

MISSION INNOVATION



THE STORY SO FAR

2020 IMPACT REPORT



**MISSION
INNOVATION**

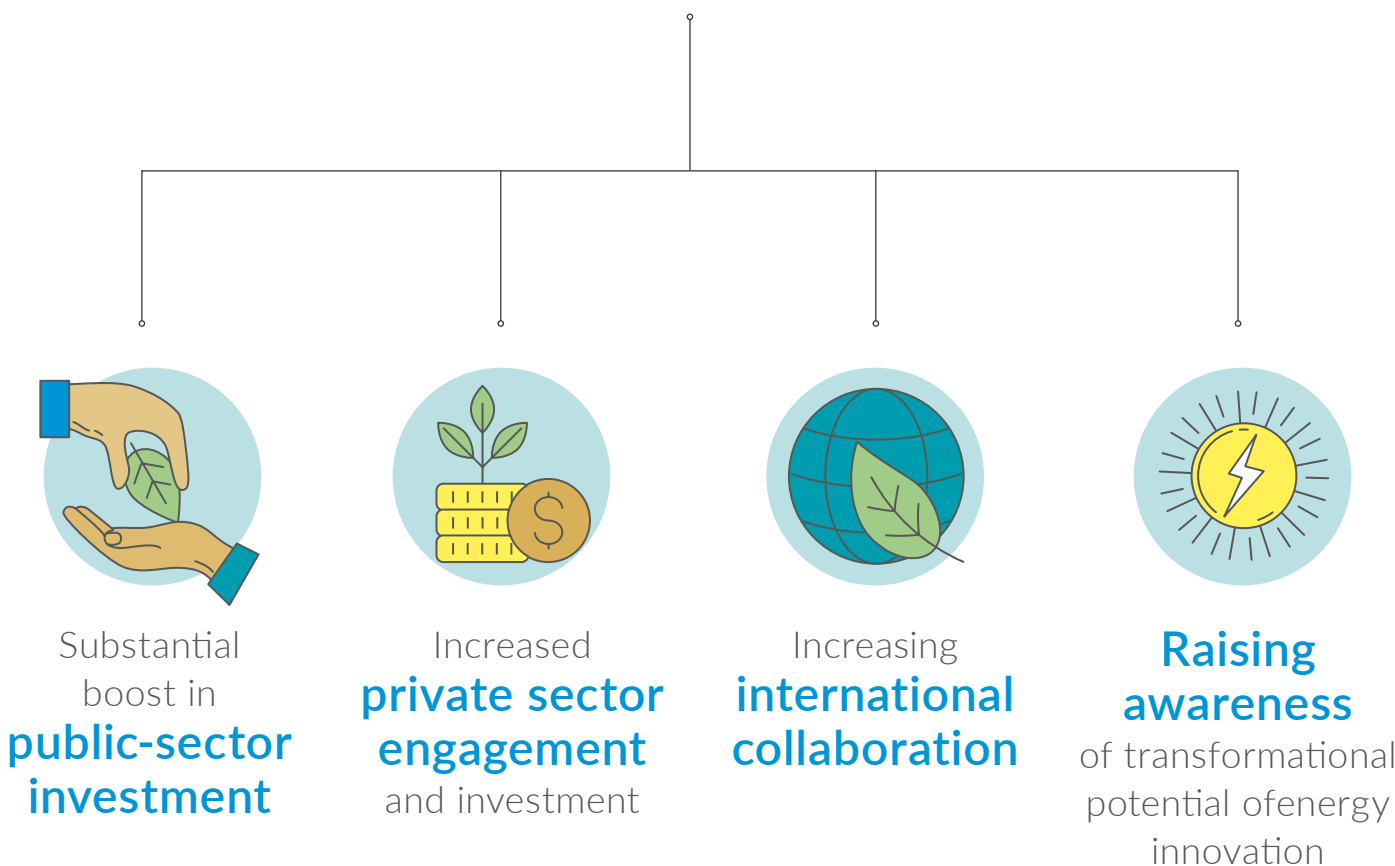
accelerating the clean energy revolution

Mission Innovation is a global intergovernmental initiative working to accelerate clean energy innovation

25 members on 5 continents are working to stimulate innovation with the objective to make clean energy more widely affordable.

This report sets out Mission Innovation members' achievements to date.

Mission Innovation has four goals



mission-innovation.net

ACHIEVEMENTS AND IMPACT

Mission Innovation members are continuing to work towards meeting their commitment to seek to **double their investment in clean energy innovation** over 5 years.

