

**CO-OPERATION TO PROMOTE  
SUSTAINABLE ENERGY  
CARBON CAPTURE AND STORAGE**

**Nick Otter**

Former CEO of Global CCS Institute

UNECE Committee on Sustainable Energy

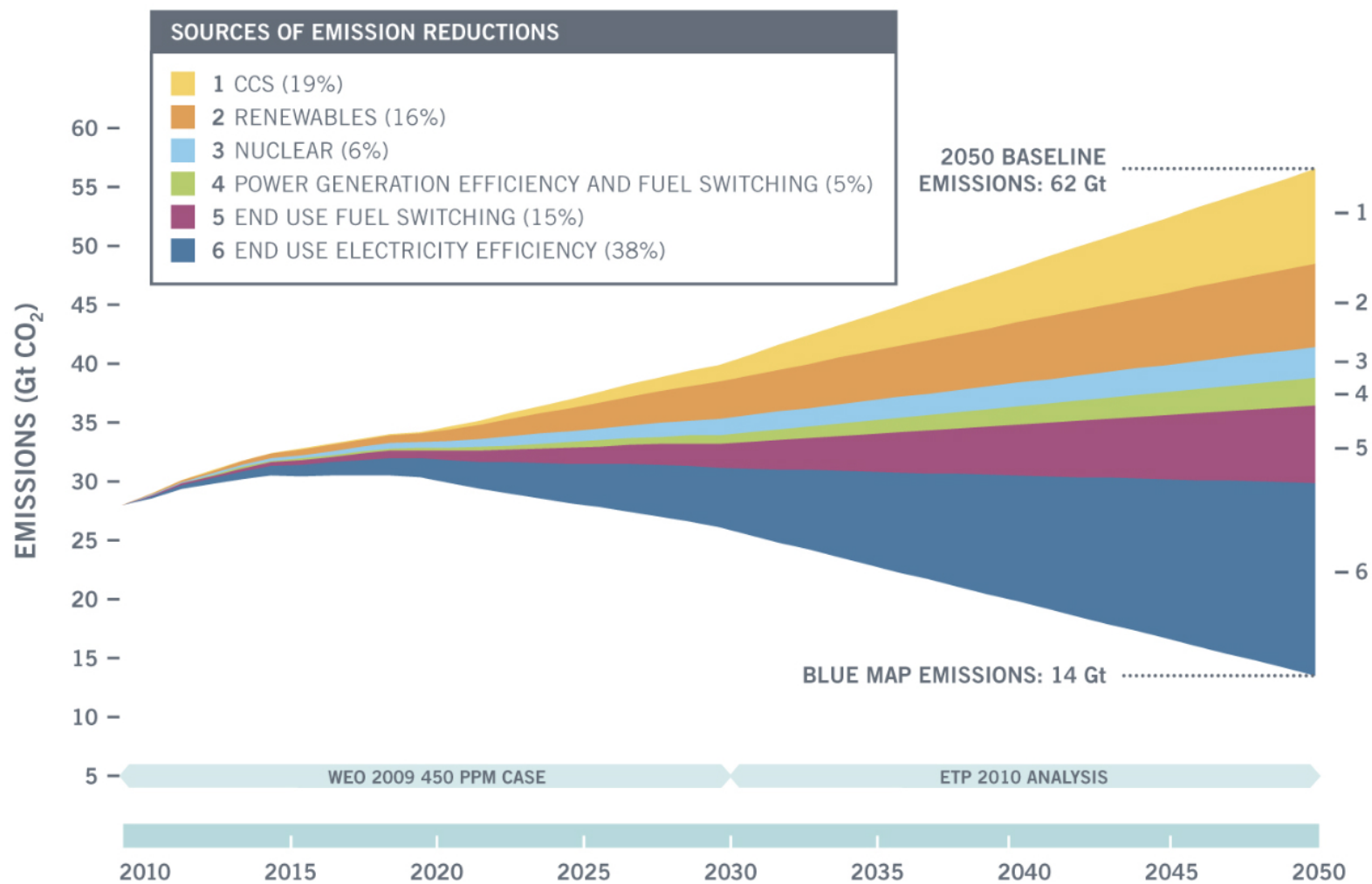
Biennial Session March 2011

Geneva

29-31 March 2011

# THE IEA BLUE MAP SCENARIO

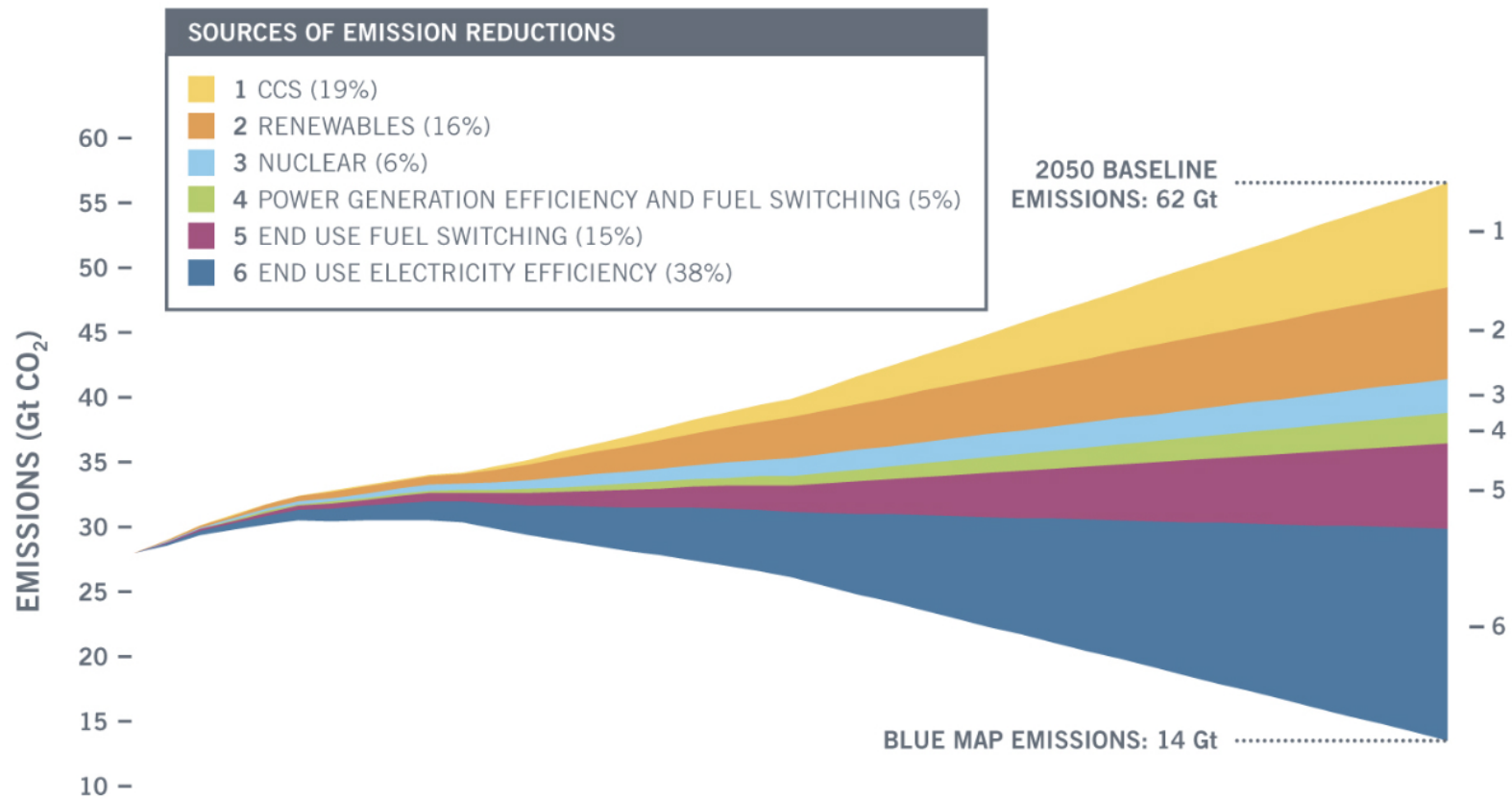
## CCS PROVIDES ~20% OF CO<sub>2</sub> MITIGATION BY 2050



