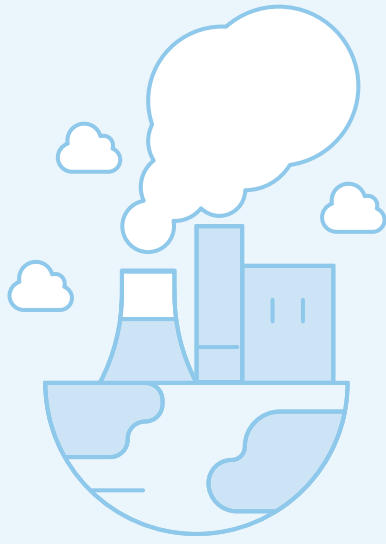
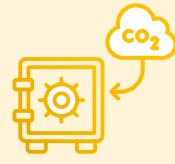


WHAT IS CO₂?

Carbon dioxide (CO₂) is a chemical compound of carbon and oxygen and one of the most important greenhouse gases in the atmosphere. It is produced during the combustion of carbon-containing fuels such as natural gas, coal, oil and fossil transport fuels, as well as biological processes such as respiration and decomposition. CO₂ absorbs and reflects infrared radiation, which contributes to the greenhouse effect and climate change. Although it is an essential part of the carbon cycle, the CO₂ caused by human activity has led to a disruption of the natural balance, resulting in global warming.

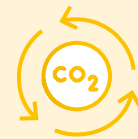


DIFFERENCE BETWEEN CCS, CCU AND CDR



CCS – Carbon Capture and Storage

With CCS, CO₂ is captured and then stored, usually underground. The goal is to reduce emissions by preventing CO₂ to enter the atmosphere.



CCU – Carbon Capture and Utilisation

In the case of CCU, CO₂ is captured and then reused, for example as a raw material in industrial processes or for the production of synthetic fuels.

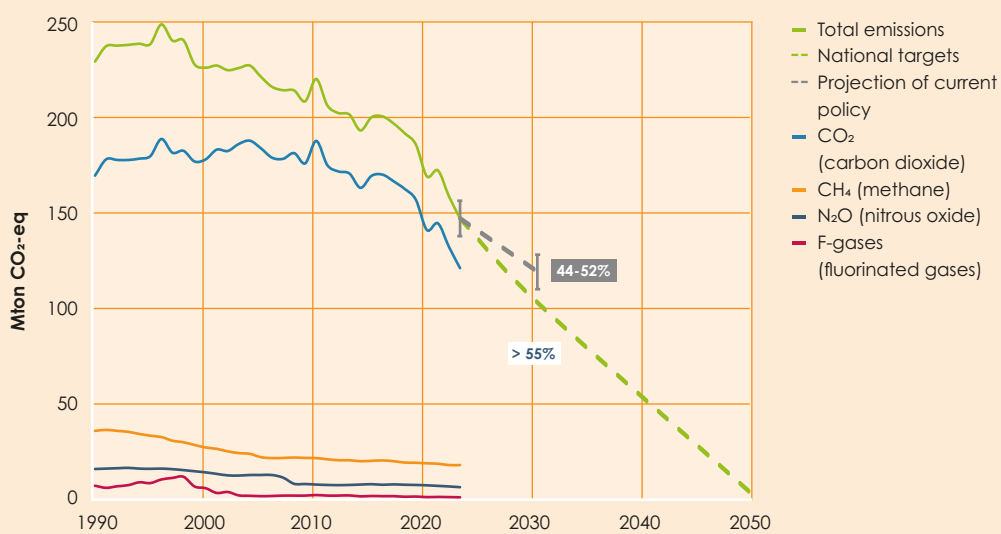


CDR – Carbon Dioxide Removal

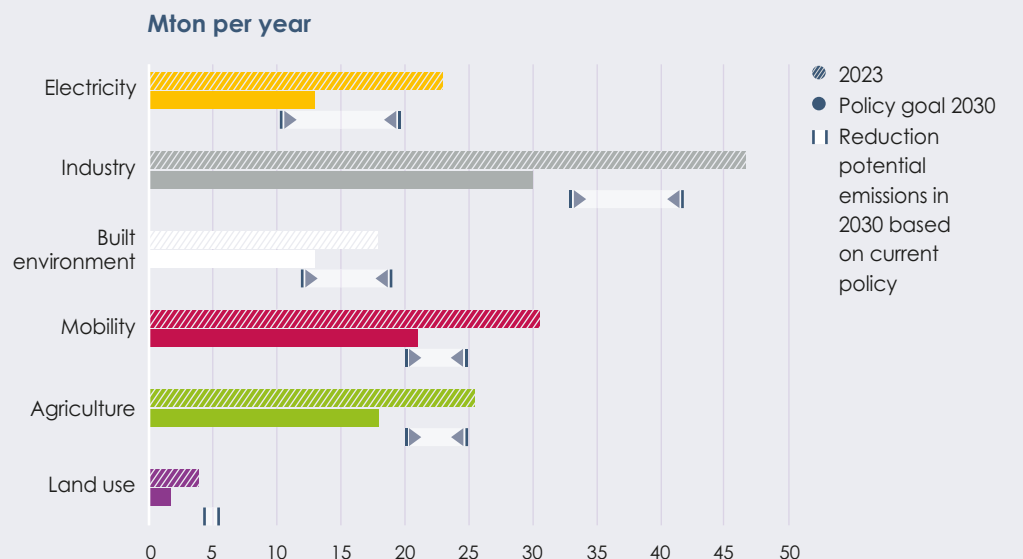
CDR focuses on the capture and long-term removal of CO₂ already present in the atmosphere, for example temporarily in forests and soils or permanently deep underground and in rocks.

