



**CARBON DIOXIDE
REMOVAL**
MISSION

Stakeholder Engagement Plan

October 2023



CDR Mission Stakeholder Engagement Plan

1. Purpose

Identify Carbon Dioxide Removal (CDR) Mission stakeholders and establish a coordinated approach to strategic engagement that will contribute to advancing the CDR Mission's goals, while mitigating risks and maximizing Mission resources. The audience for this plan includes the members of the Mission and stakeholders in the CDR ecosystem considering engagement with the Mission.

2. Rationale

The global CDR market is newly emerging and is not tied to a single use-case and as such, its global stakeholders are diverse from researchers developing novel approaches to CDR, to clean energy suppliers, storage, transportation networks, demand creators, and monitoring and verification (MRV) technology developers. As a nascent technology area, collaboration and engagement are critical across the value chain, including private and public sectors and spheres.

Each CDR approach faces a range of technical and non-technical constraints, including social acceptability, long-term and low-cost financing, MRV, and demand certainty. As CDR investment grows, so does the need for public-private collaboration to address these challenges and to help ensure CDR development is equitable and safe.

The CDR Mission has an important role as a convener of governments and partners to help advance the global CDR sector responsibly. By signing the CDR Mission's [joint statement](#), member countries committed to inviting their research community, private industry, academia, and other relevant stakeholders to actively participate in Mission activities. Building on these commitments, the Mission is guided by its [Action Plan](#), which identifies medium-term activities and objectives that will advance progress towards the three outcomes:

- Outcome 1: Enhanced understanding of local and global CDR potential;

- Outcome 2: Advancement of R&D for CDR technologies; and
- Outcome 3: Global demonstrations and pilot-scale tests.

The Stakeholder Engagement plan herein is a framework to prioritize collaborative actions that will best enable the Mission and its stakeholders to make meaningful contributions to these three outcomes, and to achieving the Mission’s overarching goal of enabling CDR technologies to achieve a net reduction of 100 million metric tons of CO₂ per year globally by 2030.

3. Stakeholder Types and Value Proposition for Engaging with the Mission

Stakeholders have a stake in the outcome of CDR technology research, development, and demonstration (RD&D), with a local or international focus. For the Mission, these stakeholders are organized into categories, based on focus area, sector, and rationale for engaging with the Mission. For each stakeholder type, we describe the potential value proposition for engagement, as well as possible risks to the Mission and mitigation options. The potential value for stakeholders and the Mission as described are not guaranteed outcomes but rather, are examples of the outcomes that *could* be achieved through collaboration.

This section does not identify the specific stakeholders to be engaged or actions to be taken, but rather, identifies and analyses the stakeholder types broadly.

Innovators (Private Sector)

Definition: Industry stakeholders are singular private sector entities performing research, development, and deployment of CDR technologies across technical areas.¹ They may have a funding relationship with governments participating in the Mission and can range in size. This category also includes private-sector entities who are part of the carbon credits ecosystem, but are providing services or other products (e.g. insurance brokers) as well as companies in the supply

¹ i.e. Direct air capture (DAC), enhanced mineralization (EM), and biomass with carbon removal and storage (BiCRS).

chain (e.g. biomass producers) and innovators in the Measurement, Verification, and Reporting (MRV) field.

Potential Value-Add for Innovators:

- Increase credibility, recognition, and trust through engagement with a recognized international initiative (i.e. the Mission).
- Participate in knowledge exchange and communities of practice through MI projects and networks.
- Enhance opportunities to leverage key resources, such as test centres, technologies, and government resources through strengthened international networks.
- Increase collaboration around pilots and demonstrations.
- Participate in Mission Innovation (MI) Ministerial to showcase technology to global audience, network, learn, and make announcements.
- Establish connections with other stakeholders such as international initiatives, local communities, purchasers, and private investors.
- Increase opportunities to contribute to coordinated action to address climate change.

Potential Value-Add for the CDR Mission:

- Enhance credibility by increasing awareness of innovator experiences.
- Enhance understanding of industry direction, needs, and lessons learned from first-generation CDR projects, increasing opportunities to effectively target R&D.
- Increase opportunities for knowledge exchange, including access to lessons learned from innovators on lifecycle analyses (LCAs)/ technoeconomic analyses (TEAs) and access to data to support development of standards, permanence, and Monitoring, Verification, and Reporting (MRV) frameworks.
- Opportunity to mobilize the private sector towards achieving the Mission's three outcomes and goal.
- Contribute to building relationships amongst stakeholder types.
- Foster opportunities to strengthen CDR technology value chains.

Potential Risks to the Mission and Mitigation Options:

- **Risk:** Governments could be perceived as “picking winners”, or providing preferential treatment to companies who may seek funding.