Source: IEA Energy Technology Perspectives (2010) Scenarios and Strategies to 2050.

# THE IEA BLUE MAP SCENARIO

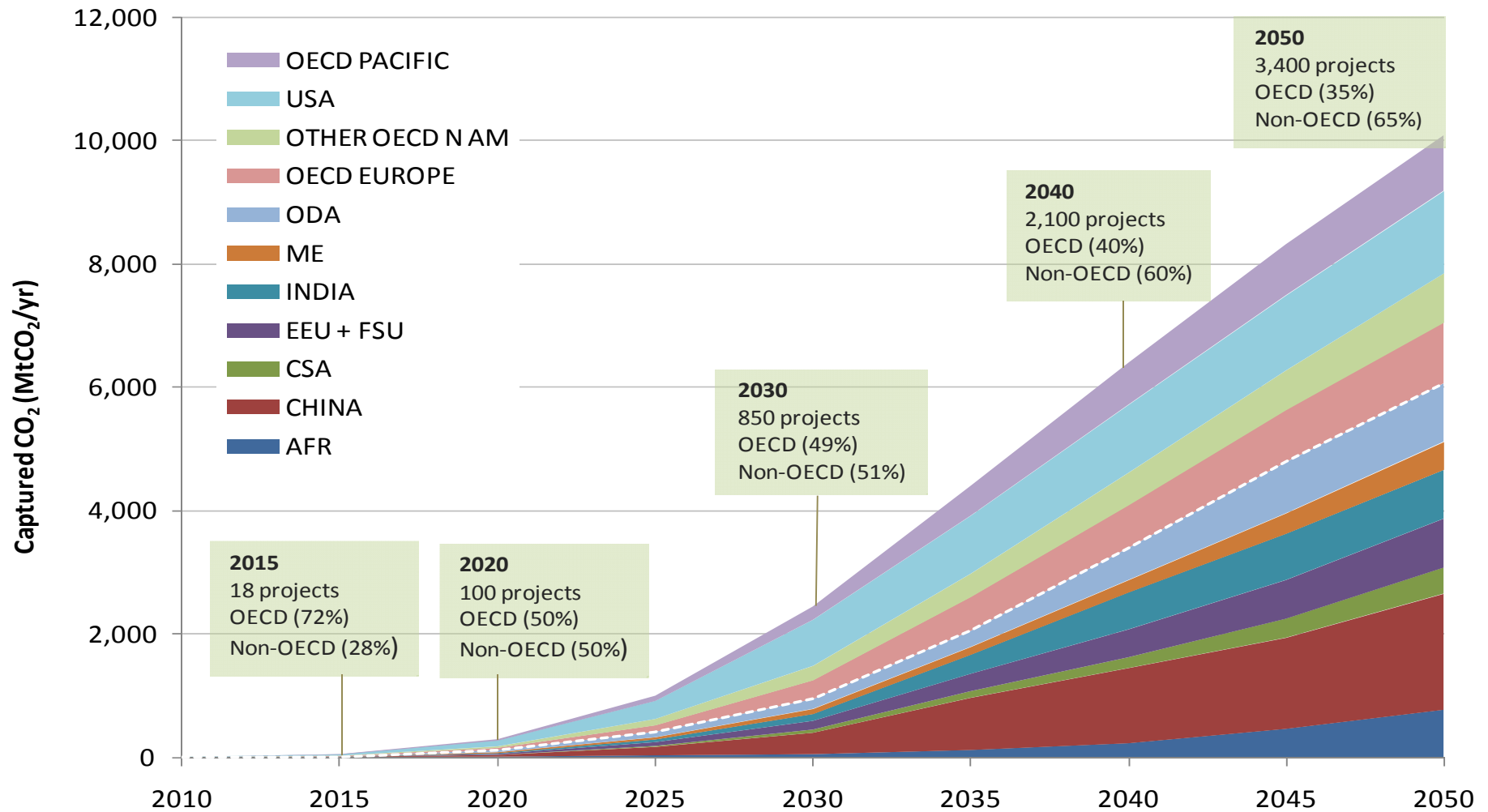
CCS PROVIDES ~20% OF CO<sub>2</sub> MITIGATION BY 2050



