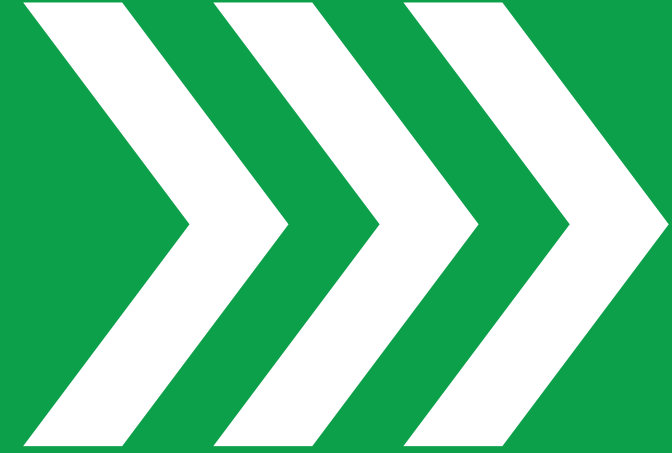




Department for
Energy Security
& Net Zero



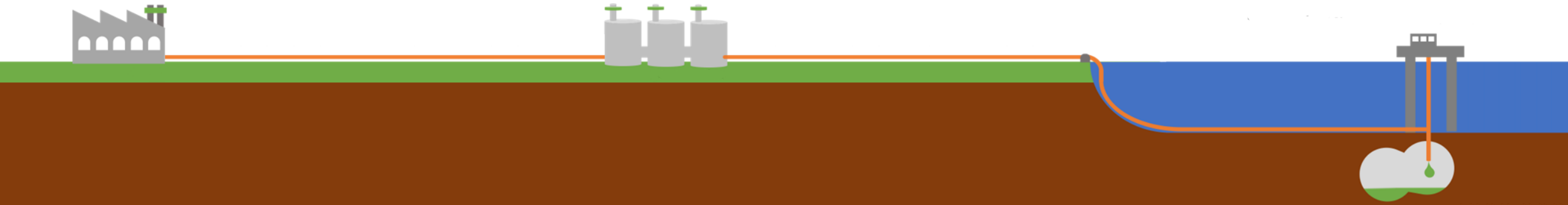
Reflections from the UK government's CCUS programme

UK CCSRC Knowledge Exchange Keynote

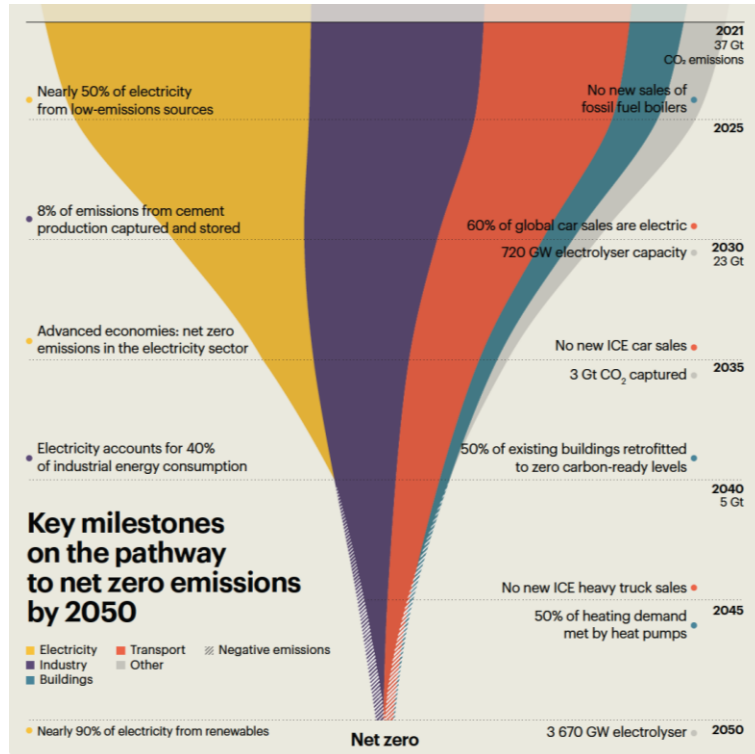
Chris Thackeray – Deputy Director, Power CCUS & International

This talk covers a bit about my role, a global perspective, our UK progress, the lessons we've learned and our ambitions

