THE GLOBAL STATUS OF CCS: 2012

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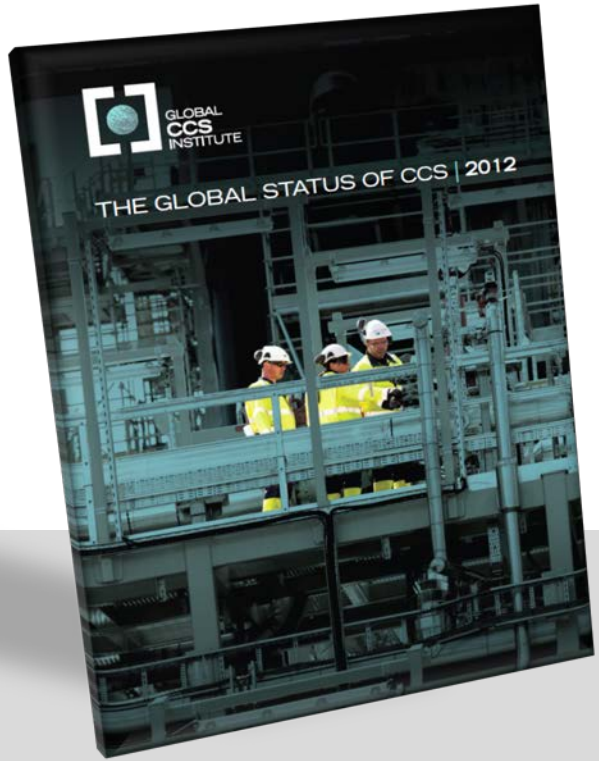
Key Institute publication



- Released 10 October 2012.
- Comprehensive coverage on the state of CCS projects and technologies.
- Progress outlined since 2011.
- Challenges and recommendations for moving forward.

