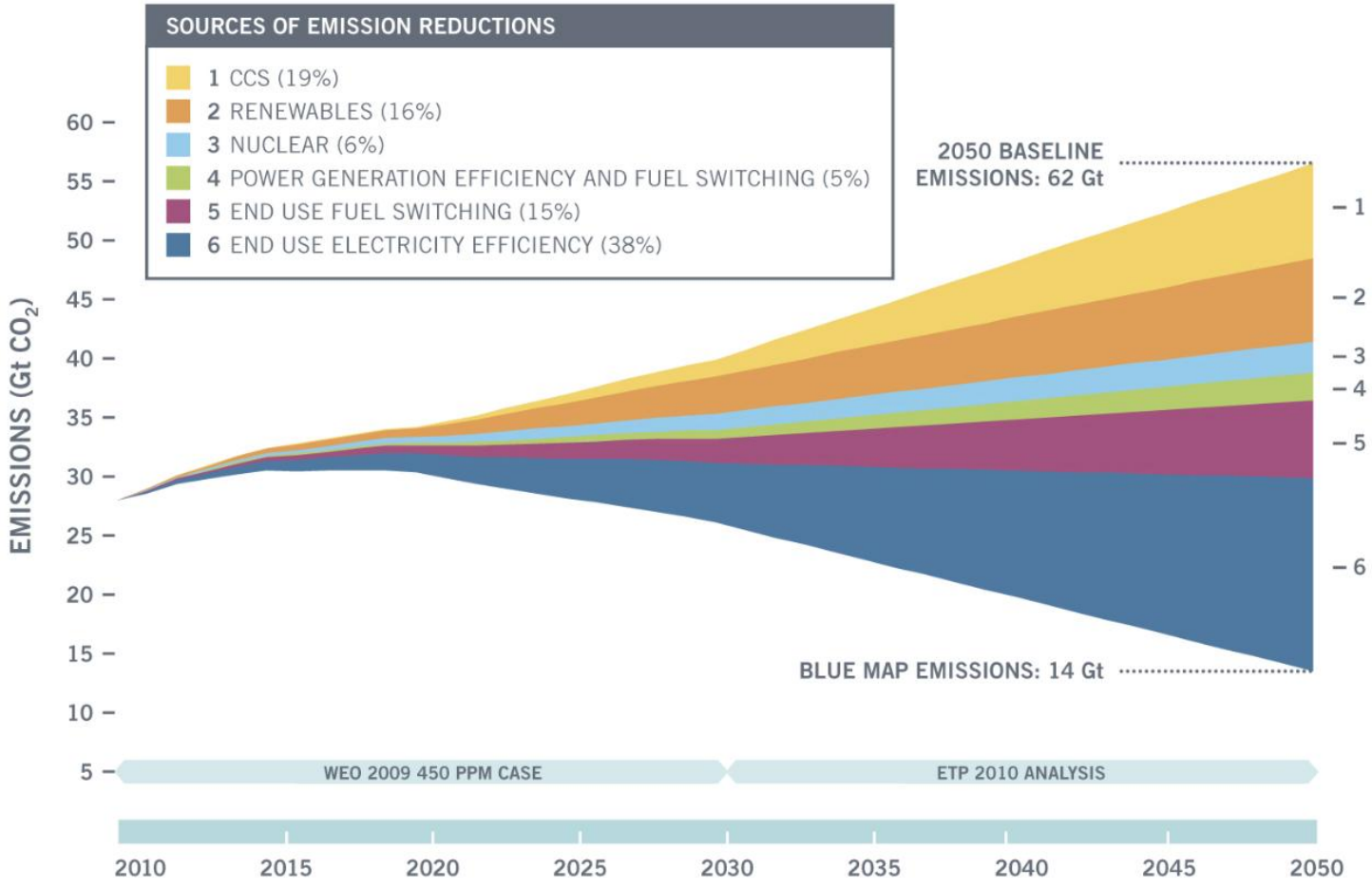
GLOBAL CCS INSTITUTE

Bob Pegler, General Manager – Europe

PROJECT STATUS, May 2011

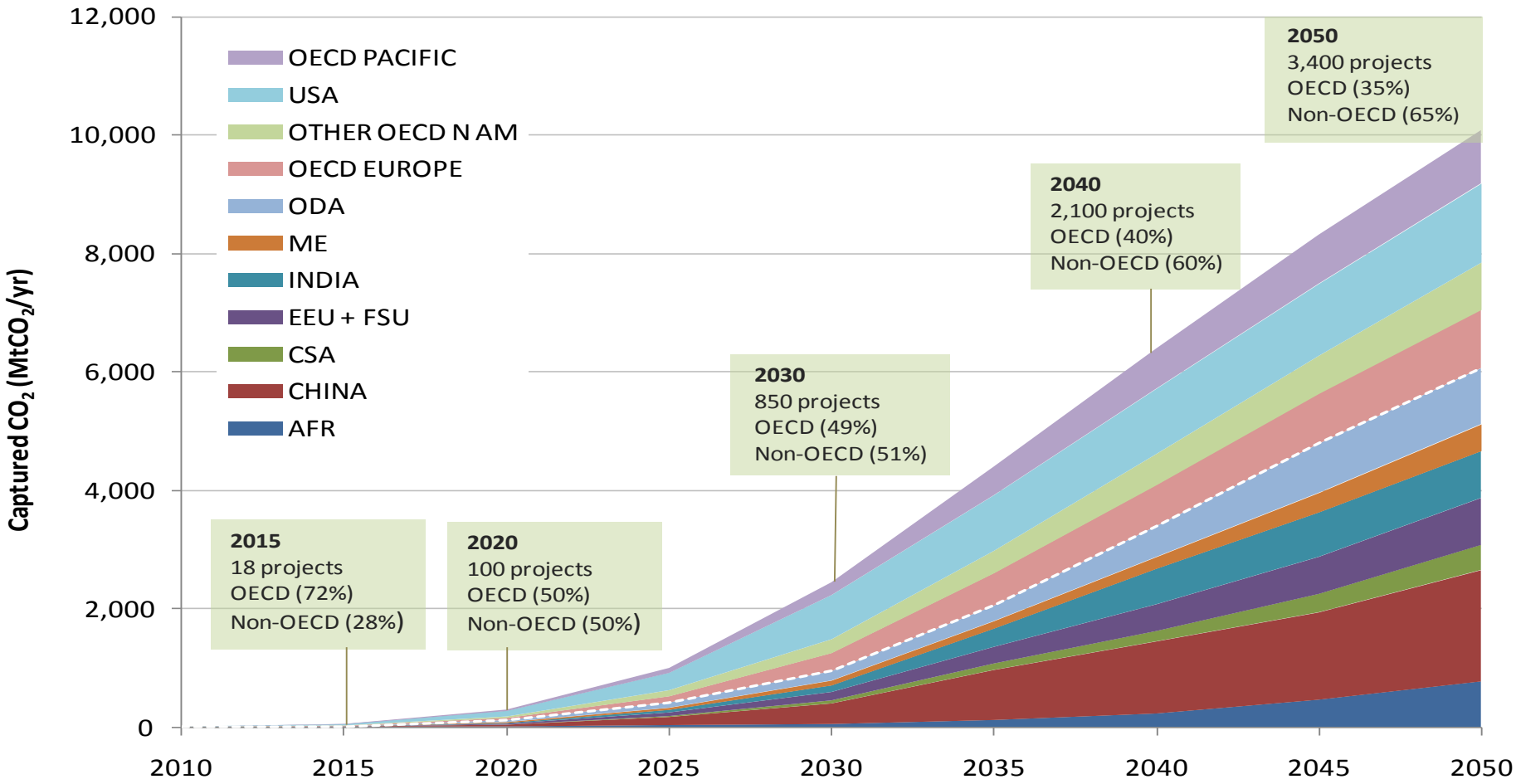
THE IEA BLUE MAP SCENARIO
GLOBALLY, CCS PROVIDES ~20 per cent OF CO_2 MITIGATION BY 2050



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

ACCELERATING PROJECT DEVELOPMENT

An IEA view - Based on CCS Roadmap



THE INSTITUTE IS A KNOWLEDGE SHARING ORGANISATION

OVERARCHING OBJECTIVE

"To accelerate the broad deployment of commercial CCS"

