MISSION INNOVATION

Updates from CDR Mission

Carbon Sequestration Leadership Form Technical Group Meeting

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CDR Mission Overview

SCOPE:

Accelerate RD&D of technological CDR approaches, including:

- Direct Air Capture
- Enhanced mineralization
- Biomass with carbon removal and storage

Emphasize long-term, secure CO_2 storage and conversion into long-lived products.

COALITION:

Co-leads – Canada, Saudi Arabia, United States

Members – Australia, European Commission, Japan, Norway, India, United Kingdom

Observers – Germany, Iceland, Bahrain

Always open to additional members

Launched at COP-26, November 2021

Recent highlights

Collaboration and information sharing

- Piloted data sharing platform
- Workshops on Life Cycle Analysis, BiCRS, Mission Priority Setting

Strategic direction

- Released Roadmap and Action Plan
- Established Technical Advisory Group

Launched first “sprint”

- CDR Launchpad

Increased presence at events

CDR Mission Technical Tracks and Sprints

- Facility and Resource Mapping
- Lifecycle analysis and technoeconomic analysis
- Enhanced Mineralization
- BiCRS
- CDR Launchpad

Facility and Resource Mapping Updates

- Facility mapping of demonstration and deployments for DAC, BiCRS, and EM projects
- Resource mapping for BiCRS and EM
- Data collection and harmonization

Lifecycle Analysis and TEA Updates

- Action plan finalization
- Data harmonization
- Launch of data hub in Canada
- Literature review
- LCA/TEA workshop in May

Enhanced Mineralization Updates

- Taking stock of current MI CDR member activities and level of EM technology development
- Workshop on EM needs (June 1), followed by development of Action Plan
- Data sharing guidance document for resource mapping
- Lifecycle assessment case study
- Japan joining Australia and KSA as track co-leads

BiCRS Updates

- Implementing BiCRS Work Plan phase 1, mapping
- Working definition for ‘sustainability’ in BiCRS based on literature review
- Working sessions on BiCRS mapping in May/June
- Collaboration with bioresource initiatives in the Clean Energy Ministerial and Mission Innovation

CDR Launchpad Overview

- Coalition of governments who have agreed to work together to accelerate the advancement of CDR technologies by investing in demonstration projects and sharing data and experiences
- Members include Canada, the European Commission, Iceland, Japan, Norway, the United Kingdom, and the United States

Demonstrations:

- ➢Promote learning-by-doing cost reductions
- ➢Help prove emerging technologies and reduce technical risk
- ➢Provide valuable data to inform policies, and for scientists and engineers to optimize operations
- ➢Provide examples for constructive community engagement
- ➢Illustrate potential co-benefits, such as water production and removing hazardous pollutants

CDR Launchpad members commit to:

1. By 2025, plan to build at least one, 1,000+ tonne CO_2 per year CDR project
   - Share data and information from the projects, with the aim to advance global learning-by-doing cost reductions
2. Contribute to $100 million collective goal by 2025 to support technological CDR demonstration projects globally
3. Provide in-kind support:
   - Support a new "CDR MRV working group"
   - Support efforts to increase CDR demand

CDR Launchpad Updates

- Data sharing platform and taxonomy for information sharing
- MRV Working Group scoping; session proposed for July in India
- Iceland recently joined, additional members expressing interest

Expert Guidance Informing Mission

Roundtable discussion at Global Clean Energy Action Forum with ministers, CEOs, and leading experts

Generated 10 key conclusions and actions

- Large scale demonstrations
- Regulations and permitting
- Transport and storage
- Technology neutral policies
- Standards and MRV
- Public procurement
- Zero-carbon electricity
- Human capital
- Global South partnership
- Narrative

Ministers and delegation heads from the following countries participated in a roundtable discussion: Canada, Finland, Italy, Japan, Nigeria, Norway, Saudi Arabia, and United States. They were joined by leaders from the following companies and organizations: 1PointFive, Carbfix, Carbon Direct, Carbon Engineering, Carbon Gap, CarbonCapture Inc, Charm Industries, Clean Air Task Force, Climate Principles, Drax Group, Global Carbon Capture and Storage Institute, and International Trade Union Confederation.

Technical Advisory Group

Expert feedback on evaluation framework

CDR Mission Priorities for Rest of 2023

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Making progress on existing sprints and initiatives

- Five active technical tracks and sprints

Measuring impact

- Develop/refine KPIs and data sources
- Set up mechanisms for tracking progress

Maximizing opportunities for strategic engagements

- Identify opportunities for working with private sector
- Take advantage of synergies between missions and initiatives

Expanding on momentum

- Assess needs and develop actions for MRV working group
- Launch new sprint(s) and/or reports
- Maintain political support

Events

MI Annual Gathering

- 20-23 March 2023 in Rio de Janeiro, Brazil
- Working level sessions on private sector engagement, performance indicators, resourcing, communications, synergies across missions

8th MI Ministerial / 14th Clean Energy Ministerial

- 20-22 July 2023 in Goa, India
- Ministers announce new projects and report on progress
- Possible side events on CDR and CO_2 transport and storage

COP28

- Opportunities for side events and announcements

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Thank you