KEY MESSAGES

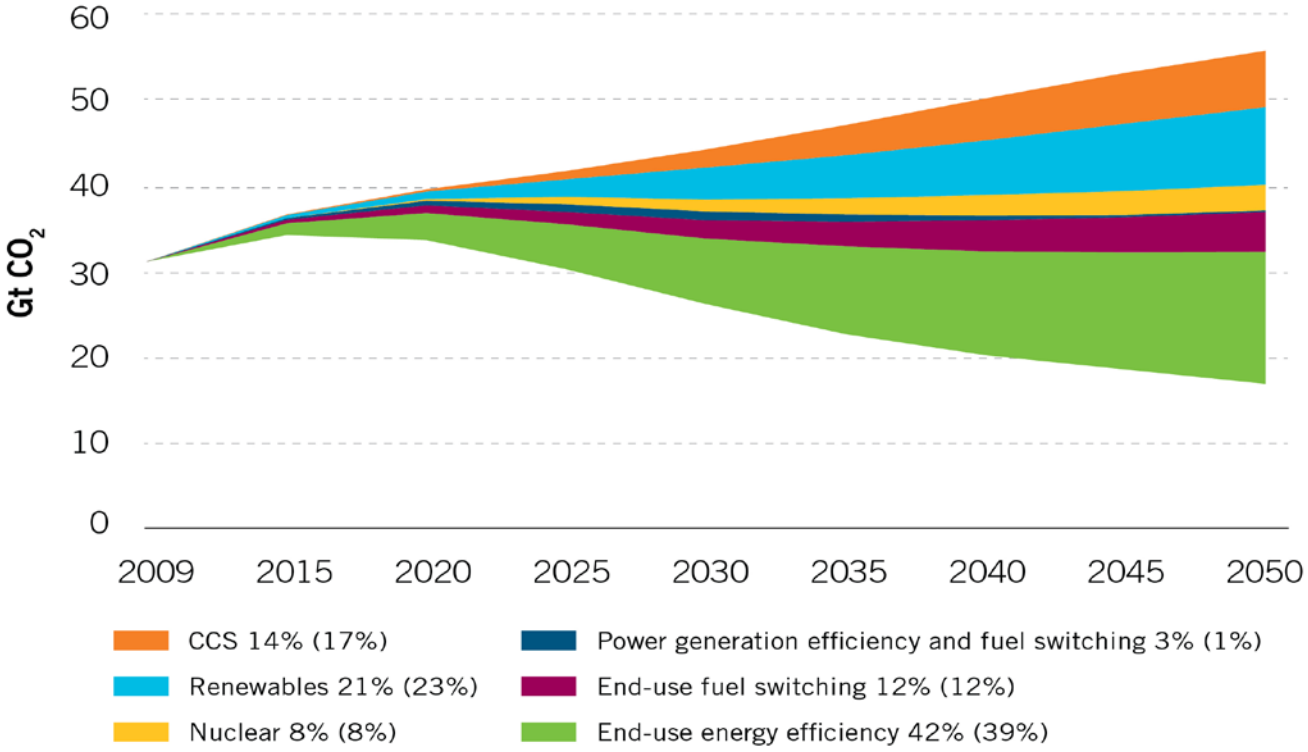
The Global Status of CCS: 2012

1. Action is needed now to ensure CCS can play a vital role in tackling climate change.
2. CCS is already contributing, but progress must be accelerated.
3. Steady progress but important developments.
4. Encouraging policy support but more required.
5. Barriers must be overcome to realise the benefits of CCS.
6. Reducing the cost of technology through demonstration projects is vital.
7. Acceleration of CCS depends on collaboration and knowledge sharing.

KEY MESSAGE [1]

