

# NORTH SEA INDUSTRIAL CLUSTER CCUS

Lessons learnt over the last 10 years and what's to come

---

**SPE CCUS Conference**

26 October 2020

Dan Paterson



[www.xodusgroup.com](http://www.xodusgroup.com)



## Introduction – Xodus CCUS

- > CCUS journey to now
- > What lessons have we learned
- > Where are we now
- > What can we expect in the future



## The challenge

As in 2010, CCUS remains a key tool to decarbonise the power and industrial sectors to achieve climate targets. Yet deployment since 2010 in Europe has resulted in zero new commercial facilities.

Ten years on we reached 13% of CO<sub>2</sub> capture target capacity.

No new commercial facilities in Europe

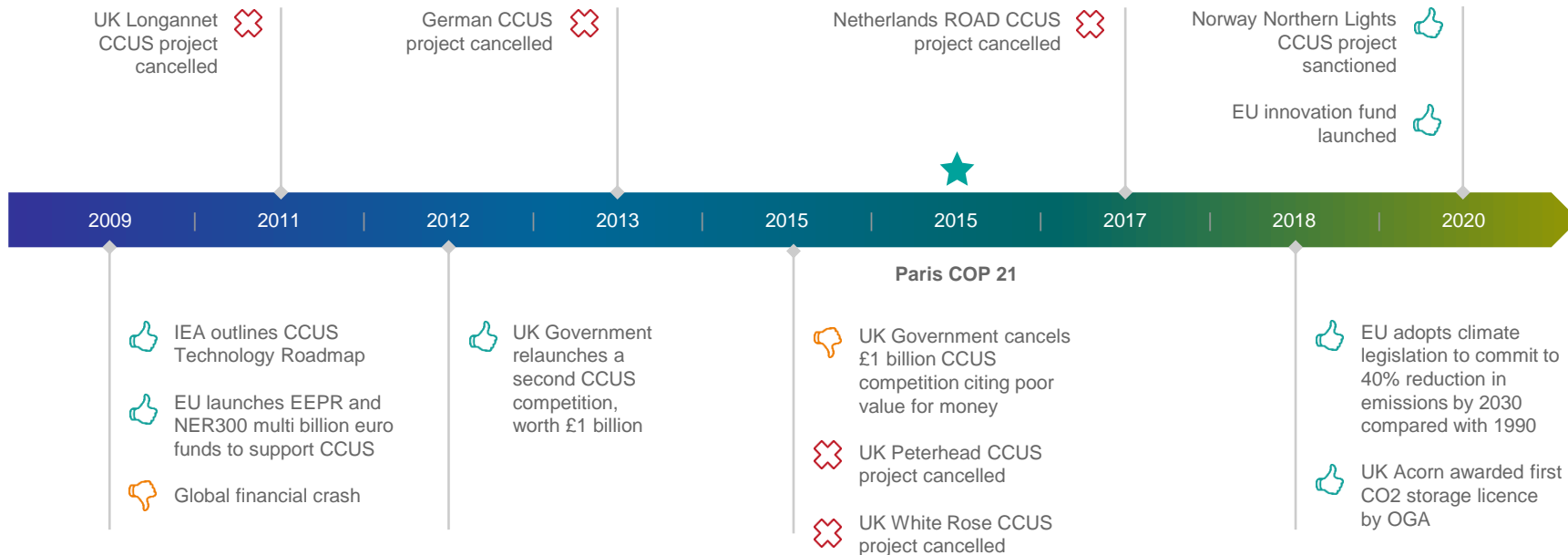
In 2018, EU committed to 40% reduction in Greenhouse Gas (GHG) emissions by 2030. Energy and Industry sectors GHG emissions contributed 41% of EU's total GHG emissions in the same year.

“We need to capture and store carbon emissions or it will be ‘virtually impossible’ for the world to meet its climate targets [...] CCUS should play a central role in meeting climate targets as one of four key pillars in reducing carbon emissions”