Importance of portfolio approach that includes addressing fossil fuels and CCS

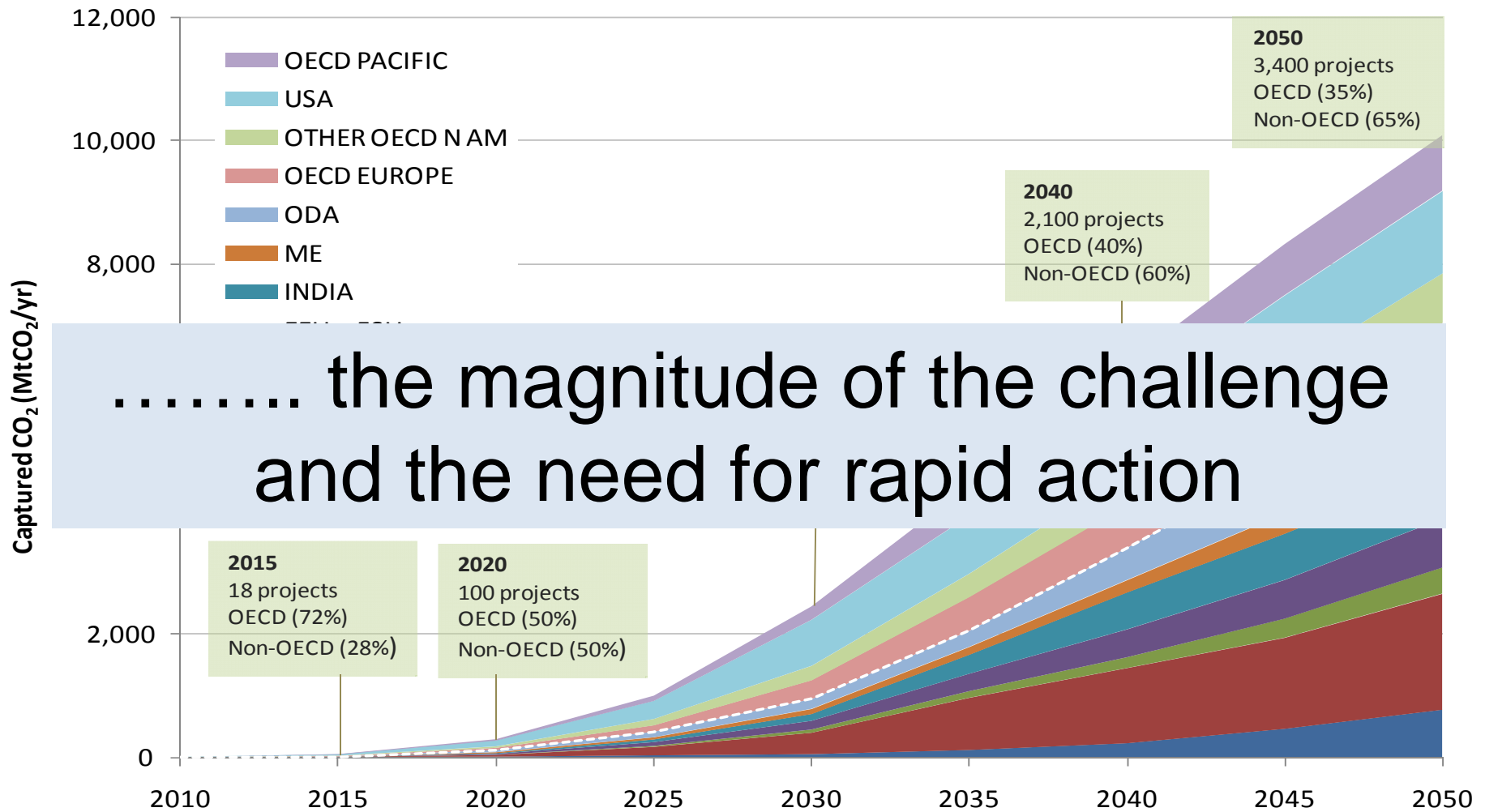
# CCS : IEA Roadmap to 2050

A 2009 View : IEA



# CCS : IEA Roadmap to 2050

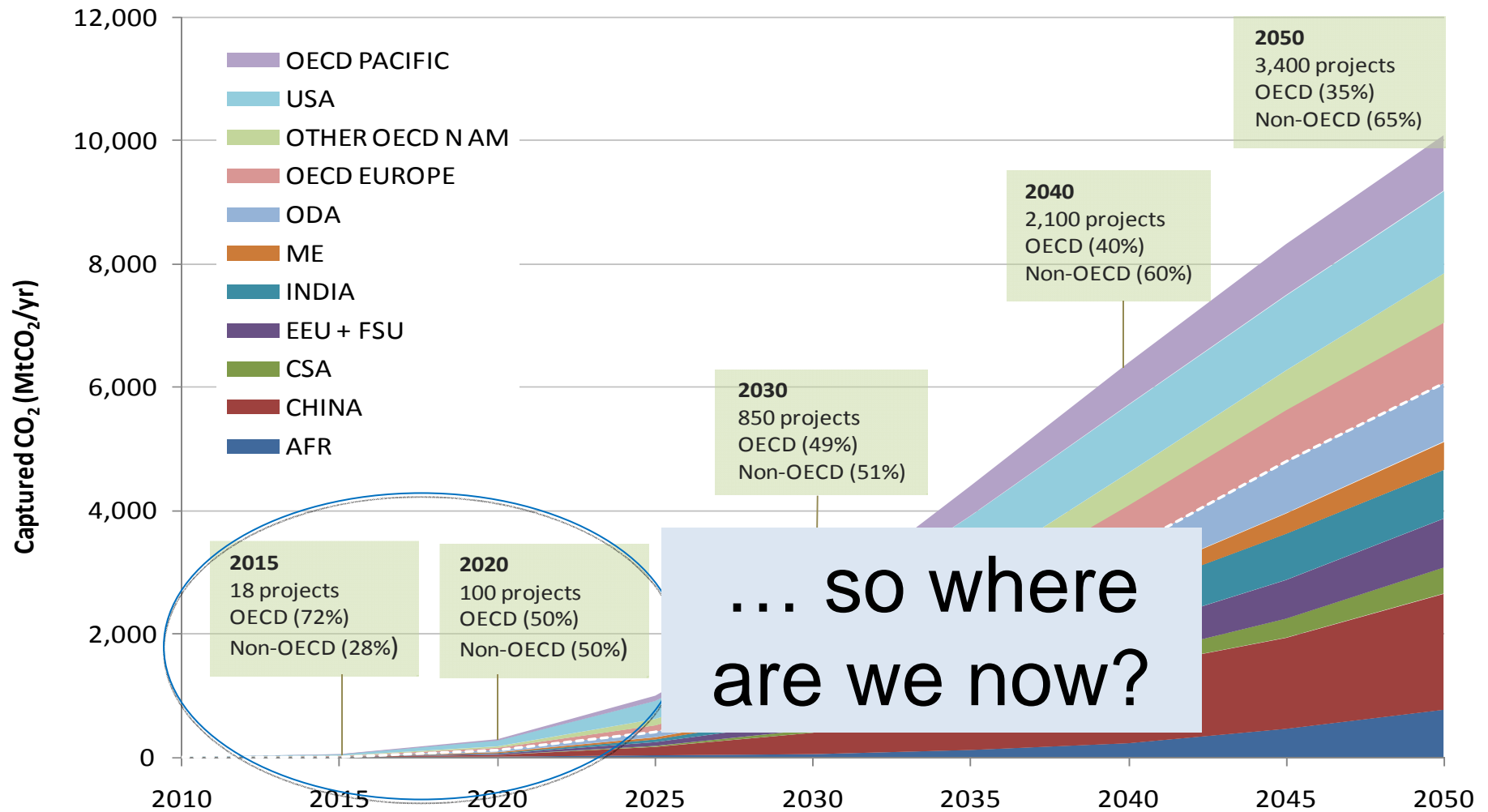
A 2009 View : IEA



..... the magnitude of the challenge  