Knowledge Sharing

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

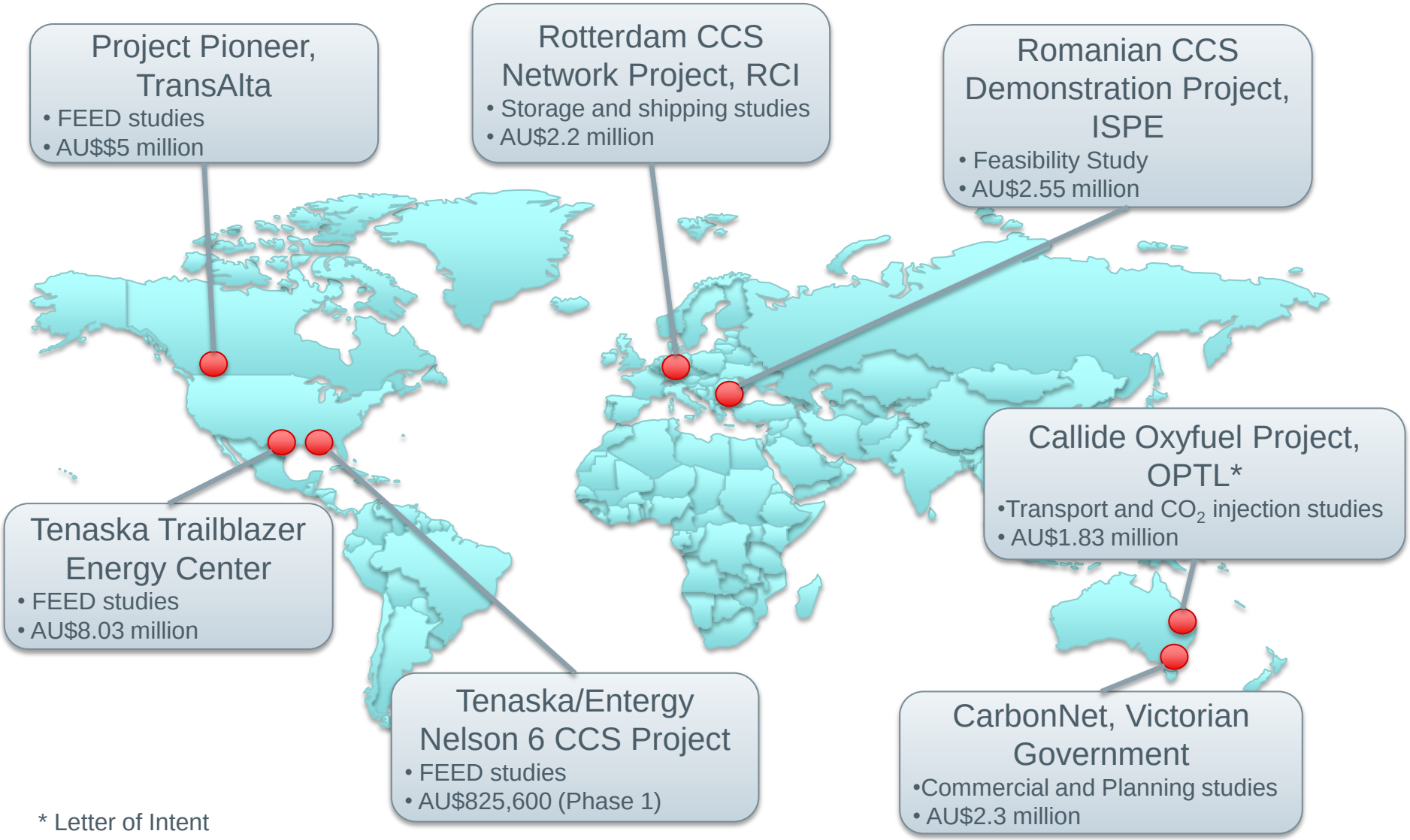
2. SHARING KNOWLEDGE

- 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

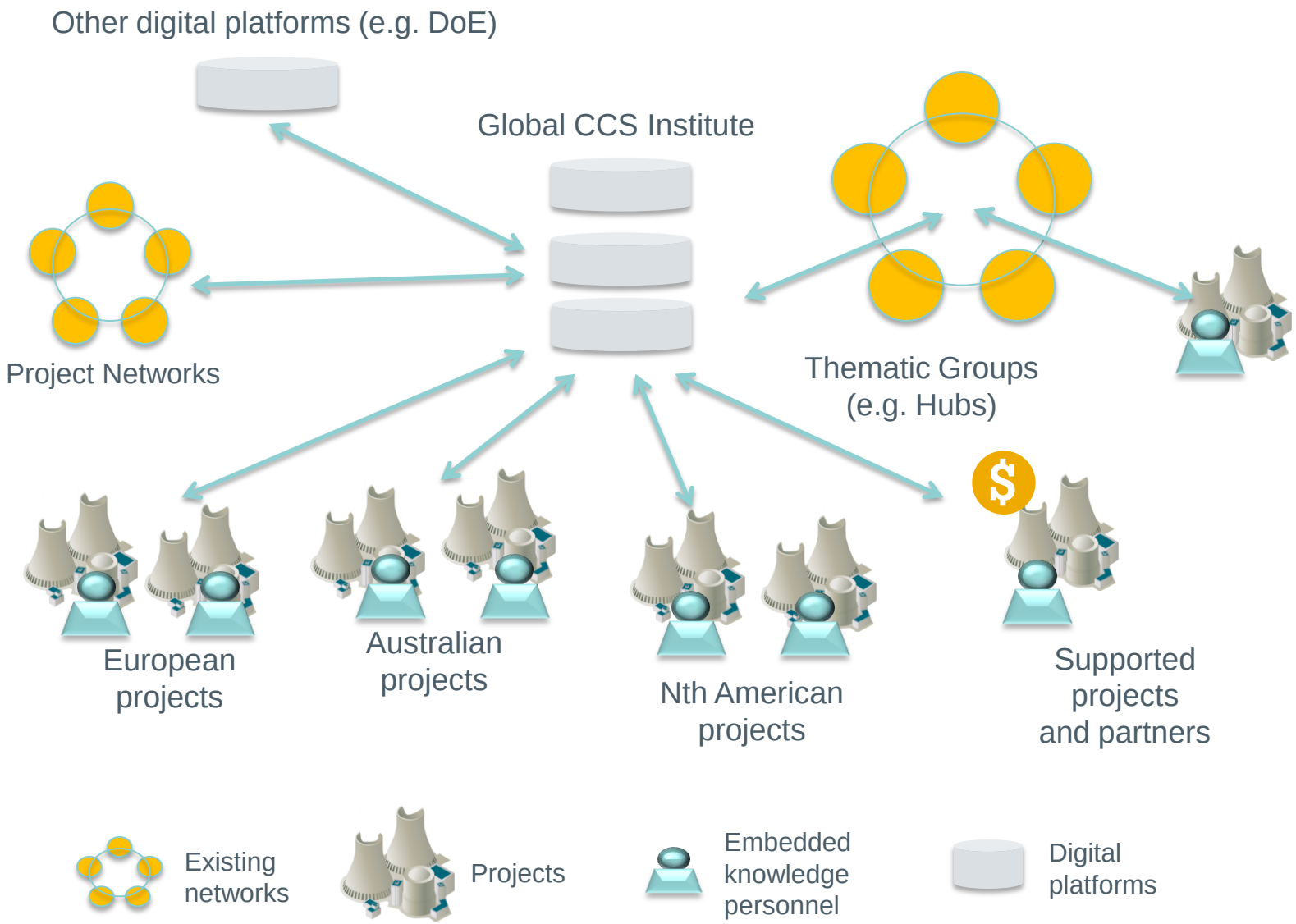
INSTITUTE SUPPORTED PROJECTS



* Letter of Intent

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_2 technology selection process; and
- Public engagement.

Tenaska Nelson 6 reports (January 2011):

- Project development history.

