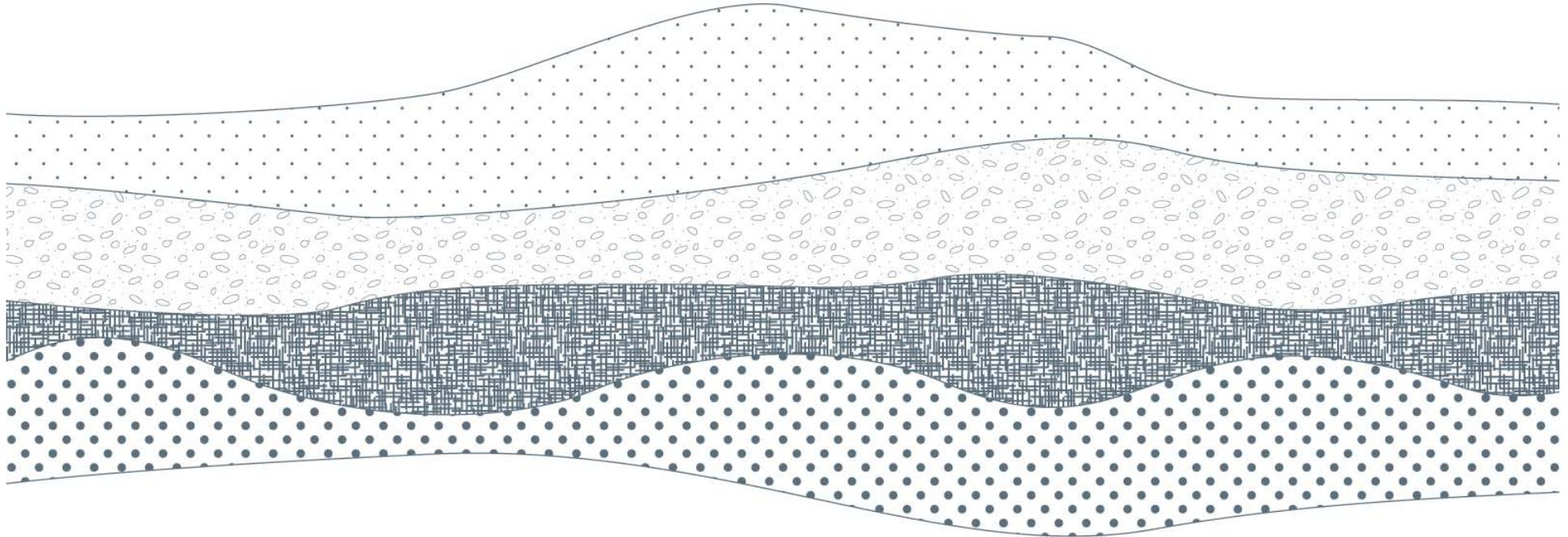




GLOBAL
CCS
INSTITUTE



Global CCS Institute: Accelerating CCS Deployment

Jesse Dang

CAGS Technical Workshop,
19 January 2010

WWW.GLOBALCCSINSTITUTE.COM

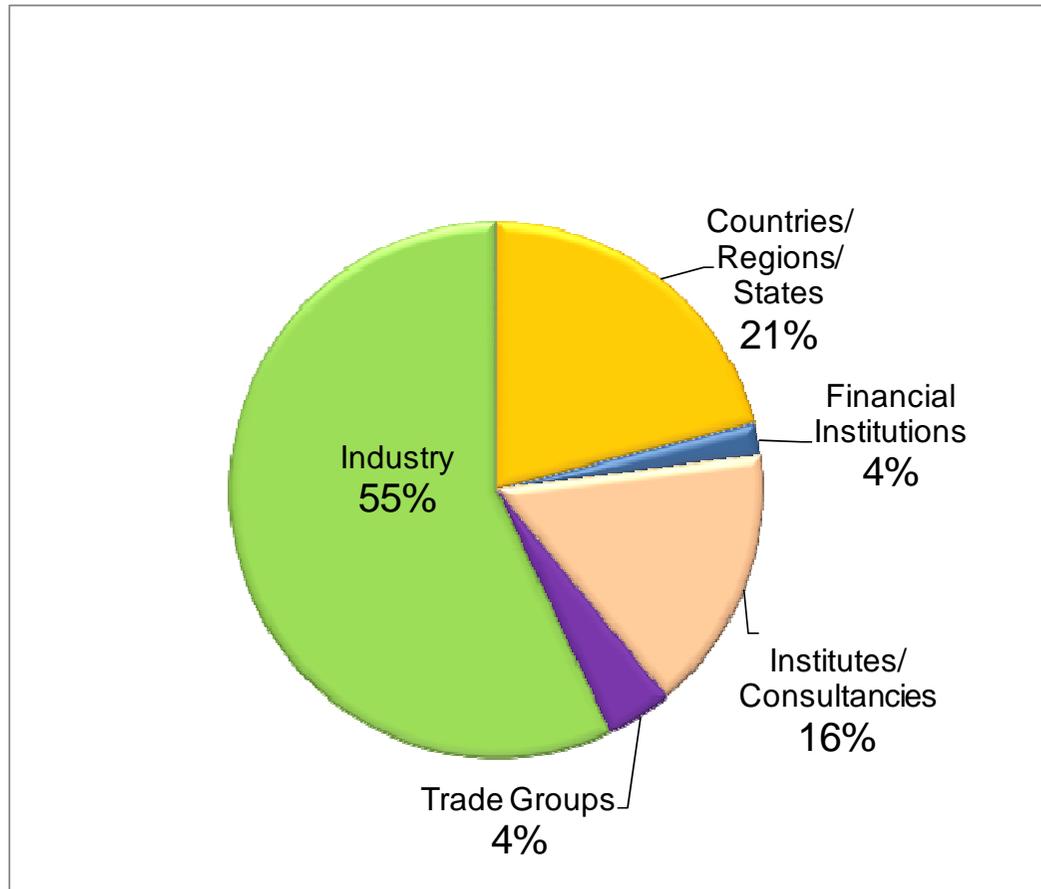
THE GLOBAL CCS INSTITUTE

- Announced by the Australian Government in September 2008
- Formally launched in April 2009
- Independent non profit entity in July 2009
- AUD\$100 million annual funding – Aust Govt.
- Governance – Board of directors, IAP, TAC

MANDATE AND OBJECTIVES

- Pivotal role in facilitating the development and deployment of commercial-scale CCS projects
- Initial aim of 20+ fully integrated industrial scale demonstration projects announced and operational prior to 2020 –G8 recommendation
- Advice on the technologies across the CCS landscape
