

# The Second and Not So Secret Life of Core with the North Sea Core Initiative

Dr. Kirstie Wright, Dr. Henk Kombrink

North Sea Core CIC

Chalk

Value of Core Conference 2021 6<sup>th</sup> May 2021

Rotliegend





### Talk Outline

- A Second Life for Core
  - North Sea Core Who, What, Where and Why
- Exporting North Sea Geology
  - Individuals to Organisations
  - Education
  - Research
  - Outreach
- North Sea Core in Numbers
- What Next?

#### A Second Life for Core

- North Sea Core CIC was set up in response to the release of offshore core material along the UK Continental Shelf
  - Started operating in in October 2017
  - Officially launched in November 2018
  - Became a Community Interest Company (CIC) in May 2020
- Currently the only unaffiliated UK offshore core repository
  - Run largely on a voluntarily basis by a three member team
  - Supported by an informal team of geologists across the UK
- We encourage the donation, rather than disposal of core
  - Have the support of the OGA and several donating companies
  - Collaborate with the BGS to ensure type material is collected
  - Currently sponsored by ONE-Dyas



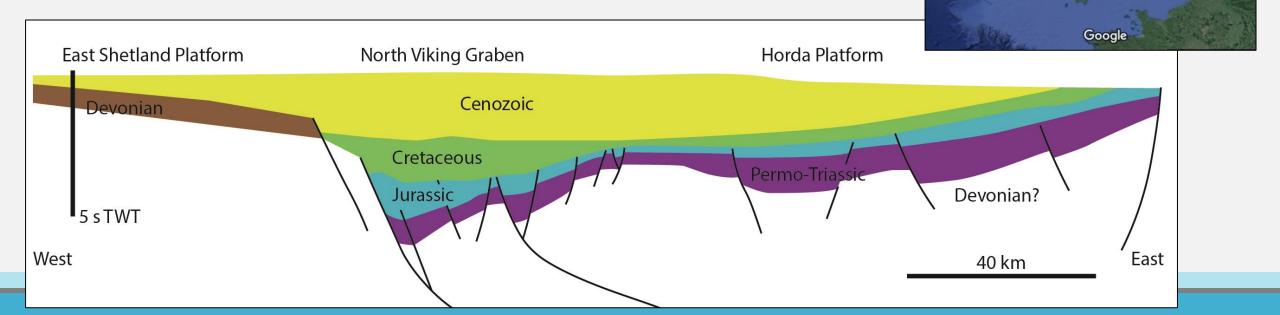


#### A Second Life for Core

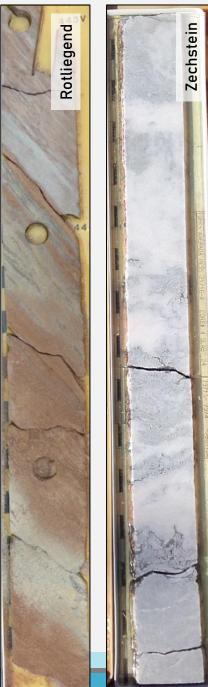
- We have a North Sea focus but take material from across the UKCS
  - Our aim is to upcycle and distribute core to the geological community
  - To make geological samples accessible to amateur and professional geoscientists
- Legacy core material still has the potential to be useful!
  - Essential for teaching and communicating geoscience
  - Facilitate research into the Energy Transition
  - Help preserve our offshore geoheritage
- Integration where possible with subsurface data (via OGA NDR)
  - Well and seismic data, high level interpretations and workshops
  - Supported by DUG with a licence for their DUG Insight software



- The UKCS contains a unique sedimentary archive that documents the Devonian to Eocene
  - Dominated by rifting during the Triassic and Jurassic, then later infilled by siliciclastic and carbonate deposition to present day
- Well known petroleum province since the late 1960's
  - We have core dating back to the 1970's













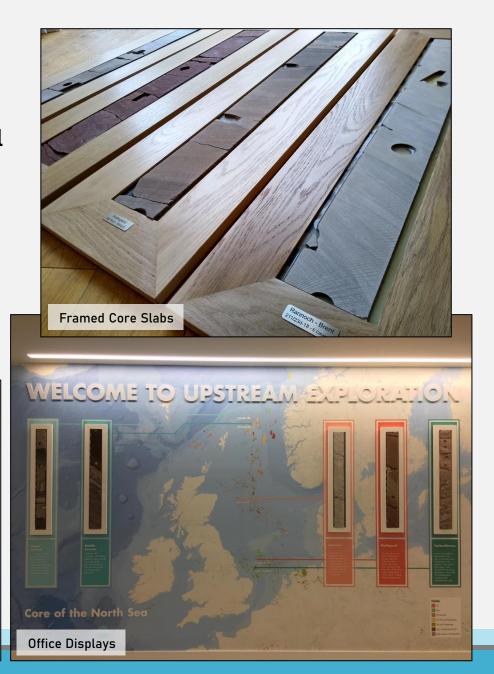




- Supply of a range of core material to individuals and commercial organisation
  - Framed core as "geoart" and office displays
  - Hand samples to Exploration Boxes
  - Mementos of wells drilled
- Upcycling core presents the material in a new light