**IEA, 24th September 2020**

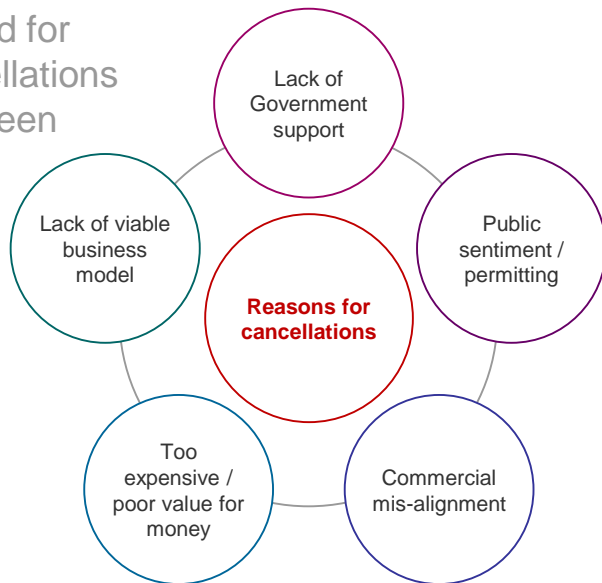


## CCUS has experienced a bumpy road since 2009



## So what have we learnt?

Reasons cited for project cancellations have rarely been technical



### Key themes that we have learnt

- > Country level supportive policy has had more success than regional
- > Risk across the value chain is different, requiring separate business models
- > Oil Co's are transforming to decarbonised Energy Co's
- > Backbone infrastructure is needed to support cluster development



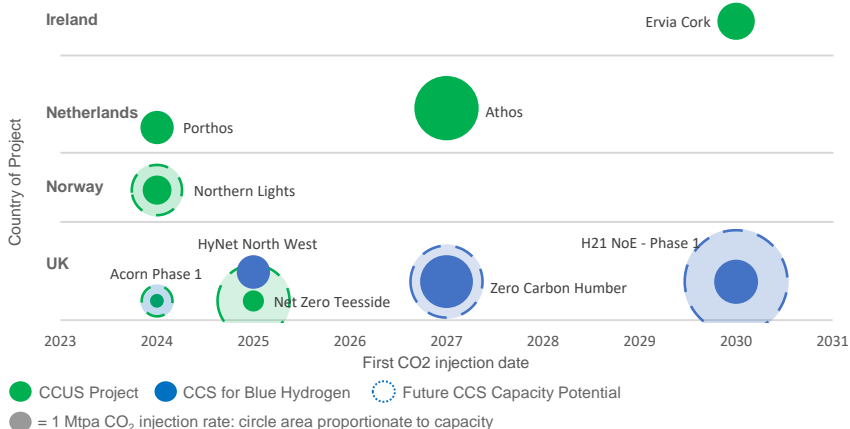
## Where are we now?

We have a pipeline of projects, but it is not enough to meet EU or Government GHG reduction targets

- > CCUS gaining momentum again, four key projects on the horizon
- > 20.8 Mtpa of CCUS projects in development across Europe, with a mix of industrial CCUS and blue hydrogen

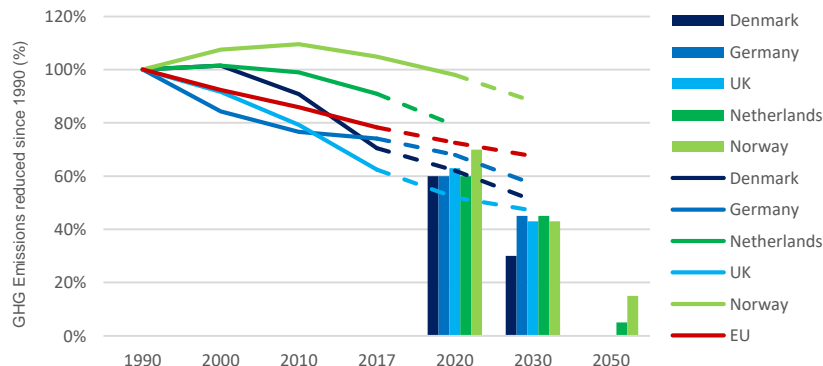
- > Government have set ambitious emissions targets, with net zero or near net zero by 2050
- > All North Sea countries projected to miss 2030 targets

### Western Europe CCUS Timeline



Source: Global CCS Institute

### GHG Emission Reductions since 1990 and Projected Reductions to 2050



Source: European Environment Agency, Climate Action Tracker



## So what's to come?

---

- > Projects at a critical phase. Any more delay and it gets harder.
- > The unintended consequences of COVID – positive or negative?
- > Collaboration and clustering
- > The carbon price question
- > Blue hydrogen

THANK YOU

---

**Dan Paterson**  
Senior Commercial Consultant  
[daniel.paterson@xodusgroup.com](mailto:daniel.paterson@xodusgroup.com)



[www.xodusgroup.com](http://www.xodusgroup.com)