- Expert insight on the costs, benefits, operational and legislative requirements that set the conditions for commercial deployment
- Work collaboratively to build confidence in CCS and drive international momentum

PUBLIC-PRIVATE PARTNERSHIP MEMBERSHIP COMPOSITION



China is a Foundation Member of the Global CCS Institute

China Huaneng Group is also a Foundation Member

Participating Organisations as of 5 November 2009: 163

Formal Legal Members: 111

THE WORK PLAN

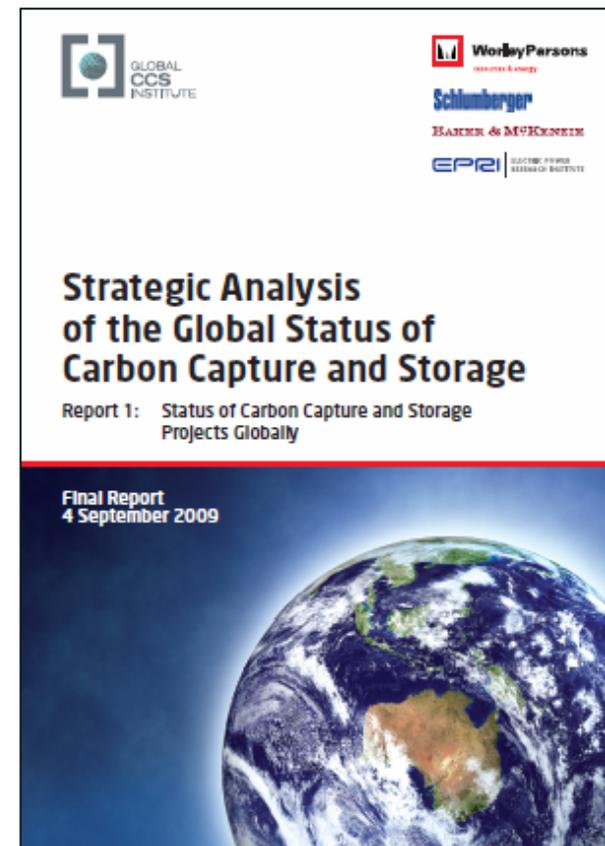
LEADING THE WAY WITH VITAL PROJECTS

- Projects
 - Two major reports completed:
 1. Strategic Analysis of the Global Status of CCS
 2. Ideal Project Portfolio and Rationale for Support
- Knowledge Sharing
- Community and Capacity Building
- Public Awareness
- Other Work Programs
 - CCS Ready