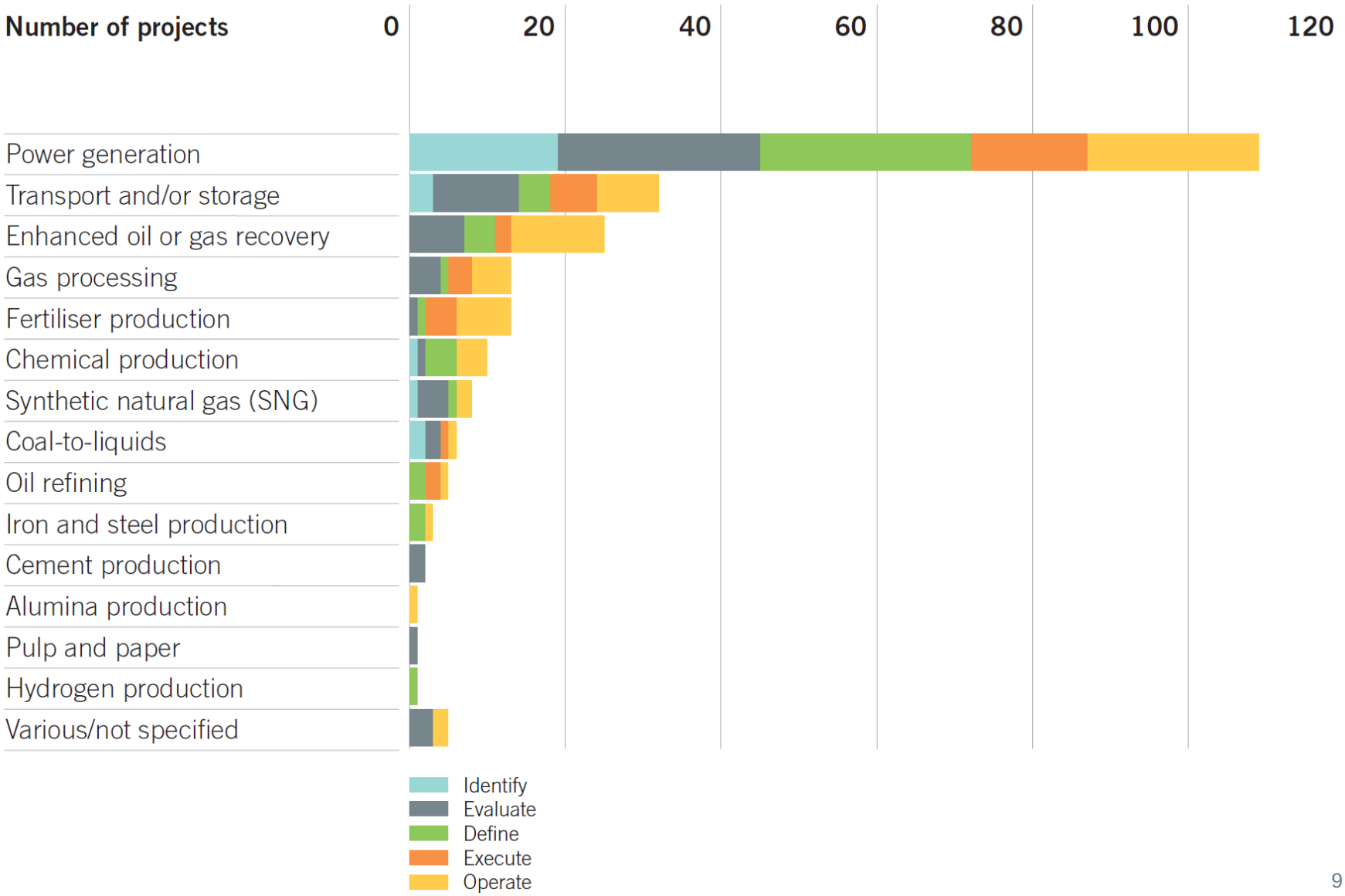
All reports supported by the Global CCS Institute.