- **Mitigation option:** Engage with innovators in groups and establish clear criteria for when the Mission will collaborate with an individual company.
- **Mitigation option:** Invite innovators to sponsor a deliverable of the Mission (e.g. community engagement plans).
- **Mitigation option:** Clear communication around engagement objectives, such as collaborating with innovators who are willing to share data and collaborate to advance CDR technology sustainably and equitably.
- **Risk:** Engaging with innovators in one technology area over another could lead to biases in Mission activities that favour that technology.
 - **Mitigation option:** Track engagement activities and take steps to ensure broad representation.
 - **Mitigation option:** Work with participants to shape MI initiatives that are technology agnostic.
 - **Mitigation option:** Balance engagement with multiple stakeholder types who will potentially have differing perspectives on favoured pathways and technologies.

Purchasers

Definition: These entities are making advance market commitments and purchasing CDR technologies or credits. They are individual purchasing removal credits, coalitions formed, or government procurement programs that are making advance market commitments and are contributing to generating demand for CDR. While the CDR Mission is focused on technological innovation, the Mission can nevertheless engage with demand-pull initiatives, for example, by sharing technical learnings and establishing connections with innovators.

Potential Value-Add for Purchasers:

- Contribute to internationally coordinated action to address climate change.
- Exchange knowledge with governments and other stakeholders at Ministerials (e.g. public-private roundtables) and through other MI projects and platforms.
- Increase opportunities to expand reach enhance international profile through engagement with a recognized international initiative (i.e. the Mission).

- Collaborate with government technical experts to advance mutual objectives, such as de-risking technologies.

Potential Value-Add for the CDR Mission:

- Enhance access to knowledge, understanding of challenges and opportunities in the global CDR market, insights on purchaser needs, and lessons learned, increasing opportunities to effectively target R&D efforts and maximize the Mission's impact.
- Increase opportunities to mobilize the private sector towards achieving the Mission's three outcomes and increase understanding of the challenges to achieving the Mission's goal.
- Opportunity to advance commitments made under Mission initiatives, such as the CDR Launchpad (e.g. support efforts to link companies with climate goals to CDR projects supplying early credits).

Potential Risks to the Mission and Mitigation options:

- **Risk:** Public perception and concerns around government working with large corporations and emitters.
 - **Mitigation option:** Establish clear objectives for collaboration and clear external communication.

Investors

Definition: Organizations that invest in and advocate on behalf of clean technologies (including, but not limited to CDR technology). These investors can be philanthropies and/or other organizations (whether private sector, or other) that are investing directly in the innovation of clean technologies.

Potential Value-Add for Investors:

- Enhance understanding of local and global CDR potential as well as government priorities and policies, which can lead to strengthened investments and effective allocation of resources.
- Collaborate with government technical experts to advance mutual objectives, such as de-risking technologies.
- Increase opportunities to cross-promote objectives and activities.

Potential Value-Add for the CDR Mission:

- Increase opportunities to mobilize the private sector towards achieving the Mission's three outcomes and increase understanding of the challenges to achieving the Mission's goal.
- Expand reach and cross-promote objectives and activities.
- Enhance understanding of challenges and opportunities in the global CDR market and increase insights around investor needs and priorities.
- Enhance access to knowledge, understanding of challenges and opportunities in the global CDR market, insights on purchaser needs, and lessons learned, increasing opportunities to effectively target R&D efforts and maximize impact.

Potential Risks to the Mission and Mitigation options:

- **Risk:** Public and innovator perception and concerns around governments working with investors.
 - **Mitigation option:** Establish clear objectives for collaboration and clear external communication.

Academic

Definition: Academic researchers (either individuals or groups) associated with a post-secondary institution completing research in CDR and related fields.

Potential Value-Add for Academics:

- Exchange knowledge and best practices with global innovators and stakeholders and increasing global and reliable data.
- Increase potential to leverage key resources, such as test centres, technologies, and government resources through strengthened international networks.
- Contribute to internationally coordinated action to address climate change.
- Increase opportunities to cross-promote and collaborate to advance research objectives with an internationally recognized organization.

Potential Value-Add for the CDR Mission:

- Exchange knowledge (e.g. on methodologies for LCAs/TEAs) and increase opportunities to access data that can support the development of standards, permanence, and MRV frameworks.

- Enhance understanding of industry direction, needs, and lessons learned from first-generation CDR projects, increasing opportunities to effectively target R&D efforts.
- Strengthen decision-making grounded in evidence and the latest science.
- Mobilize academics towards achieving the Mission's three outcomes and goal.

Potential Risks to the Mission and Mitigation options:

- **Risk:** Similar to individual innovators, academic researchers may have a funding relationship to member governments.
 - **Mitigation option:** Outline objectives of collaboration and/or establish clear and binding agreements with boundaries for engagement.

