Outcomes Report

CEM12/MI·6
CHILE 2021

MISSION INNOVATION

MI-6 Final Outcomes Report
Message From The Host

The 6th Mission Innovation Ministerial Meeting (MI-6), proudly hosted by the Republic of Chile and convened from May 31 to June 6, 2021, was held at a critical moment for the clean energy transition, as it strengthens its role in supporting and bolstering the global energy transformation towards zero emission societies and economies.

The virtual, purpose-built platform ensured a digital, diverse and dynamic event, delivering a unique and absolutely innovative user experience to the whole MI Community worldwide.

Pursuing a positive, inclusive and balanced event, the main topics were the pursuit of increasing commitment to putting innovation on clean energy at the heart of net zero pledges and reimagining how global partnerships can hasten this transition.

The gathering has been a place of convergence between the work of both MI and CEM and convened high representatives from more than 30 Countries and International Organizations.

This unprecedented number has been supported by an impressive content offer. Beside the ministerial plenary meeting and the Innovating to Net-Zero Summit, where the MI launched its second phase with 3 new Missions and an innovation Platform, MI-6 also featured 18 side-events, a virtual expo with more than 50 exhibitors, an open-access library with 200 documents and a networking tool available 24/7 for all the registered users.

As never before, MI-6 showed the deep and authentic commitment of our growing and determined community to achieve carbon neutrality by 2050 or even earlier.

Introduction MI

Mission Innovation is a global initiative to catalyze action and investment in research, development and demonstration to make clean energy affordable, attractive and accessible to all this decade. This will accelerate progress towards the Paris Agreement goals and pathways to net zero.
Launched alongside the Paris Agreement in 2015, Mission Innovation brings together governments, public authorities, corporates, investors and academia to enable widely affordable clean energy globally and achieve the goals of the Paris Agreement.

At MI-6, Mission Innovation launched its second phase, with bold new plans to catalyse action and spearhead a decade of innovation to drive global investment in clean energy research, development and demonstrations. A series of new missions will accelerate the frontiers of innovation and drive down the cost of technologies by driving public-private action in areas critical to global clean energy transitions, starting with power systems, clean hydrogen and shipping. A newly-created Innovation Platform – will build global confidence in emerging clean energy solutions by tracking innovation progress, enhancing knowledge-exchange and collaboration and working with investors, innovators and end-users to accelerate technologies to market.

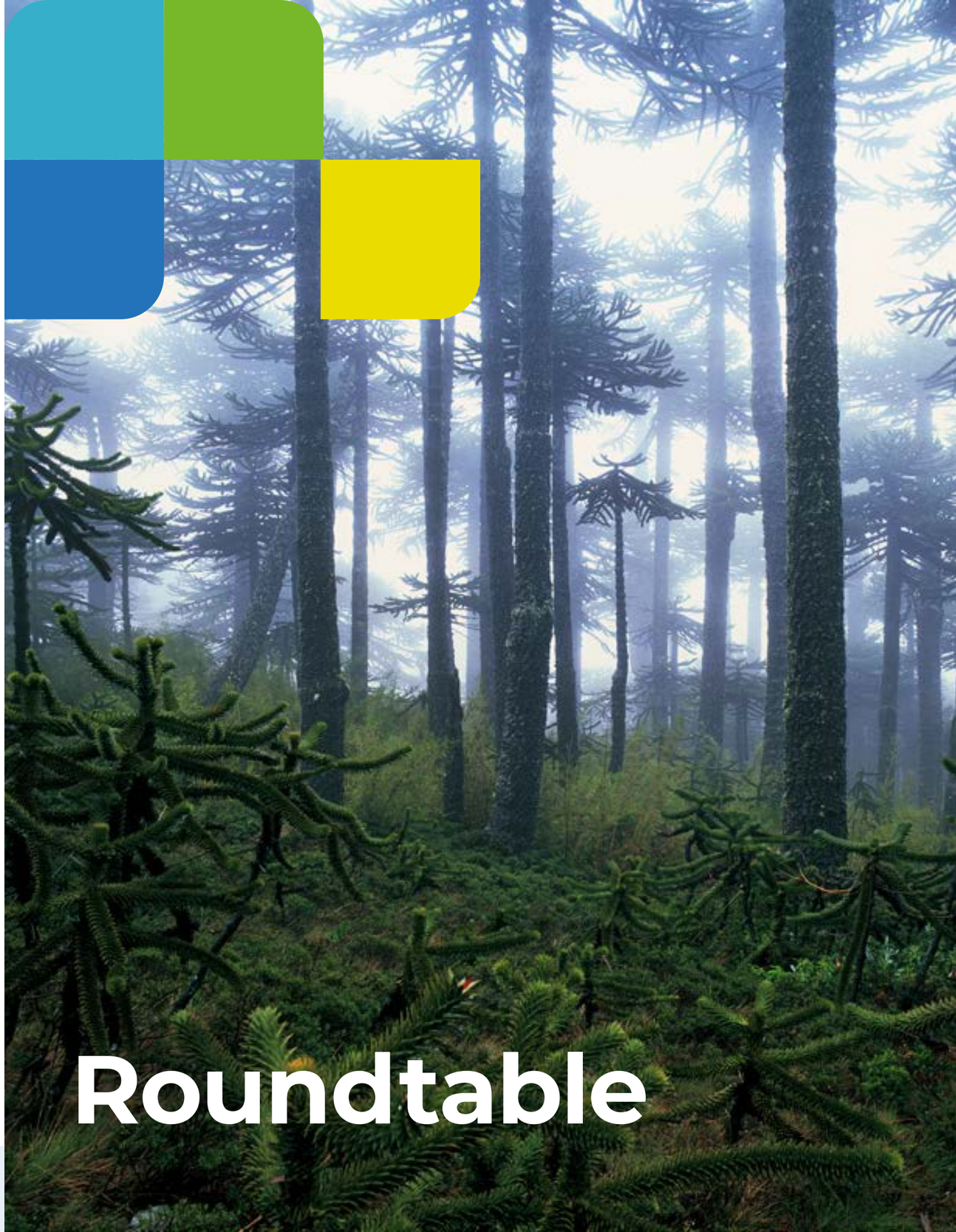
Through MI 2.0, Ministers are committing to step up collective ambition and cooperation; to mobilise and connect global research, development and demonstration efforts to maximise the impact of these investments, build confidence in clean energy solutions and develop pathways to deployment.

Mission Innovation is the main intergovernmental platform addressing clean energy innovation through action-oriented cooperation. Its members represent over 90% of global public investments in clean energy innovation and have increased their annual investments by USD$5.8 billion since 2015.