and the need for rapid action

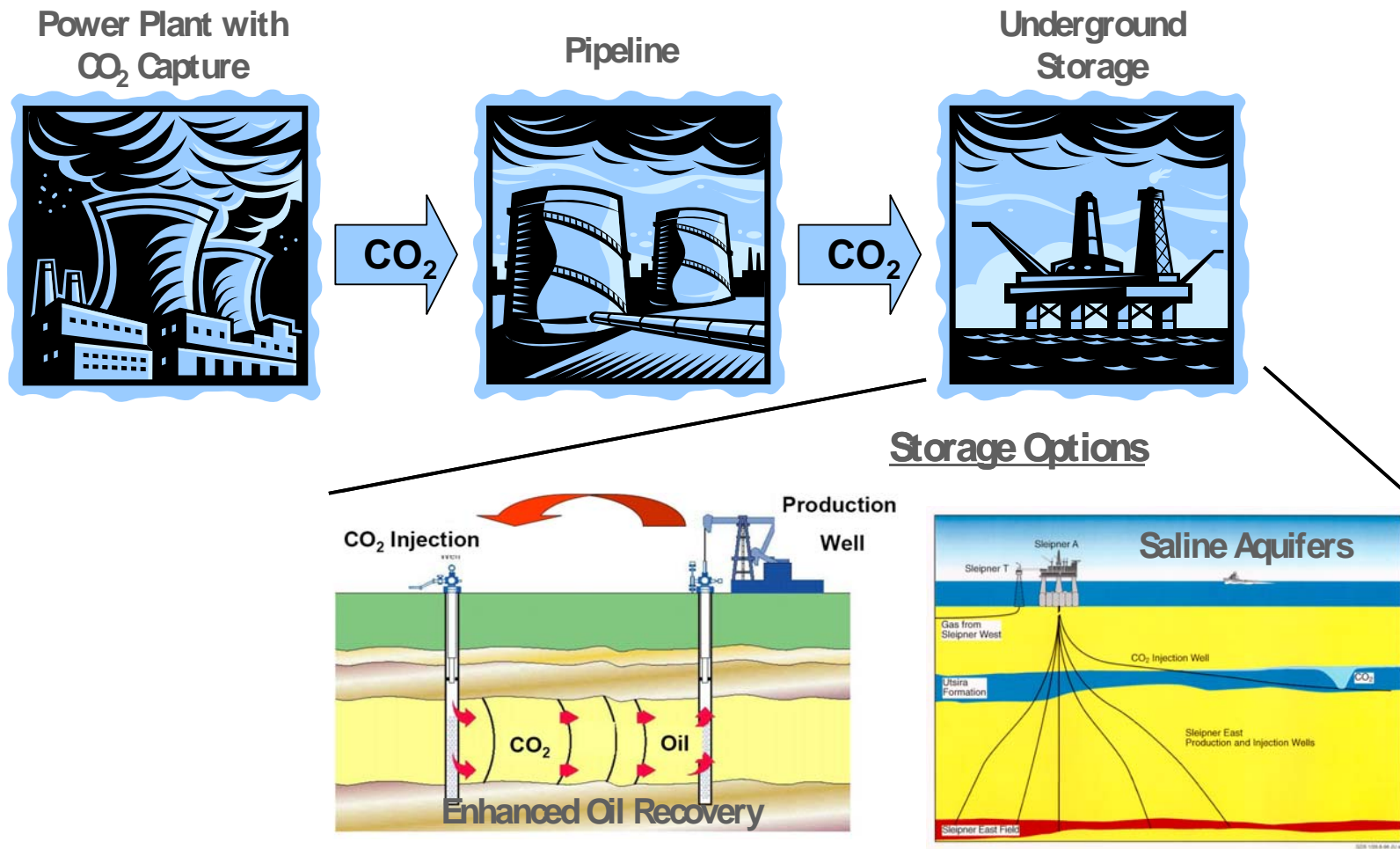
# CCS: A Roadmap to 2050

A 2009 View : IEA



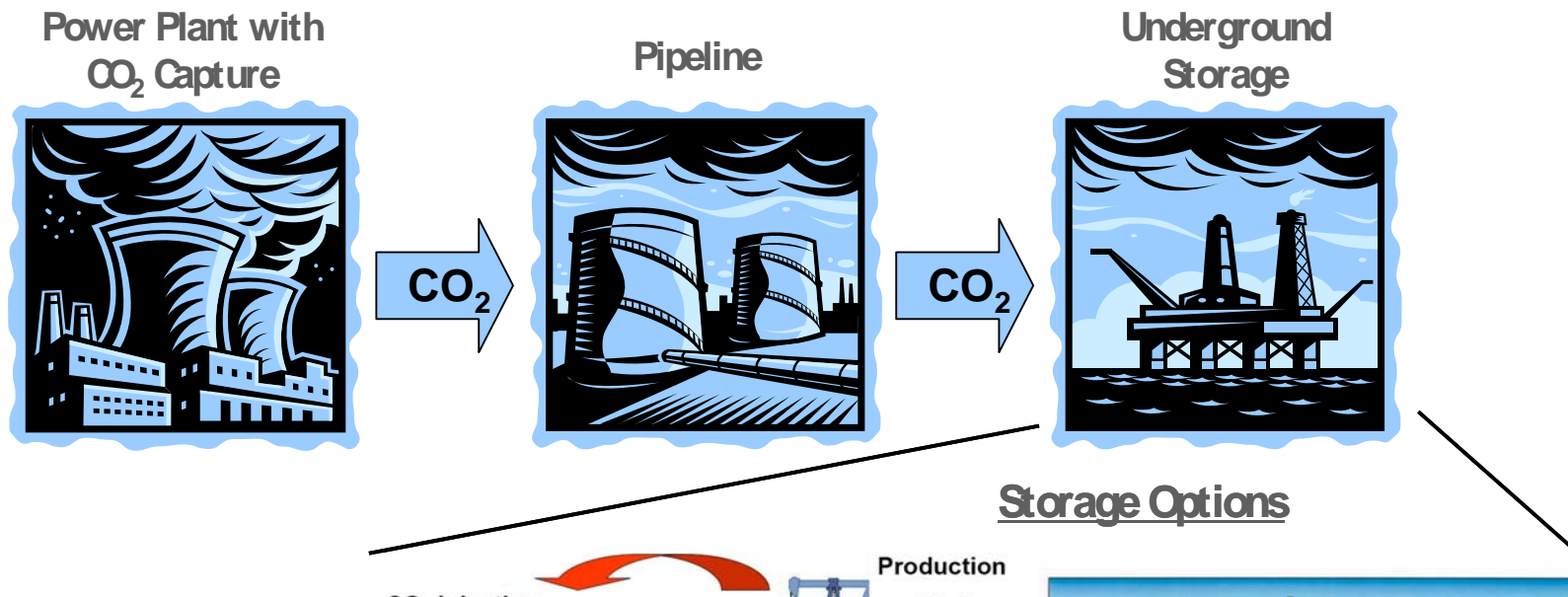
# CARBON CAPTURE AND STORAGE

## IMPORTANCE OF INTEGRATION ACROSS WHOLE CO<sub>2</sub> CHAIN



# CARBON