ACTION IS NEEDED NOW TO ENSURE CCS CAN PLAY A VITAL ROLE IN TACKLING CLIMATE CHANGE

Energy-related CO_2 emission reductions by technology



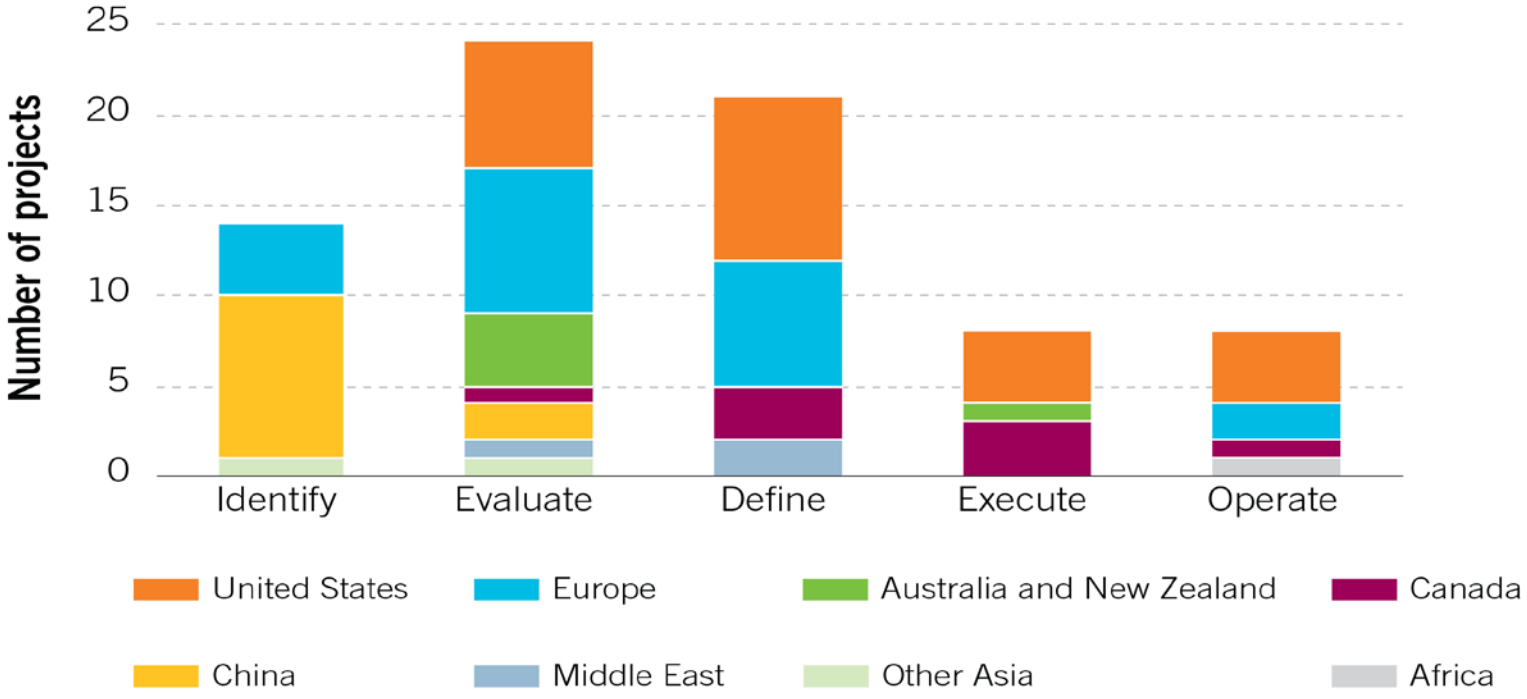
SOURCE: IEA

NOTE: Percentages represent share of cumulative emissions reductions to 2050. Percentages in brackets represent share of emissions reductions in the year 2050.

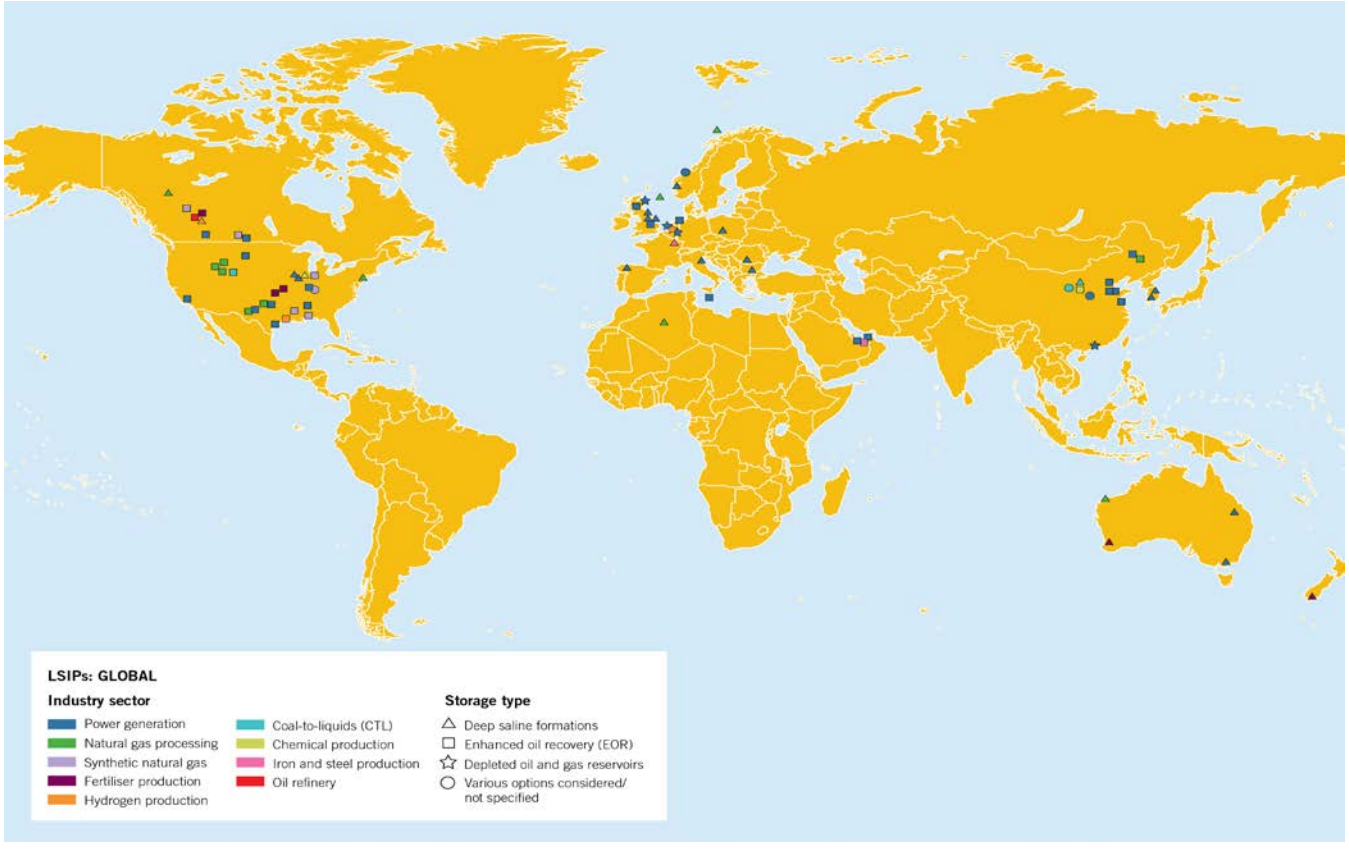
KEY MESSAGE [2]

