



**MISSION
INNOVATION**

accelerating the clean energy revolution

MISSION INNOVATION

MI-4 Media Kit



MI-4 Media Kit

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MI Backgrounder

Launched at COP21 in November 2015, Mission Innovation (MI) is a global initiative designed to accelerate the pace of innovation and make clean energy widely affordable. Led by the public sector, it aims to mobilise both public and private sector efforts. MI also provides a platform to support collaboration among members and facilitate engagement with business, industry and investors, in order to attract more public and private funding into innovative clean energy research.

MI-4

MI-4 will bring together Ministers, business leaders, youth, and innovators to explore creative ways to significantly boost the pace and scale of meaningful change. By building on the success of MI-3, in Malmo, Sweden, and blending the traditional Ministerial setting with moderated discussions, panels, breakouts, and keynote presentations that open up important dialogues beyond just Ministers, MI-4 will be an inclusive, dynamic and engaging platform for MI to **demonstrate its impact, challenge members and the private sector, and raise ambition.**

MI member countries are: Australia, Austria, Brazil, Canada, Chile, China, Denmark, the European Commission on behalf of the European Union, Finland, France, Germany, India, Indonesia, Italy, Japan, Mexico, the Netherlands, Norway, Republic of Korea, Saudi Arabia, Sweden, the United Arab Emirates, the United Kingdom and the United States

Links to Key Documents

- [2015 Mission Innovation Joint Launch Statement](#)
- [Mission Innovation Action Plan](#)
 - [Delivering the Action Plan 2018-2020](#)
- [MI Members](#)

MI-4 Media Opportunities

Monday, 27 May

Mission Innovation Announcements

Time: 16:15 to 16:45

Location: Innovation Showcase Theatre

- **PFAN Awards** – Announcement of Winning Investment Pitches

The Private Financing Advisory Network (PFAN) investment forum will involve entrepreneurs from Africa, Asia, and Central America who will pitch their technologies and business solutions to investors. A jury of experts will evaluate the business plans and select the most promising projects.

- **MI Champions** – Announcement of the first cohort of 19 MI Champions

This program recognizes exceptional researchers and innovators from MI member countries who are developing novel ways of making energy cleaner, cheaper, and more reliable by using it more efficiently.

The MI Champions are individuals with a track record of progressing creative new ideas that can drive the pace and scale of the clean energy revolution — they are the people who are inventing the products and services of the future.

Minister's Tour of the Innovation Showcase

Time: 16:45 to 17:30

Location: Innovation Showcase

- This exclusive event will officially launch the CEM10/MI-4 program. Minister and Heads of Delegation will participate in a guided tour of the Innovation Showcase, with an opportunity to engage with exhibitors representing international firms who are innovating in the clean energy sector.

Opening Ceremony

Time: 18:00 to 19:00

Location: Ballroom Foyer

- The opening ceremony is the official launch of CEM10/MI-4. Minister of Natural Resources, Amarjeet Sohi, will welcome the delegations attending both the Mission Innovation and CEM Ministerials, and invited guests.

Tuesday, 28 May

MI Ignite Talk

Time: 11:45 to 12:45

Location: 118-119-120

- Hosted by Canada and developed in partnership with the International Energy Agency (IEA), this session within the MI-4 programme offers a unique approach to sharing a diverse range of perspectives on accelerating clean energy solutions. The “Ignite Talk” will challenge participants to think differently for faster and more ambitious development of clean energy innovation. Four speakers, representing outlooks from policymakers, business leaders, innovators, and youth, will give a short Ignite Talk presentations to illustrate their ideas, addressing the theme of Approaches to Accelerating Clean Energy Innovation. Moderated discussion among MI-4 delegates will follow the Ignite Talks. The session will be shared with the world via livestream and social media.

World Bank Energy Storage Partnership Announcement

Time: 17:00 to 18:00

Location: 212-213

- In the context of the launch of a new collaboration between Mission Innovation and the World Bank Group, the World Bank will launch a new international partnership to help expand the use of energy storage and bring new technologies to developing countries’ power systems.

This announcement will be directly followed by the signing of two new Mission Innovation Partnership agreements.

Wednesday, 29 May

CEM10/MI4 Closing Press Conference

Time: 18:00-18:30

Location: 212-213

- The Canadian and Chilean Ministers will meet with the press, providing a recap of discussions across CEM10 and MI-4, highlighting key outcomes and announcements. Other Ministers and Heads of Delegation are invited to attend.