CAPTURE AND STORAGE

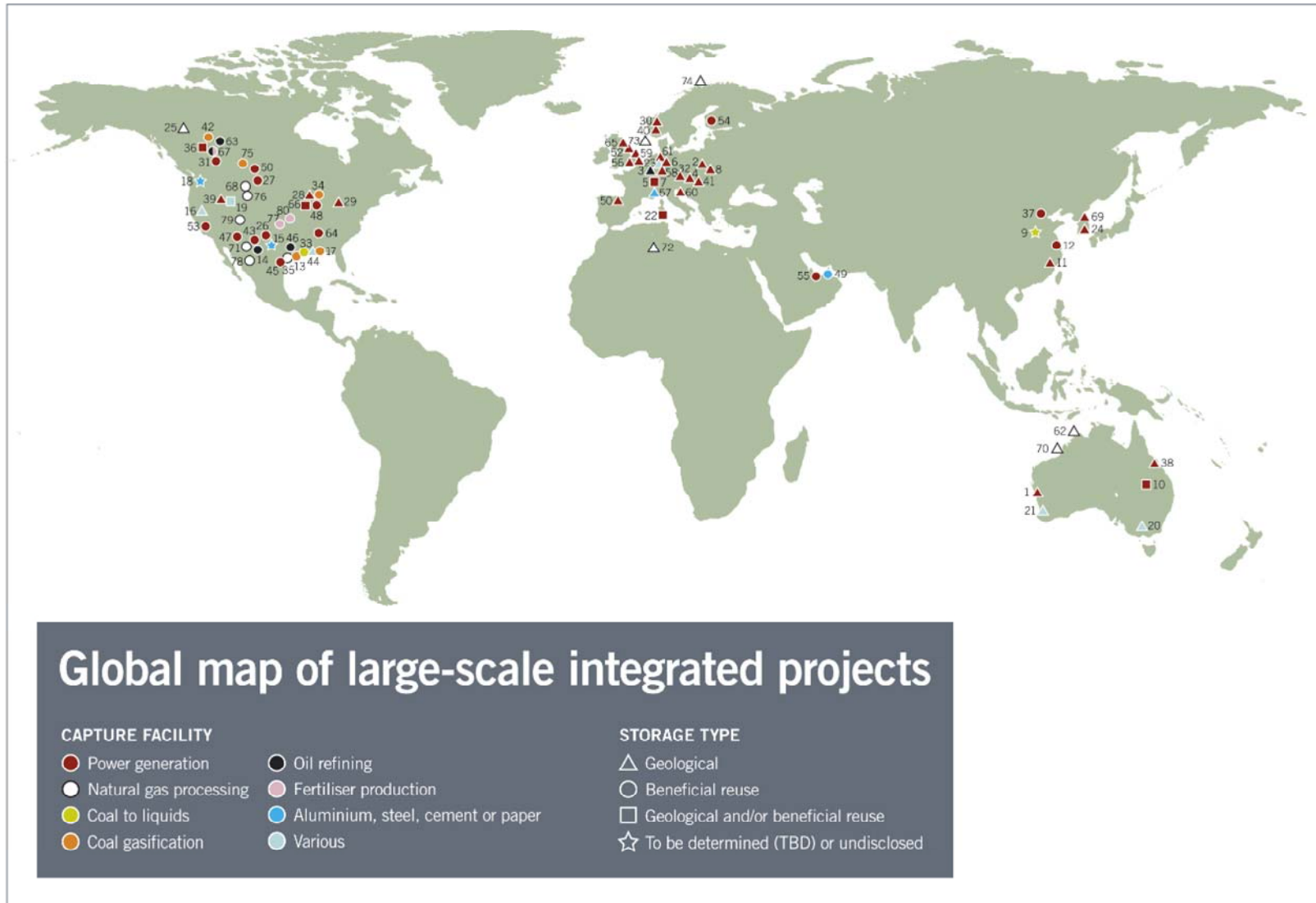
## IMPORTANCE OF INTEGRATION ACROSS WHOLE CO<sub>2</sub> CHAIN



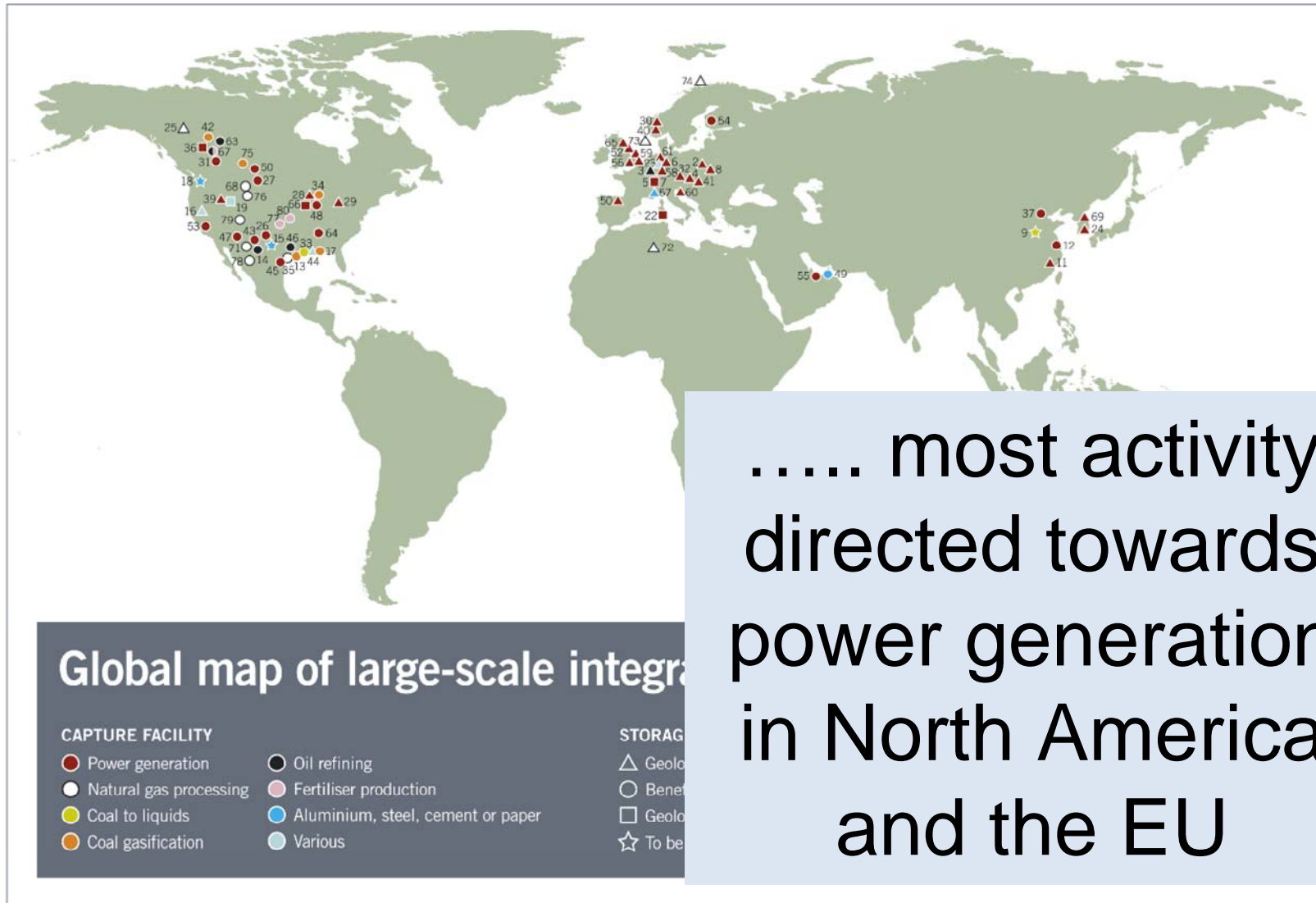
CCS needs the most efficient plant and components – synergistic with drive for greater efficiency and performance



