

GLOBAL CCS INSTITUTE UPDATE

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CSLF Technical Group Meeting

Pau, France 15th March 2010

WWW.GLOBALCCSINSTITUTE.COM

TODAY'S PRESENTATION

- THE G8 AGENDA FOR CCS DEVELOPMENT
- THE GLOBAL CCS INSTITUTE ROLE
- DEVELOPING ACTIVITIES AND ORGANISATION
- CCS PROJECT SUPPORT PROGRAM

ORIGINS OF THE GLOBAL CCS INSTITUTE

THE G8 CALGARY IEA/CSLF RECOMMENDATIONS

JULY 2008: G8 LEADERS ENDORSED THE FOLLOWING IEA/CSLF RECOMMENDATIONS DEVELOPED WITH INDUSTRY AND RESEARCH STAKEHOLDERS:

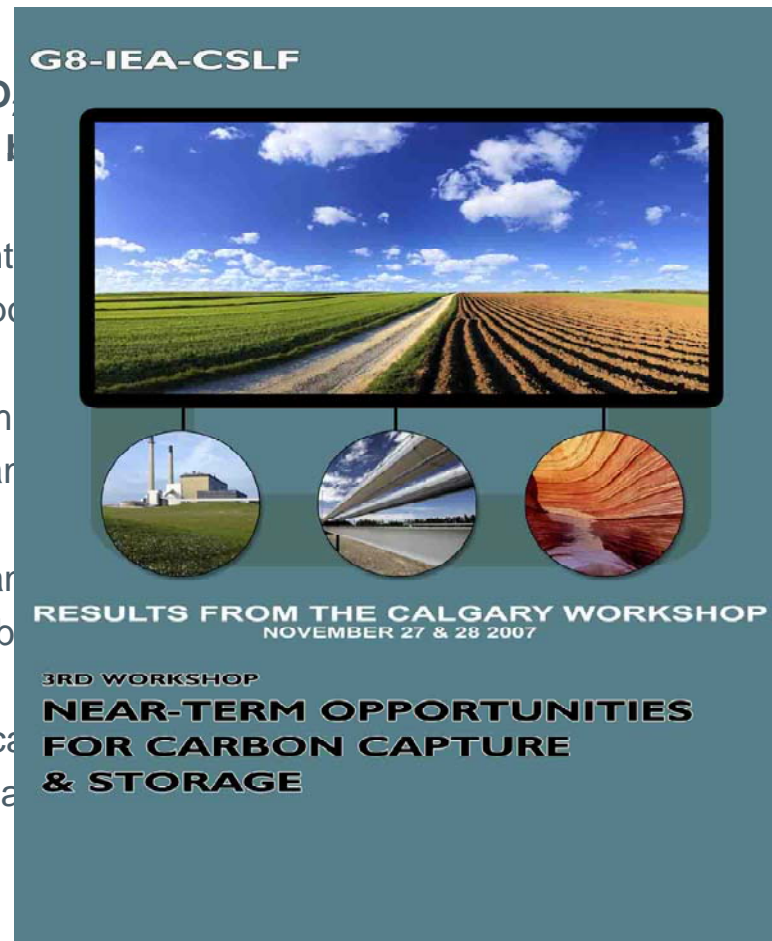
1. **Demonstrating CO₂ Capture and Storage**
 - **Commitment by 2010 to +20 >1 Mt CCS projects and wide deployment by 2020**
2. Taking concerted international action
 - Financial support by governments specifically mentioned
3. Addressing the commercial gap
 - Market mechanism alone are insufficient for initial non-petroleum projects
4. Establishing legal and regulatory frameworks
 - Critical to enabling non-petroleum CCS projects
5. Raising public education and awareness
 - Governments and stakeholders must dedicate resources

ORIGINS OF THE GLOBAL CCS INSTITUTE

THE G8 CALGARY IEA/CSLF RECOMMENDATIONS

JULY 2008: G8 LEADERS ENDORSED THE FOLLOWING IEA/CSLF RECOMMENDATIONS DEVELOPED WITH INDUSTRY AND RESEARCH STAKEHOLDERS:

