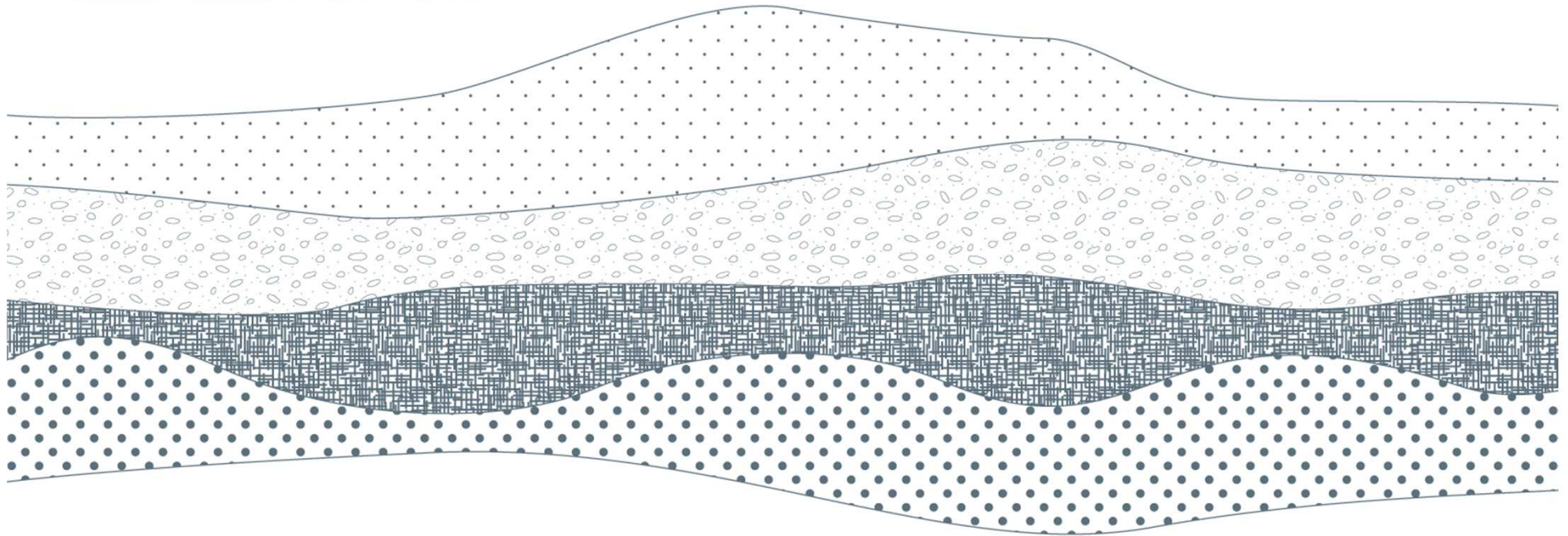




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INSTITUTE



# GLOBAL CCS INSTITUTE