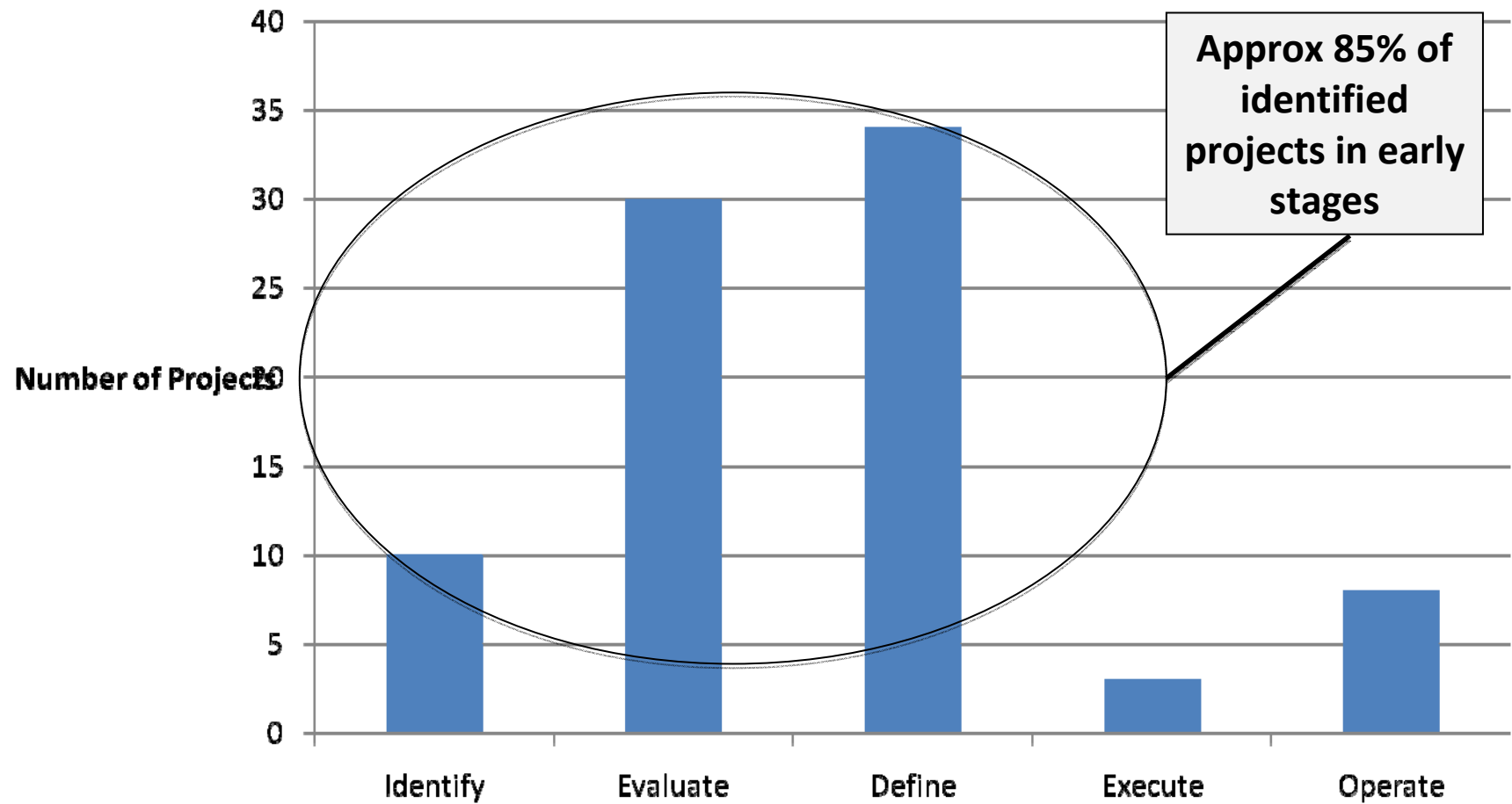
# TYPES OF PROJECTS GLOBALLY - LATE 2010



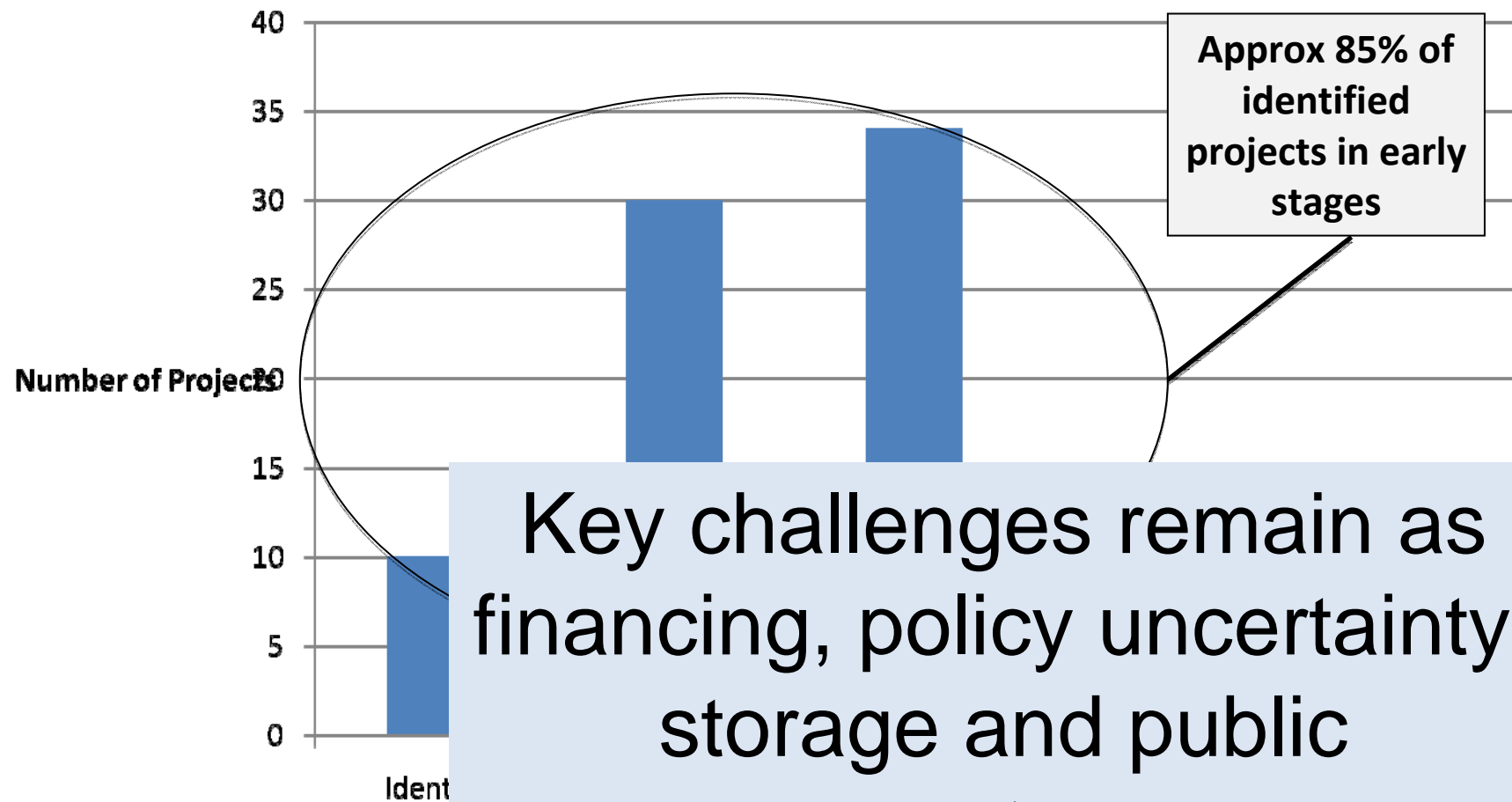
# TYPES OF PROJECTS GLOBALLY - LATE 2010



# LARGE PROJECTS BY ASSET LIFE CYCLE



# LARGE PROJECTS BY ASSET LIFE CYCLE



Key challenges remain as financing, policy uncertainty, storage and public acceptance.

