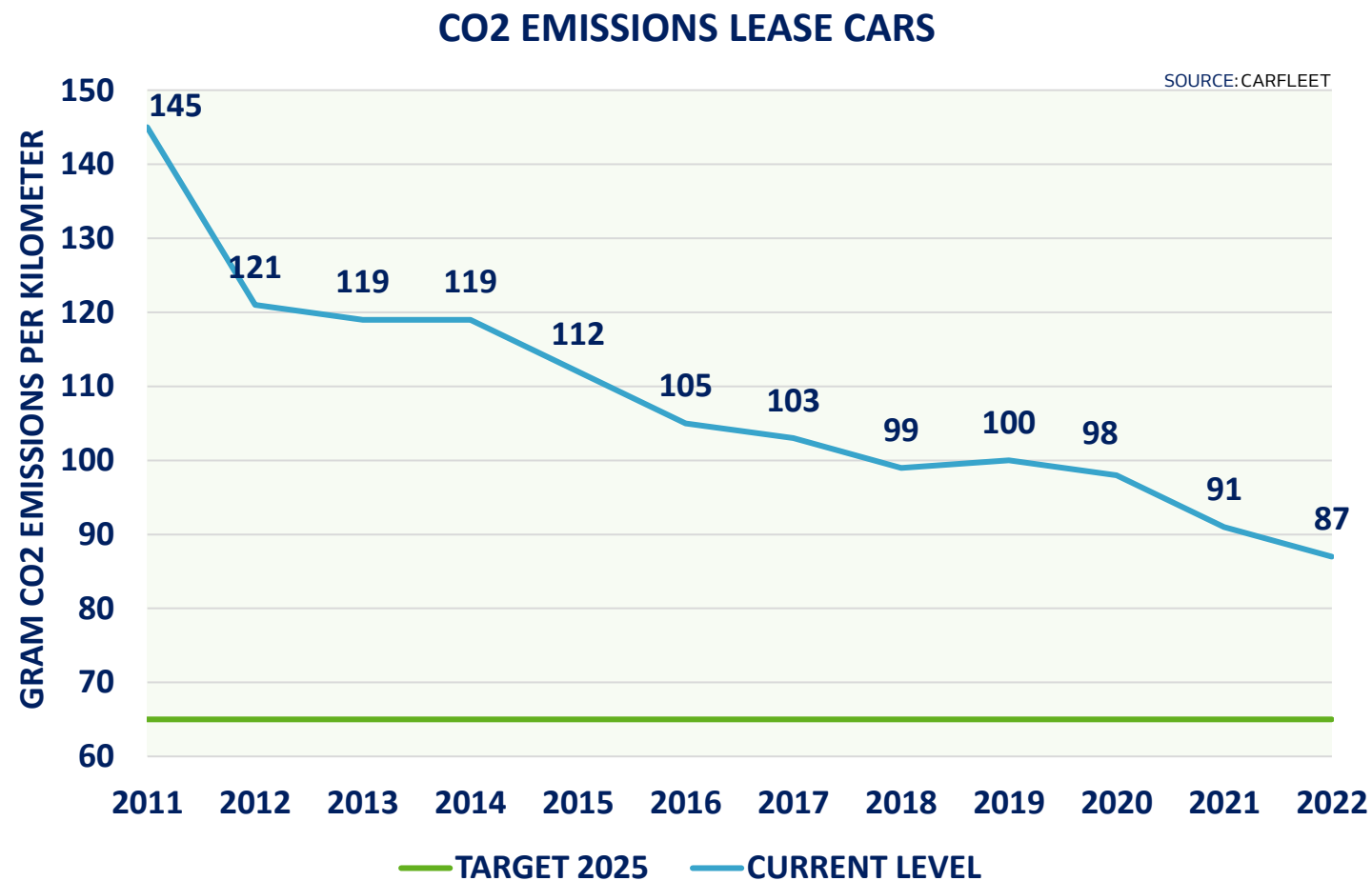
TARGET	TARGET YEAR	SCOPE
HQ ZWIJNDRECHT OFFICES – CLIMATE NEUTRAL	2025	1, 2
OFFICES IN BENELUX 100% GREEN ELECTRICITY	2025	2
PROJECT SITES IN BENELUX 100% GREEN ELECTRICITY	2025	2
CLIMATE NEUTRAL IN OPERATIONS WITH MACHINERY & EQUIPMENT (BENELUX)	2030	1, 2
65 GRAMS CO <sub>2</sub> /KILOMETER FOR LEASE CARS	2025	1
ENSURE A GRADUAL FUEL SHIFT FROM DIESEL OIL TO LOW-CARBON AND (NET-ZERO) CARBON FUELS(TARGET 5% OF LOW-CARBON FUEL TO THE TOTAL)	2022	1



