

# PROJECT ONE

## A GAMECHANGER FOR THE ANTWERP CHEMICAL INDUSTRY

With Project ONE, INEOS is building a state-of-the-art ethane cracker, set to produce 1,450Mt of ethylene annually in the port of Antwerp. At a cost of several billion euros, this constitutes the largest investment in the European chemical industry for a generation. At the same time, this ground-breaking new installation is also setting a new industry standard for sustainability, particularly when it comes to emissions.

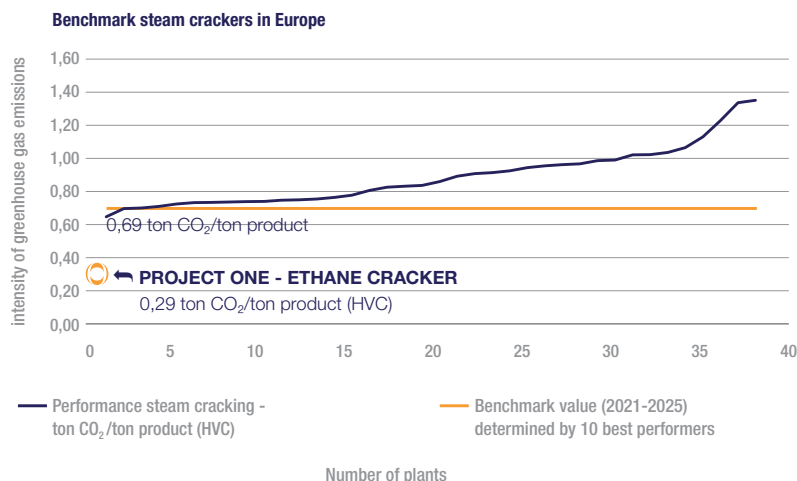
While we may not realise it, ethylene is an indispensable material for manufacturing many of the products and appliances we use in our daily lives. It is a building block for lightweight components in cars and wind turbines, while also being used for building materials such as water and gas pipes, sewage systems, wires, cables and insulation. It is also used for medical equipment, textiles, computer and smartphones housing, domestic appliances, long shelf-life food packaging and cosmetics. With this new ethane cracker, set to be the greenest of its kind in Europe, INEOS is responding to increasing demand for this invaluable material.



### Project ONE is setting a new standard, delivering a cracker with the lowest carbon footprint in Europe

By building from scratch and relying on currently available technology, INEOS will be able to produce ethylene far more sustainably. Compared with other steam crackers in Europe, Project ONE is raising the bar with its incredibly low carbon footprint of just 0.29 tonnes of CO<sub>2</sub> per tonne of produced material.

When Project ONE becomes active, the benchmark value for emissions in the EU Emissions Trading System will drop. As a result, less efficient crackers will be forced to clean up their processes, which will only serve to benefit the planet.



Source: [https://climate.ec.europa.eu/system/files/2021-10/policy\\_ets\\_allowances\\_bm\\_curve\\_factsheets\\_en.pdf](https://climate.ec.europa.eu/system/files/2021-10/policy_ets_allowances_bm_curve_factsheets_en.pdf)

### THE BEST AVAILABLE TECHNOLOGIES FOR THE LOWEST EMISSIONS



By using ethane as a raw material instead of naphtha, it is possible to generate much more ethylene, while producing far lower CO<sub>2</sub> emissions.



**Hydrogen as a fuel:** more than half of the cracker's energy requirements are met using a by-product from the cracking process.



**Highly integrated systems:** the heat and cooling being generated by the processes and raw materials are used elsewhere in the installation.



**Use of renewable energy:** all externally procured electricity for Project ONE comes from offshore wind farms.



## WHY ANTWERP?

25 years. That is how long it has been since the last, new steam cracker was built in Europe. In recent years, the largest investments in this type of installations have been made elsewhere in the world, particularly in the United States, China and Saudi Arabia.

**Project ONE will breathe new life into both the wider European chemicals industry as well as the Antwerp chemical cluster.**

We are building Project ONE on infill land in the port of Antwerp. This site is easily accessible by barge for the supply of raw materials, as well as being conveniently located near the main pipeline networks used for transporting the ethylene produced.

## IN POLE POSITION VOOR NET ZERO

Project ONE aims **to become carbon-neutral within 10 years of startup.**

To this end, INEOS has defined three possible pathways, designing its installations accordingly:



### SWITCH TO 100% HYDROGEN

As soon as enough clean hydrogen is available

- Already 60% energy needs covered by low-carbon hydrogen generated during cracking process
- Can be increased to 100%



### CARBON CAPTURE READY

Pre-investments

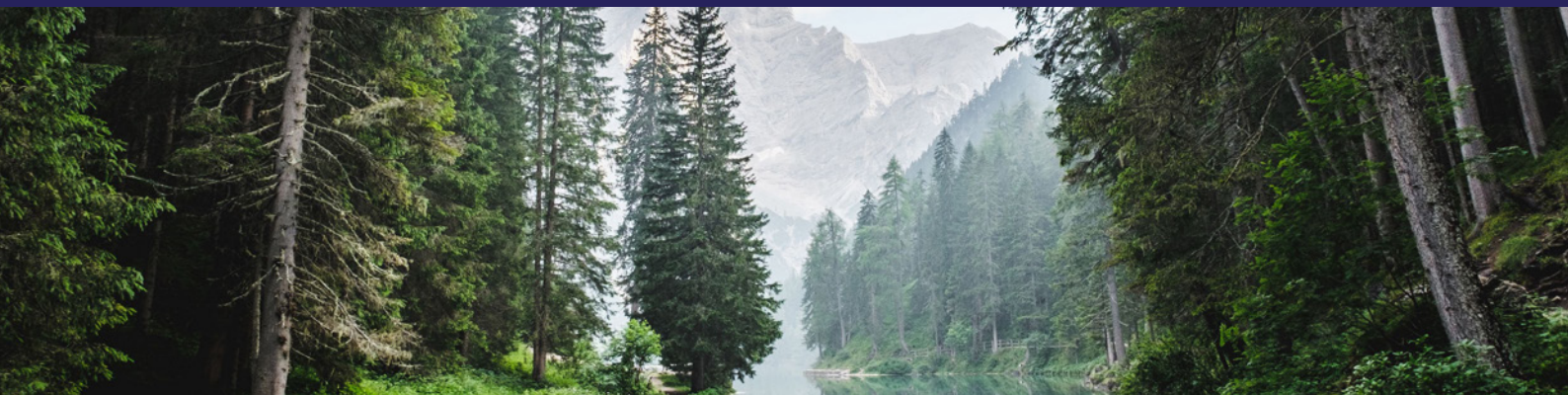
- Reserved space for capture unit
- Solid pipeline for diverting carbon chimneys to capture unit



### HYBRID CRACKER

Subject to technological breakthroughs and available green energy

- 60% of energy needs covered by self-generated hydrogen
- The remaining energy requirement can be completed with 40% energy coming from electric furnaces



## GET BEHIND PROJECT ONE

INEOS is looking for 300 new team members to get behind Project ONE. Given its magnitude for a European project, this is a unique, **once-in-a-lifetime** opportunity for anyone seeking a new challenge in process chemistry.

We also offer:

- An open company culture.
- Room for initiative.
- An attractive salary, complete with fringe benefits.

**INEOS**  
CHECK OUT OUR  
JOB VACANCIES AT  
[PROJECT-ONE.INEOS.COM](https://PROJECT-ONE.INEOS.COM)