Mission Innovation has become a catalyst for strengthened global cooperation on clean energy innovation as part of an urgent and lasting response to climate change.

http://mission-innovation.net/

MISSION INNOVATION



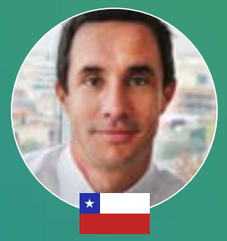
Family Photo
Roundtable 2021

Chair of the MI Steering Committee

Head of MI Secretariat

MISSION INNOVATION
accelerating the clean energy revolution

MI Membres


















Organizations

GCoM

IEA

IRENA

WEF

WORLD BANK

Member Representatives






Breakthrough Energy

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CEM12/MI·6
CHILE 2021

Summit

Family Photo

Innovating to Net Zero Summit


Angus Taylor
Australia


Leonore Gewessler
Austria


Bento Albuquerque
Brazil


Seamus O'Regan
Canada


Juan Carlos Jobet
Chile


Zhigang Wang
China


Dan Jørgensen
Denmark


Frans Timmermans
European Commission


Mariya Gabriel
European Commission


Kadri Simson
European Commission


Mika Lintilä
Finland


Barbara Pompili
France

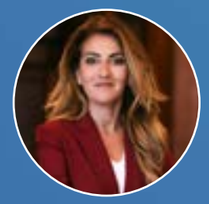

Peter Altmaier
Germany


Harsh Vardhan
India


Roberto Cingolani
Italy


Hiroshi Kajiyama
Japan


Aziz Rabbah
Morocco


Dilan Yeşilgöz-Zegerius
Netherlands


Tina Bru
Norway


Yunmo Sung
Republic of Korea


H.R.H. Prince Abdulaziz
bin Salman Al Saud
Saudi Arabia


Anders Ygeman
Sweden


Sultan Al Jaber
UAE

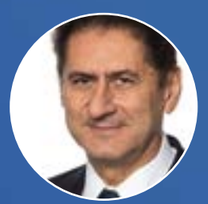

Anne-Marie Trevelyan
UK


Jennifer Granholm
USA


Jonah Goldman
Breakthrough Energy


Gregor Robertson
Global Covenant of
Mayors


Fatih Birol
IEA


Francesco La Camera
IRENA


Demetrios Papathanasiou
The World Bank


Dominic Waughray
World Economic Forum

MISSION INNOVATION
accelerating the clean energy revolution

CEM12/MI·6
CHILE 2021

Innovating to Net Zero Summit

Mission Innovation 2.0 – spearheading a decade of innovation with new Missions for action. A series of new Missions will accelerate the frontiers of innovation and drive down the cost of technologies by driving public-private action in areas critical to global clean energy transitions, starting with power systems, clean hydrogen and shipping. They will catalyze global action towards ambitious innovation goals and encourage demand pull for these technologies. Each Mission is led by a coalition of countries and brings together governments and the private sector to focus innovation efforts. The Missions are underpinned by a new global Innovation Platform to strengthen confidence and awareness in emerging innovations and maximize the impact of national investments.

Green Powered Future – led by China, Italy and the UK – aims to demonstrate that, by 2030, power systems in different geographies and climates will be able to effectively integrate up to 100% variable renewable energy, such as wind and solar, in their generation mix and maintain a cost-efficient, secure and resilient system.

Clean Hydrogen – led by Australia, Chile, the UK, the US and European Union – aims to make clean hydrogen cost competitive to the end user by reducing end-to-end costs to USD $2 per kilogram by 2030. The Mission will increase research and development in hydrogen technologies and deliver at least 100 hydrogen valleys across production, storage and end use of hydrogen worldwide.

Zero-Emissions Shipping – led by Denmark, the US and Norway, together with the Global Maritime Forum and the Maersk McKinney Moller Center for Zero Carbon Shipping – aims for ships capable of running on zero-emission fuels (such as green hydrogen, ammonia and methanol) to make up at least 5% of the global deep-sea fleet by 2030.

Innovation Platform – will build global confidence in emerging clean energy solutions by tracking innovation progress, enhancing knowledge-exchange and collaboration and working with investors, innovators and end-users to accelerate technologies to market.

MISSION INNOVATION
accelerating the clean energy revolution

As part of the Platform, India has today launched the Mission Innovation CleanTech Exchange which will create a network of incubators across member countries. The network will provide access to the expertise and market insights needed to support new technologies to access new markets globally.

Patrick Child, Deputy Director-General, Research and Innovation at the European Commission and Chair of the Mission Innovation Steering Committee, said:

"Today, as many governments and businesses around the world commit to ambitious climate goals and reaching net zero emissions, the need for innovation has never been greater or more urgent. Cost-effective, clean energy solutions must become a reality for everyone. By transforming how we generate, use, and distribute energy, we can drive investment, create jobs, and secure a cleaner planet for future generations."

AUSTRALIA

Angus Taylor
Minister for Energy and Emissions Reduction

"Australia is pleased to support MI 2.0 as a valuable platform to drive down the cost of low emissions technologies The Australian Government will invest $20 billion to achieve ambitious goals that will bring the cost of clean hydrogen, green steel, energy storage and carbon capture to commercial parity. We expect this to leverage more than $80 billion in total public and private investment by 2030."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
Our concrete ambition is:
Australia is a member of Mission Innovation as supporting technology R&D to reduce costs is critical to achieving commercial uptake of low-emissions technologies. Low-emissions technologies cannot reach scale by one country alone. Connecting our researchers, innovators, industry and investors will drive change across supply chains.

What do you hope to achieve through participation in MI-6?
MI-6 is an opportunity to bring momentum and commitment towards investing in RD&D to bring technologies to a cost-tipping point. Through MI-6 Australia hopes to articulate and share our positive experiences with low-emissions technologies and our ambitions for increased investment to being a low-emissions technology leader.

AUSTRIA

Leonore Gewessler
Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology

"Innovation and international collaboration are essential instruments to reach our goal of climate-neutrality. The launch of the second phase of Mission Innovation provides a unique opportunity to boost research and development to start a decade of innovation. I am delighted Austria is leading on the multilateral MI Calls and invite all members to participate. Together we can tackle the climate crisis and bring about the energy transition."

Member country since
MI-3, May 2018

Why you are a member of Mission Innovation and what is the value of the initiative?
Our concrete ambition is:
Austria is seeking to increase the national R&D funding budget for energy R&D, with the goal to move forward to the group of the innovation leaders.
Austria would like to illustrate innovation successes of Austrian companies and research institutes to support them in their internationalization efforts.
We are seeking to enlarge our R&D funding collaboration networks (Mission Innovation Calls)
Austria would like to exchange with other MI members on ways and best-practises to reach climate neutrality, with a specific focus on RD&D measures.

What do you hope to achieve through participation in MI-6?
MI-6 is an important milestone in Mission Innovation: the launch of the second phase of MI provides a unique opportunity to bring international collaboration to the next level and to combine strengths on a global level to tackle the climate crisis.
Austria will invite MI members to join the next Mission Innovation R&D call on "Heating and Cooling Solutions" and "Climate-neutral Urban Districts and Neighborhoods".

BRAZIL

Bento Albuquerque
Minister of Mines and Energy

"Innovation is a key element of Brazil's energy strategy and an integral part of our efforts to untap the huge potential of the country´s clean energy resources. The Brazilian government is prioritizing investment in a range of clean and sustainable energy technologies and combining our efforts with international collaboration, including through Mission Innovation 2.0, will accelerate effective results in the energy transition."

