



# **A TICKET TO GREATER ENVIRONMENTAL PROSPERITY**

UK SIDE EVENT: TUESDAY 12 DECEMBER 2018

COP24: KATOWICE, POLAND

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# HIGHLIGHTS

- International recognition that we need CCS to meet the global climate ambitions of Paris
- IPCC reinforcement in 1.5°C report of the importance of CCS is in reaching net-zero emissions by 2050 (CCS identified in three of four pathways)
- Forty-three (43) large-scale facilities – 18 commercially, five under construction and 20 in various stages of development
- Wider appreciation that CCS is vital in decarbonising the industrial sector



# GLOBAL CCS FACILITIES



# CCS AS “CATALYST”

- Acknowledgement of CCS as “catalyst” to new energy economies - particularly CCS with hydrogen
- Advancement of CCS/hydrogen facilities in Australia, UK, USA, the Netherlands, Sweden Canada and Japan
- Confirmation that CCS can generate:
  - new employment
  - new product streams (including CCS componentry, BECCS, DAC and CO2 re-use)
  - new economic revenues



# POLICY CONFIDENCE

- A growth in CCS policy confidence across multiple jurisdictions:
  - **USA:** enactment of 45Q (tax credit) legislation
  - **UK:** creation of the UK CCUS Council, and CCUS Cost Challenge Taskforce and recently published Action Plan
  - **China:** promotion of low carbon technologies (CCUS), grant funding on CCS research, and indexation of CCUS in amended Environmental Impact Guidance
  - **Japan:** Government commitment to establish a hydrogen society by 2030, and creation of a Hydrogen Energy Supply Chain (HESC) in Australia

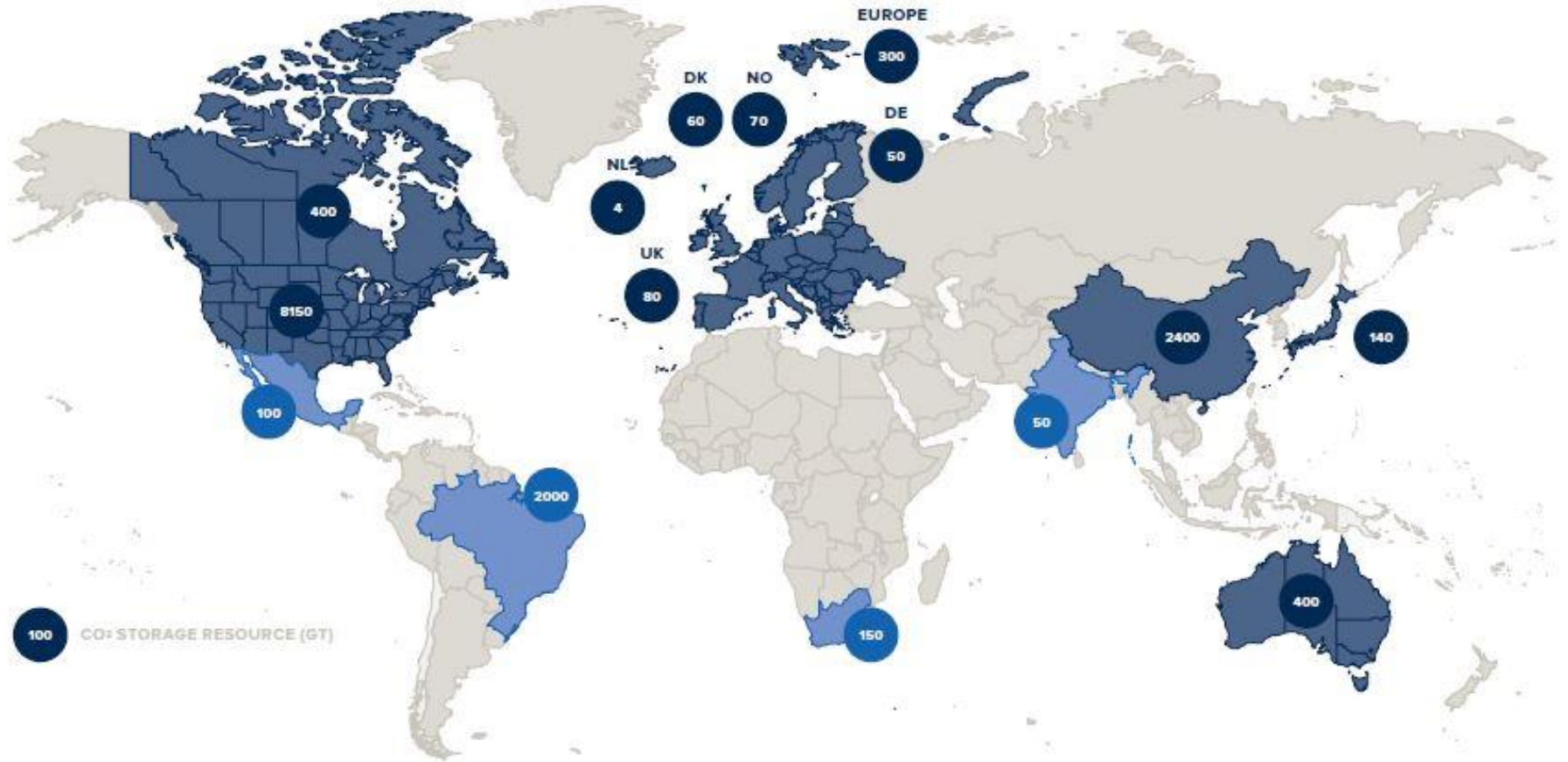


# STORAGE

- Acceptance that “at least a thousand years” of global CO<sub>2</sub> storage resource exists with no technical barriers to secure and permanent storage
- More than 1,000 Gt of CCS storage potential around the world (300 Gt in Europe)
- No incidence of significant CO<sub>2</sub> loss over four decades of storage and dozens of pilot, demonstration and commercial facilities
- “The rocks are there, all we have to do is fill them up.”



# GLOBAL STORAGE CAPACITY



100 CO<sub>2</sub> STORAGE RESOURCE (GT)

CONFIDENCE IN RESOURCE ASSESSMENT



# A DIVERSE CHORUS OF NEW SUPPORT

- Endorsement by new actors from all walks of life:
  - polar explorers
  - politicians
  - economists
  - academics
  - religious leaders
  - unionists
  - eNGOs
  - mayors
  - the media
  - movie-makers
  - the military





# 17-YEAR OLD POLAR EXPLORER: JADE HAMEISTER



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UNITED NATIONS CLIMATE CHANGE CONFERENCE

“WE MUST PURSUE  
CARBON CAPTURE  
& STORAGE LIKE OUR  
LIVES DEPEND ON IT...

**BECAUSE THEY DO.”**

Jade Hameister, Polar Explorer



# SUMMARY

- A year of climate-related disaster (fires, floods, storms and drought) which leaves no doubt about the fight we face
- CCS has proven itself as “real, happening and here to stay”
- Current resurgence will create a new wave of CCS facilities in 2020s

But...

- Deployment is still too slow
- First-of-a-kind commercial facilities have already been in operation for years (low hanging fruit)
- Time to jump-start the next wave of facilities



# THANK YOU

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