1. **Demonstrating CO₂ capture and storage**
 - **Commitment to demonstrate CO₂ capture and storage projects by 2010 and deployment by 2020**
2. Taking concerted international action to address the challenges of CO₂ capture and storage
 - Financial support for demonstration projects
3. Addressing the commercialization of CO₂ capture and storage
 - Market mechanisms to support the development of CO₂ capture and storage projects
4. Establishing legal and regulatory frameworks for CO₂ capture and storage
 - Critical to enable the development of CO₂ capture and storage projects
5. Raising public education and awareness of CO₂ capture and storage
 - Governments and industry to work together to raise public education and awareness of CO₂ capture and storage

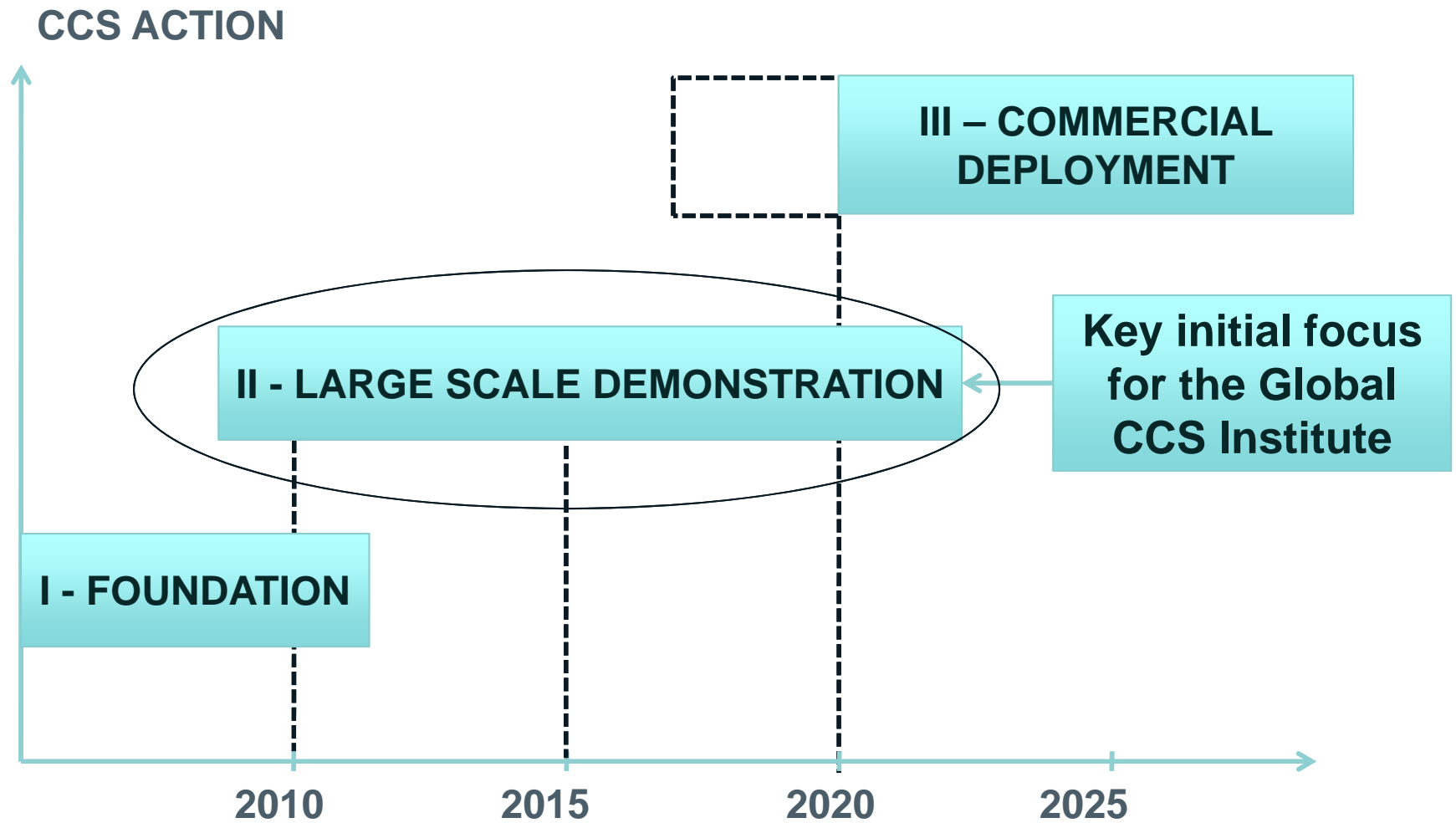


HIGH LEVEL SUPPORT

OFFICIAL LAUNCH OF GLOBAL CCS INSTITUTE – L'AQUILA G8 JULY 2009



CCS FORWARD HORIZONS



CCS IS ABOUT INDUSTRIAL CO₂ SOURCES

THE ONLY REAL MITIGATION OPTION FOR SOME INDUSTRIES



Gas Processing to Remove Reservoir CO₂

- Minimal capture cost and possible EOR revenue
- Access to petroleum storage data and tenure



Gasification for Chemicals or Liquids

- Minimal capture cost - higher capital cost than gas processing
- Large existing CO₂ sources in China and South Africa



Coal and Gas Power Projects

- High capture cost and capital cost
- Lead time for new storage tenements and exploration