CCS IS ALREADY CONTRIBUTING, BUT PROGRESS MUST BE ACCELERATED

Large-scale integrated projects by asset lifecycle and region/country



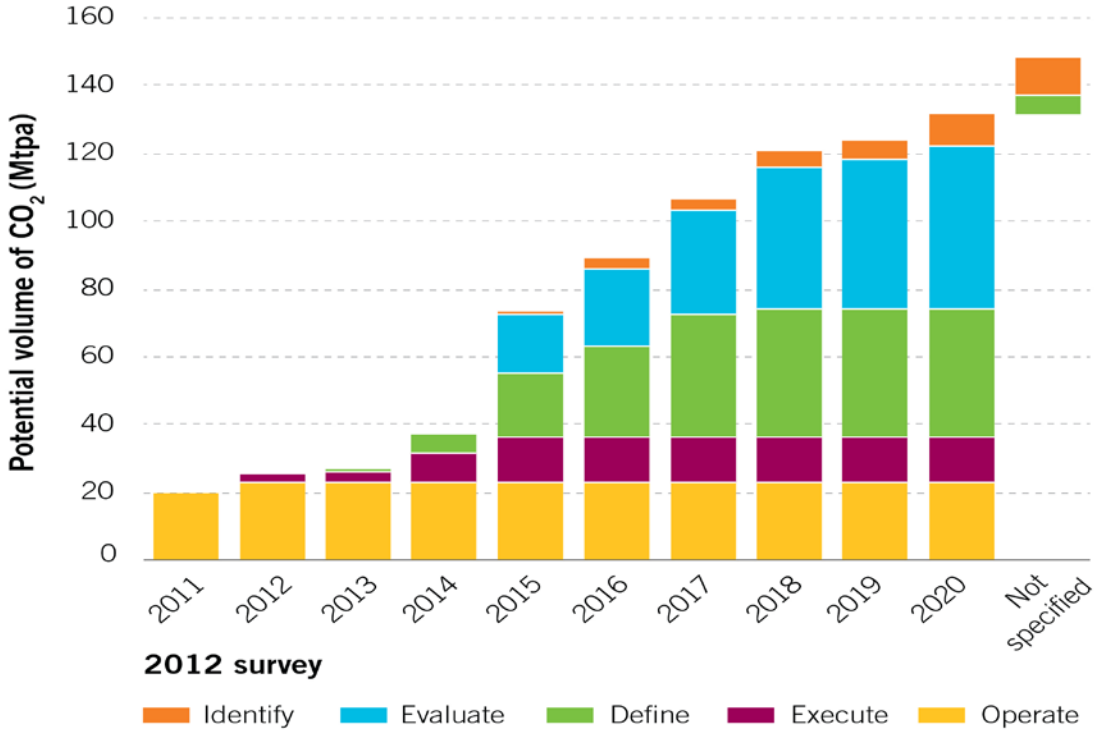
GLOBAL DISTRIBUTION OF PROJECTS



KEY MESSAGE [2]