# PROGRESS AND CARBON FOOTPRINT REPORT (BENELUX)

## 04. SCOPE 1 TARGET PROGRESS

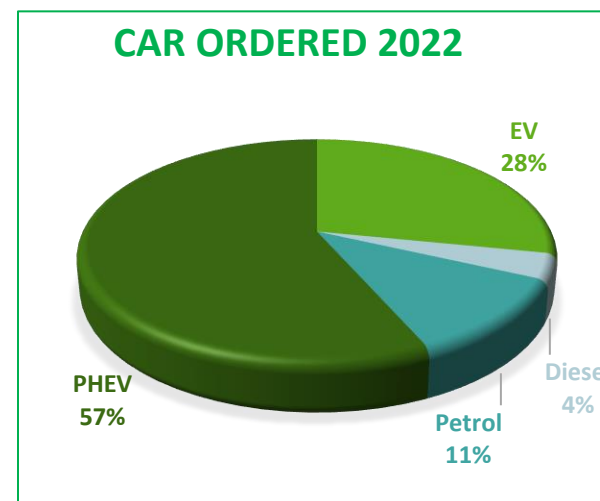
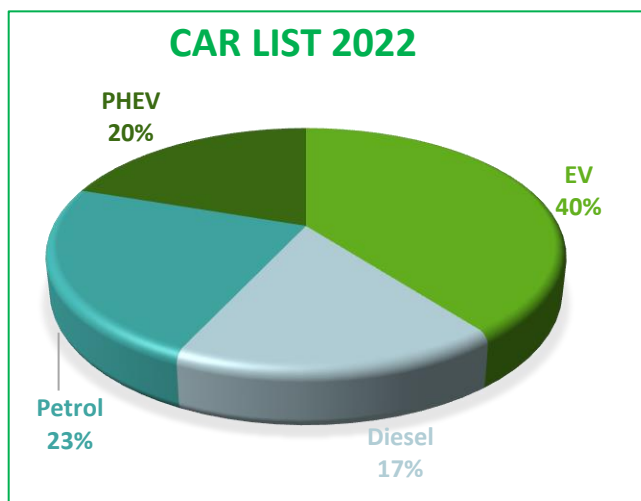
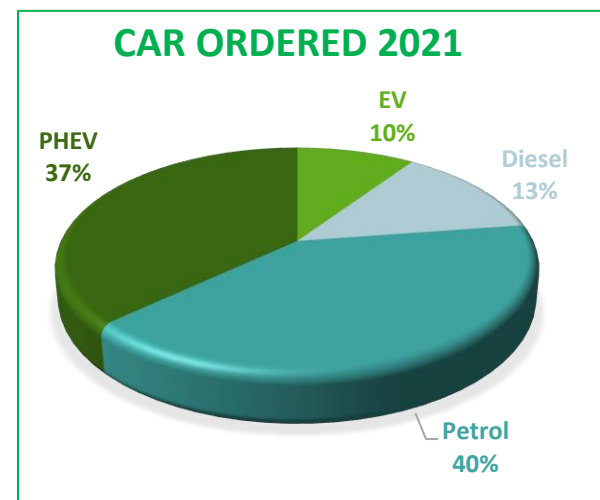
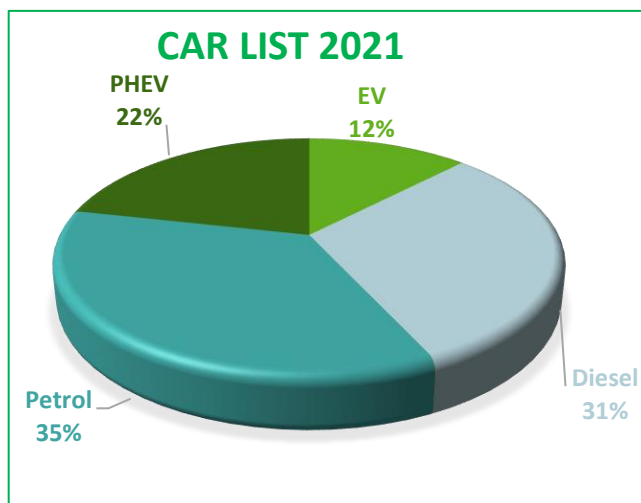
During 2022, the average CO<sub>2</sub> emissions of our fleet (1631 cars) was  
**87 g/km.**