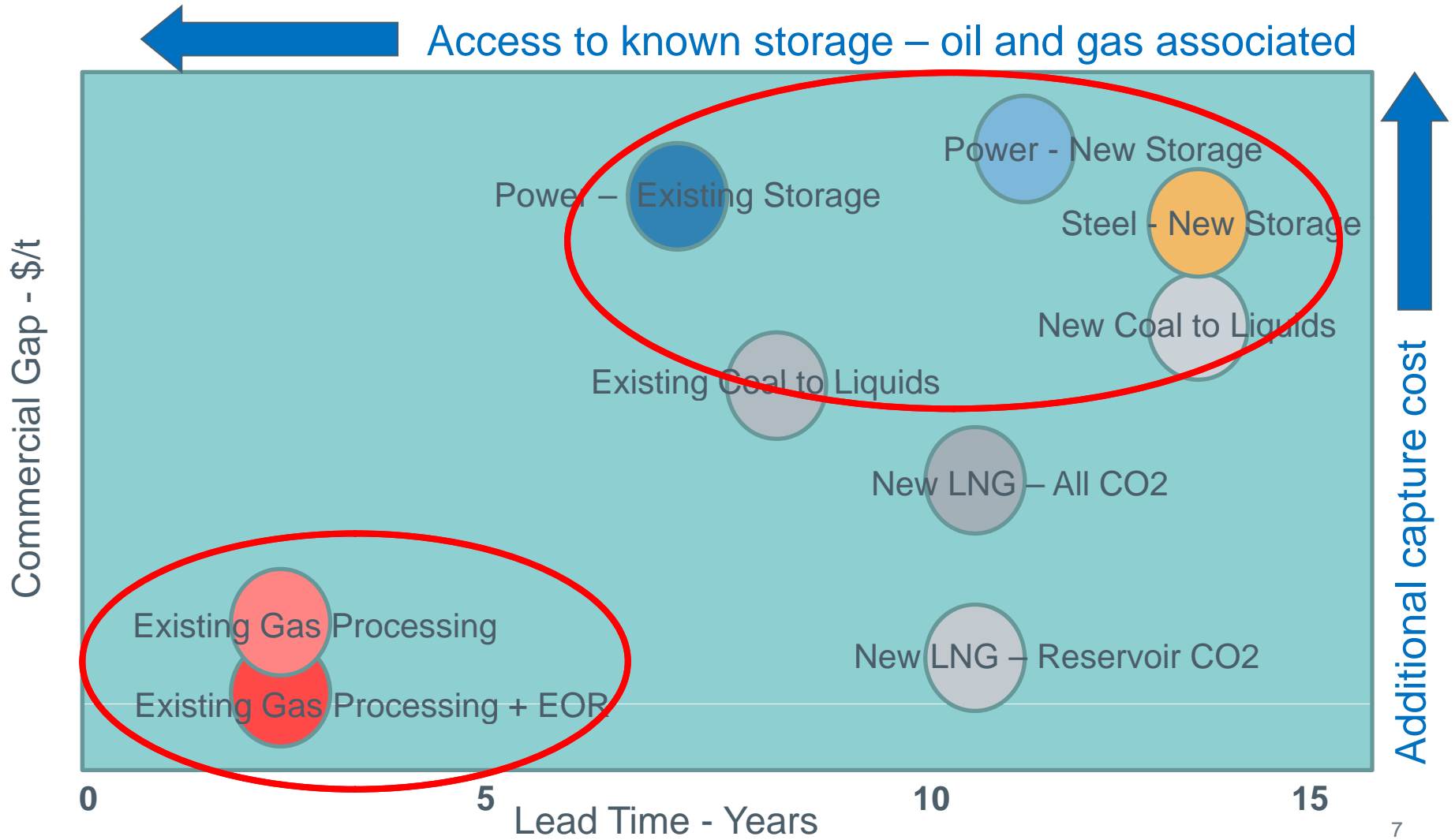


Steel and Cement Plants

- High capture cost and capital cost