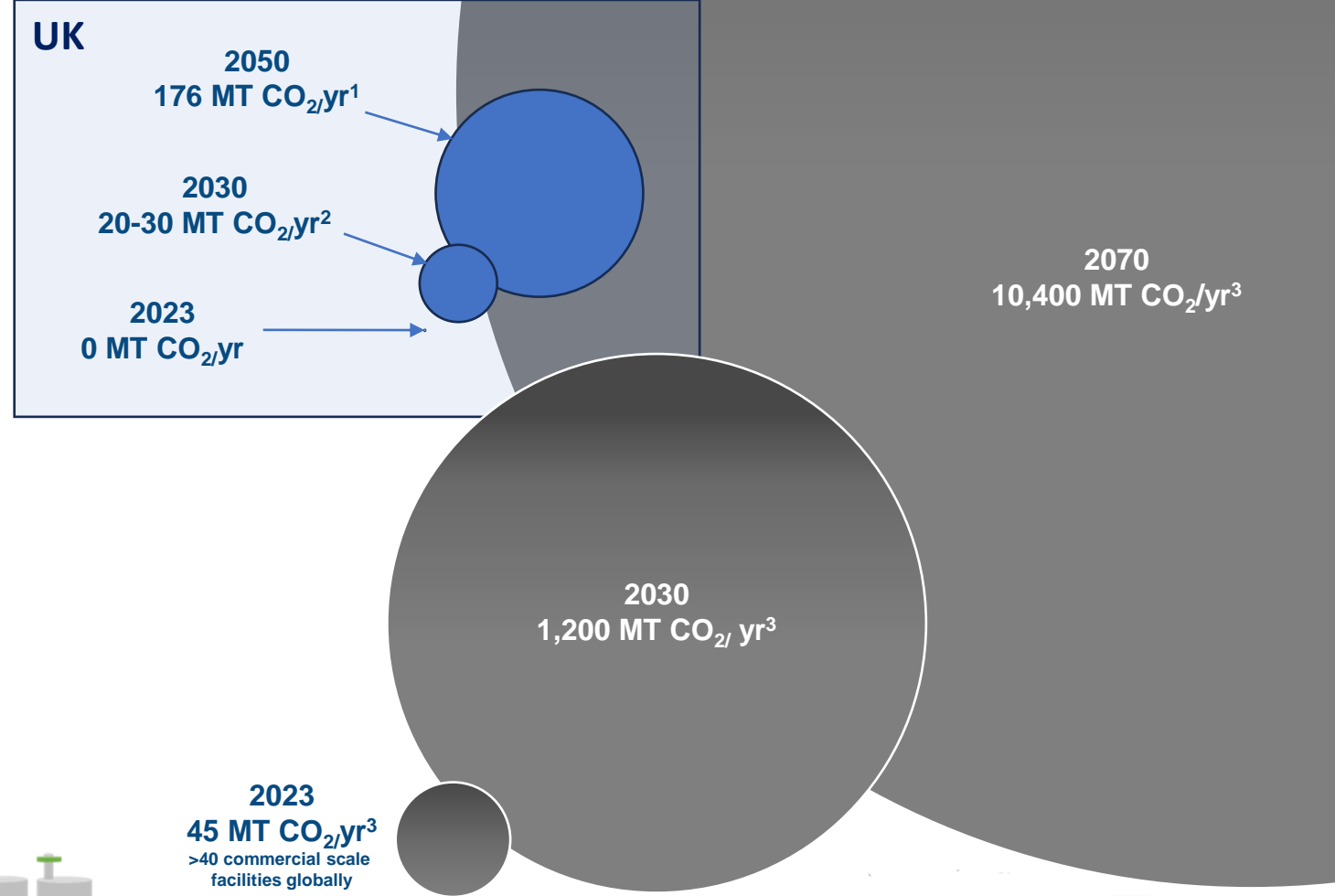
- 1. The need for CCUS**
- 2. The global perspective on action on CCUS**
- 3. UK potential**
- 4. UK CCUS programme progress**
- 5. Our approach over time**
- 6. The lessons I've taken**
- 7. Our ambitions for the future.**



How much CCUS will we need?



World Energy Outlook (IEA, 2022)



