



TEES VALLEY
COMBINED
AUTHORITY

TEES VALLEY MAYOR



The Tees Valley Industrial Cluster Cluster Plans - A Journey Towards Net Zero



Gareth Fletcher

18th March 2021

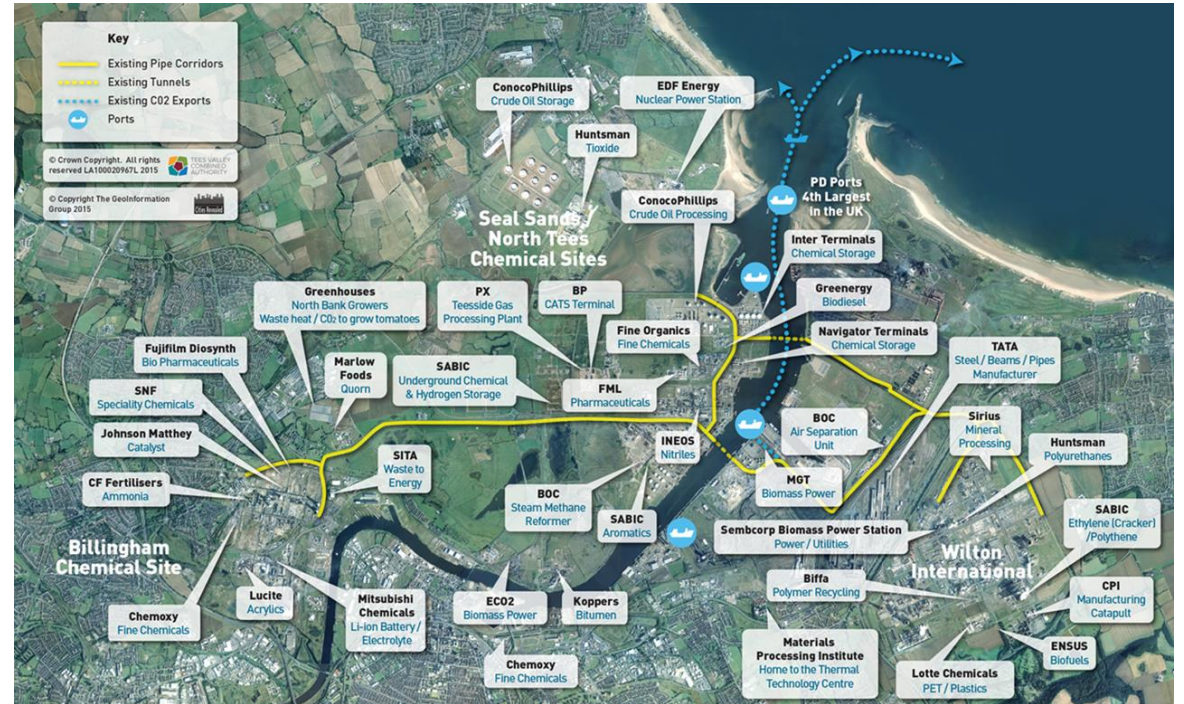
The Tees Valley Cluster

20 companies make up the core cluster within a 5 mile radius.

The Cluster Plan Challenge; to mitigate an annual emission of some 8.8million tCO₂.

Key Sectors:

- Process
- Power
- Logistics



The Tees Valley Cluster

- Proximity and ease of access to North Sea storage; Deepwater port.
- Teesside industry currently contributes some 5.6% of UK industrial emissions.
- Support/Engagement of all the local industry and stakeholders – NEPIC Cluster Organisation and established Industrial Decarbonisation Group.
- Existing pipe corridors and infrastructure are in place now and include operational H₂ storage & distribution.
- Import of 15% of UK's natural gas through CATS.
- Sofia – Offshore wind (1.4GW installed capacity = 5.4TWh energy).
- Teesworks (ex Teesside Steelworks Site).

Relevant Projects Landscape

- Net Zero Teesside – Anchor Deployment Project; Power plus Carbon Capture – initial onshore linkages expected to include SMR's at CF and BOC.
- Northern Endurance Partnership – Offshore Infrastructure, joint project linking Teesside and Humberside.
- **Cluster Planning – The Route to Full Cluster Decarbonisation.**
- SOFIA – Offshore Wind.