OVERARCHING OBJECTIVE

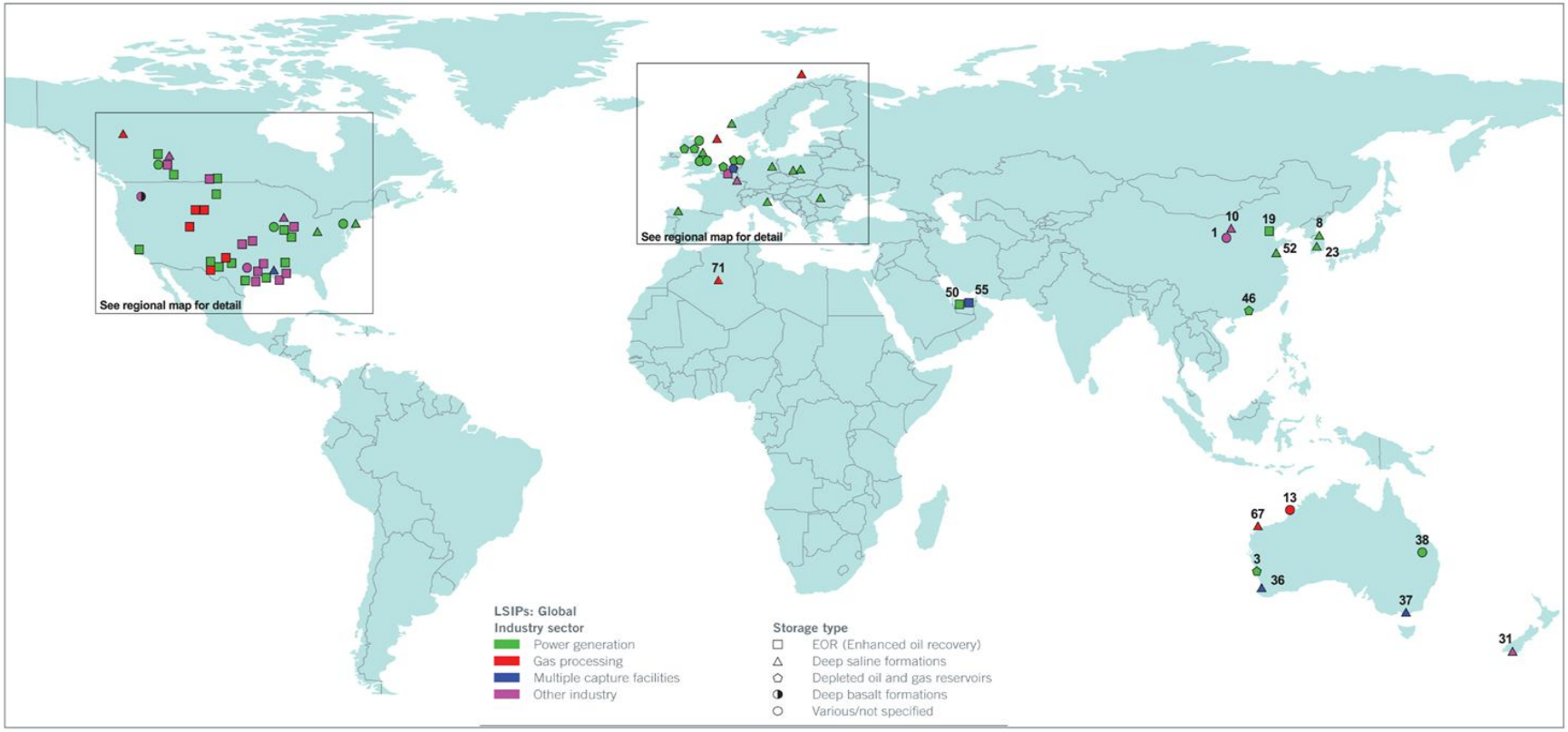
"To accelerate the broad deployment of commercial CCS"