## INSTITUTE AIM AND ASPIRATIONS

The Global CCS Institute brings together the public and private sectors to build and share the know-how and expertise necessary to ensure that CCS can make a significant impact on reducing the world's greenhouse gas emissions.

### OVERARCHING OBJECTIVE

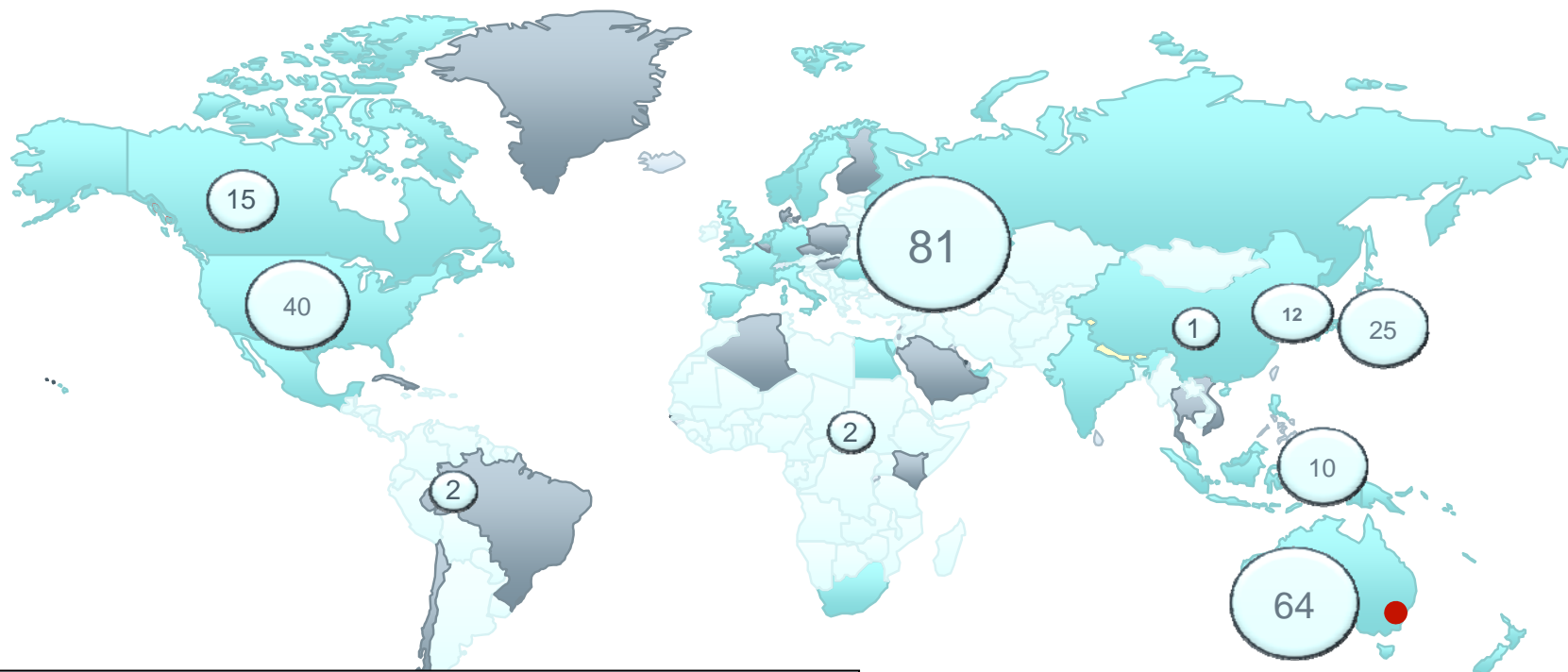
***“To accelerate the broad deployment of commercial CCS”***

Institute has injected a much needed impetus into the global CCS scene

# CURRENT MEMBERSHIP

## Legal Member breakdown

Legal Members as of November 2010: **252**  
from a total of **278**  
participating organisations.



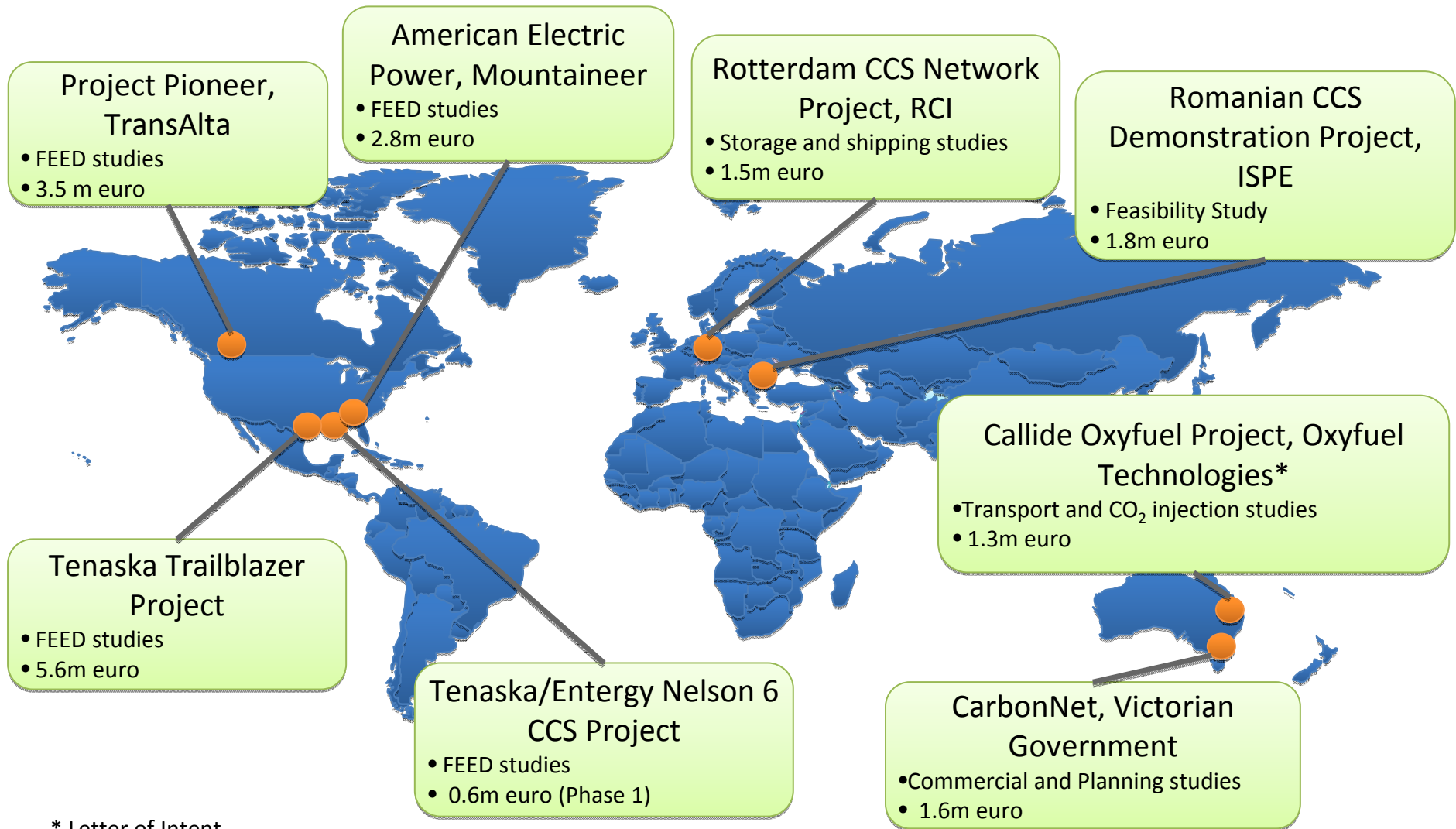
**February 2011 Update : 287  
Organisations participating**