Research Institutes, Think Tanks, Non-Profit Organizations (NGOs)

Definition: Non-profit entities, think tanks, and research networks advancing climate solutions such as clean technology development or, coalitions or groups that represent innovators or other stakeholders. These entities often conduct research, engage with networks of innovators, and seek to advance meaningful action on climate change and the energy transition. They may also have relevant mandates that offer critical viewpoints and consideration for the Mission and its stakeholders, for example, with a focus on biodiversity or water protection.

Potential Value-Add for Research Institutes, Think Tanks, NGOs:

- For emerging or new organizations, increase credibility, recognition, and trust through engagement with a recognized international institution (i.e. the Mission).
- Contribute to internationally coordinated action to address climate change.
- Participate in global knowledge exchange and opportunities to share priorities, knowledge, and experiences with governments and industry.
- Connect with other stakeholders and expand networks, including by participating in MI Ministerials and other MI events and activities.
- Collaborate to advance mutual objectives, such as supporting clean technology RD&D, and to strengthen ongoing work or to develop new projects.

Potential Value-Add for the CDR Mission:

- Increase access to research, knowledge, and stakeholder networks (including purchasers, innovators, and investors).

- Contribute to strengthening global efforts to advance CDR technology RD&D.
- Mobilize stakeholders towards achieving the Mission’s three outcomes and goals.
- Strengthen the Mission’s impact by partnering with recognized organizations working towards similar goals.
- Increase exposure to diverse perspectives and knowledge, enhancing understanding of local and global challenges and opportunities for CDR deployment.
- Increase opportunities to raise public awareness about the Mission.

Potential Risks to the Mission and Mitigation options:

- **Risk:** This category of stakeholder may be motivated to advocate on behalf of a particular technology or issue and may be registered as a lobbyist.
 - **Mitigation option:** The Mission should set clear objectives and guidelines around the collaboration. Additionally, members should follow their domestic guidelines for engaging with advocacy groups.
- **Risk:** Insights may require shift in Mission direction or priorities.
 - **Mitigation option:** Build flexibility and opportunities to evaluate direction into Mission.

Public and Communities

Definition: CDR will undoubtedly impact the energy, food, and public and environmental health futures of communities, but whether these impacts are positive or negative will largely be determined through reimagined public engagement processes that incorporate community consultation and even, co-creation. If done well and early, this engagement could be a foundational enabler of technology scale up. As such, public and community engagement will be equally as important as engaging private and other sectors to achieve the Mission’s three outcomes. This category of stakeholder includes individual, local communities and Indigenous Nations or Indigenous-led decision-making bodies (e.g. the Arctic Council). This category could also include the “general public” engaged broadly, for example through online platforms or at events open to the public.

Potential Value-Add for Public and Communities

- Enhance opportunities to share concerns, priorities, knowledge, and experiences with member governments and industry stakeholders (e.g. around siting infrastructure) that can contribute to community interests, health, and wellbeing.
- Increase connections with other stakeholders, such as industry and academics.
- Opportunity to influence strengthened community involvement in project decision-making.
- Participate in knowledge exchange.

Potential Value-Add for the CDR Mission:

- Increase public awareness of and public confidence in CDR technologies, including risks, opportunities, and co-benefits.
- Foster connections between innovators and impacted communities, improving quality of the projects and community engagement practices.
- Demonstrate leadership and innovation in the community engagement field.
- Exposure to diverse perspectives and knowledge, enhancing understanding of local and global challenges and opportunities for CDR deployment.
- Mobilize stakeholders towards achieving the Mission's three outcomes and responsible CDR deployment.

Potential Risks and Mitigation options:

- **Risk:** Straining marginalized, resource strapped communities and groups.
 - **Mitigation option:** Ensure engagement with marginalized groups are efficient and have clear outcomes, and explore opportunities to compensate participants in engagement activities, where appropriate.
- **Risk:** Engaging with organizations and communities that are critical of CDR technologies opens the Mission to criticism.
 - **Mitigation option:** Equip members with clearly defined objectives and rationale to measure success and provide guidance on how to engage and integrate diverse viewpoints.
- **Risk:** Communicating technical areas and its implications to a broader audience.
 - **Mitigation option:** Develop clear communication products that are well suited for the intended audience and foster opportunities for dialogue, where clarification can be offered.

Other International Initiatives and Governments

Definition: International fora and initiatives with mandates and activities that are complimentary to the CDR Mission, including other initiatives under Mission Innovation such as, Materials for Energy (M4E), and the Integrated Biorefineries Mission. This category includes international fora that seek to advance climate change and clean energy related issues, such as the Clean Energy Ministerial (CEM) (e.g. CEM Carbon Capture Utilization and Storage [CCUS] Initiative) and the International Energy Agency (IEA). This category also includes international governments, state, and municipal governments. Mission members may also be engaging other departments within the same order of government.