- Lead time for new storage tenements and exploration

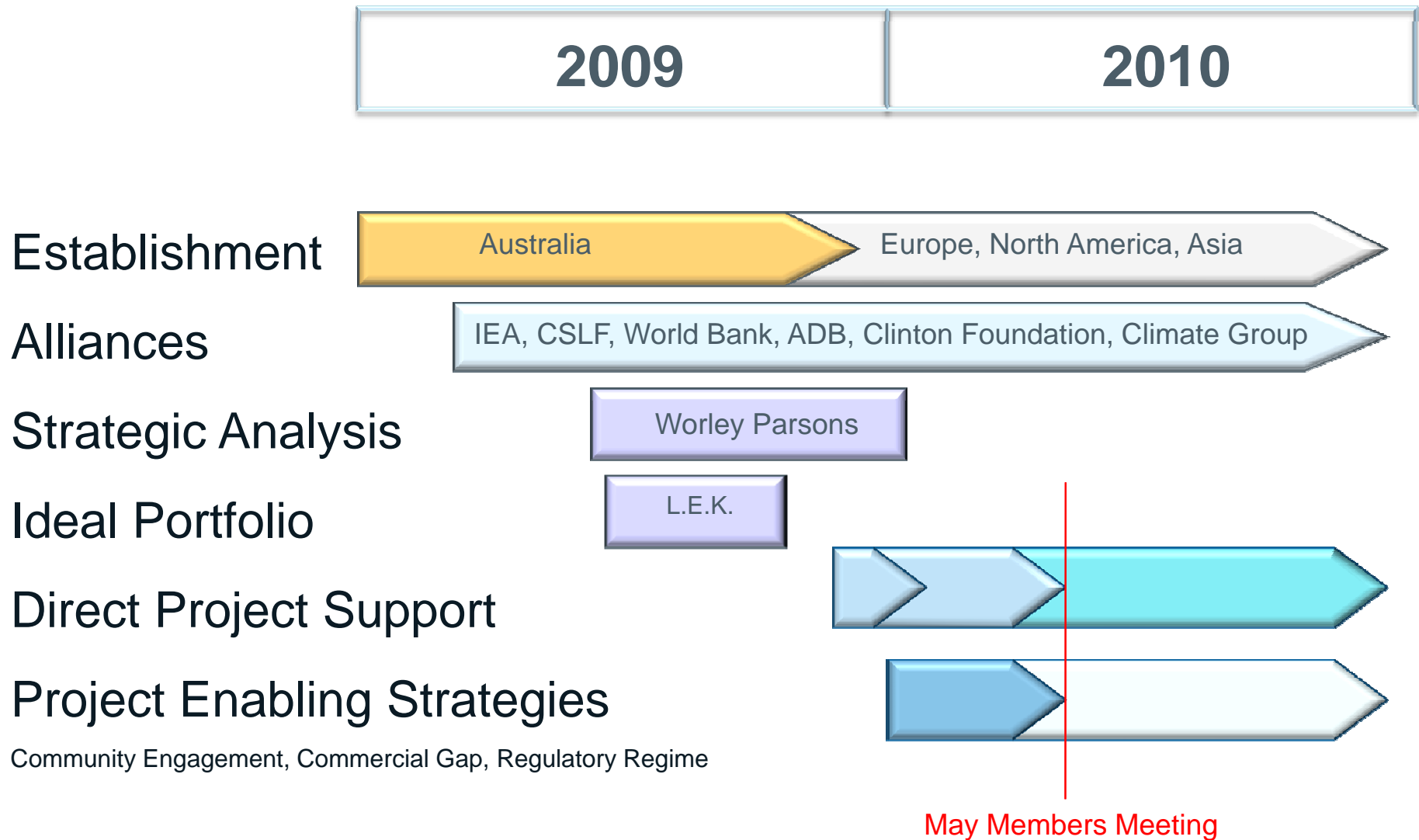
CCS PROJECTS – WHEN AND HOW MUCH?