The UK has the potential to be a leader in CCUS

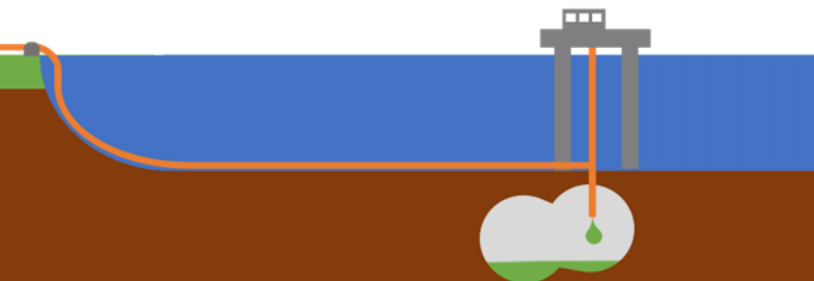
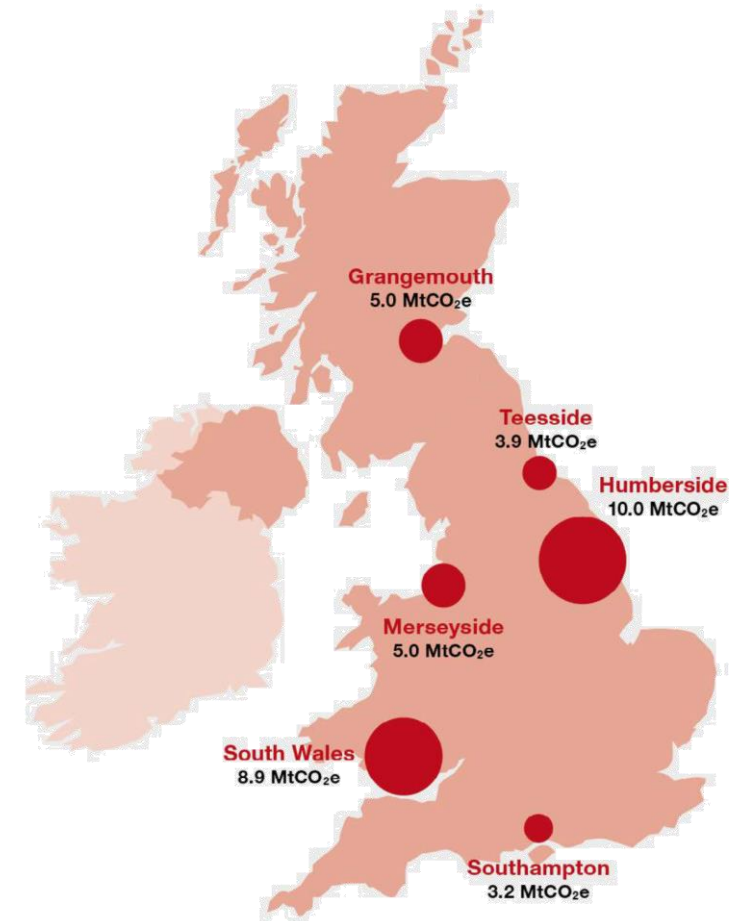
Our **2050 Net Zero Strategy** emphasised the importance of decarbonising industry and energy, generating hydrogen and negative emissions

The UK has potential to store more than **78 billion tonnes of carbon dioxide (CO₂)** in its continental shelf

Industrial CCUS clusters can be the starting point for a new **carbon capture industry** with a **sizeable export potential**

First Track-1 clusters announced as **HyNet** and **East Coast Cluster**

All industrial clusters need to be decarbonised to achieve net zero and Track 2 selection of **Acorn** and **Viking** clusters



We have made significant progress on delivering CCUS in the UK

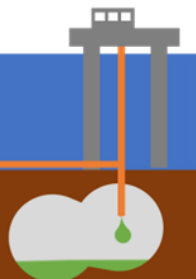
£20bn of funding announced to start sector