Member country since
2015

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CANADA

Seamus O'Regan
Minister of Natural Resource

"The world needs to get to net-zero by 2050, there's no other option. Energy innovation and emerging technologies will get us there. Mission Innovation brings together countries to increase collaboration and push us faster towards the clean energy future we need. Canada is a proud founding member of MI, and through it we will lower emissions, have prosperous economies that create jobs, and leave no energy worker behind."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
Innovation and clean technologies are key components of the Government of Canada's approach to promoting sustainable economic growth and play a crucial role in Canada's transformation into a low-carbon economy. Prime Minister Justin Trudeau stood alongside other world leaders to launch MI at COP21 in 2015 recognizing the importance of accelerating clean energy innovation. Since the launch of MI, Canada has been an active member, participating in all eight Innovation Challenges, supporting the Steering Committee through the role of Chair and Vice-Chair, contributing to resourcing the Secretariat, and bringing MI members together for the 4th MI Ministerial in May 2019, in Vancouver, British Columbia. MI has enabled Canada and its international partners to find creative solutions to common challenges by sharing expertise, engaging stakeholders, and delivering new collaborative projects. In line with MI's goal of bringing together public and private investments, Canada was pleased to partner with Breakthrough Energy, launching Breakthrough Energy Solutions Canada. Canada's participation in MI directly supports our outcomes-oriented approach to energy innovation policy and programs to exceed our 2030 emissions reduction goal and achieve net-zero emissions by 2050.

What do you hope to achieve through participation in MI-6?
MI's first phase played a significant role in spurring increased federal investments in clean energy RD&D and in implementing a number of measures in the areas of green infrastructure and clean technology. Canada met and exceeded the doubling commitment while generating more good, well-paying jobs in the clean growth economy. We recognize that in order to reach 2030 and 2050 climate ambitions, we need to continue advancing clean energy technologies that are either not available or not affordable today. We look forward to joining the next ambitious phase of MI to support the innovation we need.

CHILE

Juan Carlos Jobet
Minister of Energy and Mines

"Our mission is clear: to make clean energy solutions affordable and available for all this decade. There is no time to lose and the next decade will be critical to the future of our planet - innovation and collaboration must be at the heart of everything we do. Mission Innovation 2.0 is a crucial platform to bring governments, private sectors and innovators together and accelerate development of the technologies to achieve net zero emissions."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
Chile joined Mission Innovation at its inception demonstrating its commitment to the importance of innovation, research and development to drive forward clean energy solutions that will underpin all local and global action on climate change. Chile is proud to stand alongside like-minded partners who are devoted to creating the solutions to global climate change through clean energy innovation today.

What do you hope to achieve through participation in MI-6?
As the host of MI-6, as Mission Innovation is on the cusp of launching its next, exciting phase, Chile is organizing an innovative, global platform in which the entire MI community can come together virtually to celebrate this milestone. Chile has embraced the challenge of hosting the 6th Mission Innovation Ministerial amidst the global pandemic we find ourselves in, but remain committed to producing an event that will act as the launchpad for MI 2.0 and a decade of innovation as well as a crucial step on the road to a successful COP26.

CHINA

Wang Zhigang
Minister and Secretary of Ministry of Science and Technology

"Achieving carbon neutrality will bring a transformation to our economy and society that will be led by a scientific and technological revolution as significant as all previous industrial revolutions."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
China is always committed to playing an active role in the field of global climate governance. Since the launch of Mission Innovation in 2015, the initiative has built a bridge between scientific research, government, enterprise and capital through international cooperation, established a platform that brings together major public founders in global energy RD&D investment and helped to encourage the participation of private sector. In general, we value Mission Innovation as a high-level platform for its members to strengthen international cooperation, promote mutual learning, carry out practical cooperation and jointly realize clean energy transformation.

What do you hope to achieve through participation in MI-6?
Strengthen cooperation in research and development of clean energy technology and promote green and low carbon development.

DENMARK

Dan Jørgensen
Minister for Climate,
Energy and Utilities

"Major advances in clean energy innovation to reduce emissions from the shipping sector are vital to meet our obligations under the Paris Agreement. Such advances require international public-private cooperation. This is what Mission Innovation is all about and that is why I am pleased that Denmark co-leads the public-private partnership on zero emission shipping under MI 2.0."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
Denmark joined MI in 2015 from a commitment to combat climate change by strengthen our dedicated public investment in clean energy research, development and demonstration focusing on reduction of technology costs and CO2 emissions and with an emphasis on innovative projects that can be replicated and scaled up with the involvement of private investors.

Since then, Denmark's specific budget lines for national research, development and demonstration of clean energy have increased from DKK 292 million to DKK 509.5 million in 2019.
Under MI, leading national experts from Danish Universities have participated in several Mission Innovation Challenges. Denmark has played a central role in advancing the smart grid challenge, by contributing to the IC 1 Smart Grids Innovation Challenge Country Report 2019 and by co-hosting a total of four events on Flexibility in the energy system, Smart grid solution sprints, Next generation city action and MI energy hack.
Denmark is still committed to combat climate change through clean energy innovation and accelerate the path towards net zero emissions and reach the goals of the Paris Agreement. It requires international cooperation on clean energy innovation of which Mission innovation is a catalyst of.

Denmark is a proud member of MI and looks forward to continued collaboration in the next phase.

EUROPEAN COMMISSION

Frans Timmermans
Vice president of the
European Commission

"Accelerating the clean energy transition is a must if we want to reach climate neutrality by 2050. Innovation helps remove cost barriers, technical obstacles and further accelerate the necessary translation. The enthusiasm with which Mission Innovation members are working to bring additional solutions to the most difficult energy transition challenges, including hydrogen, power and shipping, is truly encouraging."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
European Commission is proud to be part of Mission Innovation, which is one of the most visible and successful international platforms strengthening the EU's role in the world by projecting the ambitions of the European Green Deal on the global stage. As a member since 2016, the European Commission now chairs the Steering Committee. Through Mission Innovation, the European Commission, together with 24 other MI members (including 8 EU Member States), commits to more ambitious innovation efforts through a holistic and results oriented approach towards clean energy and without heavy institutionalised governance. For us Mission Innovation offers opportunities for effective collaboration with other countries committed to clean energy transition in the priority areas of the European Green Deal.

What do you hope to achieve through participation in MI-6?
Within the participation in MI-6, the European Commission aims to enhance and make visible the EU's climate leadership and ambition for a zero net emissions future through international collaboration with the members of the MI. MI-6 is an important step towards COP26 and an opportunity to reinforce synergies between Mission Innovation and COP26 Presidency in promoting clean energy innovation. In line with this next phase, the European Commission looks forward to strengthening cooperation towards the necessity to take concrete actions that can lead to tipping points in the cost and scale of clean energy solutions. The European Commission will continue to seek synergies between public and private missions, as well as inclusion in the membership criteria, and will ensure that greater emphasis is placed on gender, youth and private sector participation.

EUROPEAN COMMISSION

Mariya Gabriel
Commissioner for Innovation, Research, Culture, Education and Youth

"Mission Innovation is one of the most visible and successful international platforms to speed up clean energy transition through research and innovation efforts, projecting the ambitions of our European Green Deal on the global stage and strengthening the EU's role in the world."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
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FINLAND

Mika Lintilä
Minister of Economic Affairs

"Mission Innovation is much needed to develop breakthrough innovations on the way to climate neutrality and Finland is committed to accelerating action through the second phase of the initiative."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
Finland is and has been a strong supporter of energy innovations. Mission Innovation is the leading club of energy innovation countries globally. MI can boost the global development enabling Finland, together with others, to achieve the ambitious energy and climate objectives. MI is an important platform to disseminate the best innovations and ideas.