Potential Value-Add for Other International Initiatives and Governments and the CDR Mission:

- Advance mutual objectives and goals.
- Streamline and coordinate efforts along the innovation spectrum, to strengthen initiatives and reduce duplication.
- Increase access to research, knowledge, and stakeholder networks.
- Exchange knowledge on areas of mutual interest, such as RD&D, policy, business models, regulation, and governance.
- Opportunity to cross-promote objectives and activities, increasing public awareness.
- Increase opportunities for diverse regions to participate in Mission activities.

Potential Risks and Mitigation options:

- **Risk:** Negatively impacting the public's understanding of the unique needs and opportunities of CDR technologies by collaborating with organizations that are focusing on different technology areas.
 - **Mitigation option:** Clear communication and careful consideration of appropriate opportunities for engagement that will strengthen CDR outcomes.

4. Engagement Approach and Principles

Mission engagement with a stakeholder, either at the member or Mission level, will be guided by these principles:

Clarity of Purpose	Independence	Transparency	Evidence-based
<ul style="list-style-type: none"> engagement will primarily aim to advance the Missions outcomes and will consider the resource restraints and mandate of the Mission. 	<ul style="list-style-type: none"> engagement will not compromise the Mission's integrity, independence, or credibility. 	<ul style="list-style-type: none"> engagement will be open and transparent, including clarity with respect to potential risks and benefits. 	<ul style="list-style-type: none"> engagement will support and enhance the scientific and evidence-based approach that underpins the Mission's work.

Stakeholders from the described categories can reach out to a member government, or the Mission contact as identified on the [CDR Mission's webpage](#). Members can meet with domestic stakeholders on an ad hoc, informal basis to learn about their work and interests. Members can also bring proposals for engagement to the monthly all-member meetings, to evaluate the risks and opportunities and make a collective decision. Mission co-leads (Canada, the Kingdom of Saudi Arabia, and the United States) may take the lead on meeting with stakeholders on behalf of the Mission to explore engagement opportunities and will bring these to the membership for discussion and decision.

When deciding to engage with a stakeholder, members should consider:

- Credibility, proven track record of delivery, and capacity to carry out intended collaboration activities.
- History of or willingness to participate in global knowledge exchange and collaboration.
- History of global engagement and/or have stakes in multiple member countries.
- Mission capacity and alignment with the Stakeholder Engagement Plan and Action Plan.

The Mission can consider collaborating with each stakeholder type, tailoring the engagement activity according to the stakeholder's unique value proposition.

Stakeholders can engage with the Mission through:

a. Knowledge Exchange

The Mission provides a space for facilitating stakeholder information and expertise exchange through cross-national workshops, webinars, the MI Platform, and deep dives on specific policy, technical, financial or safety issues.

b. Amplification

The Mission provides a mechanism for sharing specific best-practice case studies from stakeholders by profiling their work and fostering connections. A key opportunity to do this is through participation in the annual Ministerial and preparatory meetings (for example, through technology showcases, invitations to private-public roundtable discussions, or participating in events). Learn more about upcoming Mission Innovation events and opportunities to participate by visiting the [MI events webpage](#). Stakeholders can also partner with the Mission to co-develop new activities to mutually amplify and advance objectives or can contribute to strengthening the delivery of MI-led initiatives.

c. Funding

The Mission can highlight funding opportunities for stakeholders and help to facilitate connections that strengthen resources. The Mission can also invite stakeholders to sponsor Mission deliverables to ensure a more impactful and effective delivery, or partner with stakeholders to co-develop new activities to mutually advance objectives.

d. Feedback

The Mission can seek direct input from stakeholders for example, by soliciting feedback on Mission activities, surveying stakeholders to identify specific R&D needs, and seeking feedback on Mission documents and plans.

e. Membership

The Mission can invite stakeholders to join a Technical Track, Working Group, or the Mission overall as a member. The Mission can also consider developing mechanisms to engage stakeholder groups, such as an advisory committee or focus group.

These are not actions that the Mission *must* take but rather, categorize and describe collaborative actions that *can* be undertaken to advance the Mission's outcomes and goals.

Mission members will continue to identify and map stakeholders in their countries on an ongoing basis and will continue to raise awareness about opportunities to engage with the Mission (e.g. through international events and with targeted presentations to stakeholder groups). As well, each year the Mission will identify specific collaborations it will pursue and will annually evaluate success, adjusting priorities accordingly.





Mission Innovation – Catalysing Clean Energy Solutions For All