ILLUSTRATIVE PROJECT LEAD-TIME AND COST CHARACTERISTICS



EVOLVING GLOBAL CCS INSTITUTE ACTIVITY

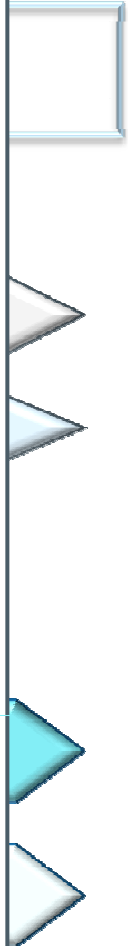
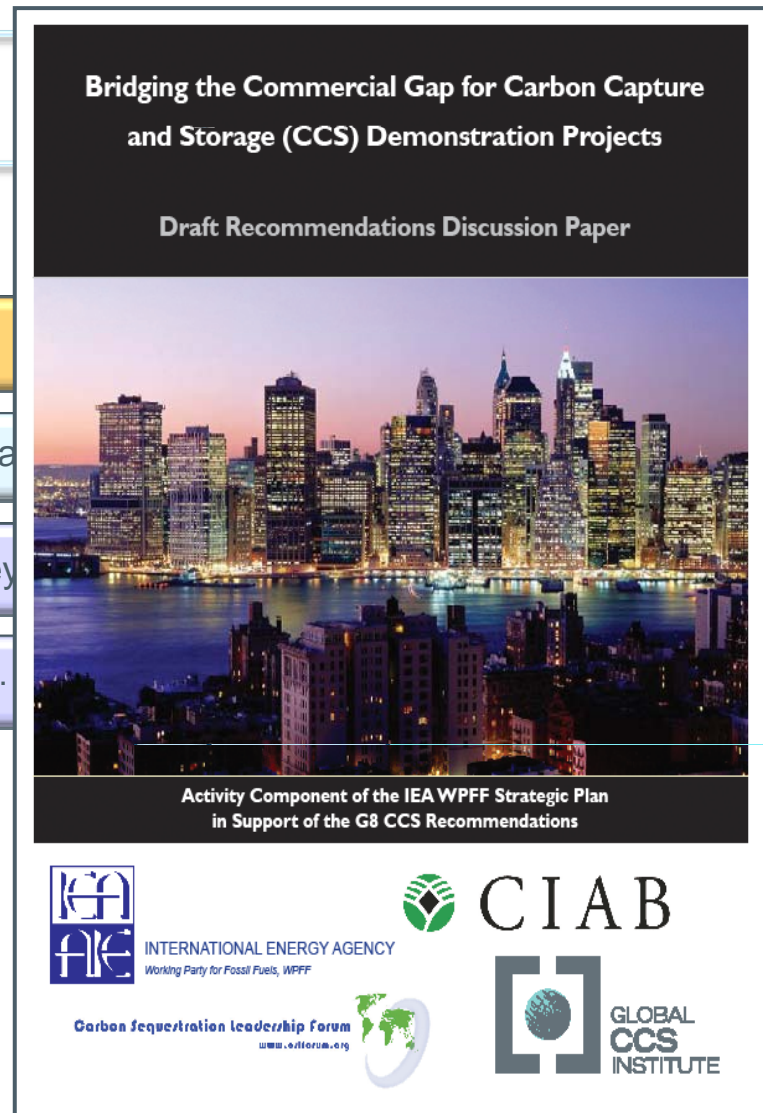
ORGANISATION DEVELOPING TO SUPPORT ACTIVITY