What do you hope to achieve through participation in MI-6?
MI-6 is the opportunity to show climate leadership and plan energy innovation actions advancing development globally. MI-6 will be, so we hope, a starting point for something big. MI-6 can take the global cooperation in energy innovations to the next level.

FRANCE

Barbara Pompili
Minister of Ecological Transition

"We collectively need to act always more united with the will to "accelerate the acceleration" of the energy transition. This is all about what the revised ambition of MI stands for: build together the innovation pathway taking up the level of urgency the world is facing. I am convinced that the actions we have collectively foreseen for the next phase of MI will give the opportunity to the international cooperation to tackle key innovation topics of the energy transition. France is determined to take its share and will contribute to the success of this new era of Mission Innovation."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
Mission Innovation has demonstrated its ability to accelerate clean energy innovation. Public investment for R&D was stimulated all over the world within the last 5 years and pragmatic and successful actions were launched, enabling deep international collaborations on themes of utmost importance for the energy transition.
Nevertheless, these five years have highlighted that complying to the outcomes of the COP21 requires that we dramatically "accelerate the acceleration".
MI 2.0 is a step further, which we very much welcome. We are convinced that the foreseen actions such as the missions will contribute significantly to this second phase. Enhancing the appropriate synergies at international level for major topics such as hydrogen is a key of success. They will make possible fast-track developments of underlying technologies still needing intense R&D efforts and foster the scalability of mature innovative solutions.

What do you hope to achieve through participation in MI-6?
We are convinced that MI-6 will be a very exciting event celebrating the crucial role of innovation to achieve the clean energy transition. It will give the opportunity to the members to hold exciting discussions.
With the launch of MI2.0, the Ministerial will act as a sounding-board for announcing the next phase of MI along with its ambitious agenda, including the new Missions and new Platform initiatives.

GERMANY

Peter Altmaier
Federal Ministry for Economic Affairs and Energy

"MI2.0 is the central global forum for international collaboration on clean energy and net zero technologies. Some technological challenges can only be effectively addressed through international cooperation. Turning volatile renewable energy into a tradeable commodity through green and sustainable hydrogen is such an inherently global challenge. For this reason, hydrogen is in the focus of Germany's involvement in MI2.0. We are looking forward to working together with leaders in government, industry and society to support the global transition to a sustainable and renewable energy supply and climate neutrality."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
With the agreement reached at the 2015 United Nations Climate Change Conference in Paris, the international community made a commitment for the first time to keep the rise in the earth's temperature well below 2°C compared to pre-industrial levels and to pursue efforts to limit the increase to 1.5°C. Germany joined Mission Innovation at this historic moment, recognizing the important role of innovations in reaching these goals. Innovations remain indispensable for climate change mitigation and the global energy transition. Mission Innovation has repeatedly succeeded in getting this important message out to the international energy policy community. International cooperation will continue to be essential in the future, for example as we build a global market for climate-neutral hydrogen.

What do you hope to achieve through participation in MI-6?
The global energy transition is one of the greatest challenges facing society today. Climate-friendly energy technologies made in Germany can be part of the solution and Mission Innovation can enable the cooperation that we need to accelerate the transition to a clean and sustainable energy supply. At MI-6 Germany hopes to contribute to renewed and raised ambitions for tackling the urgent global challenges through international cooperation.

INDIA

Harsh Vardha
Minister of Science and Technology

"Mission Innovation has played an exemplary role in mobilizing greater public and private investments and partnerships to move the innovation needle, thereby accelerating clean energy innovation. MI 2.0 highlights the importance of collaborative scientific efforts to realize the vision of an affordable and reliable clean energy system and shall help countries reiterate their pledge to pursue a sustainable future through research-led innovations. Mankind will remember 2020 as the year of remarkable scientific efforts and innovation. As the pandemic threw one challenge after another across various fields, it has been the unique out of box solutions provided by innovators all across the world which have helped save millions of lives and livelihoods. In my humble opinion, one of the silver linings that has emerged from this ruthless pandemic is that it has highlighted the necessity as well as the capability of innovative thinking to transform the world. India has long been fostering innovations and nurturing an enabling ecosystem to incubate and scale revolutionary ideas, help improve the quality of lives of people and provide solutions to global problems. We strongly believe in the need to strengthen collective efforts towards further scaling and strengthening the Mission.
We wish the MI fraternity all success in its new phase and endeavors."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?

- India is one of the founding members of Mission Innovation and successfully led three MI Innovation Challenges viz. Smart Grids, Off Grid Access to Electricity and Sustainable Biofuels. India also participated in the innovation challenges on Carbon Capture, Converting Sunlight, Clean Energy Materials, Affordable Heating and Cooling of Buildings and Renewable and Clean Hydrogen Innovation Challenge
- India actively participated in all MI activities and is a Steering Committee member.
- To increase private sector engagement and investment: the Clean Energy International Incubation Centre (CEIIC) was set under the Mission Innovation mandate.
- For scaling up innovations, India has supported the MI Champions program and The Global Cooling Prize (GCP)
- To continue the momentum created in the last five years by MI platform activities, India reiterated its commitment to MI 2.0, and supports the future of the initiative through leadership and participation in impact focused Missions, Platforms and related global innovation activities.
- As MI moves to the next phase, emphasis will be on converting outcomes into impact with focus on RD&D (Research, Development & Demonstration) for developing affordable clean energy technologies.
- India will host MI-8 in 2023 concurrent to CEM -14
- Mission Innovation activities in India are coordinated by Department of Biotechnology with active participation of DST and other line ministries.

What do you hope to achieve through participation in MI-6?
MI-6 will act as a catalyst for the launch of bold, new voluntary alliances of public-private innovation built around ambitious and inspiring goals that can lead to tipping points in development of tested, affordable, scalable and clean energy solutions. MI-6 is crucial as ministers will meet to launch a decade of clean energy innovation to pioneer affordable, accessible options clean energy solutions. It is hoped that there will be a greater shift towards developing pathways to deployment by forging partnership. India remains committed to MI 2.0, by supporting initiatives through leadership and participation in Missions, Platforms and related global innovation activities by joint RD&D programmes, collaboration, demonstration projects, conferences, workshops, knowledge exchange and best practices.

ITALY

Roberto Cingolani
Minister of Ecological Transition

"The pace of the clean energy transition is accelerating around the world. The use of the most advanced technologies, research and international cooperation all play a key role in achieving an ecological transition and decarbonisation. Mission Innovation 2.0 is the right place to increase collaboration among countries in order to reach the target of net zero emissions and achieve clean, affordable and reliable energy for all."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
Italy considers Mission Innovation as an outstanding stimulus towards more rapid developments and adoption of clean energy solutions. We have very ambitious goals in terms of renewables integration, energy efficiency and consumer engagement and we are seeking for all the possible solutions to achieve the decarbonisation by 2050. Italy is investing resources and efforts towards this challenging goal.
Italy is strongly committed to cooperate in Mission Innovation activities since its creation as we believe that the future of the energy is linked to innovation at a global dimension. We are fully convinced that working together with our international partners paves the way to better ideas, and more impactful applications for the end-users.
We are continuing to focus the attention on R&D investments to improve the system innovation. The Ministry of Ecological Transition is actively working on this initiative and succeeded to mobilizing national resources and expertise, ensuring adequate human and financial resources to a common objective.