Source: "Clearing the air?" advice from the Scientific Climate Council (WKR) (2024)

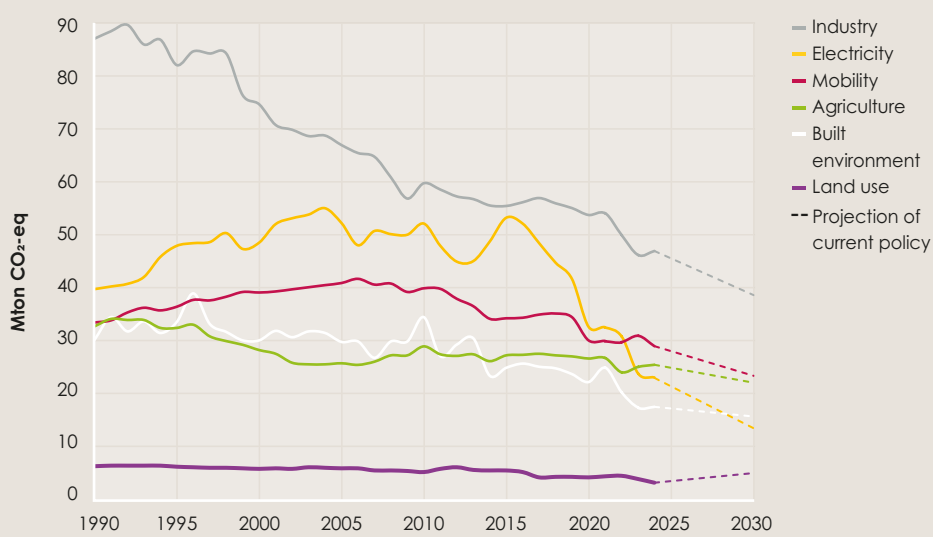
WHAT ARE THE DUTCH CLIMATE GOALS?



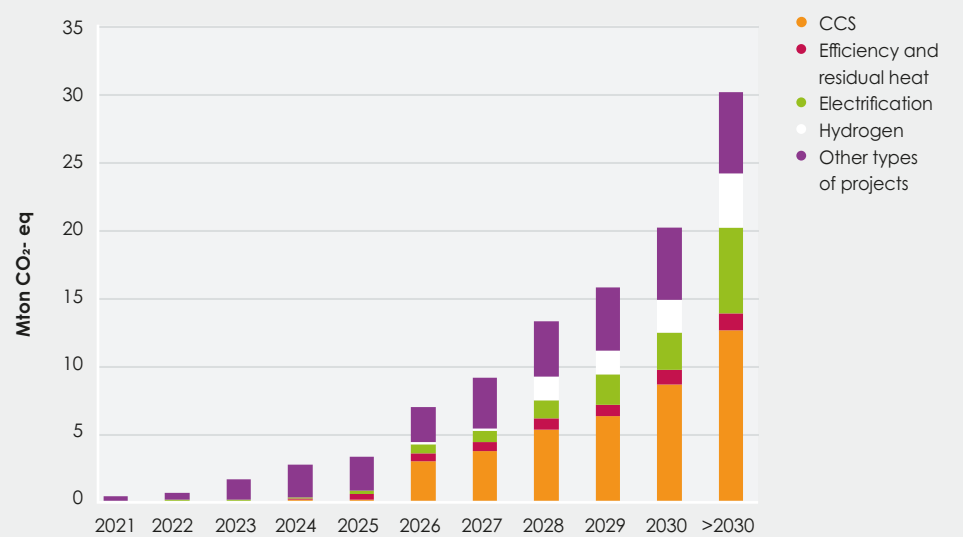
EMISSIONS IN THE SECTORS: TARGETS FOR 2030