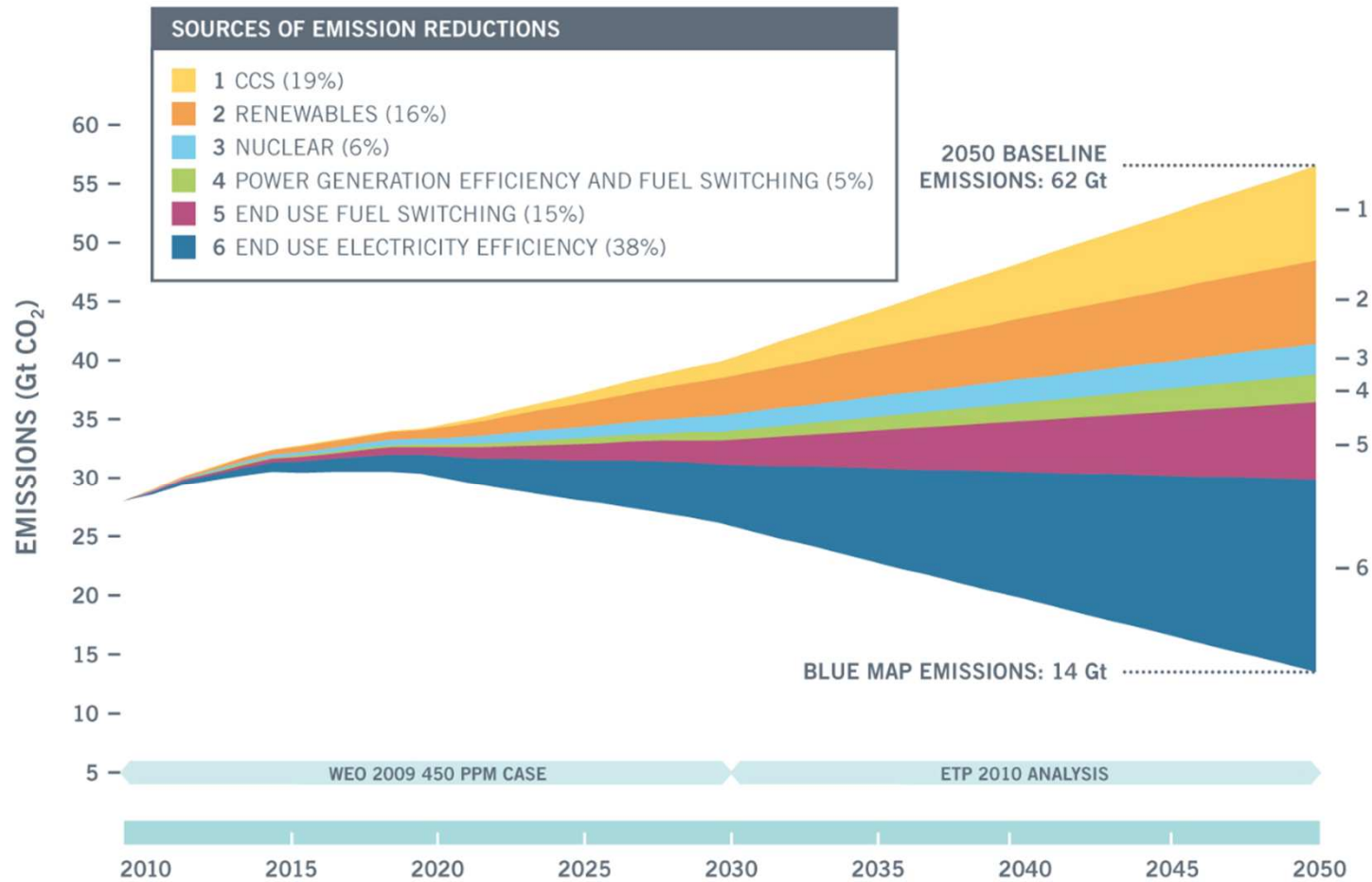
Meade Harris, Regional Representative– Europe

20 April 2011

[WWW.GLOBALCCSINSTITUTE.COM](http://WWW.GLOBALCCSINSTITUTE.COM)