What do you hope to achieve through participation in MI-6?
We do hope MI6 could be a great opportunity to enhance dialogue among countries, a possible tool for designing the future decarbonisation.

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JAPAN

Hiroshi Kajiyama
Minister of Economy,
Trade and Industry

"Countermeasures to climate change are no longer a constraint to economic growth, but a driving force for further prosperity. Challenges toward carbon neutrality are key in galvanizing innovation and increasing business chances.

Carbon neutrality is not an easy task, and it will require effort from the entire nation. We must set ambitious goals and visions, and industry, government, and academia must work together earnestly to achieve them.

We will pursue strategic partnerships with each government to contribute to global decarbonization by creating innovations for realizing carbon neutrality."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
We recognize that innovation is critical for an effective, long-term global response to our shared climate challenge. Japan participates in Mission Innovation, as the initiative is very much in line with what Japan has consistently tackled throughout the years.

What do you hope to achieve through participation in MI-6?
Japan hopes that MI-6 will be a milestone for the international collaboration on RD&D of clean energy technologies toward global decarbonization.

SAUDI ARABIA

His Royal Highness Prince Abdulaziz Bin Salman Al Saud
Minister of Energy

"In Mission Innovation 2.0, Saudi Arabia is committed to promote technologies and solutions that address GHG emissions under the Circular Carbon Economy platform through accelerating research, development, deployment, and dissemination of such technology."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
Saudi Arabia believes that Technology provides the most viable solution to address climate challenge. This is why we joined Mission Innovation at its launch during the 21st Conference Of the Parties (COP21) in November 2015. Technology has done so for mankind throughout history and it requires greater innovation, collaboration and investments to address climate change. We trust that Mission Innovation provides the right platform to advance international collaboration on science and technologies that could enable significant emissions reduction in all residential and industrial sectors.

What do you hope to achieve through participation in MI-6?
Saudi Arabia hopes to achieve a strong momentum for global RD&D efforts to meet shared climate goals and maintain sustainable development and economic growth.

MOROCCO

Aziz Rabbah
Minister of Energy, Mines and Environment

"As a major international platform, Mission Innovation allows Morocco to promote its sustained efforts for clean energy innovation. Strong cooperation with other countries is a strategic imperative for Morocco to achieve the ambitious goals set in our National Energy Strategy."

Member country since
2019

Why you are a member of Mission Innovation and what is the value of the initiative?
Morocco joined Mission Innovation in 2019 at the fourth meeting Ministerial (MI-4) in Vancouver, Canada. The country became, and still is, the only African country to join the initiative, ensuring representation of the continent in this ambitious global initiative.
Morocco decided to join Mission Innovation to reaffirm its commitment to accelerate innovation in the field of clean energies through the strengthening of public investment, private sector involvement and international cooperation.
The activities led in the MI framework are aligned with the objectives of our national energy strategy and are in line with the dynamic to decarbonize Moroccan economy and innovate in the field of clean energies. Mission innovation is also a platform that gives visibility at the international level to the efforts made by Morocco on green innovation and climate change tackling.
A great value added for Morocco is to contribute to joint calls for proposals, like MICall20 on digitalization in the energy sector. This multilateral call will push forward Moroccan RD&D in this field

What do you hope to achieve through participation in MI-6?
Through participation in MI-6, Morocco hopes to strengthen international cooperation around clean energy innovation with high level discussions on the topic. Morocco will work with other countries to define the next phases of Mission Innovation, that would further support the country in reaching its clean energy goals. MI-6 is also an opportunity for Morocco to share its strategic vision, main accomplishments and ongoing projects to reach our clean energy goals.

NETHERLANDS

Sandor Gaastra is Director General for Climate and Energy at the Netherlands Ministry of Economic Affairs and Climate Policy.

"DG Gaastra: The mission oriented approach of MI's second phase is very much in line with the Dutch approach on RD&D where we actively set up collaborations between parties from science, industry and the government to accelerate the practical application of promising innovations. MI 2.0 has the potential to take international collaboration on innovation to a higher step with more engaged public and private stakeholders."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
The Netherlands joined MI in 2016 because research, development and demonstration of clean energy technologies (besides creating the necessary market conditions) are crucial to help achieve the long-term goal of a sustainable low-carbon energy system. And since we are all facing the same challenge, international collaboration can significantly contribute to the pace of our combined RD&D.

Mission Innovation has been able to create focus and mass on shared challenges. MI facilitates knowledge sharing between MI-members. Members can, for example, cooperate on areas they excel at. This creates a focus of means and efforts, further accelerating the pace of innovation in that field. Members can also share knowledge across different areas of expertise, allowing more focus and mass without creating innovation gaps. Furthermore MI has strongly encouraged an increase of both public and private investment in innovation. So by using the expertise of MI-members, sharing knowledge and increasing investments, Mission Innovation has been able to accelerate the climate and energy transition in a more cost-effective way than would have been possible without international cooperation.

What do you hope to achieve through participation in MI-6?
Through participating in MI6 The Netherlands hopes to gain international momentum for an integral approach to clean energy RD&D. The launch of a mission oriented second phase of MI, provides an opportunity to shift the focus from innovation-push, to an exchange between innovation-push and market-pull. Through MI6 we hope to inspire both public and private actors to cooperate on these societal challenges and express the urgent need to act.

NORWAY

Tina Bru
Minister of Petroleum and Energy

"Mission Innovation 2.0 holds great promise for future co-operation on development and market introduction of clean energy technologies. Norway has a lot to contribute, in particular, in carbon capture and storage, clean shipping, hydrogen solutions and floating wind power. We look forward to learning from other members and teaming up to achieve common objectives to help fulfil the goals of the Paris Agreement."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
Norway is a member of Mission Innovation because we believe international co-operation on energy research and innovation is vital to speed-up the development and achieve the goals of the Paris agreement on climate change. The value lies in learning from each other, pooling resources and reaching common goals that would otherwise be difficult to achieve alone.

What do you hope to achieve through participation in MI-6?
Norway hope to achieve a more concerted and focused co-operation that would have greater impact on the development of innovative clean energy technologies. We also hope to achieve a more impactful co-operation between private and public initiatives.

REPUBLIC OF KOREA

Moon, Sung Wook
Minister of Trade, Industry and Energy

"MI 2.0 is an important means of realizing Net-Zero by leading innovations in clean energy. Korea will actively participate in MI 2.0 activities and continue to support the MISec."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
Through the Mission Innovation's facilitative and effective platform, the Korean government has developed joint R&D projects with members and actively engaged in cooperation.

What do you hope to achieve through participation in MI-6?
I hope that MI-6 succeeds in identifying ambitious and agreeable objectives and means to achieve net-zero.