EVOLVING GLOBAL CCS INSTITUTE ACTIVITY

ORGANISATION DEVELOPING TO SUPPORT ACTIVITY

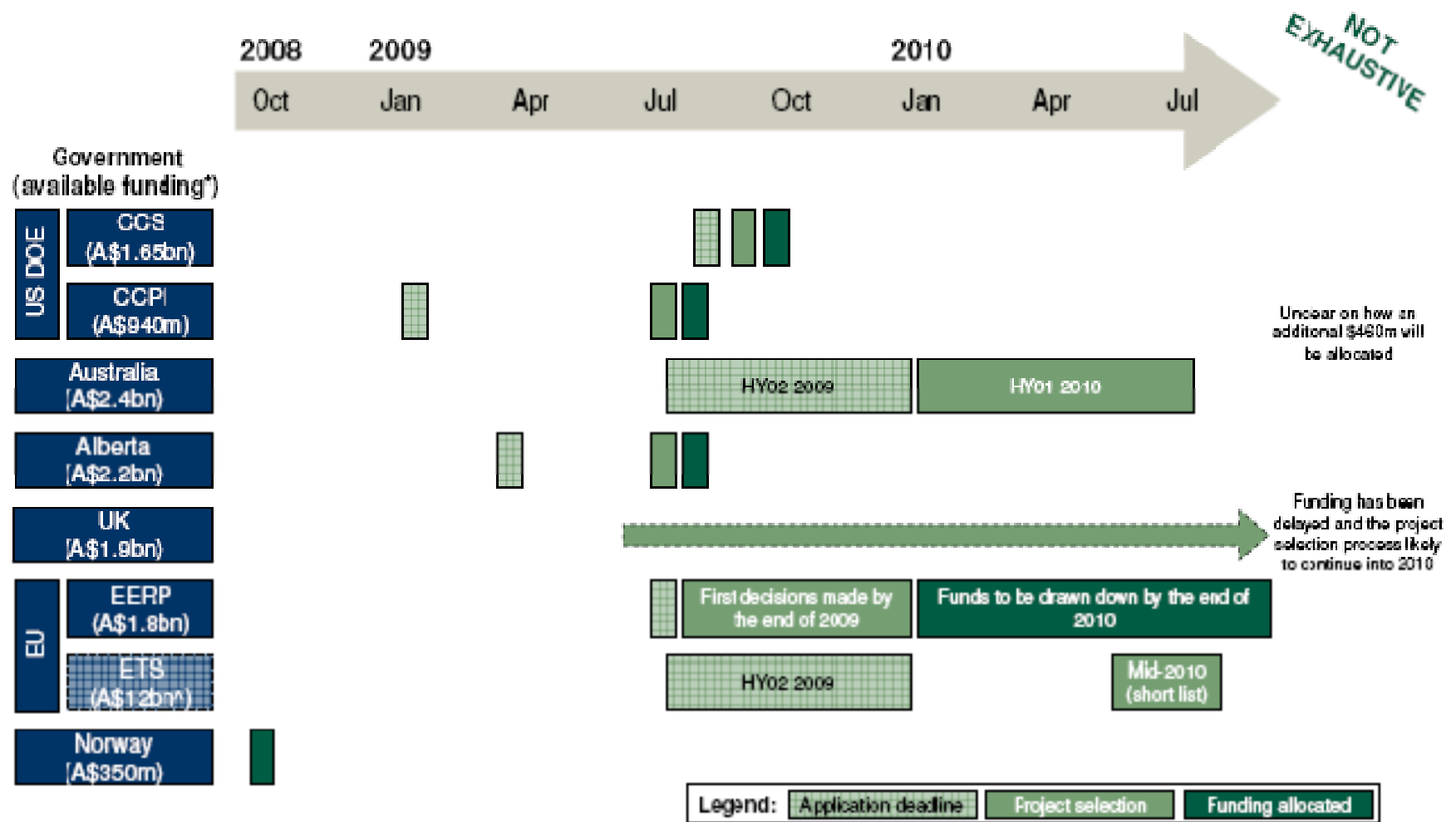
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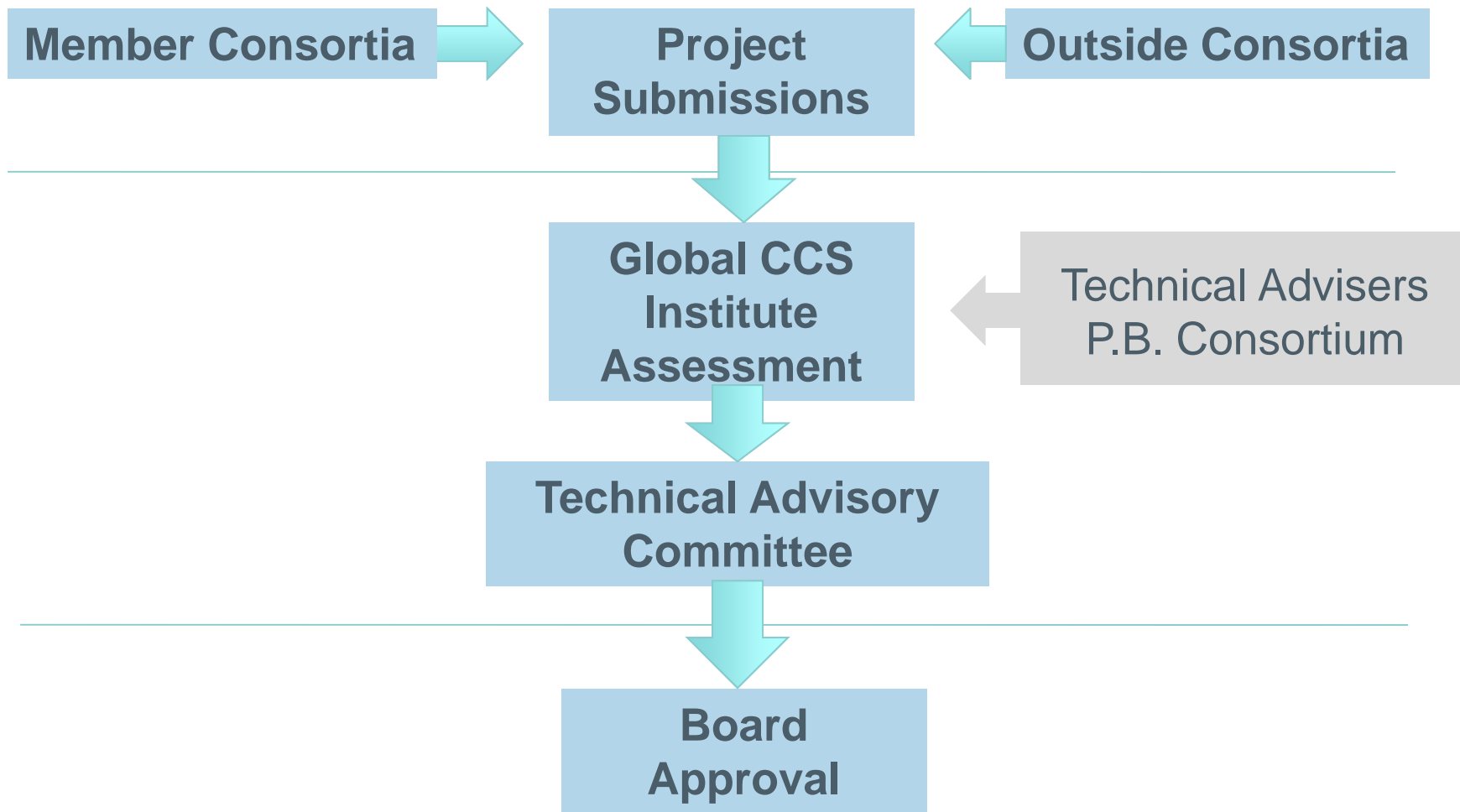
PROJECT SUPPORT SELECTION PROCESS

- Main mechanism by application – first round proposals in January 2010
- Secondary mechanism in association with Global CCS Status update
- Over 50 proposals in first application round totalling over \$500 million
- Participation by the majority of Global CCS Institute industry Members
- Application proposals being evaluated with Parsons Brinkerhof consortium
- Global CCS Status update underway with Worley Parsons consortium
- First round shortlist announcements by early May 2010
- Focus on key challenges and collaboration between projects

ALIGNMENT WITH PARALLEL PROCESSES



CCS PROJECT STRATEGY: ROLLING APPLICATION PROCESS



COMMITMENT TO COLLABORATION

- A core element of the Global CCS Institute mission
- Demonstrated through the early development of alliances
- A requirement for effective global project support programs
- A requirement for effective knowledge sharing
- A general need to avoid duplication of effort
- Now fostering collaboration between projects and companies
- Project networks aligned with existing R&D networks

The top half of the image features a dark blue background with five 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.

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