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Report from Technical Group

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Technical Group Meetings

Washington – November 2008



Oslo – April 2009



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PIRT Meetings

- Canberra – Sept. 2008
- Washington – Nov. 2008
- Oslo – April 2009



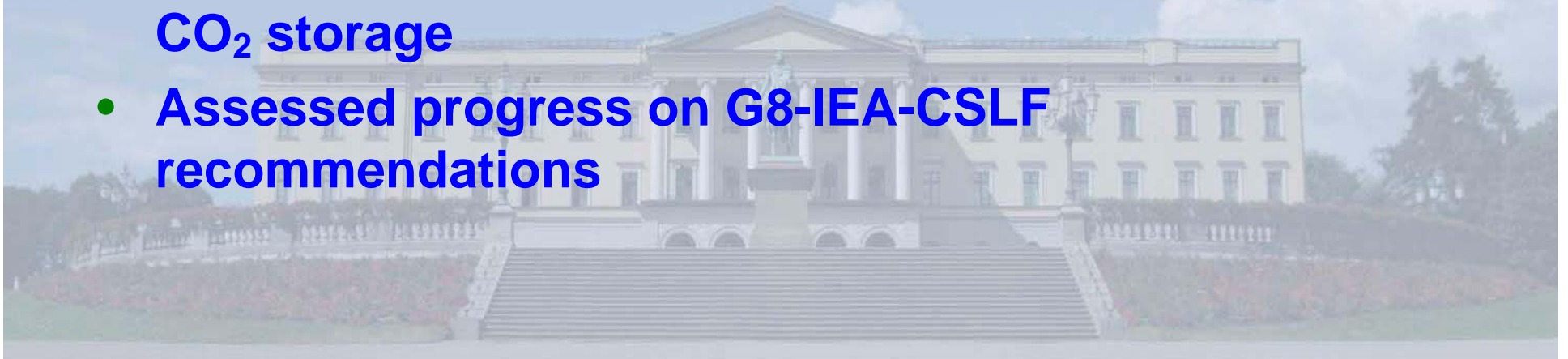
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Highlights of Oslo Meeting

- **Updated the CSLF Technology Roadmap**
- **Discussed projects proposed for CSLF recognition**
- **Recommended new Joint Task Force on Communication of Risk**
- **Established new Working Group to collect information on performance-based standards for CO₂ storage**
- **Assessed progress on G8-IEA-CSLF recommendations**



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CSLF Technology Roadmap - Process

- **New version worked out in Canberra**
- **Discussed in PIRT and TG in Washington**
- **New version sent out in February, opened for input from members**
- **Discussed deeply in PIRT in Oslo, and in TG**
- **Two additional rounds with input from TG members**
- **Finalized and sent to PG late May**

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CSLF Technology Roadmap

- **Updated Roadmap consists of four main modules:**
 - ***Current Status of CO₂ Capture and Storage Technology***
 - ***Ongoing Activities in CO₂ Capture and Storage***
 - ***Gap Identification***
 - ***Technology Roadmap***

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Key Features of Updated Roadmap

- **New section on R&D Components in CSLF Member Countries (Section 2.5)**
- **Roadmap will be a “living document” with frequent updates**
- **Includes key milestones by topic and timeline**



Technology needs and gaps

- **Capture**
 - **Reduce cost and efficiency penalties**
 - **Alternative solvents**
 - **Alternative power generation processes**
 - **Generation efficiency and capture penalties**
- **Transport**
 - **Infrastructure, CO₂ from different sources**
 - **CO₂ impurities**
 - **Improve transport network**
 - **Response and remediation in case of pipeline accidents**