SINCE 2015

Mission Innovation members' have delivered:

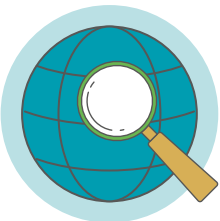
\$4.9bn increase

in annual **investment** in clean energy innovation



70 international publications

highlighting the work of Mission Innovation



\$1.4bn funding for **70 new international collaborations**

supporting clean energy innovation



40 innovators

selected as **Mission Innovation Champions**

1000 innovations

globally with the potential to **avoid 12 gigatonnes CO₂ emissions** per year by 2030 if fully deployed



62 events

on **4 continents** involving 185,400 innovators, investors and policy makers



Timeline

NOVEMBER 2015

Launch of Mission Innovation (MI), COP21, Paris

"Participating countries have come together to launch Mission Innovation to reinvigorate and accelerate public and private global clean energy innovation with the objective to make clean energy widely affordable."

Joint Launch Statement



JUNE 2016

Inaugural Ministerial, San Francisco

- The European Commission, acting on behalf of the European Union, becomes the 21st member, adding \$1 billion to the annual MI member spend on clean energy innovation
- Ministers met with members of the Breakthrough Energy Coalition, including Bill Gates, to discuss the importance of collaborating with the private sector

NOVEMBER 2016

COP22, Marrakesh

- Finland and the Netherlands welcomed as the 22nd and 23rd members
- Launch of seven Innovation Challenges, global calls to action for international collaboration in important technology areas



JUNE 2017

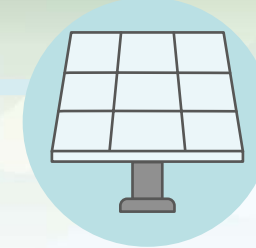
2nd Ministerial, Beijing

- Launch of the MI Action Plan with four goals driving MI's efforts
- Announcement of collaboration with the World Economic Forum to increase linkages with the private sector on MI clean energy innovation investments

MAY 2018

3rd Ministerial, Malmo

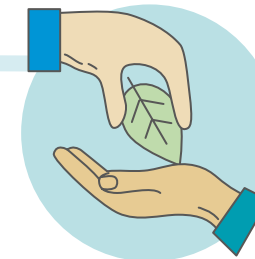
- Austria welcomed as the 24th MI member
- Delivering the MI Action Plan published
- Announcement of collaborations with the International Energy Agency and International Renewable Energy Agency
- Launch of the 8th Innovation Challenge on Renewable and Clean hydrogen



MARCH 2018

MI Clean Energy Financing Event, Vancouver

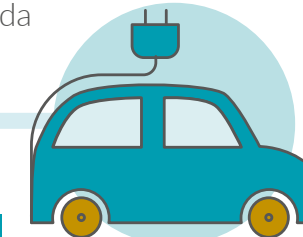
Clean energy companies from MI members had the opportunity to pitch and speak to more than 90 major investors at this event organised by Natural Resources Canada



DECEMBER 2017

One Planet Summit, Paris

The Breakthrough Energy Coalition announces partnerships with five MI members (Canada, United Kingdom, France, Mexico, and the European Commission), representing a new approach to public-private collaboration that supports low carbon energy investments



DECEMBER 2018

COP24, Katowice

- Side event at the UK Pavilion on role of clean energy innovation in pursuing efforts towards 1.5°C
- Strong MI presence contributed to keeping innovation high on the political agenda

MAY 2019

4th Ministerial, Vancouver

- Morocco welcomed as the 25th MI member
- Announcement of collaborations with the World Bank and Global Covenant of Mayors
- Opened dialogue to increase private sector participation and include women, youth and innovators

SEPTEMBER 2020

5th Ministerial, Saudi Arabia

- A virtual Ministerial hosted by Saudi Arabia
- \$4.9 billion annual increase in public funding and 70 collaborations reported
- Decision on development of a second phase (MI 2.0)