STRATEGIC ANALYSIS OF THE GLOBAL STATUS OF CCS

Comprehensive audit of the world's CCS activities to determine:

- Project status
- Economics/costs
- Impact of the global financial crisis
- Policy and regulatory frameworks
- R&D efforts
- Commercial and non-commercial gaps CCS deployment



KEY FINDINGS

G8 Objective is challenging but achievable

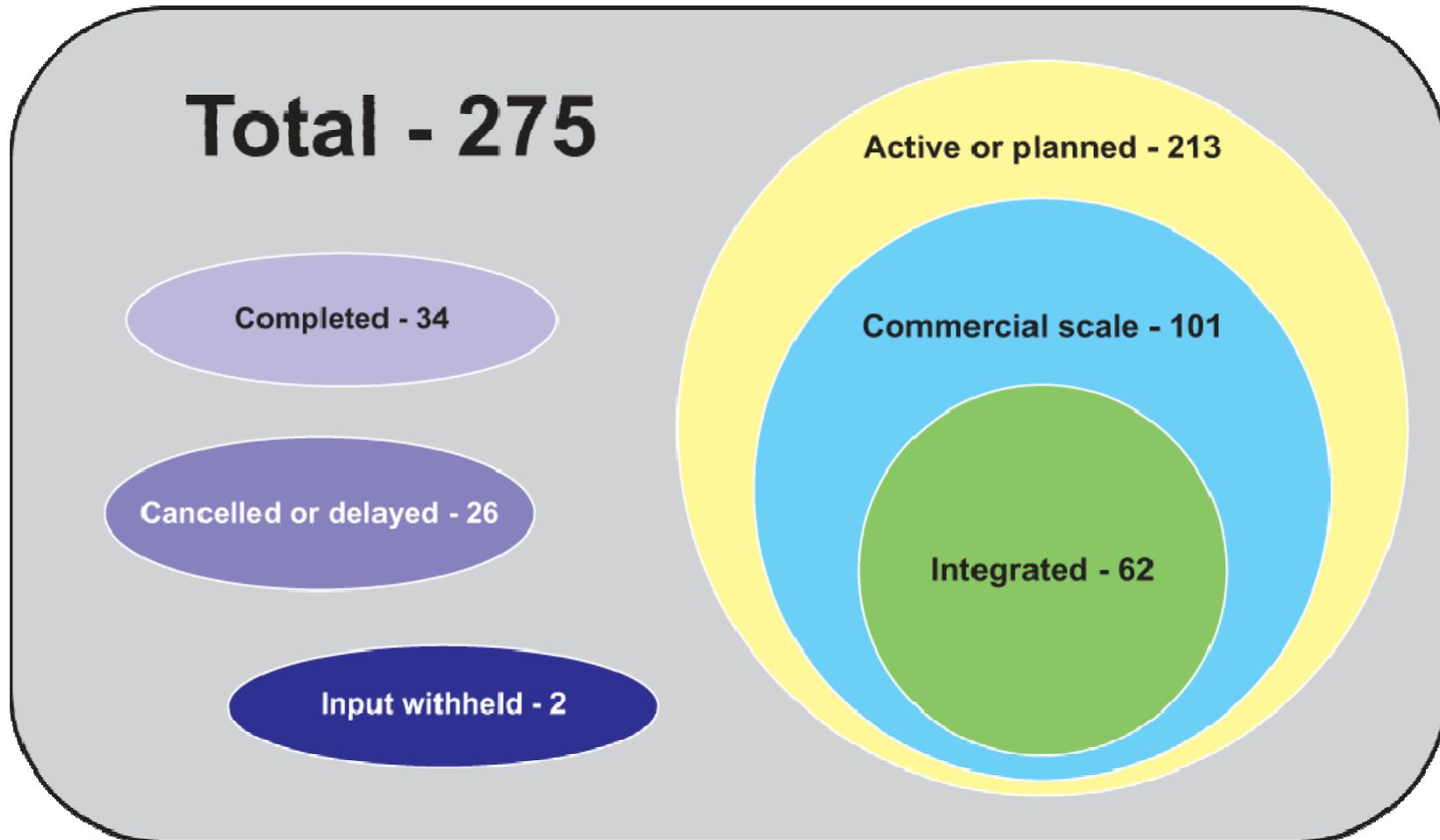
The business case for CCS has not been established yet
(FOAK CCS plants expensive)