# TRANSPORT OF PEOPLE - CARS

## DEME CAR FLEET

Extern





# PROGRESS AND CARBON FOOTPRINT REPORT (BENE)

## 04. SCOPE 2 TARGET PROGRESS

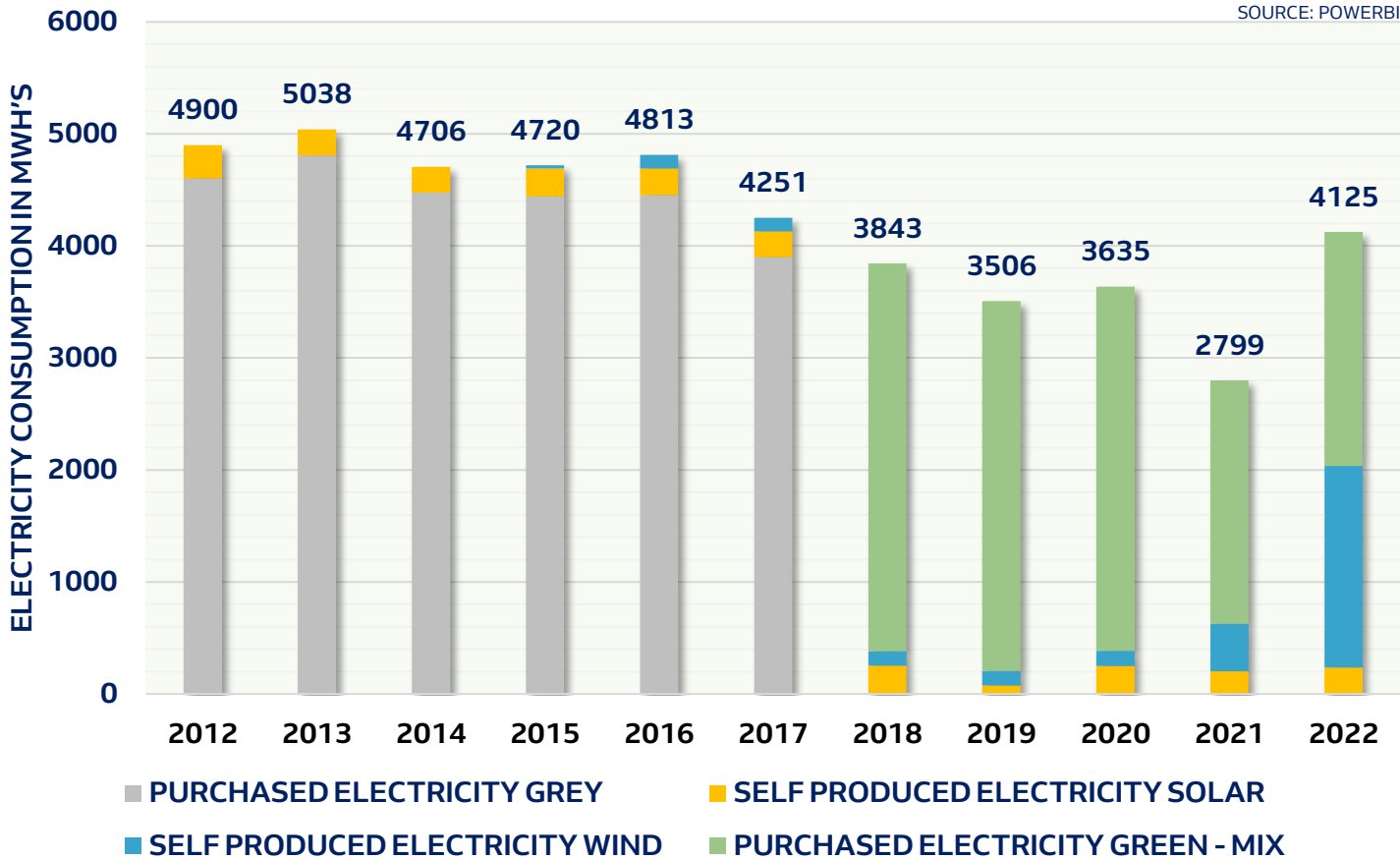
During 2022, the total electricity consumption was **4125 MWh** at HQ Campus Zwijndrecht.