# THE IEA BLUE MAP SCENARIO

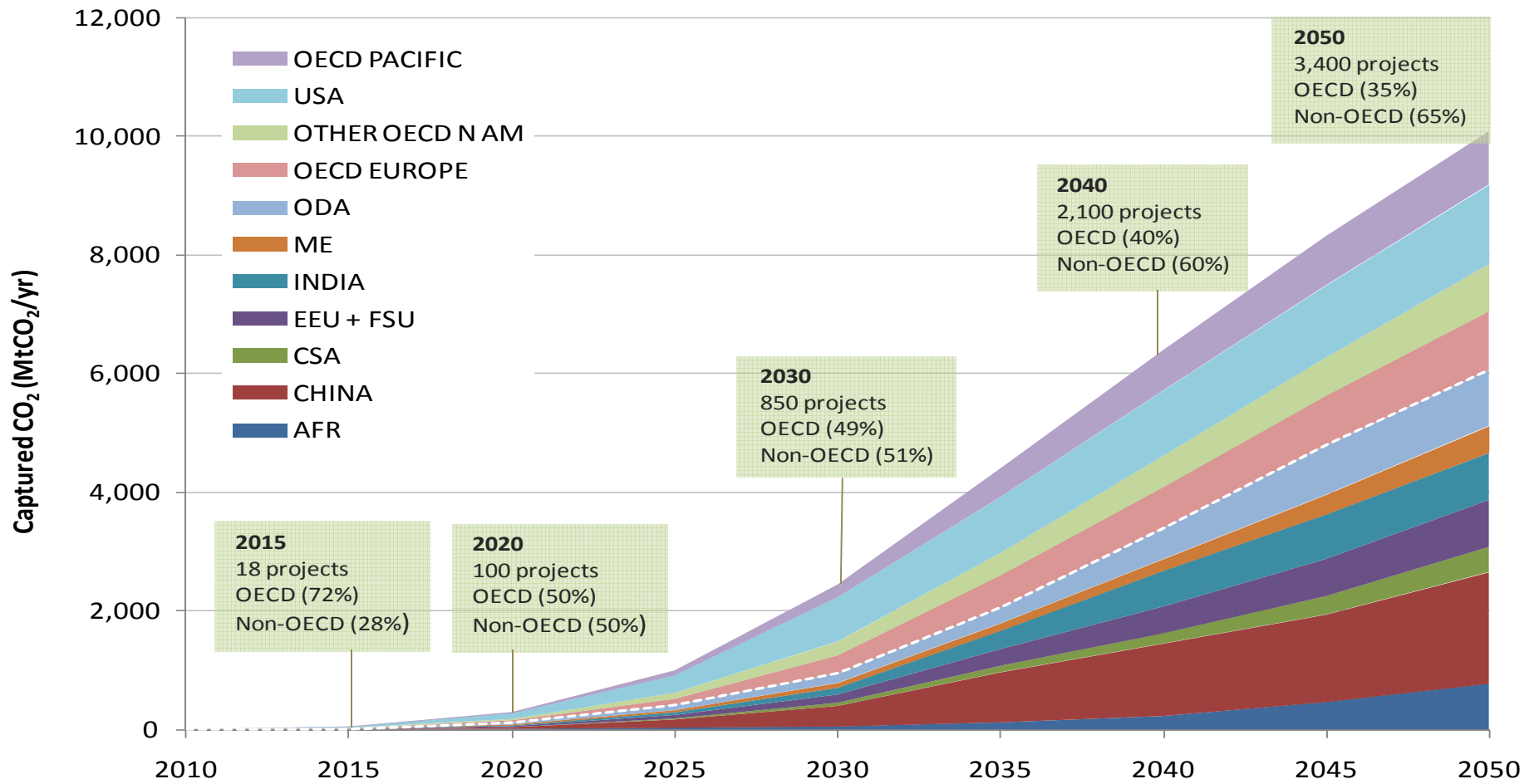
## GLOBALLY, CCS PROVIDES ~20 per cent OF CO<sub>2</sub> MITIGATION BY 2050



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

# ACCELERATING PROJECT DEVELOPMENT

An IEA view - Based on CCS Roadmap



# GLOBAL CCS INSTITUTE

**To accelerate the development and deployment of CCS globally so that CCS plays a significant role in reducing GHG emissions**

## **1. ASSISTING PROJECTS**

- Bridging between demonstration efforts
- Developing project-specific solutions for early movers