SWEDEN

Anders Ygeman
Minister for Energy and Digital Development

"The transition to clean and sustainable energy systems depends on new and innovative technical solutions. By working together to foster innovation, we will accelerate the path towards zero-carbon societies and a brighter tomorrow for future generations."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
Research and innovation are of central importance for our ability to meet the great societal challenges of energy and climate.
As the challenges are global, so must be our efforts to meet them.
International collaboration on energy research and innovation allows us to engage the world's leading scientists, tackle greater and more complex issues, and make quicker use of the results. Having a global collaboration makes it possible to address the needs and demands of different markets and regions.

What do you hope to achieve through participation in MI-6?
We hope to contribute to keeping climate emissions below the Paris agreement levels, and to the development of a sustainable energy system in Sweden as well as globally.

UNITED ARAB EMIRATES

H.E. Suhail Mohamed Faraj Al Mazrouei
Minister of Energy and Infrastructure

"Mission Innovation 2.0 will be a decade of international cooperation that will galvanize global action in climate change-oriented technology and ensure we can develop replicable pathways for decarbonisation."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
To exchange knowledge and expertise on the latest technological innovations and the latest practices, policies & regulations that leads to innovation in the energy sector

What do you hope to achieve through participation in MI-6?
Our aim is to get more knowledge on the latest development and innovation in the sectors of:

- Production, transportation and marketing of Hydrogen
- Energy efficiency and smart grids
- Carbon Capture and utilization

UNITED KINGDOM

Anne-Marie Trevelyan
Minister of State, Department for Business, Energy and Industrial Strategy

"Innovation is the key to unlocking the technologies we need to meet our net-zero ambitions, yet no single country can get there alone. Together, we can dramatically accelerate the pace of innovation in the next decade and realise a clean and affordable energy transition for all. Mission Innovation is the place to make it happen."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
The UK sees Mission Innovation as one of the primary fora to work with countries committed to accelerating the global clean energy revolution. It is more important than ever to contribute to a clean and resilient recovery post-COVID19. Rapid innovation is needed in all parts of the energy system to reduce the cost of decarbonization pathways. Strengthening international collaboration is a priority for the UK to deliver our domestic climate and clean energy targets and is also a key goal of our COP26 presidency.

What do you hope to achieve through participation in MI-6?
The UK will continue to take a leading role in the launch of MI 2.0 at MI-6, which is a priority for our COP26 Presidency. Through participation in MI-6, we want to support MI in a major moment which will build momentum around action for the clean energy transition, and which will ensure MI maintains a strong profile to COP26.

UNITED STATES OF AMERICA

Jennifer Granholm
Secretary of Energy

"Through fearless technological innovation, ambitious clean energy deployment, and constructive international collaboration, we can build a net-zero carbon economy that creates millions of jobs and lifts our citizens into greater prosperity."

Member country since
2015

Why you are a member of Mission Innovation and what is the value of the initiative?
The United States strongly agrees with MI's purpose, which is to: (1) use opt-in cooperative "research Missions" and an Innovation Platform to advance technical cooperation towards transformative innovation tipping points and raise ambition for public RD&D investments, (2) develop and encourage private sector and stakeholder engagement throughout encourage innovation commercialization, (3) set out high-level ambition at an annual ministerial.

What do you hope to achieve through participation in MI-6?
The United States hopes to lead and drive ambition and innovation forward globally to create and commercialize the technologies that will help us achieve our 2030 climate targets and 2050 net zero goals while growing millions of good paying jobs across the entire economy. No community will be left behind during the clean energy transition.

Keynote Speakers

John Kerry, U.S. Special Presidential Envoy for Climate, said:
"The launch of Mission Innovation 2.0 is an important step forward to reach our collective climate goals. Reaching net-zero emissions by 2050 will require urgent action by 2030, both to deploy the clean energy technologies we already have as well as to develop, demonstrate, and scale the innovations we'll need to fully decarbonize the global economy. The United States is reinvigorating its leadership in this exciting new phase, in which the Mission Innovation community will advance the technologies we need for slashing emissions across challenging applications including zero-carbon hydrogen, clean long-distance transportation, and carbon dioxide removal."

Patricia Espinoza, Executive Secretary of UN Climate Change UNFCCC, said:
"Mission Innovation is a remarkable initiative that focuses on one of the most important challenges in the fight against climate change: the need for new affordable and accessible technologies to generate clean energy. I welcome the second phase of this initiative that seeks to mobilise and connect global research, design and development to support the implementation of the Paris Agreement. The next 10 years will be a make or break decade in our efforts towards a common goal of net zero emission by 2050. The role of innovation will be decisive. Mission Innovation moves the world closer to a cleaner, greener and truly sustainable future for all."

Alok Sharma, COP26 President for the UK, said:
"Accelerating the transition to
clean energy will be essential if we are to keep the 1.5 degree goal within reach. To achieve this, international collaboration on innovation in sectors like power, transport and industry will be crucial. We need countries to commit to raising their climate ambition, to take action and to make this target a reality."

Antonio Guterres, Secretary-General of the United Nations, said:
"Mission Innovation is playing a crucial role in accelerating solutions to address climate disruption. We must cut global emissions by 45 per cent by 2030 from 2010 levels and achieve net zero emissions by 2050 and to do that, we must act fast. Every sector and every industry must have an action plan with robust intermediate goals. With less than six months to COP26, I welcome the commitments from governments and the private sector today that will help us achieve our shared objectives."

Michael R. Bloomberg, U.N. Secretary-General's Special Envoy for Climate Ambition and Solutions, Founder of Bloomberg LP and Bloomberg Philanthropies, and Global Covenant of Mayors for Climate and Energy Co-Chair, said:
"In the decade ahead we have a chance to take major strides toward a 100 percent clean energy economy, and the more we support collaboration across borders, across business and government, and across levels of government, the faster we can make progress.Cities have a critical role to play as engines of innovation that are home to a growing majority of the world's population, and this effort will help them create new partnerships and spread good ideas."

Fatih Birol, Executive Director, International Energy Agency, said:
"The IEA's Global Roadmap to Net Zero by 2050 shows that by mid-century, almost half the reductions in CO2 emissions will need to come from technologies that are currently at the demonstration or prototype phase. This means major innovation efforts are required by 2030 in order to bring these new technologies to market in time and scale them up over the coming decades. Our Roadmap also highlights that without stronger international cooperation on clean energy innovation, it could take decades longer for the world to reach net-zero emissions. Mission Innovation is a clear example of how governments can work together in this critical area – and the IEA is committed to supporting these efforts to boost clean energy innovation to meet our shared climate goals."

Jonah Goldman, Managing Director of Breakthrough Energy, said:
"To succeed in preventing the climate crisis, the world needs to accelerate clean energy innovation and eliminate green premiums so every community around the world can afford to deploy green technologies at scale. This will only happen if we build a new generation of public-private partnerships that are squarely focused on climate impact and emission reductions. Since 2015, Mission Innovation has been an indispensable partner in driving the global clean energy agenda. Today, it is entering an exciting new phase in which an even greater focus on deployment, scale and market creation offer the promise of a decade of clean energy innovation. Breakthrough Energy is delighted to be part of this important process."