MI By the Numbers Infographic



MISSION INNOVATION
accelerating the clean energy revolution

A GLOBAL INITIATIVE WORKING TO ACCELERATE CLEAN ENERGY INNOVATION



1 GOAL
To **accelerate** the pace of clean energy **innovation** to achieve performance breakthroughs and cost reductions to provide widely **affordable** and **reliable** clean energy solutions.

24 MEMBERS
Launched in 2015 at COP21 in **PARIS**
MI Members represent about 80% of global government investment in clean energy RD&D

4 OBJECTIVES

- Substantial boost in public sector investment
- Increased private sector engagement and investment
- Increasing international collaboration
- Raising awareness of the transformational potential of energy innovation



8 INNOVATION CHALLENGES Global collaborations to accelerate innovation in key technology areas

- IC1 Smart Grids
- IC2 Off-grid Access to Electricity
- IC3 Carbon Capture
- IC4 Sustainable Biofuels
- IC5 Converting Sunlight
- IC6 Clean Energy Materials
- IC7 Affordable Heating and Cooling of Buildings
- IC8 Renewable and Clean Hydrogen

19 MISSION INNOVATION CHAMPIONS
A program for recognizing and supporting the next wave of energy technology leaders

4 MAJOR COLLABORATORS

- BEC Breakthrough Energy Coalition
- IEA International Energy Agency
- IRENA International Renewable Energy Agency
- WEF World Economic Forum

FOLLOW US: @MICleanEnergyRD

HASHTAGS: #MI_EnergySolutions #MissionInnovation #CleanEnergy

www.mission-innovation.net

[DOWNLOAD .PDF](#)

MI Innovation Challenges Backgrounder

The eight (8) Innovation Challenges spearheaded by Mission Innovation (MI) are global calls to action aimed at accelerating research, development and demonstration (RD&D) in technology areas that could reduce the cost of clean energy, provide significant CO₂ reductions and increase energy security.

The MI Innovation Challenges help reduce research duplication and accelerate innovation by facilitating global networks and increasing communications between governments, researchers, institutions and private industry.

Creating new, innovative energy solutions does not happen overnight. It takes time and significant resources. The MI Innovation Challenges allow researchers to combine their findings and track progress on a global scale, greatly accelerating their development.

IC1 – SMART GRIDS

- **Goal:** To accelerate the development of future grids powered by affordable, reliable, decentralised renewable electricity systems.
- **Context:** The development of smart electric grids that can be observed in real-time, fix themselves and integrate renewable energy sources has the potential to significantly improve the generation and distribution of power.

Optimized power distribution will both reduce waste and allow for various sources of renewable energy to be integrated into the grid. Less waste means fewer resources being used resulting in lower emissions. This combined with the integration of sources of renewable energy will have a meaningful impact on CO₂ emissions and reliability.

- **Challenge:** Increased research, development, and investment in the field of smart grids is needed to develop technology solutions that support the seamless integration of up to 100% renewable electricity generation into electricity grids.

 [#MI_IC1](#)

IC2 – OFF-GRID ACCESS TO ELECTRICITY

- **Goal:** To develop systems that enable off-grid households and communities to access affordable and reliable renewable electricity.
- **Context:** Diesel generators or other greenhouse gas emitting solutions often provide access to energy for off-grid households or communities. With over 1.1 billion people currently living without access to electricity, providing them with clean energy sources will significantly reduce

CO₂ emissions.

- **Challenge:** Bringing clean, affordable, renewable off-grid solutions to people living without access to electricity is of utmost importance in meeting the climate change targets set out at COP21.

 [#MI_IC2](#)

IC3 – CARBON CAPTURE

- **Goal:** To identify and prioritize breakthrough carbon capture technologies; and to recommend various research, development, and demonstration (RD&D) plans and collaboration mechanisms.
- **Context:** Globally, power plants and factories make up about 50% of all greenhouse gas (GHG) emissions. Transitioning or replacing this existing infrastructure will take time and significant investment. Carbon Capture, Utilisation and Storage (CCUS) can achieve significant CO₂ reductions from existing power plants (fuelled by coal, natural gas, and biomass) and industrial applications while cleaner infrastructure is developed and brought online.
- **Challenge:** Meeting the climate goals of the Paris Agreement will require more than just reducing carbon emissions. It will also require removing carbon dioxide from the atmosphere. Carbon Capture, Utilisation and Storage (CCUS) combined with reducing emissions from current levels will support the global call to limit global warming to well below 2 degrees Celsius.