Capture and compression is the greatest cost in the CCS
chain

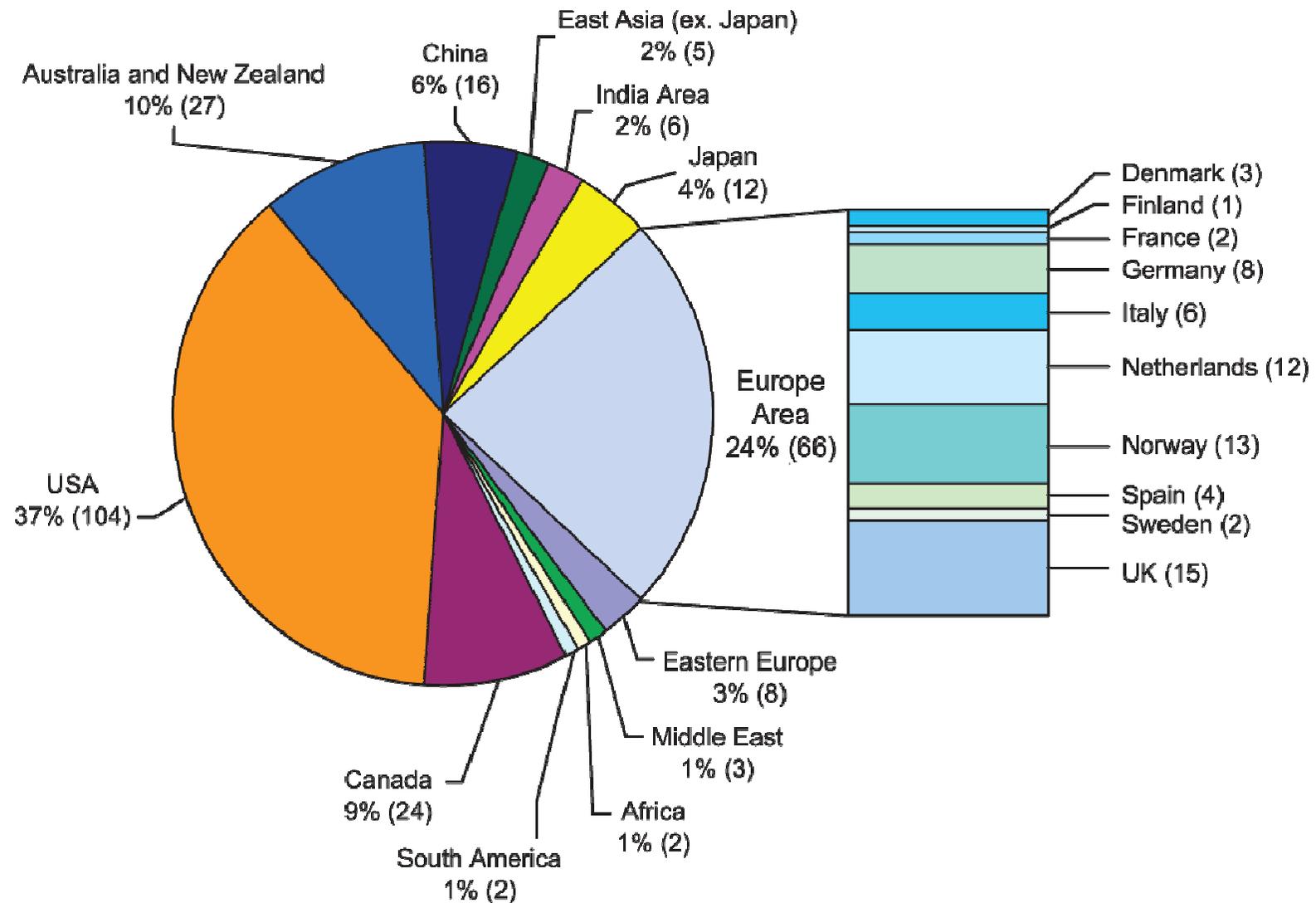
Storage is smaller in cost but contains the greatest
uncertainty and risk