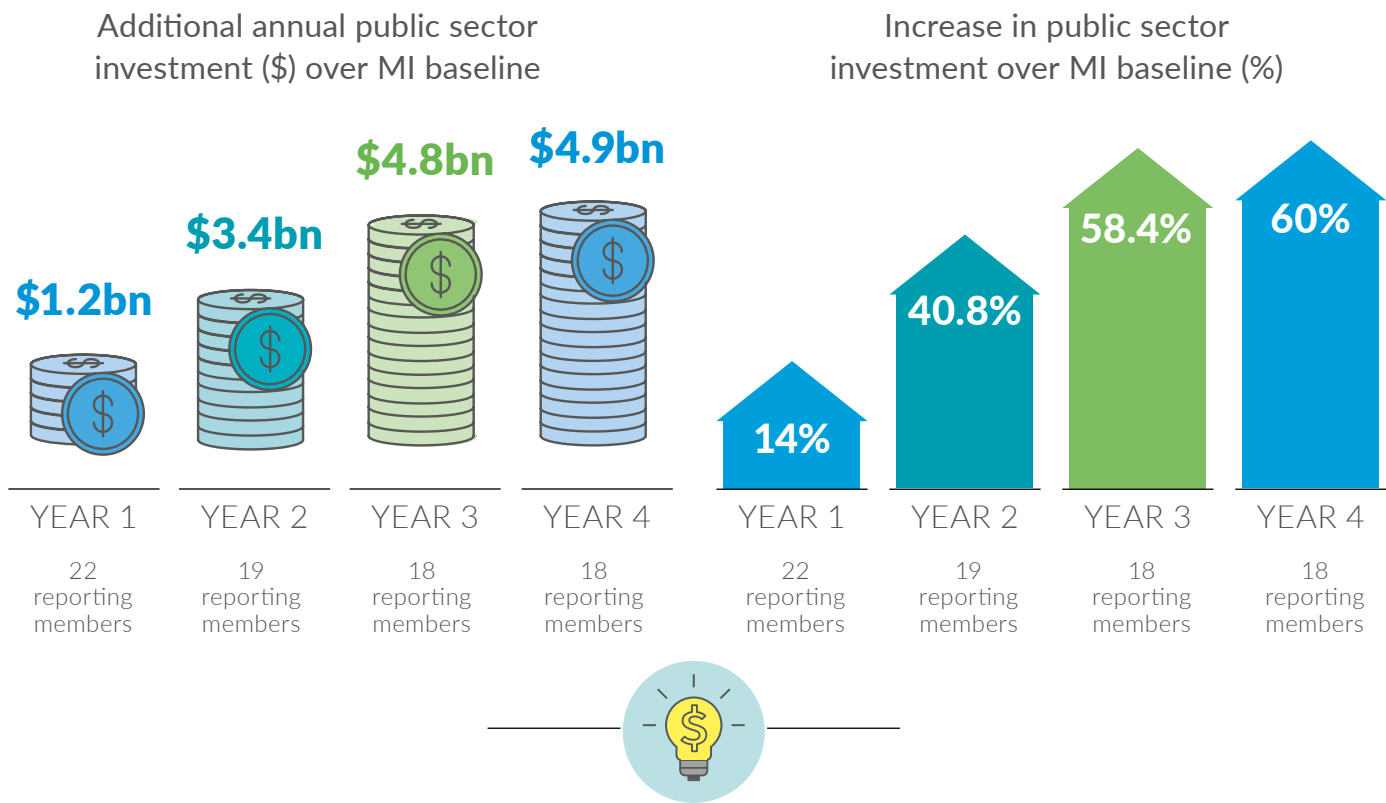
JANUARY 2018

World Economic Forum meeting, Davos

MI represented at the Forum's Stewardship Board on "Shaping the Future" and Accelerating Sustainable Energy Innovation sessions

Substantial boost in public-sector investment

Mission Innovation (MI) members are continuing to work towards meeting their commitment to seek to double their investment in clean energy innovation over five years. In Year 4, members reported a total annual increase of \$4.9 billion against their baselines.



MI members are investing across a range of technologies depending on national priorities.

Since 2015, cumulative MI-relevant investments by reporting members have included:

\$10.2 billion

on **renewable energy** including at least:

- \$1.8bn on solar energy
- \$1.3bn on biofuels
- \$1bn on wind energy

\$5.5 billion

on **grid integration, transmission and storage technologies**

\$1.4 billion

on **transport**

\$2.2 billion

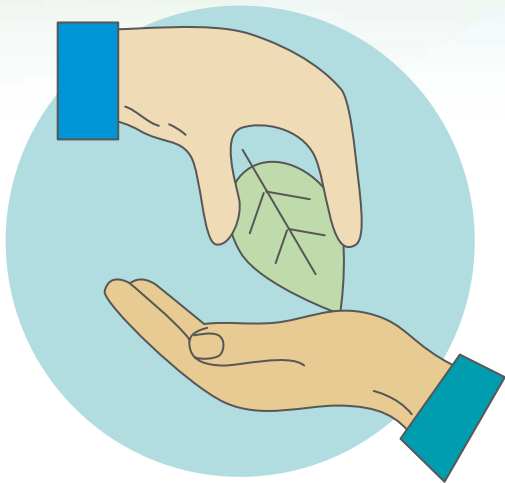
on **hydrogen and fuel cells**

\$1.1 billion

on **buildings and appliances**

\$794 million

on **carbon capture and storage**



Chile, Japan, Netherlands, Norway and UK have already doubled their MI relevant investments. China has had the largest absolute increase in clean innovation investment of reporting members.

CHINA

MI-related funding in China increased from 25 bn RMB in 2015 to 38 bn RMB in 2019, with an increment of more than 52%. Over this time China’s Ministry of Science and Technology (MOST) has launched new research, development and demonstration programs in the areas of energy saving technology, new energy vehicles, smart grids, renewable energy, hydrogen energy and clean and high efficiency utilization of coal.