Large-scale Integrated Project update

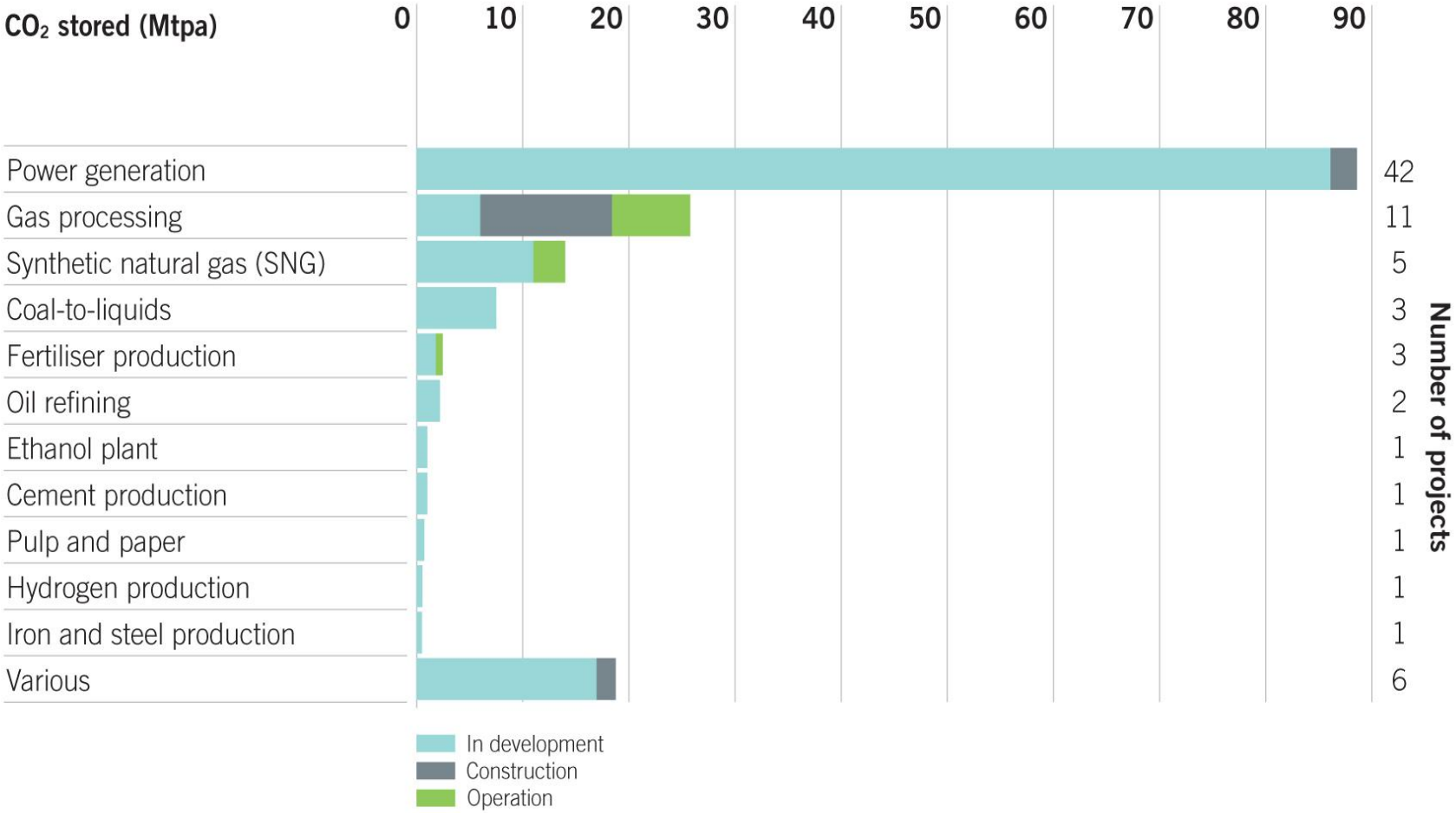
234 ACTIVE AND PLANNED PROJECTS: BY SECTOR AND LIFECYCLE STAGE



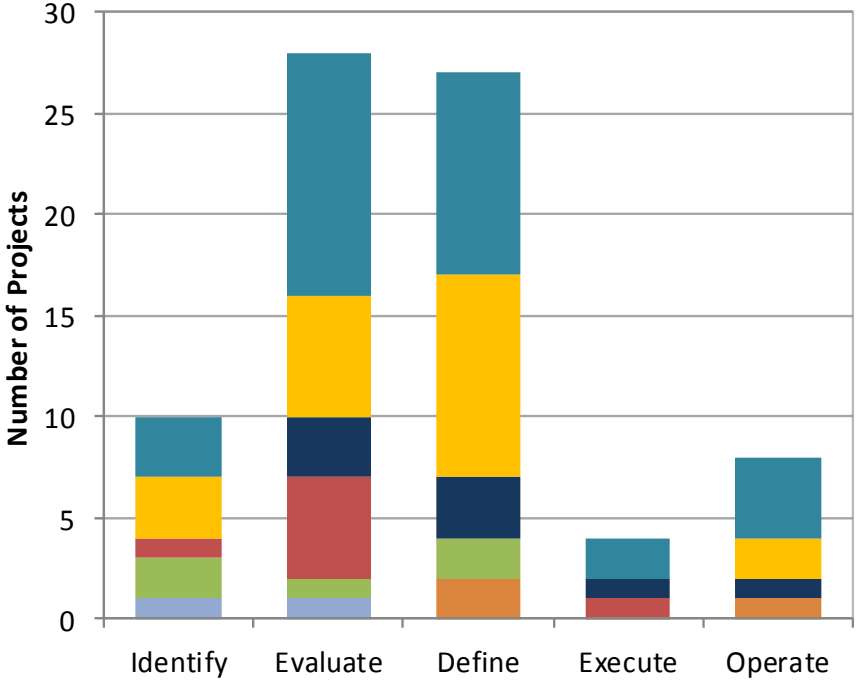
77 LSIPS BY INDUSTRY SECTOR, STORAGE TYPE AND LOCATION