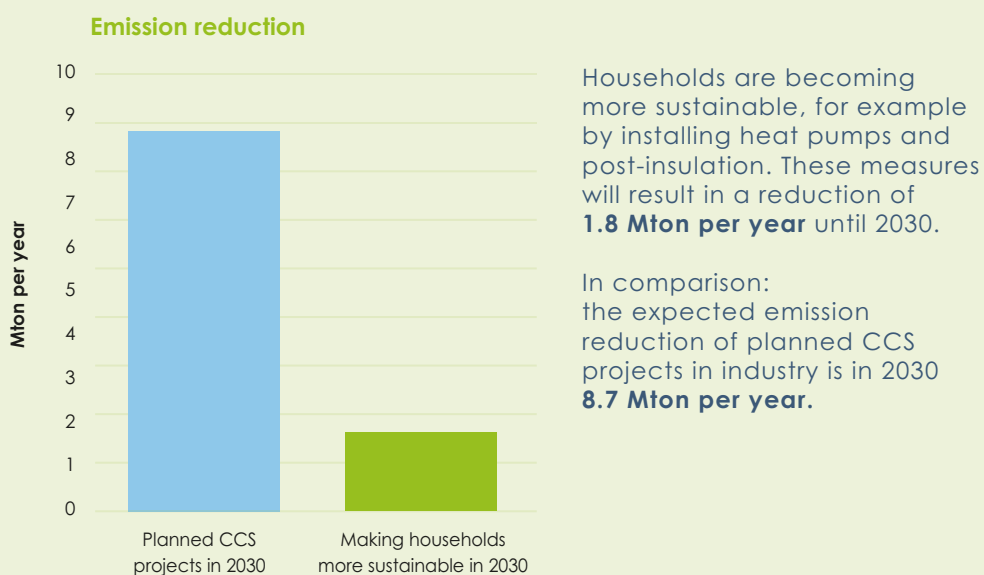
EMISSIONS BY SECTOR IN THE NETHERLANDS



POTENTIAL OF CCS FOR INDUSTRY



CCS IN PERSPECTIVE



EXPLANATION & CONVERSION



The sectoral climate targets are expressed in Mton. **One megaton is one million tons.**



1 ton = 1 small elephant.



The average CO₂ emissions of a car in the Netherlands are just over **1 ton of CO₂ per year**.