The “Smart Grid and Equipment” Project supports 120 innovation projects, with total public support of 1.5 billion RMB, whilst the “Renewable Energy and Hydrogen Energy Technology” Project is investing 0.5 billion RMB in 31 innovation projects. CCS and cleaner fossil fuels accounted for about 40% of MI-related spend in China in 2019.

NETHERLANDS

The Netherlands is close to tripling their MI-related RD&D investments in four years, reaching about €285 million in 2019. Amongst the most successful national programs that supported energy-innovation projects are the Topsector Energy Program, the Demonstration Program for Climate & Energy Innovation, and the Renewable Energy Program. Additional funding for the missions of the National Climate Agreement stimulated research & innovation projects in areas including CO₂ reduction in industry, increased flexibility of the electricity system, hydrogen and spatial integration of large-scale renewable energy production.

MI and the International Energy Agency (IEA) have worked closely together and with members to enhance data collection on government spending for energy RD&D building on the collaboration agreement signed in 2018. The IEA has worked with MI members including Brazil, India and China through the Clean Energy Transitions Programme to map, evaluate and enhance the policy environment for energy technology innovation, and has brought together their innovation data and analysis in a [central portal](#). In July 2020, the IEA released a flagship report on [Clean Energy Innovation](#), building on and feeding into discussions for the scoping and development of a second phase of MI.

PROGRESS TOWARDS GOAL 2

Increased private sector engagement and investment

Mission Innovation (MI) members are launching new initiatives and investment funds in partnership with the private sector to accelerate the commercialisation and scale-up of new technologies.

UK

The UK has launched a new early stage **Clean Growth Fund**. The government will invest up to £20 million on commercial terms alongside £20m from CCLA, a private sector investor with an environmental social governance agenda. The fund has ambitions to reach £100m and is now seeking additional investment from other private sector investors. The fund will support early stage clean technology companies in the UK to accelerate the commercialisation of promising technologies.

SWEDEN

The **MI Net-Zero Compatible Innovations Initiative (NCI)** enables public and private investors to identify innovations with strategic and significant potential to tackle climate change using NCI frameworks, including the Avoided Emissions Framework (AEF). It has identified 1000 innovations globally with the potential to avoid 12 gigatonnes CO₂e per year by 2030 (if fully deployed) and established collaborations with multiple international stakeholders.



INDIA

The world's first **Clean Energy International Incubation Centre (CEIIC)** was launched by the Indian Government and the Tata Trust in Delhi in September 2019. It is providing \$5 million in support to start-ups/innovators from across MI members to test their technologies in the local market. To date CEIIC has incubated 18 Indian start-ups and 6 international start-ups.

CHILE

Chile is fully committed to reaching the goal of carbon neutrality by 2050, with a portfolio of actions that includes the phase out of coal power plants by 2040, the deployment of renewable energies, improving energy efficiency and the development of solutions based on clean energies focused on the high emissions sectors, such as transport, industry and mining. Green hydrogen technologies are key in the mining sector. In this sector two consortia are working on projects to develop large dual diesel hydrogen combustion engines and fuel cells applied to trucks.

The **World Economic Forum** collaborates with MI to strengthen public private collaboration and create impact. At the Forum's 2019 **Sustainable Development Impact Summit** key players came together to pitch initiatives to accelerate clean energy innovation. In 2020 over 180,000 people engaged with the Forum's **Virtual Industry Transition Event** at which the UK Minister highlighted the importance of public-private cooperation in innovation and the role of MI and the Mission Possible Platform.

EUROPEAN COMMISSION

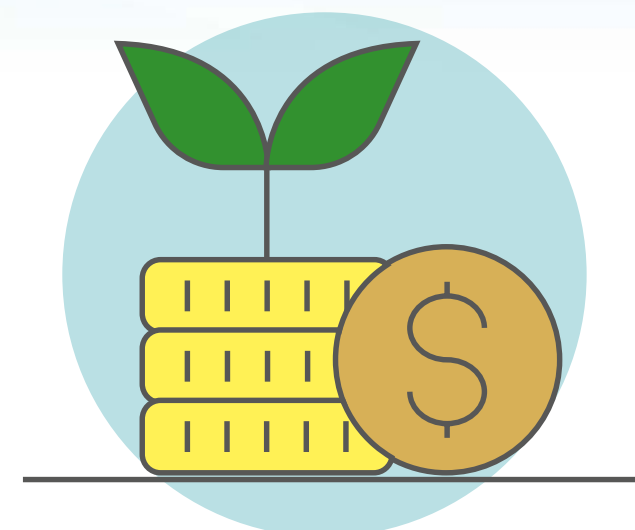
Since the creation of a new €100M public-private investment fund, **Breakthrough Energy Ventures – Europe (BEV-E)**, in October 2018 by the European Commission and the Bill Gates-led **Breakthrough Energy**, the investment team has been established and is actively screening and evaluating investment opportunities. BEV-E will invest in technologies that can make material greenhouse gas emissions reductions in five key areas that are essential to combat climate change: electricity, transportation, agriculture, manufacturing, and buildings.