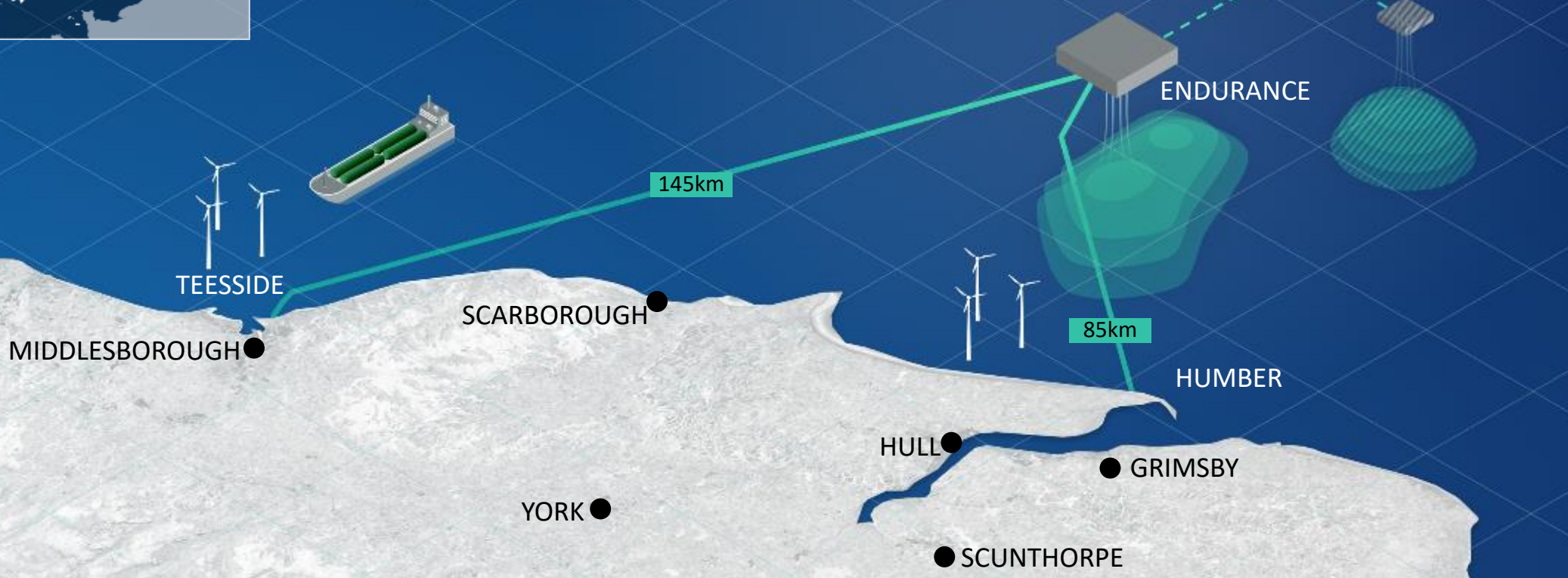
Project location



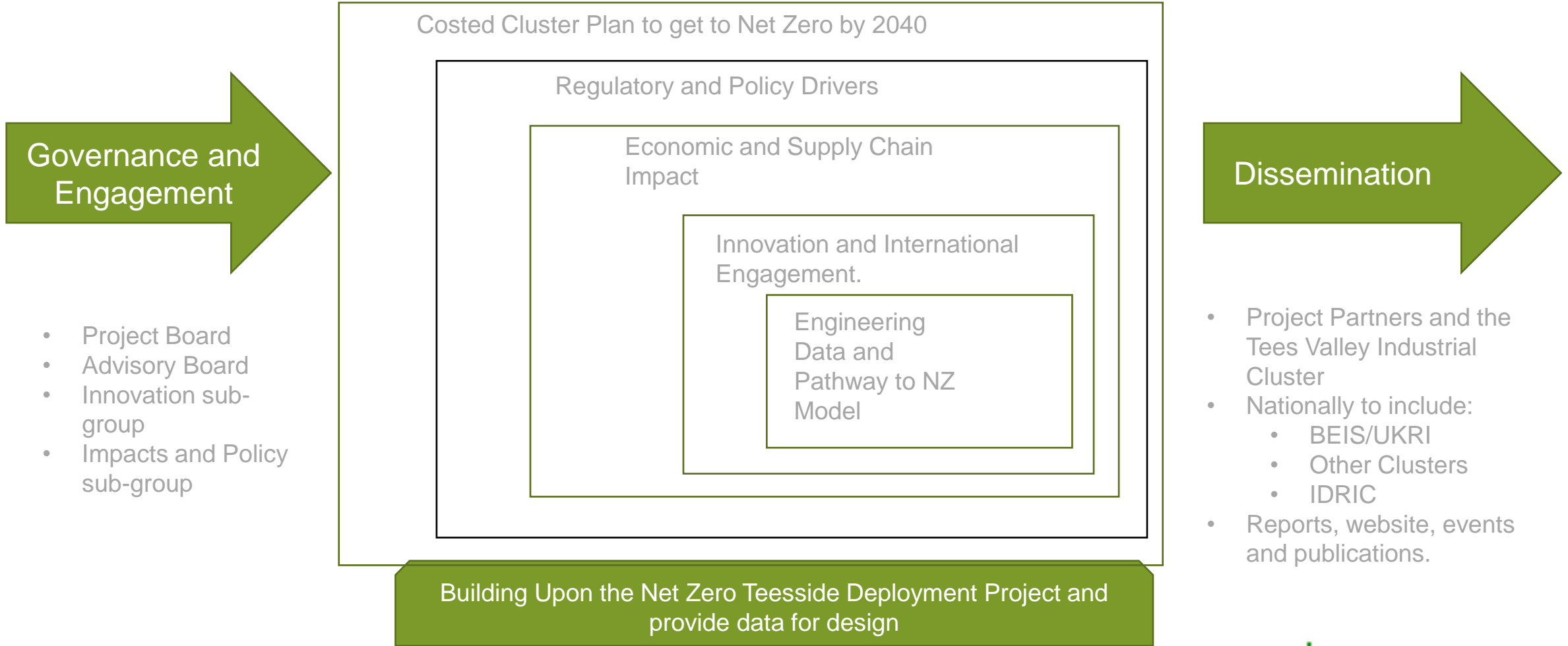
 **Net Zero Teesside** & **ZEROCARBON HUMBER**
Northern Endurance Partnership



NORTH SEA



The Cluster Plans Project Overview



The Industrial Opportunities.

- Major CO₂ Emitters – CCS
- Smaller CO₂ Emitters – CCS or Fuel Switch to Hydrogen or Electricity; consider shared CCS infrastructure.
- Hard to Capture/Treat Waste Gas – Fuel Switch Hydrogen (or Electricity)
 - Fired heaters – chemical process industry.
 - Steel - reheating furnaces.
- Natural Gas Substitution / Bio Energy – consider also Feedstocks.
- Offshore Wind – Electrification / Green H₂
- CATS plus CCS – Blue Hydrogen – Hydrogen Export to Grid.
- Shipping and Transport – H₂, Ammonia, CO₂.

Thank You.



TEES VALLEY
COMBINED
AUTHORITY