This is an increase of **47 %** with respect to 2021.

All the electricity that was consumed at HQ, came from renewable energy sources.

DISTRIBUTION ELECTRICITY SOURCE HQ

SOURCE: POWERBI



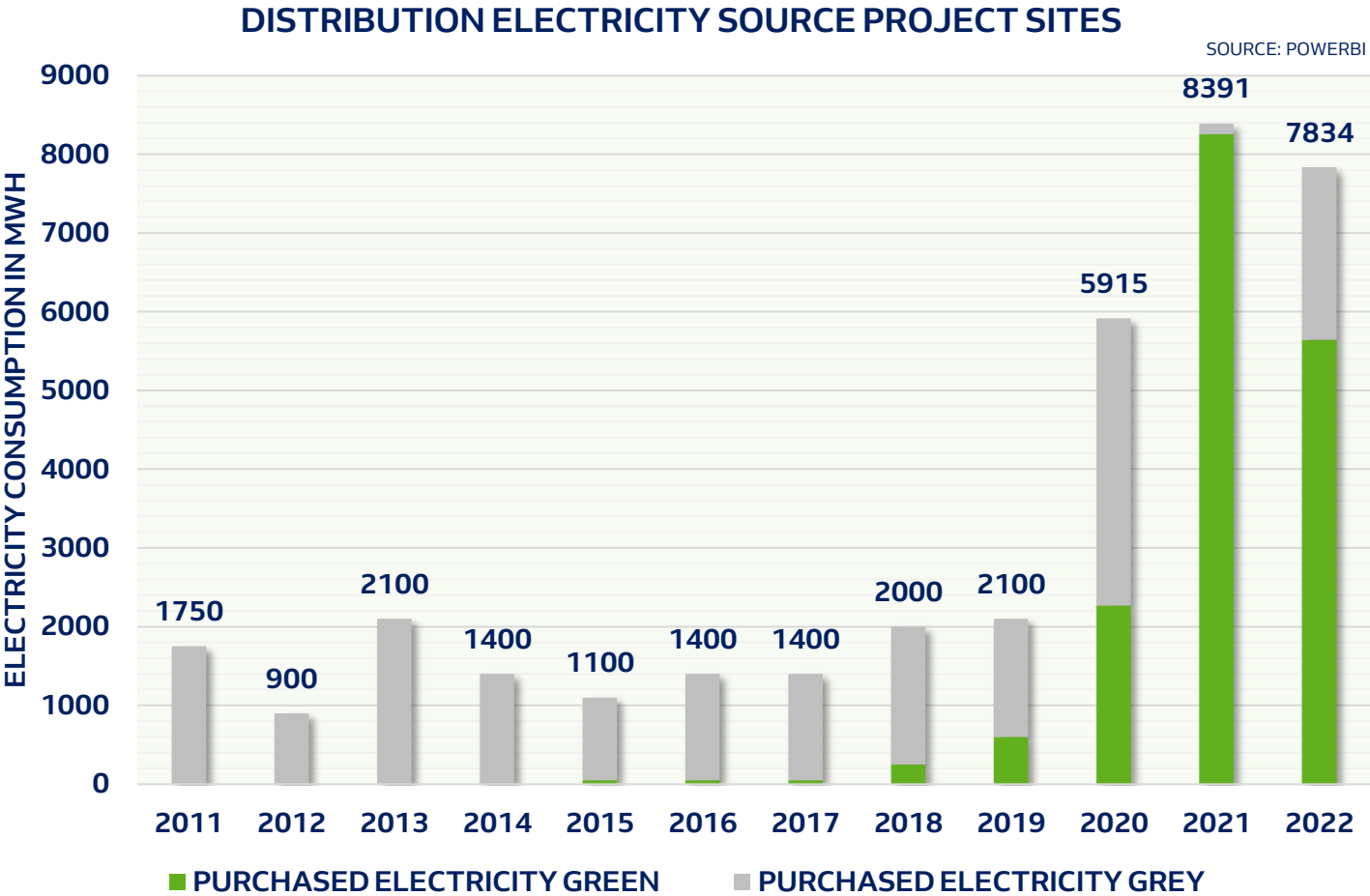
# PROGRESS AND CARBON FOOTPRINT REPORT (BENELUX)