 [#MI_IC3](#)

IC4 – SUSTAINABLE BIOFUELS

- **Goal:** To accelerate the development of widely available and affordable advanced biofuels for transportation and industrial applications.
- **Context:** The use of fossil fuels in transportation and industrial applications contributes up to 35% of global greenhouse gas (GHG) emissions. Unfortunately, many of the most exciting biofuels remain at the pre-commercial stage of development. Once affordable, biofuels can play an important role where electrification cannot be implemented, where the added weight of batteries is impractical or in applications which require high operating temperatures.
- **Challenge:** Accelerating biofuels research, development, and demonstration in order to achieve performance breakthroughs and cost reductions significant enough to make the use of sustainable biofuels more attractive than the use of conventional fossil fuels, thus significantly reducing greenhouse gas emissions.

 [#MI_IC4](#)

IC5 – CONVERTING SUNLIGHT

- **Goal:** To continue discovering and developing affordable ways to convert sunlight into storable solar fuels.
- **Context:** Solar energy has been around for a long time but the transition from fossil-based fuels to cleaner solar fuels has been slowed by the high cost of technologies that convert and store sunlight into energy. While prices have fallen steadily, there still exists a significant gap between the potential of solar energy and its implementation.
- **Challenge:** To develop innovative, efficient and affordable solutions using new materials with the ability to store the sun's energy and convert it to fuel.

 [#MI_IC5](#)

IC6 – CLEAN ENERGY MATERIALS

- **Goal:** To accelerate the exploration, discovery and use of new high-performance, low-cost materials to be used in clean energy solutions.
- **Context:** The materials used in the energy sector can take up to 20 years to go from laboratory to market. Accelerating and improving this process through innovative research methods, such as AI and robotics and international collaborative research, development and demonstration (RD&D) could result in major breakthroughs for the energy sector.
- **Challenge:** Creating a more fully integrated global approach to clean energy materials modeling, simulating and testing to significantly speed up the development of materials that can be successfully used in clean energy applications.

 [#MI_IC6](#)

IC7 – AFFORDABLE HEATING AND COOLING OF BUILDINGS

- **Goal:** To make low-carbon emission heating and cooling solutions affordable for everyone.
- **Context:** Buildings, whether they be homes, offices or factories, account for almost a third of global end-user energy consumption. Keeping those buildings cool or warm and providing them with hot water makes up about half of this energy use. This means there is significant space for energy efficiency improvements in these three sectors.
- **Challenge:** Developing building heating and cooling systems and improving building exteriors to deliver affordable, efficient heating and cooling without carbon emissions.

 [#MI_IC7](#)

IC8 – RENEWABLE AND CLEAN HYDROGEN

- **Goal:** The main goal of the Renewable and Clean Energy Innovation Challenge is to accelerate the development of technologies to extract hydrogen from clean, renewable sources such as water and biomass. It also focusses on accelerating the development of a global clean hydrogen market by identifying and overcoming challenges in the production, distribution, storage, and use of hydrogen.
- **Context:** The majority of hydrogen produced today is extracted from natural gas. While the extraction cost is quite low, the environmental costs are quite high. Producing hydrogen from renewable sources, such as water, has the potential to deliver large volumes of clean energy. Unfortunately, the energy requirements and their associated costs are important barriers.
- **Challenge:** While hydrogen is widely available in nature, the technologies to extract, carry and store it are still in their infancy and require significant innovation and investment. Creating the global production, storage and distribution network for hydrogen will be equally important.

 [#MI IC8](https://twitter.com/MI_IC8)

MI Champions Backgrounder

The Mission Innovation (MI) Champions program was launched at the Third Mission Innovation Ministerial held in Sweden May 22-24, 2018. The program recognizes exceptional researchers and innovators who are developing novel ways of making energy cleaner, cheaper, and more reliable. These selected individuals are helping to accelerate the clean energy transition. The program will call worldwide attention to the most promising ideas from across the globe and seeks to facilitate engagement among the Champions and Mission Innovation governments, research institutes, affiliated organizations, and private sector investors. This new effort aims to recognize individuals working on vital clean energy research and technology development, by supporting cross-border exchanges of ideas and talent and building a community of visionaries committed to the promise of clean energy research and development (R&D).

During the Fourth Mission Innovation Ministerial in Vancouver, the first cohort of Champions will be brought together to discuss leading clean energy innovations and to discuss how their work fits within the broader picture of climate change and clean energy.

Together, these 19 Champions represent some of the most promising innovations within the global clean energy sector. As the first cohort of Champions, they serve as role models to the international community and have an opportunity to highlight their work as well as the progress achieved under Mission Innovation.

For more information, please visit:

<https://www.michampions.net/>

<http://mission-innovation.net/our-work/champions-program/>