- Education and Training and increasingly becoming a large part of our activities
  - Supply schools teachers with hand samples or Exploration Boxes
  - Create teaching sets for University courses
  - Provide material for industry training courses

• Aim to encourage geoscience as a viable career option







**Exploration Boxes** 

- Provide core material for a variety of research
  - CT, SEM and petrographic analysis
  - Sedimentology, geomechanics and seal leakage
- Increase in requests in Energy Transition research
  - Carbon capture and storage and geothermal energy
- Aim to demonstrate that core from the exploration of the North Sea has a key role to play in the future of UK energy





Petrographic Analysis

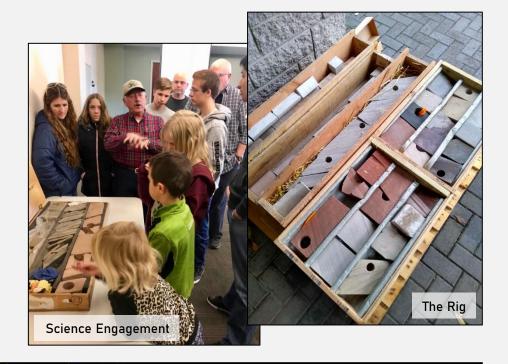
☐ Background
☐ Quartz
☐ Quartz-Clay Textures
☐ Plagioclase Feldspars

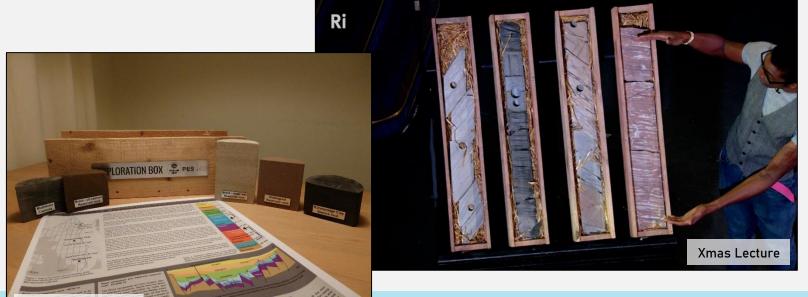
Alkali Feldspars



**Exploration Boxes** 

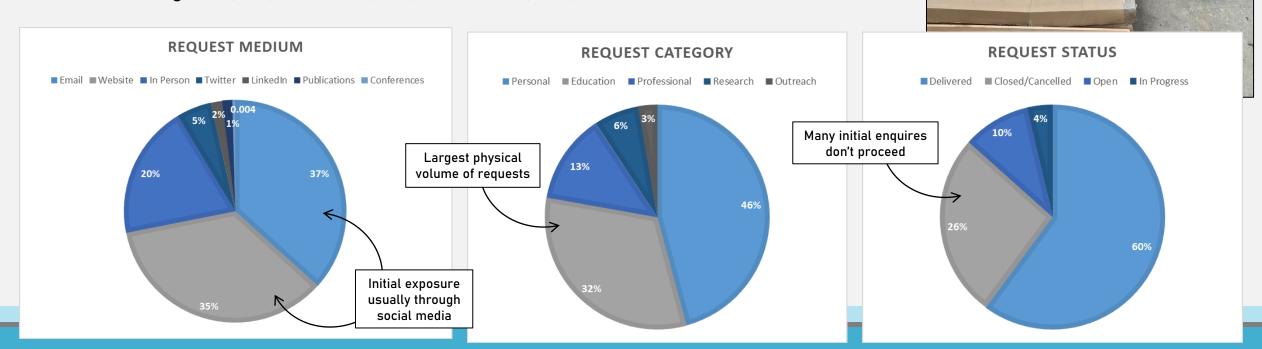
- Geoscience Outreach
  - STEM Ambassadors
  - Science communication and engagement
- TV and Media
  - 2021 Royal Institute Lecture with Chris Jackson
  - Amazon's the Rig
- Aim to put geoscience into the public domain
  - Make it accessible
  - Dispelling common myths about geology