## 04. SCOPE 2 TARGET PROGRESS

During 2022, the total electricity consumption was **8003 MWh** at our project sites in BeNeLux.

This is a decrease of **6%<sup>1</sup>** with respect of 2021 (BeNeLux only).

72,6% of electricity that was consumed at our project sites, came from renewable energy sources.

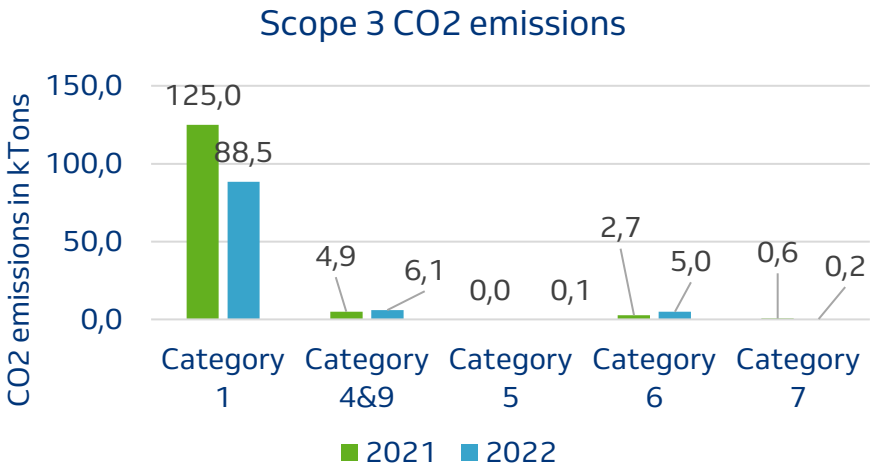


# PROGRESS AND CARBON FOOTPRINT REPORT (BENELUX)

DEME has analysed its scope 3 emissions and decided to monitor only 4 emission categories (see table 5.1 GHG Protocol Scope 3 Standard in the 'Handreiking Aanbesteden Versie 3.0') for which the amounts are measurable and reducible; e.g.:

- Cat 1: purchase of goods & services (concrete, steel, fuel consumption of hired equipment);
- Cat 4 & 9: transport;
- Cat 5: generated waste;
- Cat 6: air travel;
- Cat 7: commuter travel.