CANADA

Canada launched **Breakthrough Energy Solutions Canada (BESC)** in 2019 – a first of its kind public-private initiative between Natural Resources Canada, Breakthrough Energy, and the Business Development Bank of Canada. The program provides up to \$40M CAD and tech-to-market support for leading Canadian firms to develop and commercialize clean energy technologies with potential for significant GHG emissions reductions (0.5GT/year globally).

AUSTRALIA

In 2019 and 2020, the Australian Government announced AUD\$204 million funding for industry-led research collaborations in clean energy through **Cooperative Research Centres (CRCs)**. This includes AUD\$70 million for the Blue Economy CRC, bringing together over 40 participants from aquaculture and renewable energy sectors to address the challenges of offshore food and energy production, and AUD \$68.5 million for the Reliable Affordable Clean Energy for 2030 CRC, to facilitate research collaborations between universities and the energy industry with the aim of reducing emissions, improving network reliability and reducing energy costs across Australia.



NORWAY

Norway's **PILOT-E scheme** provides a fast track for companies to turn climate-friendly concepts into competitive solutions at record speed. Launched in 2015, the scheme has completed four funding rounds to date. The development of electric excavators, as a part of the ambition to have zero-emission construction sites, started in 2017 and such excavators are already being used in Oslo. The excavators are completely emission free in operation, with no emissions of CO₂, NO_x, carbon monoxide, particulate matter or unburned fuel.



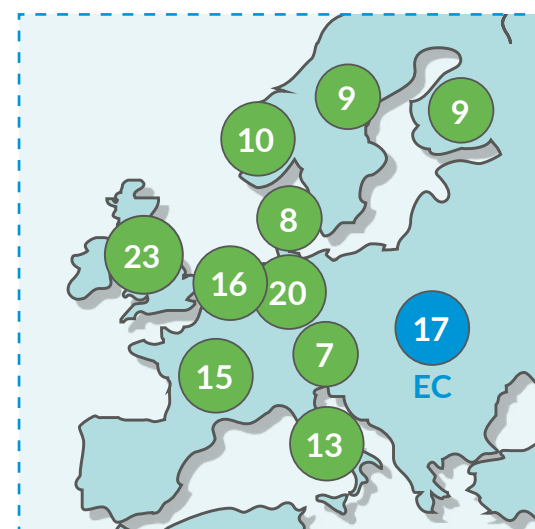
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Increasing international collaboration



Mission Innovation (MI) members have built new international collaborations in clean energy innovation, with \$1.4 billion invested in 70 new cooperation activities since 2015.

These bilateral or multilateral activities include joint RD&D calls, demonstration projects, student and researcher exchanges and coordinated funding calls.



Number of collaborations each member participates in

UK / REPUBLIC OF KOREA

A new \$9 million UK-Republic of Korea collaboration on smart energy was launched in 2018 to accelerate the speed and extent of deployment of smart, flexible energy system solutions. 3 projects have been funded which will demonstrate gamification of electric vehicle charging, an energy flexibility trading platform and a liquid air production and storage system. All projects are expected to be completed and to disseminate learning by March 2021.

INDIA

A total of \$17 million has been allocated to support collaboration between innovators in MI countries and Indian institutions in support of the Innovation Challenges, with 47 projects funded - 20 on Carbon Capture and Storage (IC3), 14 on biofuels (IC4) and 13 on converting sunlight (IC5).

CANADA / UK

Through its second phase, the Canada-UK Power Forward Challenge has selected seven finalist consortia of Canadian and UK innovators following competitive pitch events. These consortia are now being provided with up to \$3M CAD / £1.8M to develop a pilot-scale demonstration of their innovative smart grid solution for more integrated, cleaner, and flexible power grids looking ahead to 2030 and beyond. The best-in-class solution will be awarded a final prize of \$1M CAD.

REPUBLIC OF KOREA

The Republic of Korea is supporting collaboration with 5 MI members through a new \$21.6 million joint research programme launched in 2018 to support the Innovation Challenges. Researchers from Canada, the US, India and Germany are working with researchers from Korea on the 8 projects funded to date. Activities include joint workshops, researcher exchanges, research sample exchange and visits to demonstration sites.