Need to shift projects from the early definition phase to
execution and operation

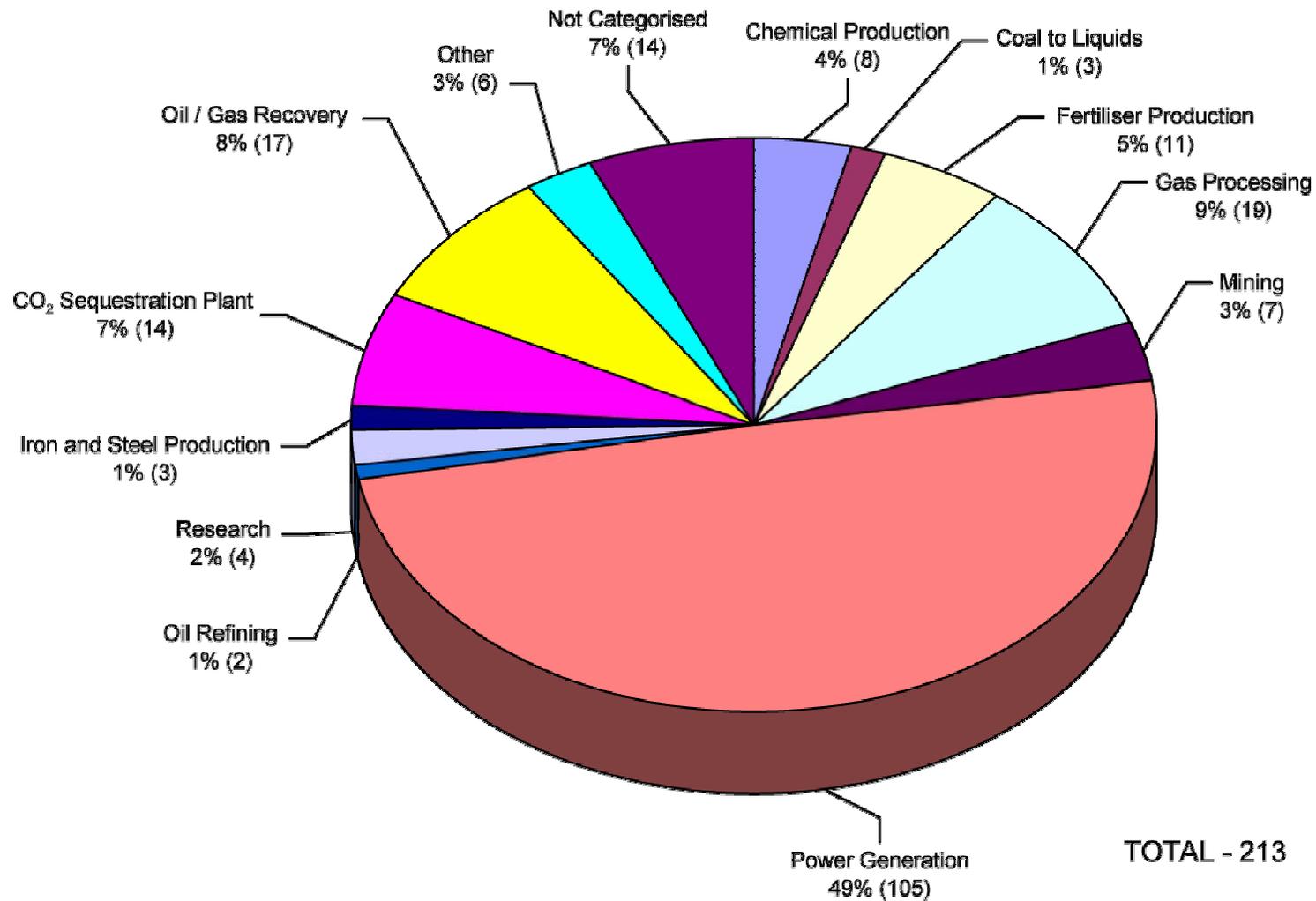
275 PROJECTS IDENTIFIED WORLDWIDE



CCS PROJECTS BY REGION



ACTIVE OR PLANNED PROJECTS BY FACILITY



IDEAL PORTFOLIO OF CCS PROJECTS

	Industry and Capture	Transport	Storage
26 projects overall	Power Generation	Point to point pipeline onshore 1	Structured deep saline aquifers 1
	Pre-combustion 4		Unstructured deep saline aquifers 1
	Oxy-combustion 6	Point to point pipeline offshore 1	Depleted oil field 1
	Post-combustion 7		Depleted gas field 1
	Iron & Steel 3	Backbone pipeline – cluster 1	Oil field for EOR 1
	Cement 3	Long distance ship – port-to-offshore site or port-to-port 1	Gas field for EGR 1
Other Industries 3	Cross-border pipeline 1		
		Including 5 solutions	Including 6 configurations
	Minimum of 26 projects	+ Diversification principles to populate projects beyond this number	

Different combinations needed for confidence

CCS IN CHINA

- China is active in developing CCS technologies
- 16 active or planned CCS projects
- Large stationary sources
- Track record of executing and accelerating industrial projects