CCS PROJECTS IN THE NETHERLANDS: PORTHOS AND ARAMIS

PORTHOS

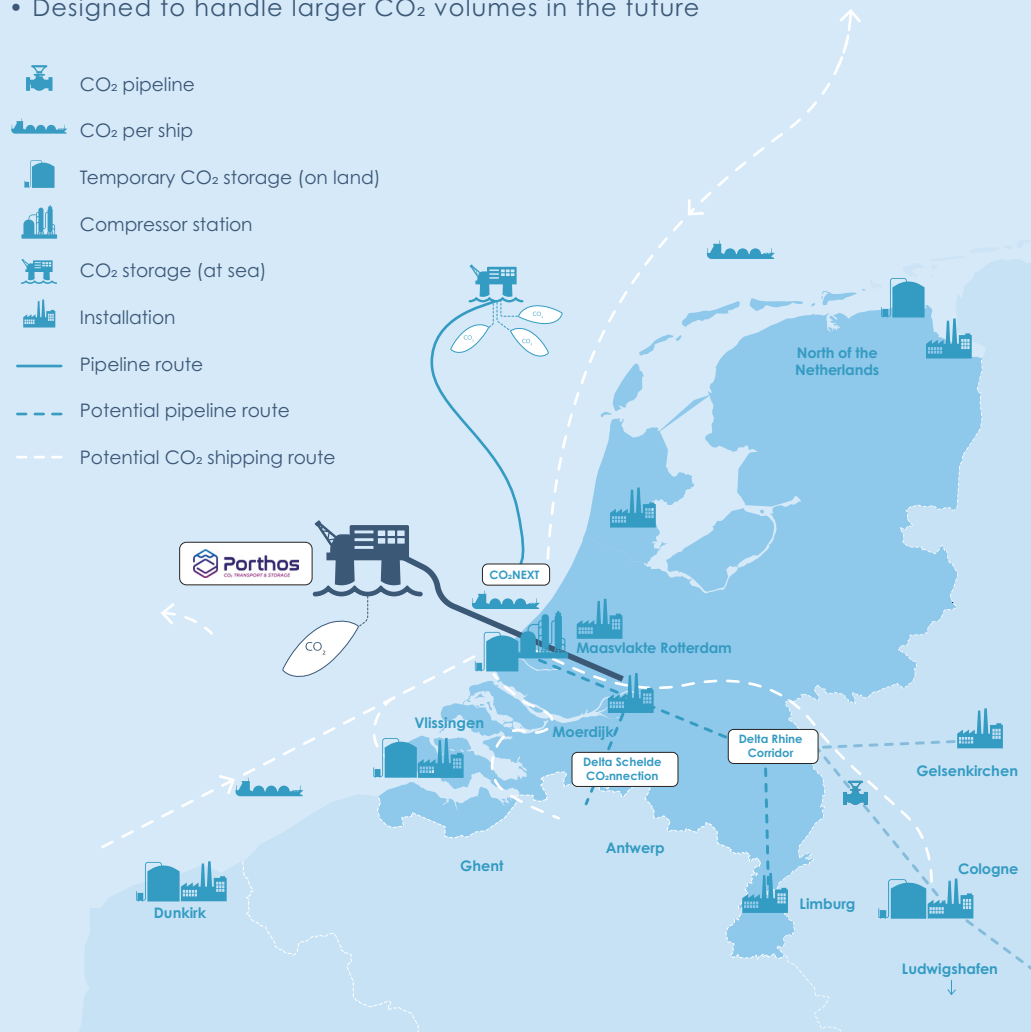
More info
Scan the QR



WHAT IS PORTHOS?

- First large-scale CCS project in the EU
- Transport and storage of CO₂ from the port of Rotterdam
- Storage in several depleted gas fields under the North Sea
- Designed to handle larger CO₂ volumes in the future

- CO₂ pipeline
- CO₂ per ship
- Temporary CO₂ storage (on land)
- Compressor station
- CO₂ storage (at sea)
- Installation
- Pipeline route
- Potential pipeline route
- Potential CO₂ shipping route



ARAMIS

More info
Scan the QR



WHAT IS ARAMIS?

- A large-scale CO₂ transport project aimed at storing CO₂
- Suitable for multiple industry clusters and businesses
- Reception of CO₂ via pipeline or ship (via CO₂next hub terminal)
- In line with Dutch government policy and EU policy

- CO₂ pipeline
- CO₂ per ship
- Temporary CO₂ storage (on land)
- Compressor station
- CO₂ storage (at sea)
- Installation
- Pipeline route
- Potential pipeline route
- Potential CO₂ shipping route



CONTRIBUTION OF PORTHOS AND ARAMIS

Porthos CCS

- Capacity: 2.5 Mton CO₂ per year
- Duration: 15 years
- Total storage: ~37.5Mton

Aramis CCS

- Pipeline 22Mton per year, expected starting volume 7.5Mton per year
- Term: ~20 years or more
- European infrastructure project for the transport and storage of CO₂ via the North Sea
- Initially using 3 storage units

In addition to Porthos and Aramis, various storage projects are also being developed in gas fields in the North Sea. These will be connected to either the Aramis pipeline or will be filled via ships (Direct Injection).



LEARN MORE

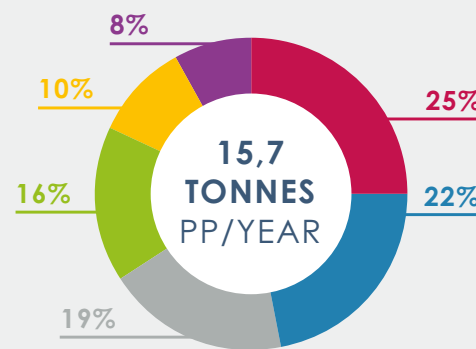
DOWNLOAD THE INFOGRAPHIC AND THE INDIVIDUAL GRAPHS AT EBN.NL/FEITEN-EN-CIJFERS/KENNISBANK/CO2-INFOGRAPHIC-2025/

OR SCAN THE QR-CODE



GREENHOUSE GAS FOOTPRINT PER PERSON

Greenhouse gas footprint: provides insight into the impact that Dutch spending has on global greenhouse gas emissions, regardless of whether the production of goods and services takes place in the Netherlands or abroad.



The average Dutch person generates approximately **15.7 tonnes of CO₂ equivalent per year**

- Mobility (4 tonnes)
- Living (3.5 tonnes)
- Belongings (3 tonnes)
- Food (2.5 tonnes)
- Other (1.5 tons)
- Government & infrastructure (1.2 tonnes)

Given the total emissions of the Netherlands, this implies that about half of the average Dutch person's footprint takes place outside the Netherlands.

Porthos

Porthos stores **2.5 million tonnes of CO₂ per year**. This amount is comparable to the annual footprint of **+/- 159,000 people**. That number equal the inhabitants of the city of **Amersfoort**.

Amersfoort

Aramis

Aramis stores 22Mton of CO₂ per year. This amount equals the annual footprint of **+/- 1,401,000 people**. In other words, the entire population of the **province of North Holland, excluding Amsterdam**.

North Holland