CCS IS ALREADY CONTRIBUTING, BUT PROGRESS MUST BE ACCELERATED

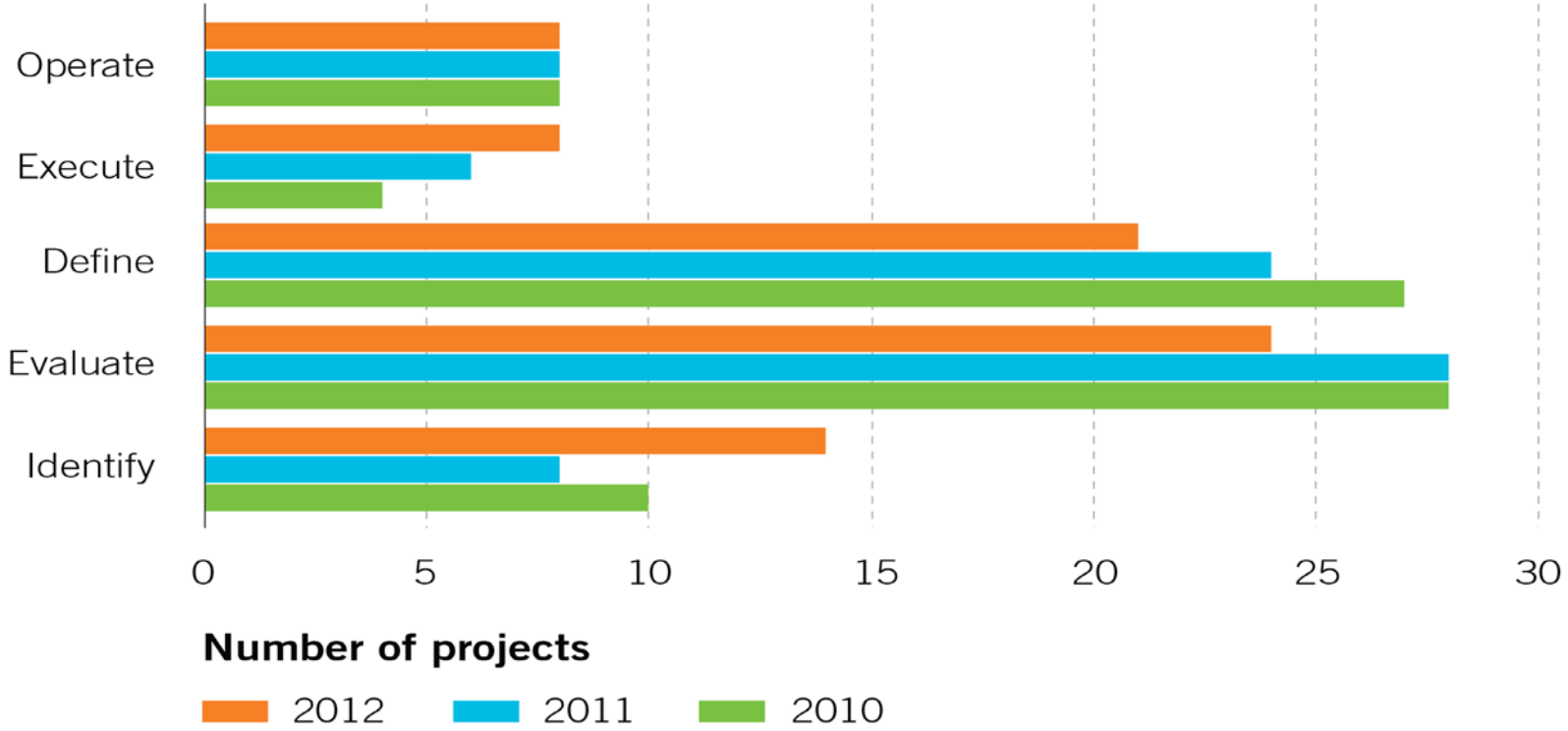
Volume of CO_2 potentially stored by large-scale integrated projects



KEY MESSAGE [3]