AUSTRIA / SWEDEN

At MI-4 the first multilateral MI call for projects, MICall19 on storage solutions, was launched with a total budget of €22.5M. 16 countries participated and were involved in 58 project applications. 13 projects were selected for funding. The MICall series was initiated by Austria and Sweden and was built upon the existing funding mechanisms of the Joint Programming Platform ERA-NET Smart Energy Systems and JPI Urban Europe. The MICall20 for cooperative projects on digital transformation for the green energy transition will be launched at MI-5.

Increasing International Collaboration: Innovation Challenges (ICs)

ICs are global calls to action aimed at increasing collaboration and accelerating innovation in priority technology areas.



IC1: SMART GRIDS

OBJECTIVE

To enable future grids that are powered by affordable, reliable, decentralised renewable electricity systems

CO-LEADS



18 MEMBERS INVOLVED

India is funding smart grids R&D (US\$5.0 million), with nine MI member countries contributing additional technical expertise. IC1 members also allocate funding for smart grids R&D at the national level and come together to share best practices through workshops and IC1-led reports. Since 2017, IC1 has held six international events, challenging participants to explore ways to accelerate smart grids solutions worldwide. IC1 also collaborates with the International Smart Grid Action Network to improve the link between innovation and deployment. IC1's Smart Grids Innovation Accelerator is an online platform that consolidates expertise on smart grids. It will connect subject-matter experts, help countries and the private sector learn from each other's experiences on smart grids development and deployment, and reduce duplication of effort.



IC2: OFF-GRID ACCESS TO ELECTRICITY

OBJECTIVE

To develop systems that enable off-grid households and communities to access affordable and reliable renewable electricity

CO-LEADS



16 MEMBERS INVOLVED

France and India funded 18 off-grid demonstration projects that seek to advance off-grid access to energy. France raised €5.8 million for its call for proposals focused on access to energy in African countries; India raised US\$5.0 million for its call for proposals focused on offgrid projects in India, with funding recipients partnering with at least one MI country to deliver on their projects. These calls for proposals have helped start-ups test and adapt energy solutions to the infrastructure, demographics, and energy resources available in an area while enabling skills development and capacity building within communities.

IC2 has also enhanced collective knowledge around off-grid energy solutions through international workshops and by compiling success stories and lessons learned in a 2019 synthesis report.



IC3: CARBON CAPTURE AND STORAGE

OBJECTIVE

To enable near-zero CO₂ emissions from power plants and carbon intensive industries

CO-LEADS



18 MEMBERS INVOLVED

Following a workshop in 2017, IC3's ensuing report, "Accelerating Breakthrough Innovation in Carbon Capture, Utilization, and Storage," identified 28 priority research directions (PRDs) for CCUS technologies. These PRDs have informed national and international CCUS R&D programs.

In keeping with these PRDs, IC3 members have worked with the Accelerating Carbon Capture and Storage Technologies (ACT) Platform, which provides a mechanism for countries to pool funding for CCUS research and enable collaboration between members on priority areas. IC3 members are participating in the second and third ACT calls (launched in June 2018 and June 2020 respectively).

IC3 has initiated a discussion around gaps and opportunities for CCUS technologies at higher technology readiness levels – including ways to strengthen cooperation with the private sector and necessary actions moving forward.



IC4: SUSTAINABLE BIOFUELS

OBJECTIVE

To develop ways to produce, at scale, widely affordable, advanced biofuels for transportation and industrial applications

CO-LEADS



13 MEMBERS INVOLVED

IC4-led workshops and reports have addressed barriers and opportunities for sustainable biofuels innovation. IC4 collaborates with the Biofuture Platform, as both initiatives align their efforts across the innovation spectrum to help realize the full potential of sustainable biofuels.

IC4 has promoted funding opportunities for advanced biofuels RD&D and facilitated connections between funding bodies and researchers. In 2018, India launched a funding call (US\$5.0 million) to support the development of advanced biofuels, with nine IC4 members contributing additional technical expertise. IC4 informed the development of funding calls under the EU's Horizon 2020 programme for advanced biofuels in the transport, power, and heating sectors. IC4 also provided technical expertise and supported the launch of Canada's Sky's the Limit Challenge (CA\$5.0 million) for sustainable aviation fuels.

Increasing International Collaboration: Innovation Challenges (ICs)



IC5: CONVERTING SUNLIGHT

OBJECTIVE

To discover affordable ways to convert sunlight into storable solar fuels and/or solar chemical products

CO-LEADS



19 MEMBERS INVOLVED

IC5 established a network of experts for the conversion of sunlight into solar fuels, an area that previously had limited international collaboration. IC5 workshops and reports have informed RD&D priorities areas according to low, medium, and high technology readiness levels. Building on these efforts, the IC5 Roadmap will provide a unified vision for the development and deployment of solar fuel technologies.