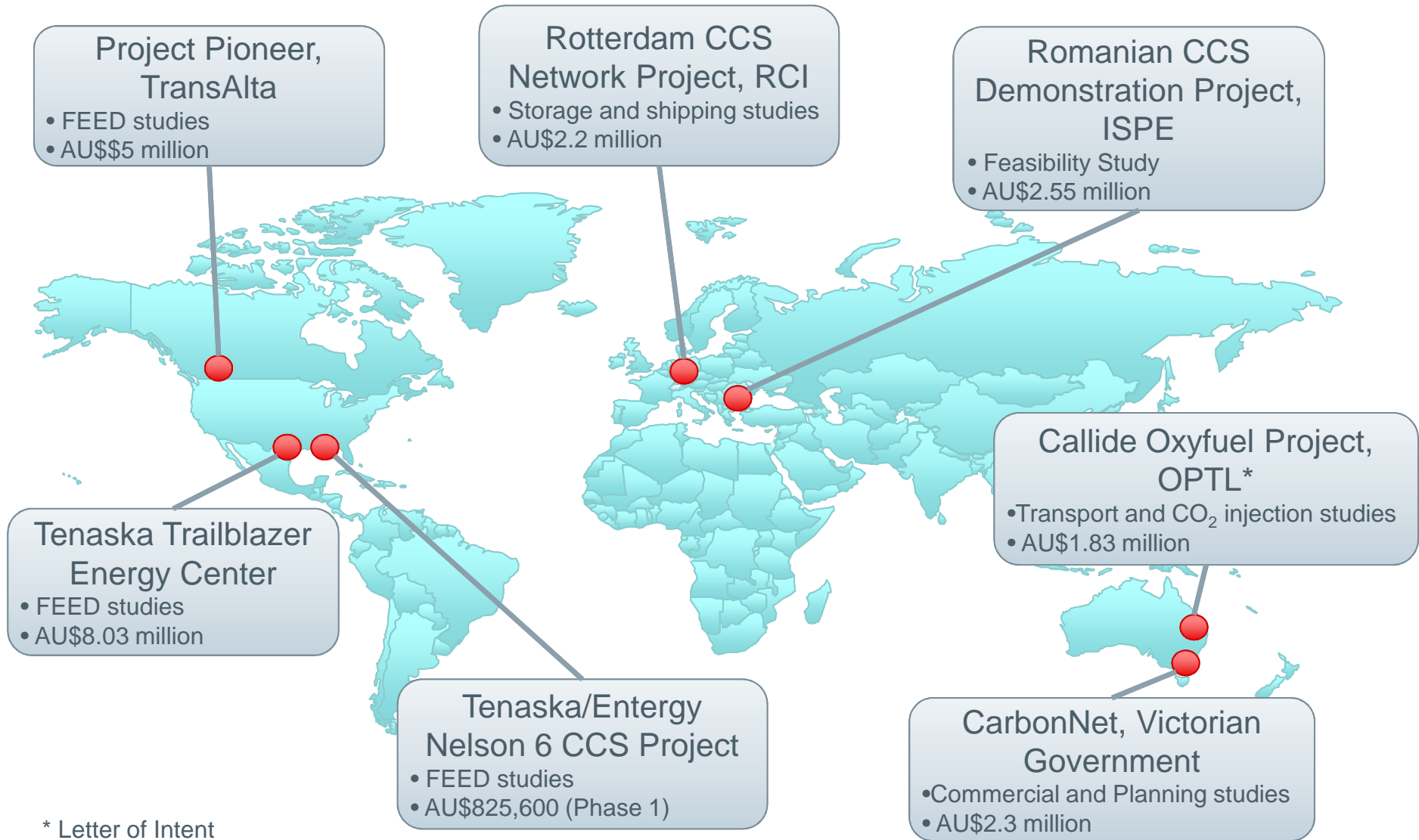
## **2. SHARING KNOWLEDGE**

- Sharing real experiences, filling knowledge gaps and building capabilities

## **3. FACT-BASED ADVOCACY**

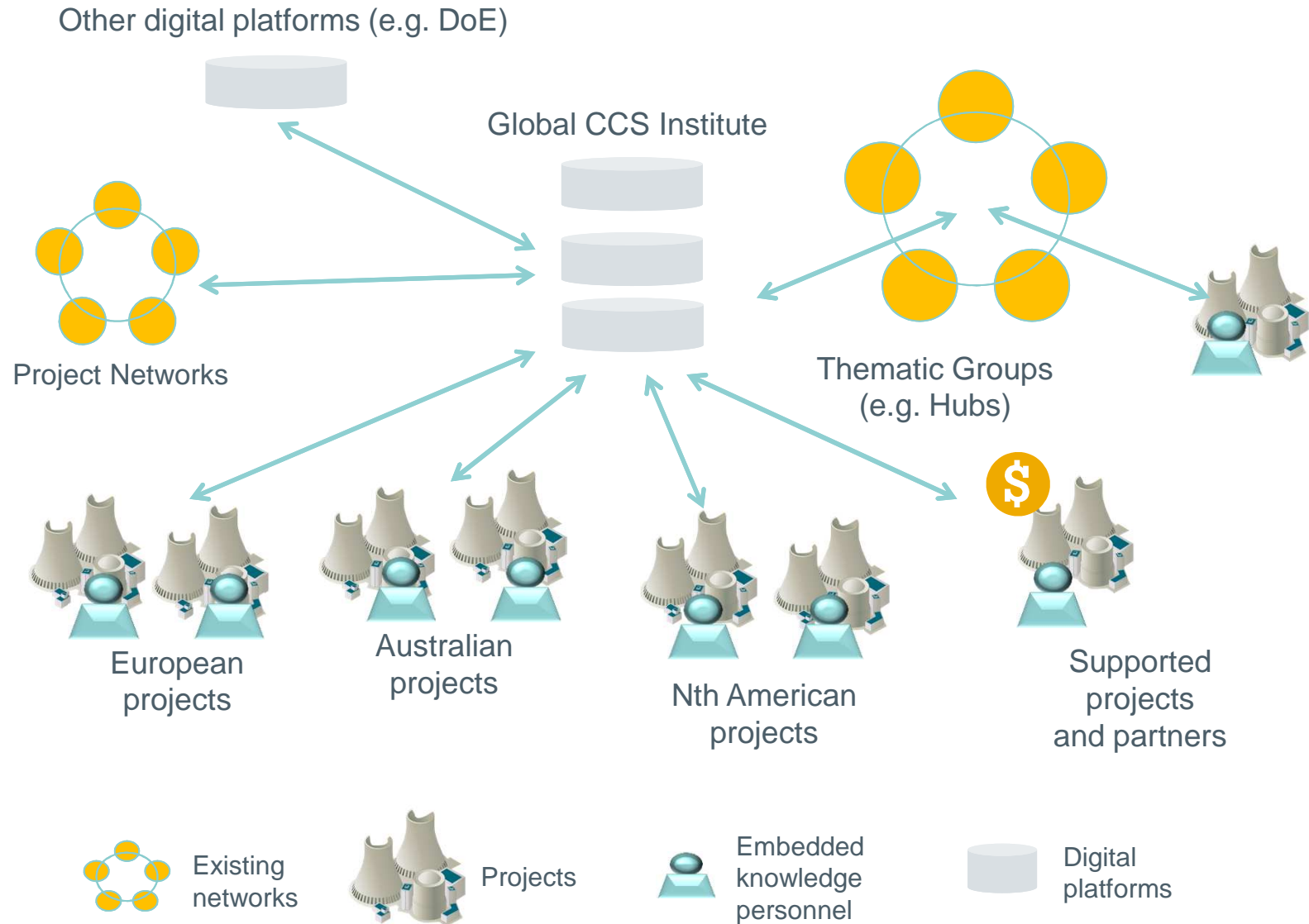
- Increasing awareness of CCS
- Informing and influencing policy
- Advancing financing solutions and risk regimes

# INSTITUTE SUPPORTED PROJECTS



3 in North America, 2 in Europe, 2 in Australia. Commitment ~ AU\$23 million