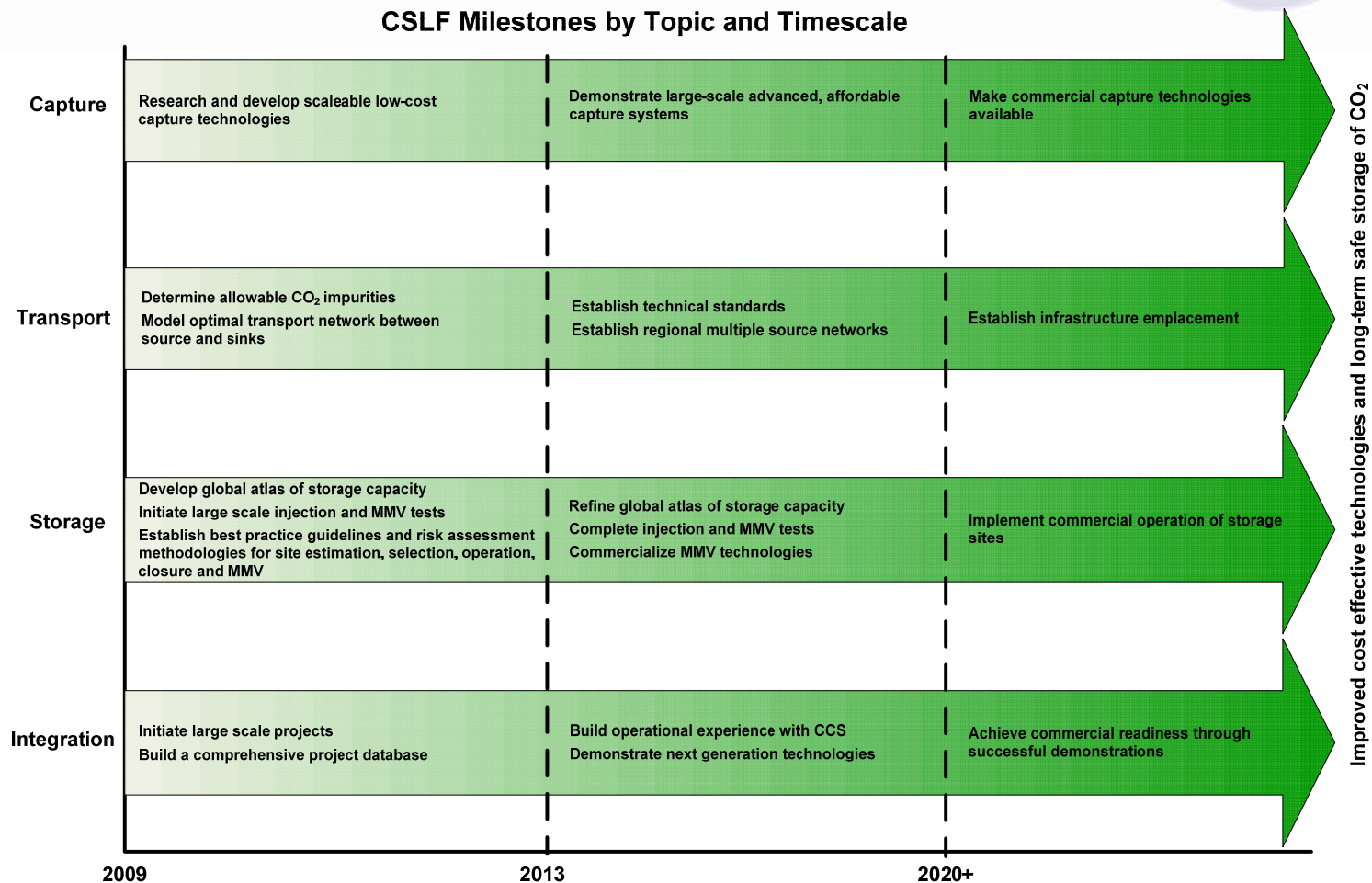
Technology needs and gaps

- **Storage**
 - **Storage capacity, monitoring safety, security, environmental impact and verification**
 - National and global storage atlases
 - Storage capacities and geological properties
 - CO₂-coal interactions, methane displacement
 - Effects of impurities
 - Long-term site security post-injection
 - Best practice guidelines for storage site selection
 -etc.
- **There are a lot of gaps and needs identified**



CSLF Technology Roadmap

CSLF Milestones by Topic and Timescale



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International collaboration

- **Substantial contribution from GCCSI in writing the final version of the TRM**
- **Coordination meetings between CSLF, IEA, IEA GHG, and GCCSI**
 - **The technological part of IEA Road map will be based on CSLF TRM**
 - **IEA RM will also cover policy, legal, financial and public awareness**
 - **IEA CCC/WPFF RM based on CSLF**



Technical Group Recommendation

- **Approve the updated Technology Roadmap**
- **Secretariat make periodic updates to Section 2.5 and keep web links current**
- **TG will compare technology gaps with ongoing projects**
 - **Identify unmet research needs**
 - **Communicate those needs to members and stimulate projects to fulfill the needs**

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CSLF Recognized Projects

- **Since 2008 Cape Town meeting, three more CSLF-recognized projects have been completed**
 - **Alberta Enhanced Coal-Bed Methane Recovery Project**
 - **Dynamis**
 - **Regional Opportunities for CO₂ Capture and Storage in China**
- **Several projects are in the application process**

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Communication of Risk

- **Proposed creation of new joint task force with Policy Group on Communication of Risk**
- **Delegates from Australia, France, Germany, Japan, Netherlands, Norway, and United States volunteered to participate**

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Performance-Based Standards for storage site safety and integrity

- **Proposed creation of new working group to collect information on performance-based standards for CO₂ storage**
- **France is lead**
- **Other members are Canada, Japan, Netherlands, South Africa, and United States**
- **Latest report:**
 - **A draft paper from France in late August**
 - **Response from members in September**
 - **Complete report mid October**



G8-IEA-CSLF Recommendations

- **Technical Group should not be lead for recommendation no. 5 (“Further work is required to understand and define the concept of ‘capture and storage ready’ plants and its value as a viable mitigation strategy.”)**
- **Recommendation nos. 2 & 4 are key elements of updated CSLF Technology Roadmap**
- **No. 4 will be followed up in conjunction with no. 16**
- **No. 14 is the performance based standards**