STEADY PROGRESS BUT IMPORTANT DEVELOPMENTS

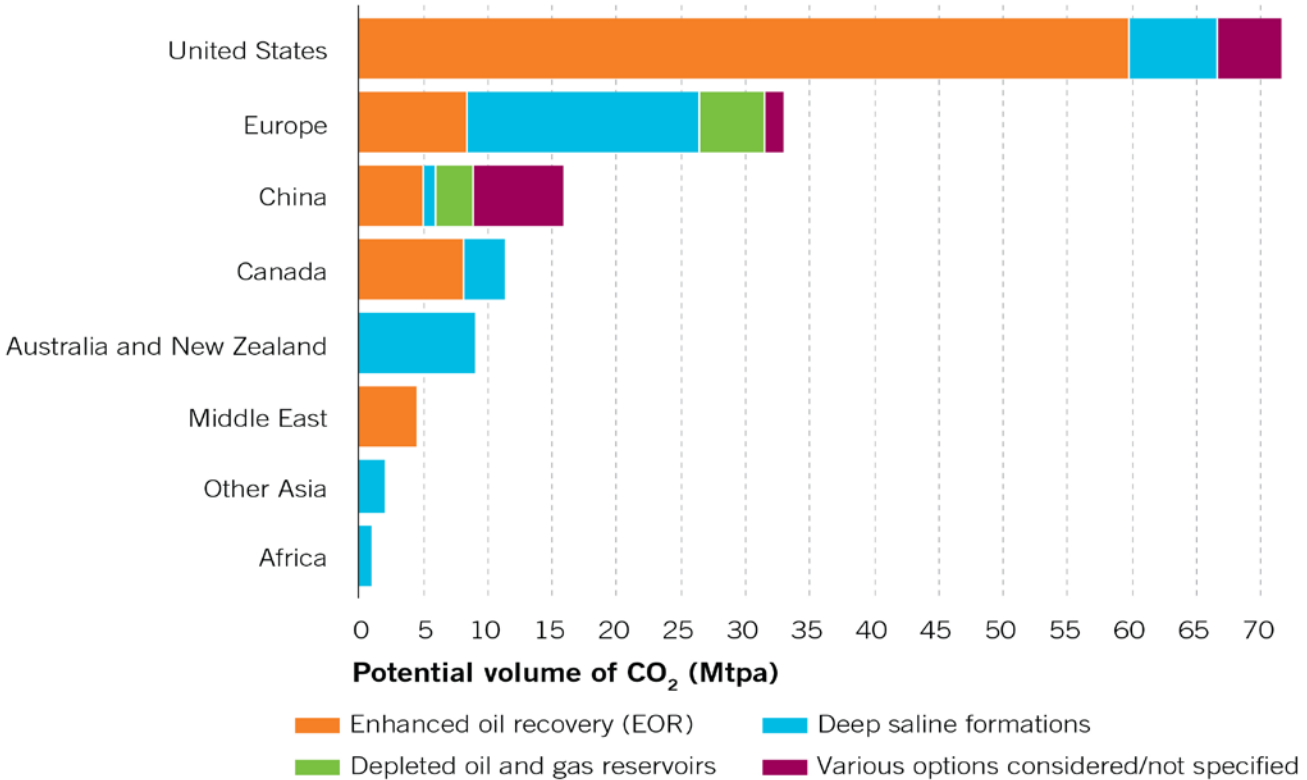
Large-scale integrated projects by asset lifecycle and year



KEY MESSAGE [3]

STEADY PROGRESS BUT IMPORTANT DEVELOPMENTS

Volume of CO_2 potentially stored by primary storage type and region



KEY MESSAGE [4]

ENCOURAGING POLICY SUPPORT BUT MORE REQUIRED

- CCS in the Clean Development Mechanism (CDM) marks an exciting new era.
- Policy progress has also been seen in a number of countries – including the UK, China and Australia.
- Full ratification of the OSPAR Convention which is important to transporting and storing CO_2 offshore.
- Challenges remain for the adoption of the amendments to the London Protocol to allow the export of CO_2 for storage in offshore geological formations.
- International standards for CCS are being developed but this is likely to take time.