# WE DRIVE KNOWLEDGE THROUGH FUNDING, RESOURCES AND CONNECTING EXISTING NETWORKS



## RECENTLY RELEASED PRODUCTS

### **CCS Regulatory Test Toolkit (February 2011):**

- Ensuring best practice regulations and permitting processes.

### **Tenaska Trailblazer reports (January 2011):**

- Project development history;
- CO<sub>2</sub> technology selection process; and
- Public engagement.

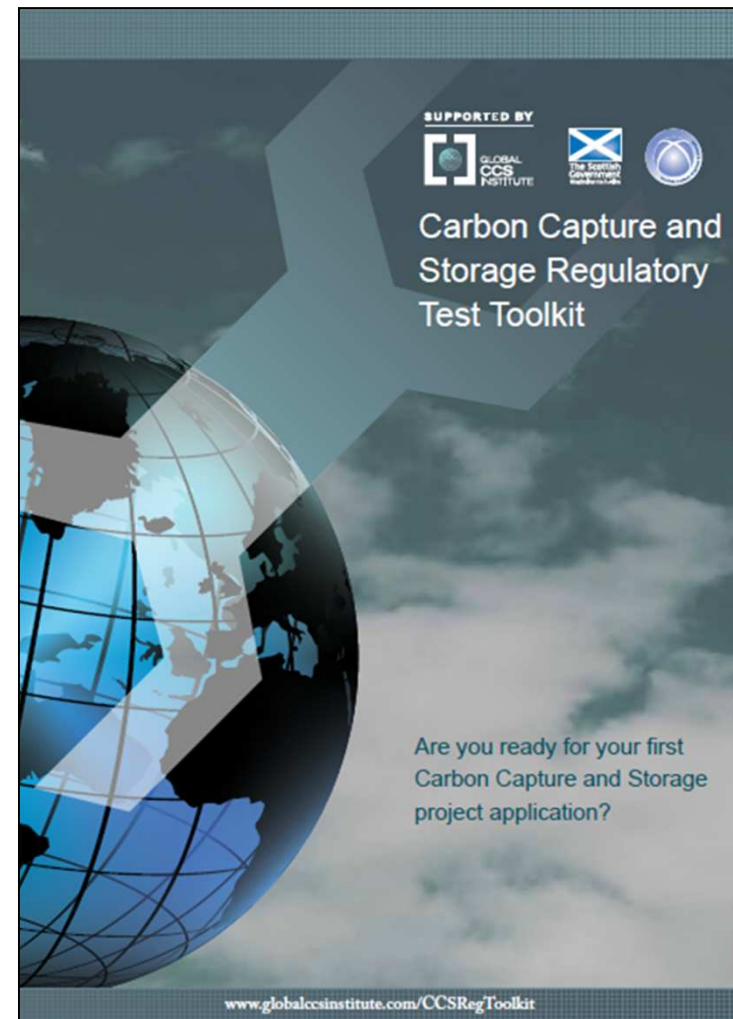
### **Tenaska Nelson 6 reports (January 2011):**