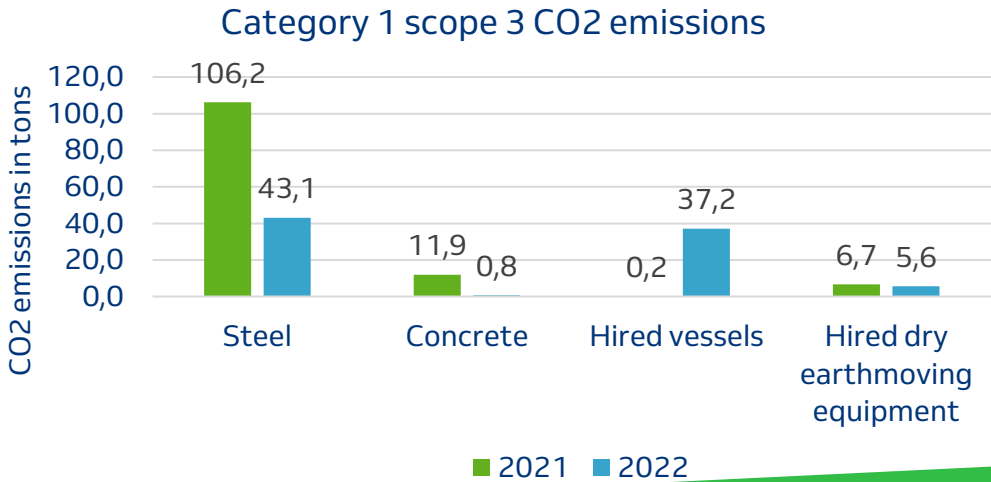
The scope 3 emissions for 2022 are shown in the graph below compared with 2021 ones.



Not all the scope 3 emissions are calculated based on real data, some emissions are calculated by CO2 conversion factors retrieved from literature. The reliability of the scope 3 emissions is indicated in the table below.

Emission category	% based on product carbon footprints or real data
Category 1	70 %
Category 4&9	75%
Category 5	50%
Category 7	70%

The category 1 scope 3 emissions consist of several subcategories: concrete, steel & fuel consumption for hired equipment.



# PROGRESS AND CARBON FOOTPRINT REPORT (BENELUX)

To get more insight in its chain emissions, chain analysis were conducted:

## **Construction of windfarm “Rentel Project”**

- In 2019 we started a new chain study on the Rentel Wind Turbine project. Depending on this outcome of this study and the review by an independent recognized consultancy, we will be able to formulate new objectives.

## **Maritime & fluvial marine aggregates transport**

- DBM analysed its activities for processing and supplying marine aggregates. The major contribution of its scope 3 emissions is due to external transport activities. Therefore, DBM established a reduction policy for its maritime & fluvial transport. The policy aims for a 6 % reduction in CO2 emissions per ton km, starting from 2015 till 2022.

## **Infrastructural works “Blankenburgverbinding”**

- In the beginning of 2020, a chain study was carried out for project Blankenburgverbinding. Based on the results of this study, new targets will be set.



# PROGRESS AND CARBON FOOTPRINT REPORT (BENELUX)

DEME's energy reduction program is evaluated and assessed by means of an energy management action plan. Ref. document DEME-QHSES-PRE-012. This action plan is linked to the Sustainability Programs on Climate & Energy. Reference is also made to our Year Action Plan on Energy & GHG emissions (DEME-GHG-YAP).

## 16. Emissions and reductions – Project level

Emissions and reductions related to projects with a specific award advantage on the CO2 Performance Ladder are separately reported.

An overview of these projects is given in the table below.

