GRAND CHALLENGE

What is the Industrial Clusters mission?

Our aim to create a net-zero carbon industrial cluster by 2040 is a world first. We want to attract innovators, investors and problem solvers to create a low-carbon exemplar that others in the UK and internationally can learn from and replicate.

“We will establish the world’s first net-zero carbon industrial cluster by 2040 and at least one low-carbon cluster by 2030”

This will be achieved by:

- Reducing emissions in one cluster to **net-zero by 2040**.
- In at least one cluster, by 2030:
  - **The low-carbon infrastructure** needed to support industrial decarbonisation will be in place and operational, attracting new investment and innovation.
  - **Multiple industrial facilities** will already have reduced their emissions, by the greatest possible extent.
- Positioning UK clusters as top areas for global inward investment and driving demand for low carbon products and technologies by **harnessing the power of markets, the public sector, universities and local communities**.

The mission is backed by public investment through the **Industrial Strategy Challenge Fund**

Based on high-emissions sites in scope of the EU ETS - may not be exhaustive

Largest industrial clusters by emissions

- **Grangemouth**: 4.3MtCO₂
- **Teesside**: 3.1MtCO₂
- **Merseyside**: 2.6MtCO₂
- **South Wales**: 8.2MtCO₂
- **Humberside**: 12.4MtCO₂
- **Southampton**: 2.6MtCO₂
What are industrial clusters and why are they important to the UK?

Industrial clusters are key hubs of local economic activity and an important part of the UK economy. They offer high quality jobs that tend to pay above the average UK wage and are key to local supply chains and the local economy.

Industry that uses energy intensively, within and outside of clusters, has a value of around £150 billion to the UK economy (GVA).

They secure around 1.5 million jobs.

They export goods and services worth around £320 billion.

Why do they matter to our future clean economy?

Industry accounts for around a quarter of all UK greenhouse gas emissions - with more than two thirds of these industrial emissions coming from a small number of energy intensive industries.

For the world to meet the ambitions of the Paris Climate Change Agreement, industry needs to reduce its emissions. This is a challenge that needs new cutting-edge tech, like Carbon Capture Usage and Storage and low-carbon fuels such as hydrogen, bioenergy and clean electricity.

The move to low carbon industry is a huge opportunity - with the chance for the UK to take the lead and seize a large share of a growing global market.

We want to show what is possible in the UK - to transform our industry at home and encourage other countries to use these technologies in the future.

Get in touch
If you’re an innovative business working to support Clean Growth, we want to hear from you. Write to us at GrandChallenges@BEIS.gov.uk.