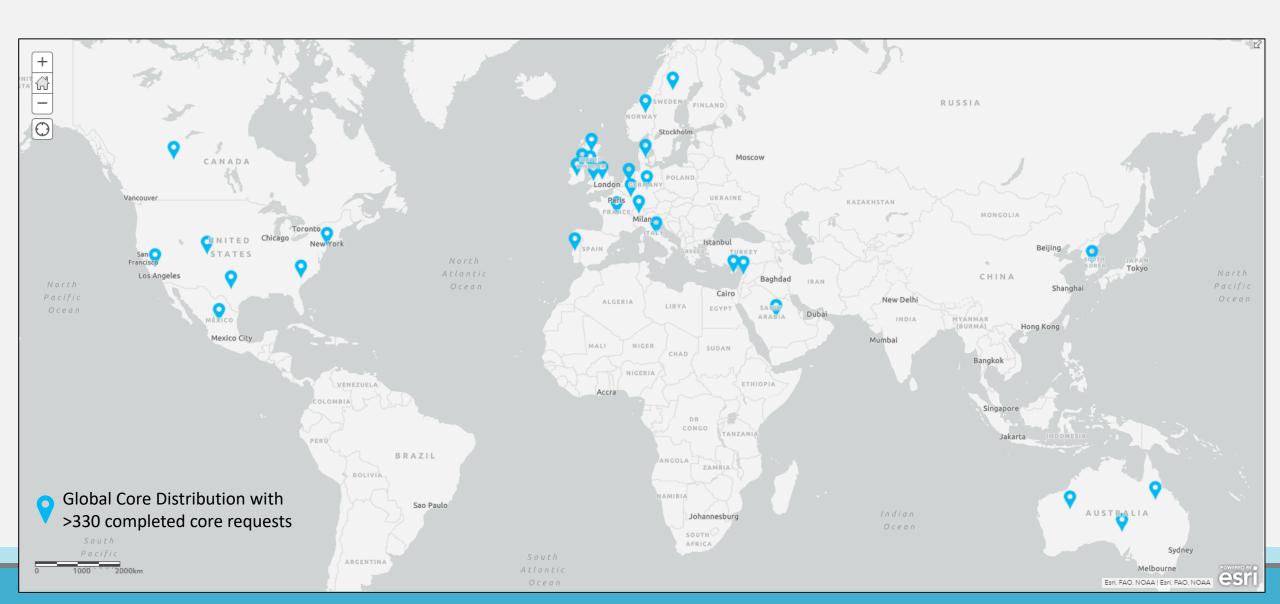


#### North Sea Core in Numbers

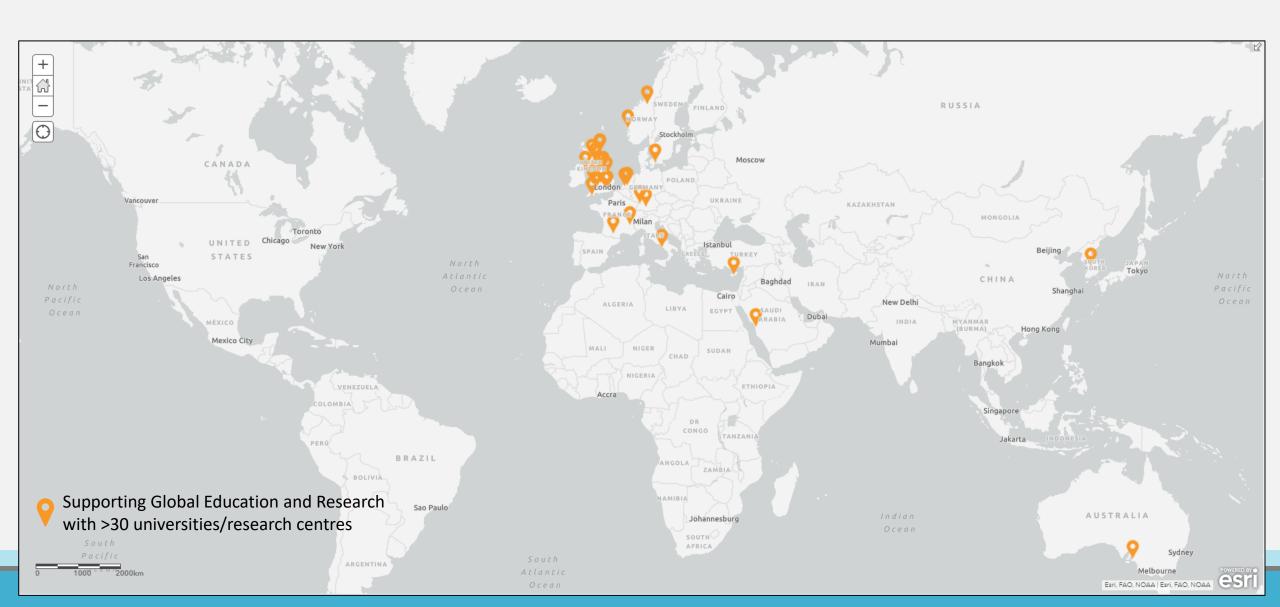
- To date core has been donated from nine energy companies
  - Currently 46 wells across the Southern, Central and Northern North Sea
  - Over 5000 ft / 1500 m of core from the Upper Carboniferous to Lower Paleocene
- We rely heavily on social media engagement
  - Instagram (476) / Twitter (928) / LinkedIn (1860)



## North Sea Core in Numbers



## North Sea Core in Numbers



#### What Next?

- Become a knowledge repository
  - Workshops and webinars
  - Develop physical and digital resources to make geoscience accessible
  - Included in the new AEON geoscience Public Data Repository platform
- At the point of investigating funding resources to take this forward