- Project development history.

*All reports supported by the Global CCS Institute.*

# CARBON CAPTURE AND STORAGE REGULATORY TEST TOOLKIT

- Best practice guide to testing regulatory systems for CCS
- Take a CCS project application through the approval process in a regulatory test exercise
- Focus on preparation and follow-up
- Suitable for national and regional governments

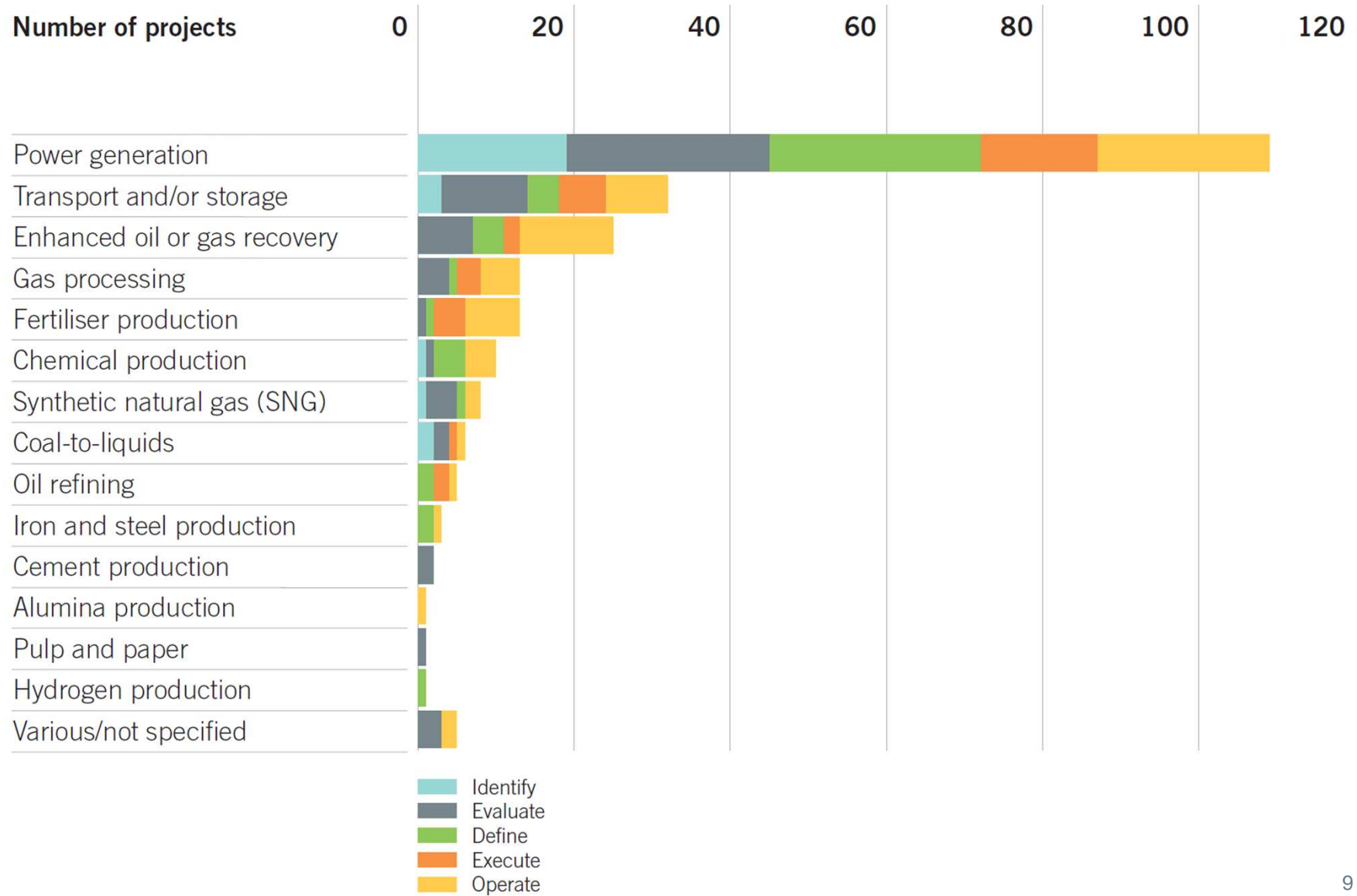


**OVERARCHING OBJECTIVE**

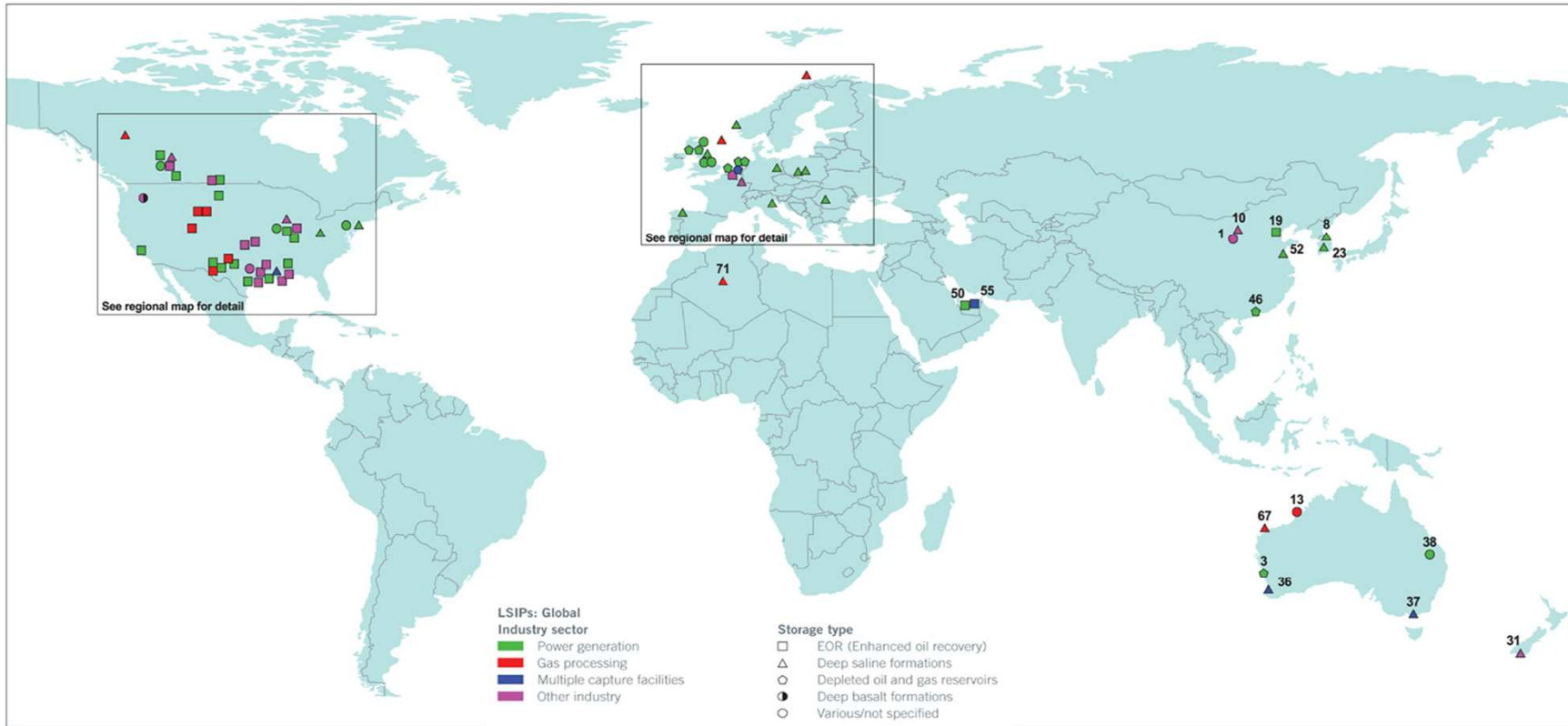
*“To accelerate the broad deployment of commercial CCS”*