LSIPS BY SECTOR

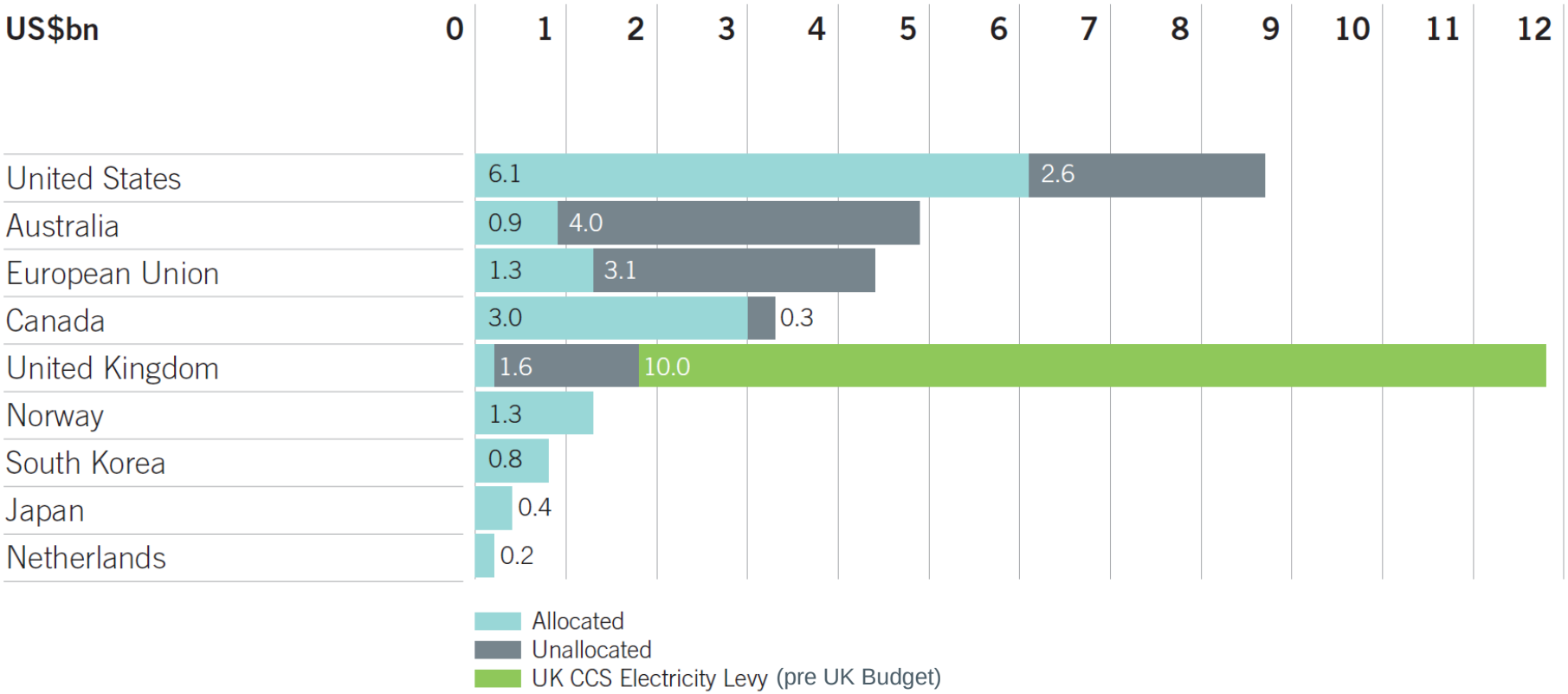


LISPS BY ASSET LIFECYCLE



	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				
Total 2010	**10**	**28**	**27**	**4**	**8**	**77**
Total 2009	19	20	15	2	8	64

PUBLIC FUNDING COMMITMENTS TO CCS BY COUNTRY



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_2
  - 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);
- Transbounday CO2 movement – liability, limitations and leverage;

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