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Side Events

SIDE EVENT

MI-6: 60 GIGATON OF SOLUTIONS FOR THE 4TH INDUSTRIAL REVOLUTION: TOOLS AND METHODS FOR A NEED-BASED INNOVATION AGENDA

The climate discussion has focused on emitters of greenhouse gases and how they can reduce their emissions. In a rapidly changing world in the middle of an industrial revolution there is an urgent need to look beyond the current system for new solutions and solutions providers. Incubators, innovation hubs, start-ups and investors will have key roles as we move from a problem/risk agenda to an opportunity/solution agenda. If the world wants more than improvements in existing systems the next nexus for climate action will be incubators and innovation hubs, with supporting innovation ecosystems.

Dennis Pamlin Senior Advisor	RISE Research Institutes of Sweden, (moderator)
Massamba Thioye	Manager, Regulatory Framework Implementation subdivision, Mitigation division, UNFCCC secretariat
Soña Stadtelmeyer-Petru	Global Head of Sustainable Investing, Allianz Investment Management
Marco Duso	Principal, Boston Consulting Group, London
Dr G. Ganesh Das	Chief Executive Officer, Clean Energy International Incubation Centre
Charlie Wilson	Professor of Energy and Climate Change, Tyndall Centre for Climate Change Research
Andreas Stubelius	Senior Portfolio Manager, Swedish Energy Agency
Max Correa	Head of the Fuels and New Energy Division, Ministry of Energy, Chile
Jay Hennessy	Senior Project Leader, RISE Research Institutes of Sweden







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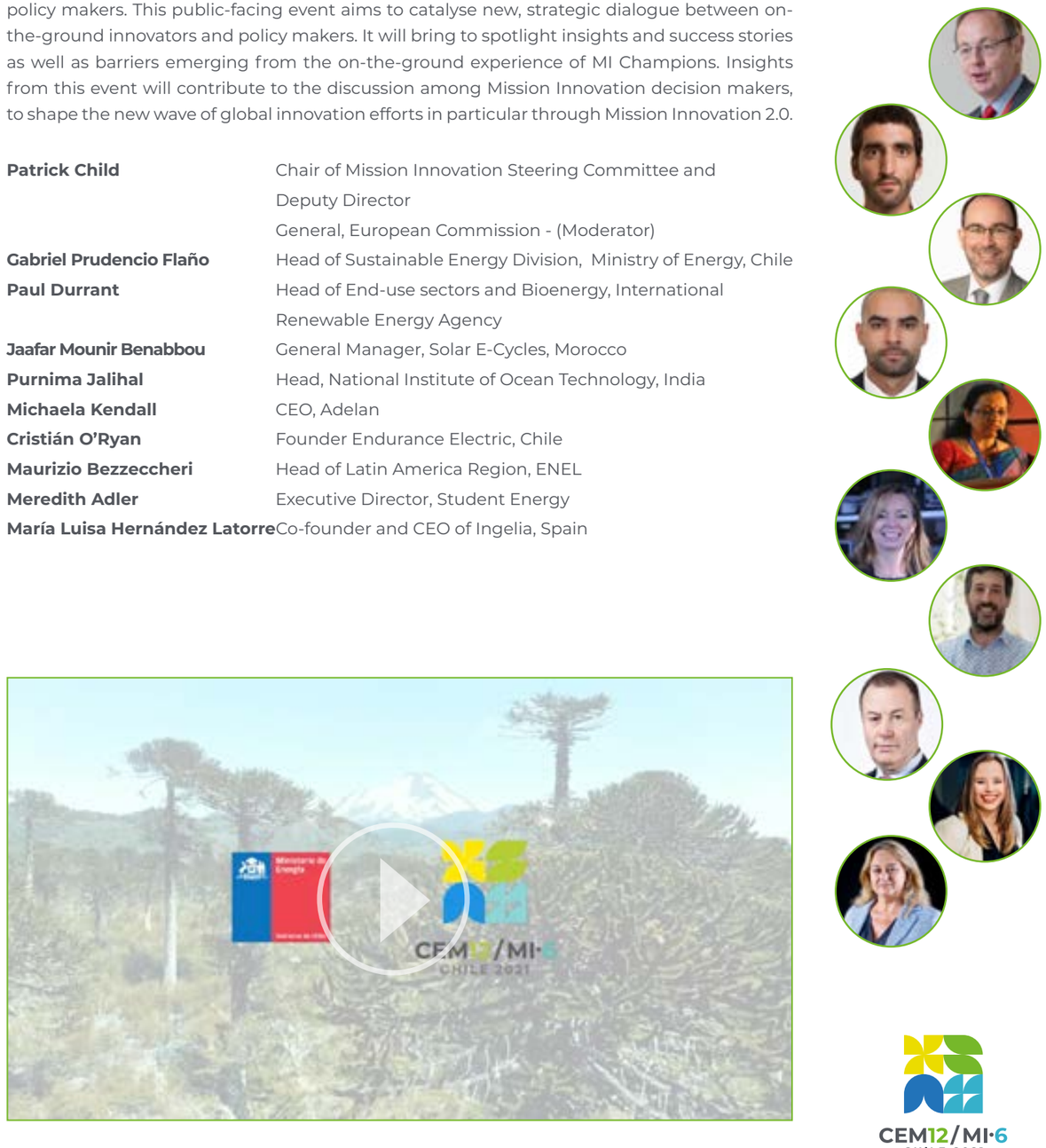
SIDE EVENT

MI-6: BACK TO THE FUTURE INNOVATORS: BRIDGING GAPS BETWEEN IDEAS, INNOVATIONS AND MARKETS TO ACCELERATE CLEAN ENERGY INNOVATION

Promising innovations could reach markets at much greater speed through more effective and systemic interaction between individual innovators, investors, the energy industry and policy makers. This public-facing event aims to catalyse new, strategic dialogue between on-the-ground innovators and policy makers. It will bring to spotlight insights and success stories as well as barriers emerging from the on-the-ground experience of MI Champions. Insights from this event will contribute to the discussion among Mission Innovation decision makers, to shape the new wave of global innovation efforts in particular through Mission Innovation 2.0.

Patrick Child	Chair of Mission Innovation Steering Committee and Deputy Director General, European Commission - (Moderator)
Gabriel Prudencio Flaño	Head of Sustainable Energy Division, Ministry of Energy, Chile
Paul Durrant	Head of End-use sectors and Bioenergy, International Renewable Energy Agency
Jaafar Mounir Benabbou	General Manager, Solar E-Cycles, Morocco
Purnima Jalihal	Head, National Institute of Ocean Technology, India
Michaela Kendall	CEO, Adelan
Cristián O'Ryan	Founder Endurance Electric, Chile
Maurizio Bezzeccheri	Head of Latin America Region, ENEL
Meredith Adler	Executive Director, Student Energy
María Luisa Hernández Latorre	Co-founder and CEO of Ingelia, Spain



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SIDE EVENT

MI-6: BE BOLD CAMPAIGN

Be Bold Conversation with SEforALL

Ms. Damilola Ogunbiyi — CEO and Special Representative of the UN Secretary-General for Sustainable Energy for All and Co-Chair of UN-Energy