In 2018, India launched a funding call (US\$6.0 million) for joint R&D with six MI members in the field of converting sunlight. The Horizon 2020 “Converting Sunlight to Storage Chemical Energy” funding opportunity (€7.0 million) is designed around IC5 objectives and collaboration with non-EU member(s). IC5 expertise was also instrumental in defining the terms of the European Commission’s Prize for Artificial Photosynthesis (€5.0 million).



IC6: CLEAN ENERGY MATERIALS

OBJECTIVE

To accelerate the exploration, discovery and use of new high-performance, low-cost clean energy materials

CO-LEADS



15 MEMBERS INVOLVED

When MI was formed, there were no collaborative initiatives on the topic of clean energy materials on an international scale. IC6 filled that gap. Collective wisdom gathered through numerous workshops has helped IC6 identify high-impact opportunities for R&D and collaboration on materials innovation. IC6 has provided a vision for how materials acceleration platforms (MAPs) can accelerate the discovery and development of new materials. Canada, for example, invested CA\$8.0 million in Project Ada, which aims to optimize materials for advanced solar cells and CO₂ conversion.

IC6 has initiated new, cross-border discussions with IC3, IC5, IC7, and IC8. These engagement efforts support MI’s mission to accelerate the pace of clean energy innovation by combining complementary networks and areas of expertise.



IC7: AFFORDABLE HEATING AND COOLING OF BUILDINGS

OBJECTIVE

To make low-carbon heating and cooling affordable for everyone

CO-LEADS



19 MEMBERS INVOLVED

Led by the Indian Government, the Rocky Mountain Institute, and IC7, the Global Cooling Prize (US\$3.0 million) supports the development of residential cooling technologies with the potential for five times less climate impact than market offerings – at no more than two times the first investment cost.

IC7 members are collaborating with the IEA to develop “Comfort and Climate Box” solutions – an innovative concept that integrates heating, cooling, and energy storage solutions into a compact and multifunctional device, compatible with a smart energy grid.

In 2019, IC7 launched the COMBIOTES Horizon 2020 Project (€4.0 million from the EU and China), which supports the development and testing of compact energy storage solutions for domestic heating, hot water, and cooling, fully adapted for electricity load shifting.



IC8: RENEWABLE AND CLEAN HYDROGEN

OBJECTIVE

To accelerate the development of a global hydrogen market by identifying and overcoming key technology barriers to the production, distribution, storage, and use of hydrogen at gigawatt scale

CO-LEADS

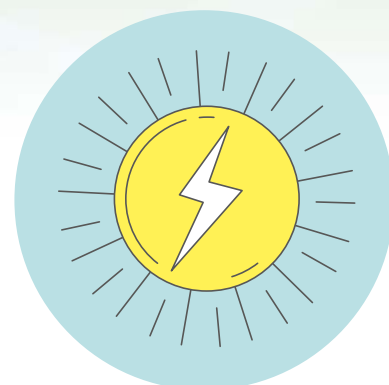


14 MEMBERS INVOLVED

IC8 is developing an online information-sharing platform on hydrogen valley projects in MI countries. Members are contributing content, including case studies around value chain coverage, technology deployment, business models, regulatory environment and permitting procedures, project governance, and budget characteristics. IC8 members anticipate that the platform will be operational by December 2020.

IC8 and the International Partnerships for Hydrogen and Fuel Cells in the Economy set up a Hydrogen in the Gas Grid Working Group. In doing so, IC8 seeks to enhance information sharing, coordinate stakeholder efforts, and raise awareness among policy makers about the potential for using the gas grid for the transportation and storage of hydrogen. Findings will be rolled up into a report and plan for collaboration by the end of 2020.

Raising awareness of the transformational potential of energy innovation

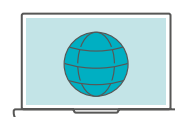


Mission Innovation (MI) supports and celebrates the Ideas & Innovators that are driving the pace of the clean energy transition.

MI will continue to champion clean energy innovation on the global stage at events, through press coverage and via social media. The message is clear: by coupling public investment with private sector leadership, by harnessing the power of innovation, fledgling ideas can be brought into the mainstream.

UNITED STATES

In 2019, U.S. Department of Energy researchers won or shared 42 of the R&D 100 awards, including eight out of 10 "Special Recognition" medals. The annual awards recognize exceptional new products, technologies and materials that are available for sale or license for their technological significance.



185,400 innovators, investors and policy makers involved in 62 events on 4 continents



In 2019 MI reached 55,000+ people via web, 1,266 via newsletter, gained 1,531 Twitter followers and launched a LinkedIn account



Over 50 breakthrough innovation solutions published



MI referenced in over 70 international publications and online articles

MI Champions programme

The MI Champions programme celebrates exceptional researchers and innovators who are inventing the clean energy products and services of the future or discovering the science that underpins them. These **21 Champions were selected from across MI member countries**, through a rigorous process. They join the **19 Champions from the first cohort** in working with MI to raise the profile of clean energy around the world.