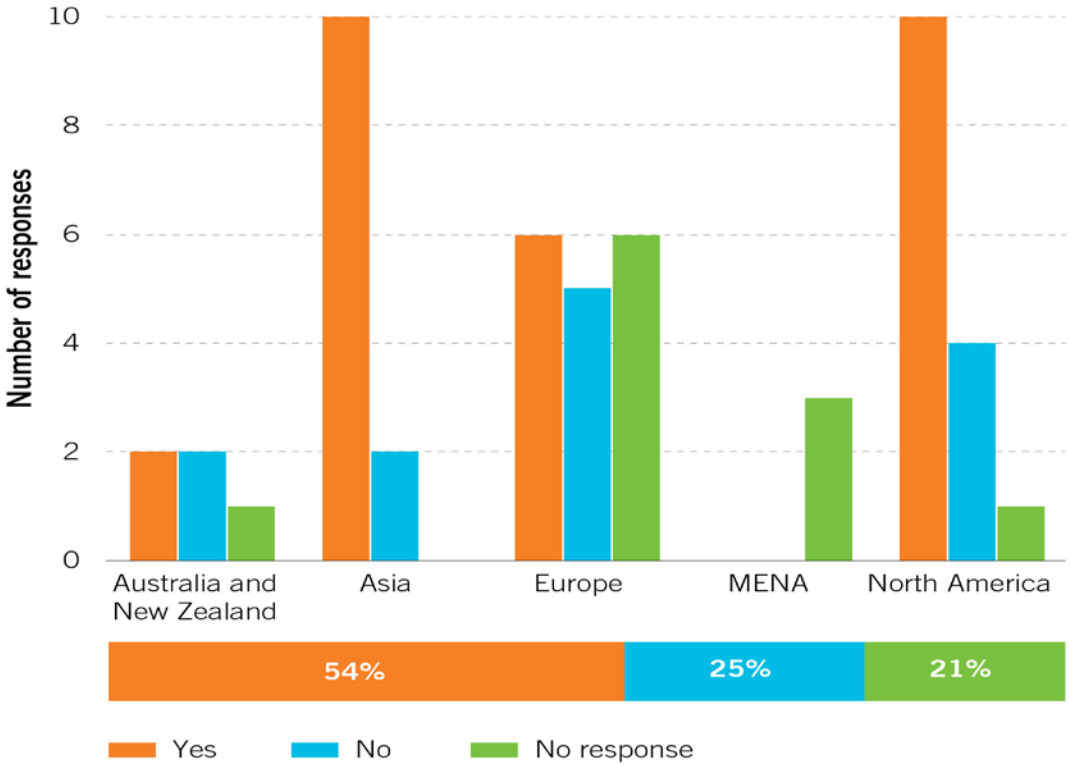
KEY MESSAGE [4]

ENCOURAGING POLICY SUPPORT BUT MORE REQUIRED

- CCS projects think the current mix of policy settings and prevailing regulatory environments are somewhat supportive of positive investment decisions.
- But policy settings over the medium to longer term are seen to be largely inadequate to ensure future project viability.
- Project views on regulatory environment differ between regions.
- Projects consider there has been little regulatory progress in the past year.

KEY MESSAGE [4]

PROJECTS: DO CURRENT REGULATIONS FACILITATE AN INVESTMENT DECISION?



KEY MESSAGE [5]

