

ACCELERATING CCS THROUGH KNOWLEDGE SHARING

Despite extensive research and development, and a growing number of pilot and demonstration projects, carbon capture and storage (CCS) remains an emerging technology. A key factor to its global uptake and widespread deployment will be the ability to capture and reutilise the knowledge which is created through project delivery to accelerate the broad deployment of large-scale CCS.

This knowledge extends beyond the science and engineering of demonstrating CCS. Speeding the diffusion and uptake of CCS technologies requires the Institute to assist its Members and stakeholders to stay abreast of the growing body of work on awareness and education, policy, legal and regulation, right through the value chain to monitoring and verification of safely stored CO₂.

The Institute's approach to knowledge sharing ensures this information is available across all regions of the globe for CCS stakeholders and the wider public.

Sharing knowledge on this scale requires several factors:

- a comprehensive and accessible digital platform to support collaboration and the sharing of many different forms of assets, ranging from detailed analytical data and project information to methodology and best practices for CCS;
- structured opportunities for professional networking, personal interaction and exchange; and
- agreement among participants to share appropriate knowledge, enabled through effective incentives, governance and controls.

The Institute is delivering knowledge sharing processes and platforms to enable effective and efficient knowledge sharing through face-to-face and digital channels on a global scale.

The Institute's approach to knowledge sharing draws together and strengthens the interaction and relationship between different stakeholders and their need to intimately understand different aspects of the CCS value chain. The key parts of the knowledge sharing process are summarised here.

CCS PROJECTS

CCS projects are actively developing strategies and approaches to allow deployment of the technology at the size and scale necessary to make a difference. Early mover projects are critical in this process and need to address the following key aspects in a holistic manner:

- policy and regulation;
- financial and commercial;
- capacity building;
- technology; and
- public engagement.

Sharing experience and knowledge in each of these areas can assist with acceleration of CCS deployment and the growth of an emerging and sustainable industry.

STAKEHOLDERS

Each stakeholder within the emerging CCS industry has different and varied needs when it comes to the types and context of the knowledge they use to do their job. The diversity of knowledge to be shared within the industry is reflected by the wide array of stakeholders. These range from engineers, scientists, regulators and project managers, to financiers, government officials and the general public.

KNOWLEDGE SHARING PLATFORMS AND PROCESSES

The Institute's knowledge sharing processes and platforms enable effective and efficient community collaboration at a global level. Supporting both face-to-face and digital knowledge sharing techniques is critical to promoting cohesion between stakeholders and across the globe. In this model of accelerating CCS, knowledge must be shared with peer projects and also with a broad set of stakeholders.

VALUE CREATION

As the industry develops and becomes more mature, the growing market for CCS technologies will provide opportunities for early-movers to make solid returns on their investments through the development and commercialisation of innovative CCS technologies.

In turn, economies will benefit as the CCS industry grows and projects are delivered more effectively.

MORE PROJECTS

As the industry becomes better informed about the viability of CCS, the number of active projects around the world will increase. Sharing of experiences and solutions will support best practice creation. The subsequent roll-out of next mover projects and the development of next generation technologies will drive the creation of a commercially sustainable CCS industry.

ADDRESS ENERGY SECURITY AND CLIMATE CHANGE

An increase of CCS projects throughout the energy industry will contribute to the developing portfolio of other low-carbon energy technologies and will have a marked positive impact on reducing greenhouse gas emissions.