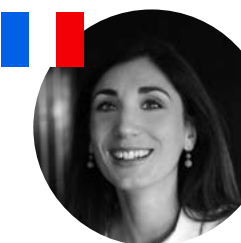
María Luisa Hernández Latorre



Suleyman Er



Jüergen Mayerhofer



Ondine Suavet



Anna Skarbek



Malak Al-Nory



Annemie Wyckmans



Jaafar Mounir Benabbou



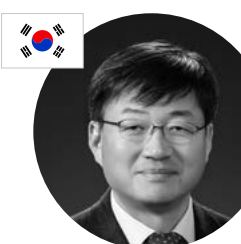
Hans Marius Schuster



Alessandra Giannuzzi



Ehab El-Saadany



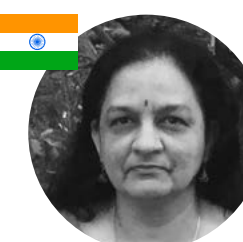
Sang Jun Sim



Krish Sankaran



Can Li



Purnima Jaliha



Phil De Luna



Yoshiaki Takagiwa



Cristián O'Ryan



Amador Honorato



Michaela Kendall



Jan Skjoldhammer

michampions.net

PROGRESS TOWARDS GOAL 4

Raising awareness of the transformational potential of energy innovation

Mission Innovation members' investments are resulting in breakthrough innovations that have the potential to significantly accelerate the delivery of clean and affordable energy. MI has profiled over 50 Breakthroughs that were supported by public investment and are already delivering impact. A few of these are highlighted here ranging from basic research through to new demonstration facilities.



AUSTRALIA

Australia invested 2.57 million AUD to support **Power Ledger** to trial the use of **blockchain-powered distributed energy and water systems** and assess how cities can use this technology for the integration of renewables. In May 2018, Power Ledger struck a deal with Northwestern University in Chicago, USA, for the first commercial deployment of its technology to trade the power generated by solar panels on university buildings between facilities.



SWEDEN

The **HYBRIT initiative**, supported by the Swedish Energy Agency, aims to **reduce carbon dioxide emissions from ironmaking** by using hydrogen produced from fossil free electricity to eliminate the need to use fossil fuels for iron ore reduction. The project, led by Swedish companies SSAB, LKAB and Vattenfall, started in 2016 with a pre-feasibility study. The pilot plant in Luleå will be inaugurated in September 2020, and the goal is to have this technology ready for industrial scale by 2035.



INDIA

The Surya Jyoti **Micro solar dome** can provide up to 17 hours of 60W equivalent light, with a lifespan of up to 20 years ensuring access to lighting for remote communities. 4,000 Micro Solar Domes have now been installed in impoverished parts of Delhi, Mumbai, Kolkata and Bengaluru with 54 technicians from 14 states trained in the manufacturing process.



CANADA

With \$7.8 million in funding from the Government of Canada, **Tugliq Energy Co** has demonstrated the ability to **deliver wind energy in isolated off-grid sites** with permafrost and variable wind conditions. The turbine has successfully operated for three consecutive years, delivering 20.1 GWh of renewable energy to the Glencore RAGLAN Mine, abating 5.1 million litres of diesel and 14,424 tons of CO₂ equivalent in greenhouse gas emissions.



JAPAN

In December 2019, "**SUIISO FRONTIER**", the world's first liquefied hydrogen carrier ship, was launched in Kobe. Kawasaki Heavy Industries, a member of CO₂-free **Hydrogen Energy Supply-chain Technology Research Association** (HySTRA), is the manufacturer of the ship and its first delivery of hydrogen from Australia to Japan is scheduled in early 2021.

In March 2020, Fukushima Hydrogen Energy Research Field (FH2R), which has the world largest electrolyser with 10MW capacity, started its operation.

SWEDEN

EUROPEAN COMISSION

CorPower Ocean has developed a compact high-efficiency **Wave Energy Converter**, with a design inspired by the **pumping principles of the human heart**. The design enables the converter to oscillate in resonance with the incoming waves, strongly amplifying the motion and power capture while surviving the most powerful storms. Public sector support has been provided through Horizon 2020, InnoEnergy, Wave Energy Scotland and the Swedish Energy Agency. A half-scale unit was tested at the European Marine Energy Centre in Orkney and the company has recently raised equity funding for commercial scale demonstration.



CHINA

Guangzhou Institute of Energy Conversion and the **Chinese Academy of Science** developed a novel method that can **convert whole biomass residues to aviation fuels using an aqueous reforming process**. Construction of a demonstration facility started in 2017 with an anticipated production volume of 1,000 tons of aviation fuel per year. The project will process 12,000 tons of corn stalks per year generating 2.4 million yuan for local farmers.

mission-innovation.net/solutions

Stay in touch

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