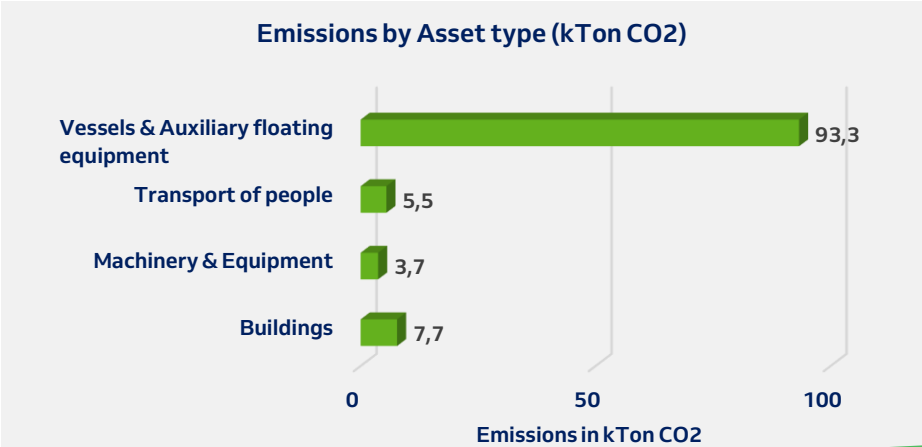
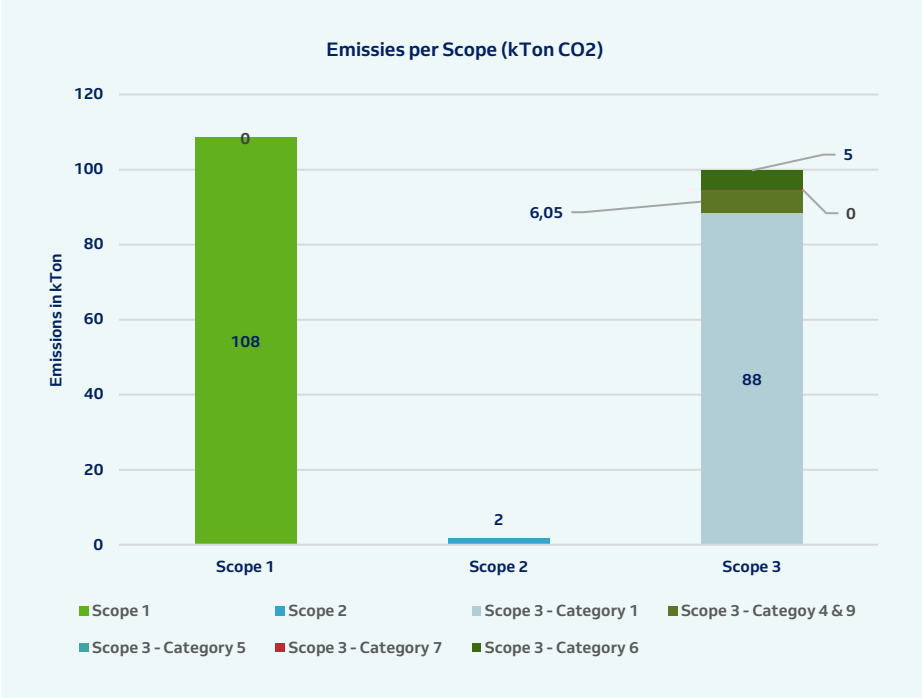
Further information about the projects can be found at DEME's corporate website.

Project budget nb.	Project description	Status project
5264	Maintenance dredging of rivers NL	On-going since 2016
5447 - 5453	Rijnlandroute	On-going in 2020
5547 -5548	Blankenburgverbinding	On-going since 2017
5509 - 5513	Lock Terneuzen	On-going in 2020
5568	ROCO - Oosterweelverbinding	Start-up in 2021
5666	Maintenance dredging work coastal marinas	On-going since 2019
5820	Maintenance dredging of rivers NL	Start-up in 2020
5834	DVW – Sterke Lekdijk	Start-up in 2021
5871-5892	COTU - The Scheldt tunnel	Start-up in 2021





## Scope 1, 2 and 3



## Scope 1 and 2