Large-scale  
Integrated  
Project  
update

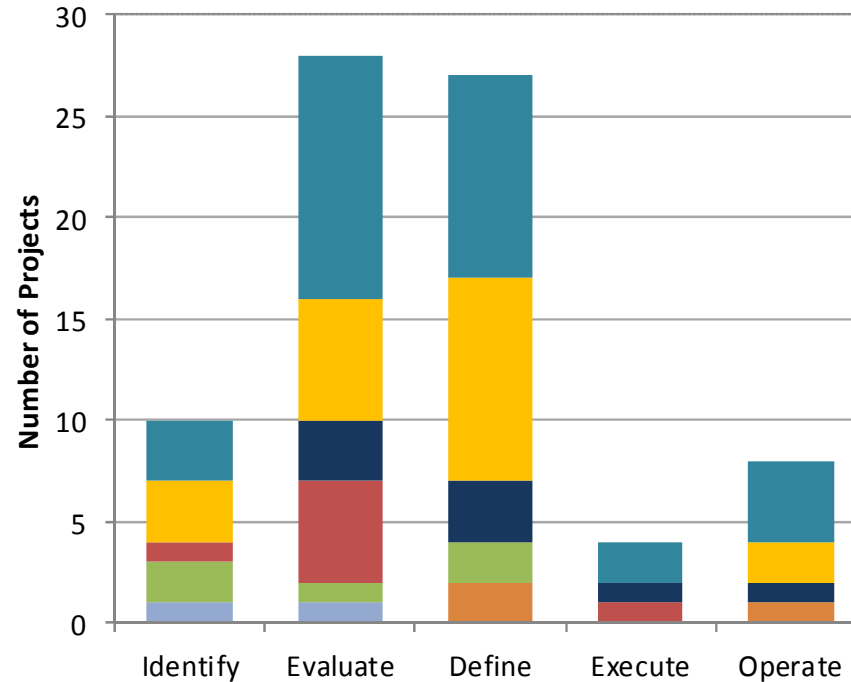
## 234 ACTIVE AND PLANNED PROJECTS: BY SECTOR AND LIFECYCLE STAGE



# 77 LSIPS BY INDUSTRY SECTOR, STORAGE TYPE AND LOCATION



# LISPS BY ASSET LIFECYCLE



	Identify	Evaluate	Define	Execute	Operate
USA	3	12	10	2	4
Europe	3	6	10		2
Canada		3	3	1	1
Australia and New Zealand	1	5		1	
China	2	1	2		
Middle East and Africa			2		1
Asia (excl. China)	1	1			

<b>Total 2010</b>	<b>10</b>	<b>28</b>	<b>27</b>	<b>4</b>	<b>8</b>	<b>77</b>
Total 2009	19	20	15	2	8	64

## GLOBAL STATUS: LESSONS LEARNED

- CCS is primarily a policy/commercial issue, not a technical issue
  - Projects getting stuck at Financial Close:
    - Lack of value proposition (even EOR is not sufficient)
    - Costs of CCS
    - Lack of value for CO<sub>2</sub>
  - More work therefore required on policy and regulatory regimes
- Developers have better alternatives (given current value proposition and incentives)
- Onshore storage faces significant public acceptance issues and this is often underestimated
- Storage characterisation takes time and money

## EUROPEAN SNAPSHOT

- Robust number of projects – interesting emergent projects from NER300;
- The United Kingdom and the Netherlands are the most active;

### **But**

- Clear political support is limited to a small number of countries;
- Onshore storage faces significant public acceptance issues;
- Renewed interest in gas (without CCS) for electricity generation;
- Limited effort on industrial CCS – but unexpected strong response in NER300 (4 projects);
- Transboundary CO<sub>2</sub> movement – liability, limitations and leverage;

The top portion of the image features a dark blue background with four thin, white, wavy lines that create a sense of movement and depth, resembling stylized waves or a topographical map.

[www.globalccsinstitute.com](http://www.globalccsinstitute.com)