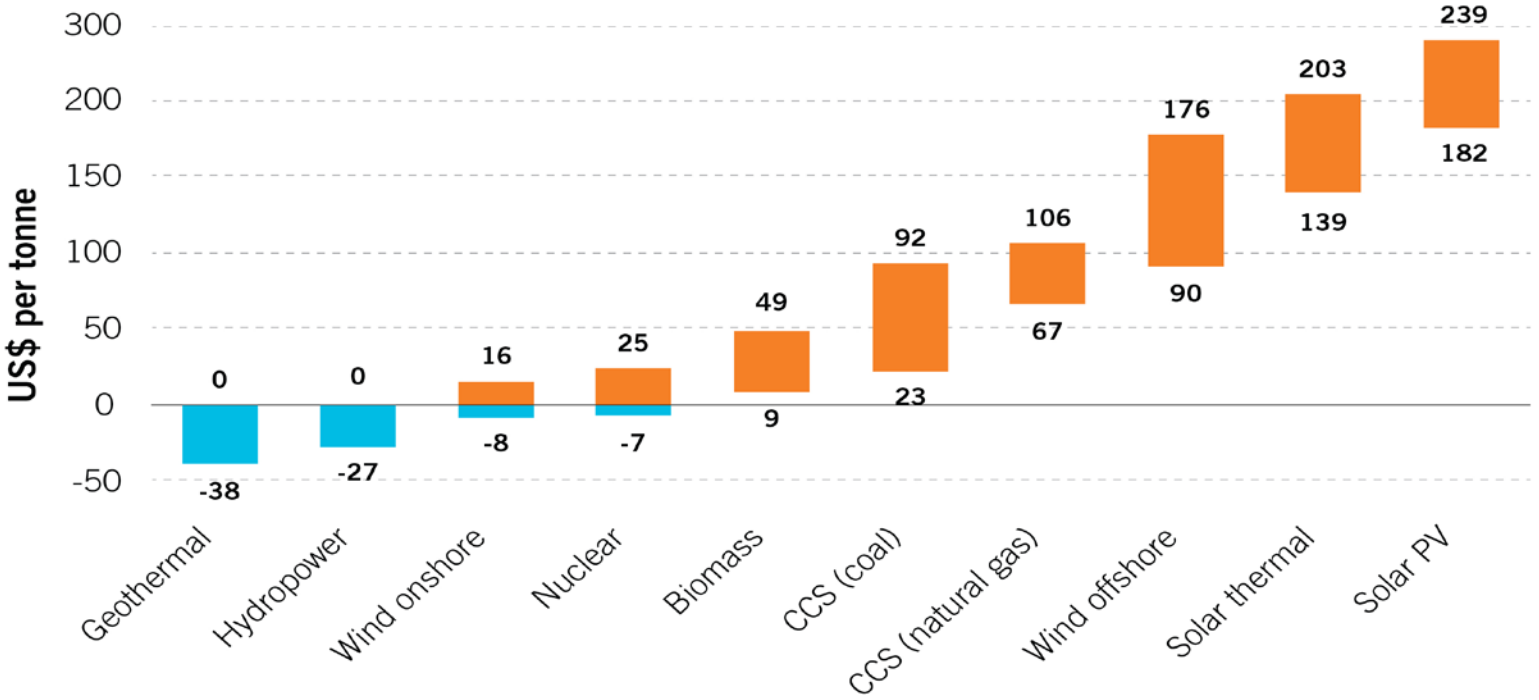
BARRIERS MUST BE OVERCOME TO REALISE THE BENEFITS OF CCS

- Storage site selection and characterisation remains a lengthy and costly process.
- Early storage exploration is critical for many projects to proceed.
- Majority of perceived risk in CCS projects is often associated with storage.
- Public understanding of CCS remains low.
- Need to bring down the costs of CO_2 capture through technology developments and demonstration.

KEY MESSAGE [6]

REDUCING THE COST OF TECHNOLOGY THROUGH DEMONSTRATION PROJECTS IS VITAL

Costs of CO_2 avoided



KEY MESSAGE [7]

ACCELERATION OF CCS DEPENDS ON COLLABORATION AND KNOWLEDGE SHARING

- CCS faces difficult and time-consuming challenges.
- Sharing knowledge gained is critical to accelerating the deployment of CCS.
- Collaboration and effort is required to increase the intensity and scope of knowledge sharing activities.

RECOMMENDATIONS FOR DECISION MAKERS

- Climate change legislation must not be delayed.
- In order to achieve emission reductions in the most efficient and effective way CCS must not be disadvantaged.
- Funding for CCS demonstration projects should be accelerated.
- Expertise and learning must be shared.

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