- Regulatory focus on the development of demonstration projects under international cooperation initiatives and the development of technical standards for the safe application of CCS.

GLOBAL CCS INSTITUTE INITIATIVES IN CHINA

Working collaboratively with major international CCS players in consultation with key Chinese agencies.

Partnerships

- ADB CCS Fund (AUD \$21.5 million)
 - Strategic Analysis and Capacity Strengthening (US \$1.25 million)
 - Analysis of Key Policy Issues and Barriers (US \$350,000)
- World Bank CCS Trust Fund (AUD \$2.4 million)
- CSLF Capacity Building Program (AUD \$1.2 million)
- IEA collaboration (€10.4 million)
- APEC: Capacity Building Workshops

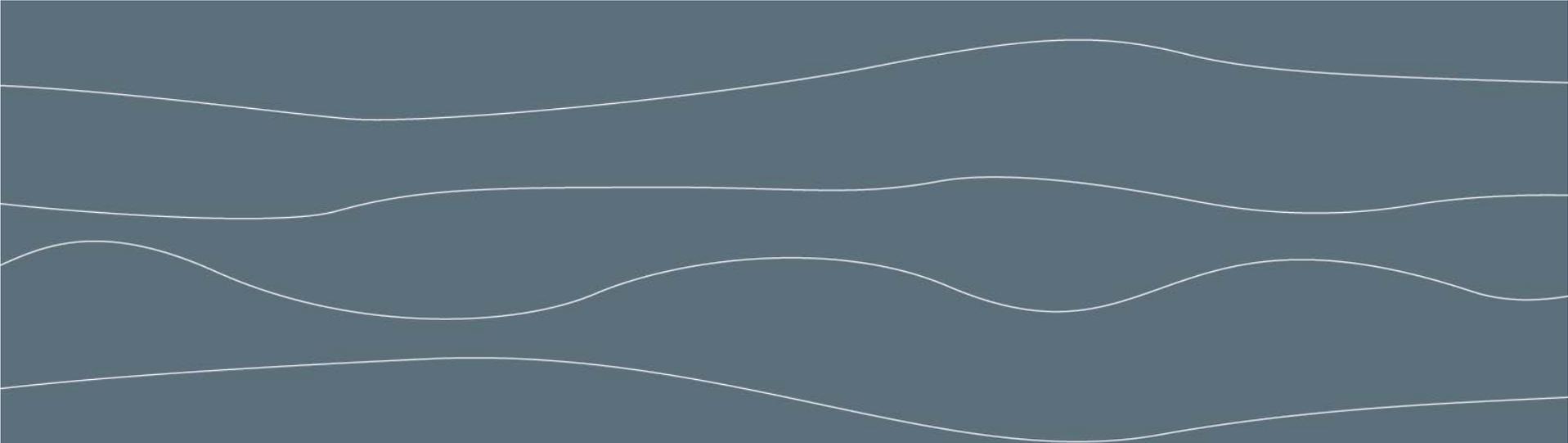
Other activities include:

- Global CCS Institute - International Energy Forum CCS Symposium
- CCS Ready

CCS PROJECT STRATEGY:

Call for project applications:

- AUD\$50 million annually
- Funding rounds and rolling applications

The top half of the image features a dark blue background with four thin, white, wavy lines that create a sense of movement and depth. These lines are horizontal and vary in their wave patterns, with some having larger peaks and troughs than others.

www.globalccsinstitute.com