Member (includes European Commission)  
Other countries engaged

# FOCUS AREAS FOR THE GLOBAL CCS INSTITUTE

- SHARE KNOWLEDGE
- UNDERTAKE FACT-BASED ADVOCACY
- ASSIST PROJECTS TO BRIDGE KNOWLEDGE GAPS, ESPECIALLY AMONGST EARLY MOVERS

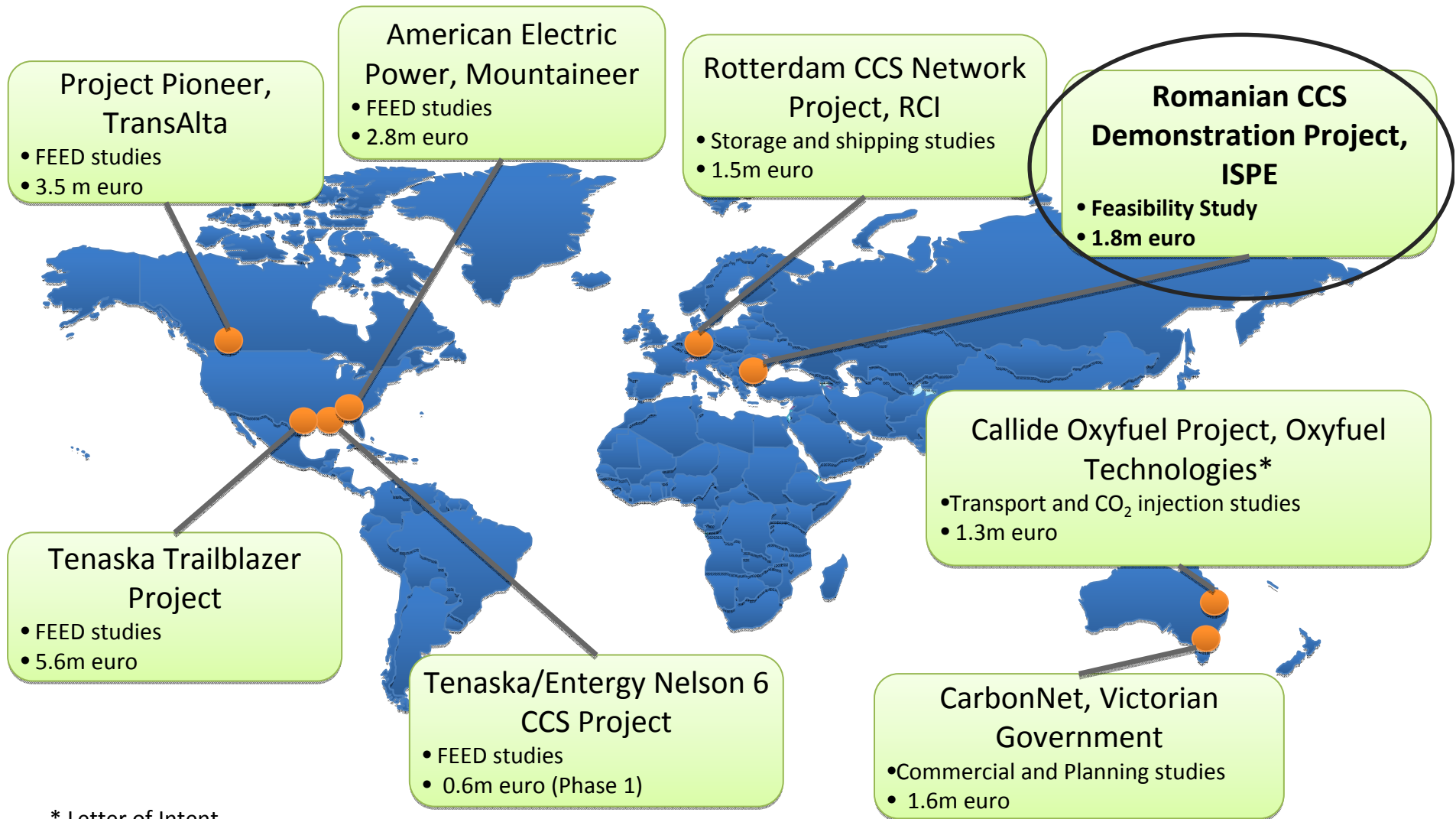
# Global CCS Institute supported Projects



4 in North America, 2 in Europe, 2 in Australia. Commitment from the Institute ~ 19m euro



# Global CCS Institute supported Projects



4 in North America, 2 in Europe, 2 in Australia. Commitment from the Institute ~ 19m euro

# KEY GENERAL OBSERVATIONS

- Sharing of information will be critical for acceleration of development and deployment of CCS and other low Carbon technologies
- Unprecedented need for greater effective collaboration worldwide
- Regional actions will be important in fulfilling the success of this approach

# SPECIFIC UNECE OBSERVATIONS

- Financing of all types of plant remains critical
  - Energy efficiency/performance improvement
  - Transition to lower C trajectory
    - ✓ CCS ready
    - ✓ CCS deployment
- Support all UNECE actions addressing issues
  - Transfer of knowledge and experience through regional workshops, country analysis, database for standards, case studies

# SPECIFIC UNECE OBSERVATIONS

- Financing of all types of plant remains critical
  - Energy efficiency/performance improvement
  - Transition to lower C trajectory
    - ✓ CCS ready
    - ✓ CCS deployment
- Support all UNECE actions addressing issues
  - Transfer of knowledge and experience through regional workshops, country analysis, database for

Practical way of accelerating of deployment through knowledge transfer into and outwith UNECE countries

# GLOBAL CCS STATUS 2010



Published on website on 8 March 2011  
[www.globalccsinstitute.com](http://www.globalccsinstitute.com)

**CO-OPERATION TO PROMOTE  
SUSTAINABLE ENERGY  
CARBON CAPTURE AND STORAGE**

**Nick Otter**

[otternr@gmail.com](mailto:otternr@gmail.com)

Full acknowledgement of the information provided  
by the Global CCS Institute in this presentation

**END**