Bringing value to SCCS partners

SCCS Team will assist with:

• Forming collaborative research consortia with other academics and industry partners
• The collation of technical information to support project development
• Organising and delivering joint event, workshops, webinars
The British Geological Survey

*The British Geological Survey is the world’s oldest national geological survey and the UK’s premier centre for earth science information and expertise. It is a recognised European centre of excellence for the study of CO₂ storage.*

Our **CCS Team** is involved in a variety of research areas, including:

- The character and capacity of potential underground storage reservoirs
- Potential chemical interactions of injected CO₂ with surrounding rocks
- Storage site monitoring technologies and integrated monitoring strategies
- Assessment of long-term site performance, including evaluating the consequences of potential leakage
Research projects include:

**CO2GeoNet**: co-ordinating the European Network of Excellence

**CO2ReMoVe**: improving methodologies for storage site performance assessment and monitoring

**SiteChar**: characterisation of European storage

**QICS**: Quantifying & monitoring potential ecosystem impacts of geological carbon storage

**CO₂MultiStore**: joint industry project supporting development of regional CO₂ stores in the UK

www.bgs.ac.uk
Founded in 1583, the University of Edinburgh is one of the world’s leading research universities. The College of Science & Engineering is one of the largest CCS groupings in the UK.

- Researchers cover the full CCS chain within the School of Engineering, the School of GeoSciences and the School of Chemistry
- There are also strong links with the University of Edinburgh Business School – particularly through international collaborations – and the Edinburgh Law School
Research projects include:

- UK-China (Guangdong) CCUS Centre collaboration
- Quantifying residual and dissolution trapping in the CO2CRC Otway injection site (GeoSciences)
- Gas-FACTS: post-combustion capture for gas plants (Engineering)
- Investigation into CCS linked with CO$_2$-EOR for implementation in the UK (GeoSciences)
- CO$_2$ Aquifer Storage Site Evaluation and Monitoring (CASSEM ) (GeoSciences)
Heriot-Watt University, established in 1821, is renowned for world-class teaching and practical, leading-edge research, which has made it one of the top UK universities for business and industry.

Research across the full CCS chain is under way in two key departments:

- The **Institute of Petroleum Engineering** (IPE), with its strong links to the oil and gas industry worldwide
- The **School of Engineering and Physical Sciences** (EPS), which also includes the **Centre for Innovation in Carbon Capture and Storage** (CICCS)
Heriot-Watt University

Research projects include:

- **UKSAP**: UK CO$_2$ storage appraisal project (IPE) - ETI
- **Performance of flow meters with dense phase CO$_2$ and CCS recovery streams (CICCS)**
- **Impact of common impurities on CO$_2$ capture, transport and storage (IPE)**
- **Carbon Capture & Storage by mineralisation (CICCS)**
- **ECO2**: sub-seabed CO$_2$ Storage: Impact on Marine Ecosystems (IPE)

www.eps.hw.ac.uk  ciccs.hw.ac.uk  www.pet.hw.ac.uk
The University of Aberdeen was founded in 1495 and is the third oldest university in Scotland, and the fifth oldest in the UK. More than 140 of the university’s top academics are engaged in energy-related research.

- The university’s growing CCS Group is involved directly with CCS from disciplines ranging from engineering and geology to economics and law
- The University recently launched the Aberdeen Institute of Energy, an overarching group encompassing all its energy-related research and activities
Research projects include:

- Carbon capture optimisation in solids: understanding surface-fluid interactions
- CO$_2$-mixtures thermophysical properties: impact of impurities in CCS chain
- Third-party access in CCS systems
- Economics of CO$_2$-EOR in UK Continental Shelf
- Digital pore networks and multiphase fluid in core samples at submicron resolution
The University of Strathclyde is a leading technological university, recognised worldwide for strong links with business and industry, its commitment to enterprise and skills development, and knowledge sharing with the private and public sectors.

Research across the spectrum of CCS technologies is under way in:
- Civil and Environmental Engineering
- Chemical and Process Engineering
- Electronic and Electrical Engineering
- Mechanical and Aerospace Engineering
- Mathematics and Statistics
Areas of research include:

- Modelling marine ecosystems
- Materials for next generation CO₂ transport systems
- Concrete cracking and corrosion in pipelines: structural and permeability architecture of faults
- Downhole gravitational sensors
- Nanoseismics, monitoring of mechanical and hydrological evolution of rock mass
- Integrated CO₂ detection systems in wellbores

From left: Dr Julia Race (Strathclyde), Michelle Bentham (BGS) and Dr Paul Fennell (Imperial) on expert panel at British Science Festival 2014 event
Workshop themes include:

- **Tackling Industry’s carbon emissions**
- **Pre-combustion carbon capture**
  - Feb 2015
- **Cement and Concrete with CCS**
  - Aug 2015
- **Post-combustion carbon capture**
  - TBA
- **MMV for CCS**
  - TBA
Find out more about our people, projects and facilities at:
www.sccs.org.uk/expertise

or email us:
info@sccs.org.uk