Legislation passing through Parliament

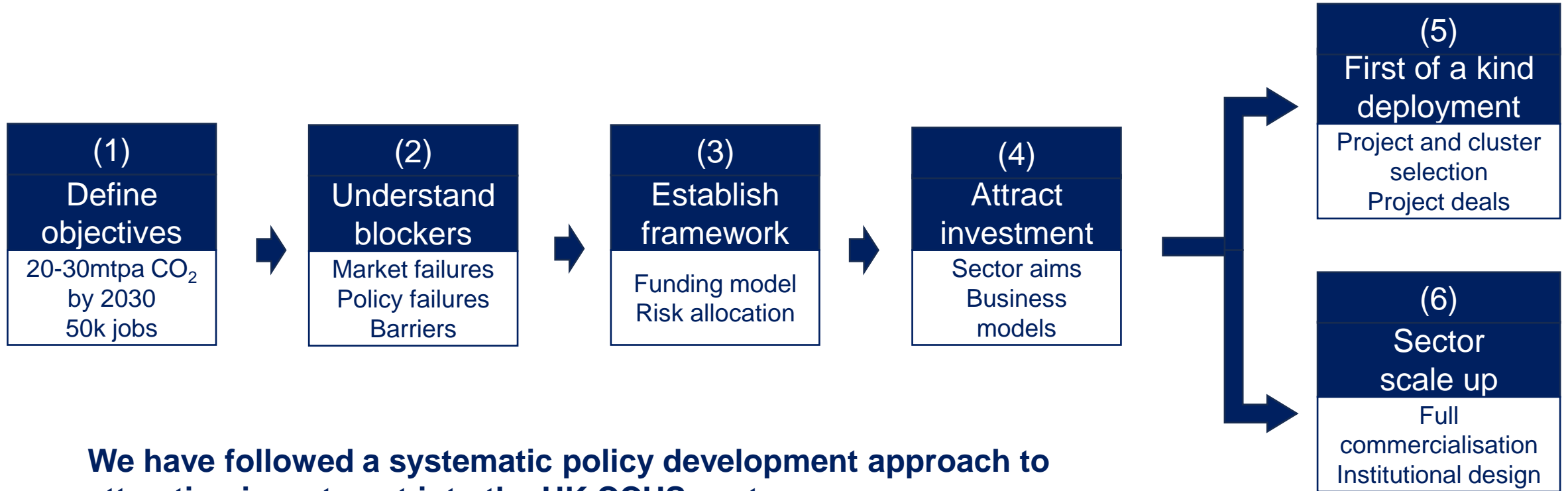
Eight Track 1 projects to be negotiated

Expanding Track 1 and launching Track 2

CCUS Vision for 2030s being developed



How did we get here?



What have we learned?

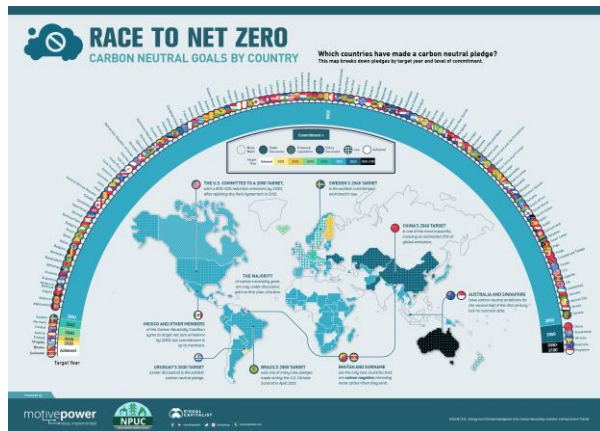
To get CCS built...



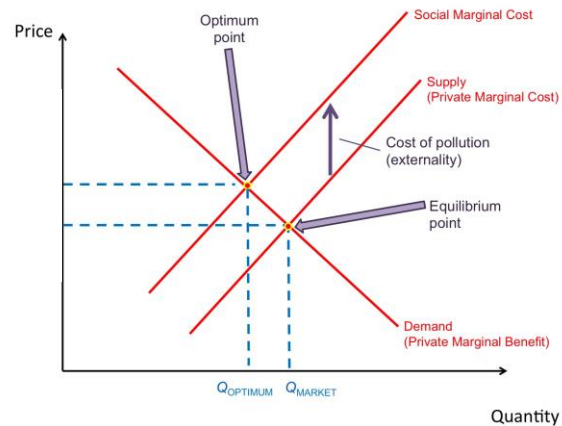
We need...



The right context...



...to address all the market failures...



...the will and capacity to succeed.



The UK government has clear ambitions for CCUS

By mid 2020s

Deploy at least 2 industrial clusters

Deploy at least one power CCUS plant and 3Mt of industrial CCUS

By 2030

Deploy 4 industrial clusters

Capture 20-30 MtCO₂ pa by 2030 including 6 MtCO₂ from industrial CCUS

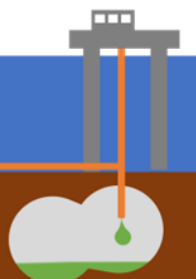
Deploy up to 10GW of hydrogen production

Deploy at least 5MtCO₂ pa of engineered greenhouse gas removals (GGRs) by 2030
50,000 jobs in CCUS

By 2035

Deliver a fully decarbonised power system

Legally binding target of 78% emissions reductions by 2035



The CCUS programme and UK sector is well placed to deliver on our ambitions

1. **CCUS is a critical technology** in tackling climate change globally and for the UK
2. The **UK is well placed to lead on CCUS deployment** through our substantial CO2 storage potential and CCUS cluster sequencing process.
3. We've learned lessons. The government's programme has **clear ambitions, policy, funding and projects for CCUS in the UK.**
4. **We expect to see CCUS operational by the middle of this decade**, then increasing significantly.
5. **Critical to this effort is** the innovation, the effort and dedication of us all in the sector. Events like this are incredibly important.