Mr. Aziz Rabbah — Minister of Energy, Mines and Environment, Kingdom of Morocco

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SIDE EVENT

MI-6: ENERGY STORAGE: ENABLING THE GLOBAL CLEAN ENERGY TRANSITION

Dr. Varun Sivaram — senior advisor to the US Special Presidential Envoy for Climate

Eric Hsieh — Director for Grid Systems and Components at the U.S. Department of Energy

Vickie Gunderson — Coordinator with the U.S. Department of the Treasury's Climate Task Force in the Office of International Affairs

Chandrasekar Govindarajalu — Global Battery Storage Program Lead, The World Bank and Energy Storage Partnership, USA

M.K. Mathe — Chief Researcher & Programme Manager Living Energy Lab Platform_ Energy Centre at CSIR

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MI-6: INTERNATIONAL COOPERATION - A KEY DRIVER FOR DEPLOYMENT OF CCS (M2)

With the knowledge we have today, widespread CCS and CCU-technologies will be necessary to meet the climate targets. In this side event you will meet politicians, representatives from industry and research community and international experts. You will learn more about the CCS project “Longship”, that is now under construction in the Northern Europe. You will also learn more about Accelerating CCS Technologies – called ACT ¬- an international initiative to facilitate research, development, demonstration and innovation within the area of CCUS.

Kristoffer Robin Haug	Moderator
Tina Bru	Norwegian Minister of Petroleum and Energy
Dr. Jennifer Wilcox	Acting Assistant Secretary for Fossil Energy and Carbon Management
Roy Vardheim	CEO of Gassnova SF
Børre Jacobsen	Managing Director Northern Lights JV
Per Brevik	Director Sustainability and Alternative Fuels in HeidelbergCement Northern Europe
Jannicke Gerner Bjerkås	Director CCS Fortum Oslo Varme
Samantha McCulloch	Head of the CCUS Unit at the IEA
Giv Brantenberg	CEO of HeidelbergCement Northern Europe
Torbjørg Klara Fossum	VP for Global CCS Solutions, Equinor
Dr. Fatemeh Rezazadeh	Director of Business Development – Global H2 and CO2 Solutions, Air Products
Dr. Ragnhild Rønneberg	Coordinator of ACT
Dr. Vassilios Kougionas	Senior project officer at The European Commission
Hannah Lord	UK’s National Contact for ACT
Jöelle Rekers	Dutch ´s National Contact for ACT
Nicoleta Dumitrache	Romania’s National Contact for ACT
Heiko Gerhauser	Germany’s National Contact for ACT
Dr. Neelima Alam	India’s National Contact for ACT
Mark Ackiewicz	The US’s National Contact for ACT
Rune Volla	Director of the Department for Energy Research at the Research Council of Norway (RCN)
Peter van Os	Project manager of ALIGN-CCUS
Svend Tollak Munkejord	Project manager of ELEGANCY
Dr. Susana Garcia Lópes	Project manager of PrISMa
Professor Sevket Durucan	Project manager of SUCCEED

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MI-6: NAVIGATING THE INNOVATION LABYRINTH

A discussion of the complex innovation ecosystem and how to successfully navigate the pathways and pitfalls through research, development, demonstration, and deployment. Join the Department of Energy’s Office of Technology Transitions and key private-sector players as they discuss the role of public-private partnerships, early-stage investment and scaling, and guiding a promising technology towards the marketplace.

Vanessa Z. Chan, Ph.D. (Moderator)	Chief Commercialization Officer and Director of the Office of Technology Transitions, U.S. Department of Energy
Jahmy Hindman, Ph.D	Chief Technology Officer, Deere & Company
Robin Millican	Director, U.S. Policy and Advocacy, Breakthrough Energy

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SIDE EVENT

MI-6: RACING TO ZERO – REGIONAL PERSPECTIVES ON CLIMATE NEUTRAL CITIES

Bringing together city and national government, philanthropy and the private sector, this event provides a unique set of perspectives on the unifying global challenge of reaching climate neutrality in cities across the world. It will address multi-level, participatory governance approaches and the technology, social, cultural, communication and policy innovation needed to deliver climate goals, highlighting the key role of cities and key tipping points at the city systems level. The event is designed to further expand the supporting community and to help evolve the urban dimension of Mission Innovation.

Cathy Oke	Senior Advisor to the Global Covenant of Mayors Innovate4Cities Programme- Moderator
Andy Deacon	Acting Managing Director Global Covenant of Mayors.
Mohamed Ridouani	City of Leuven
Lorena Montellanos	City of Lima
Helen Watts/Meredith Adler	Student Energy (to be introduced as
Paris Hadfield	Postdoc Research Fellow in Urban Innovation, Connected Cities Lab, University of Melbourne
Matthew Baldwin	European Commission's Coordinator for Road Safety and Sustainable Urban Mobility, Mission Manager for Mission to 100 Climate Neutral Cities by 2030
Rushad Nanavatty	Managing Director, Rocky Mountain Institute








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SIDE EVENT

MI-6: REACHING ZERO WITH RENEWABLES: WHAT WE NEED TO ACCELERATE AND HOW MI'S MISSIONS CAN HELP

The annual IRENA flagship report was this year entitled "World Energy Transitions Outlook– 1.5°C pathways"and provides a roadmap to reach net-zero emissions by mid-century and outlines priortiesfor accelerated actions in specific sectors. This side event will contribute to the MI objectives on raising awareness amongst MI members and the wider clean energy community of the transformational potential of energy innovation, the progress being made, and the remaining critical clean energy innovation gaps and opportunities.

Paul Durrant	Head of end-use sectors and bioenergy Moderator.
Dolf Gielen	Director IRENA's Innovation and Technology Centre
Francisco Boshell	Senior Analyst, Renewable Energy Technology Standards and Markets
Barbara Jinks	Programme Officer – green gas delivery and use
Emanuele Taibi	Analyst- Power sector transformation strategies





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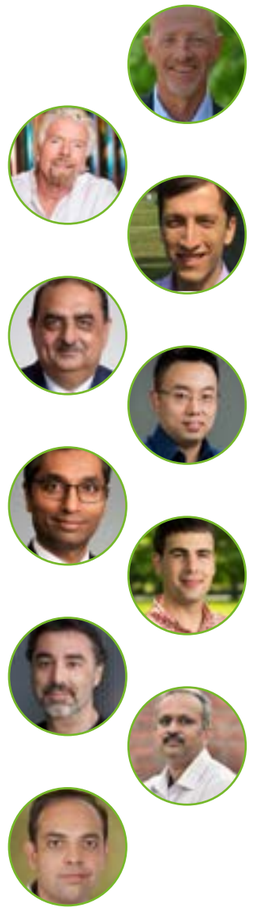
SIDE EVENT

MI-6: THE GLOBAL COOLING PRIZE - CATALYZING GLOBAL INNOVATION FROM IDEAS TO DEMONSTRATION TO MARKET COMMITMENTS

In this session, we highlight the journey and winners of the Global Cooling Prize. In 2018, the Prize was launched by a broad-based coalition to find a 5X lower climate impact residential cooling solution to counter the projected environmental impact of growth in this segment. Out of 139 technical applications from around the world, eight finalists were selected to develop prototype, and two finalists exceeded the criteria and are now joining a commitment to bring these products to market. This session will share details on the technology behind the Finalists' prototypes, highlight the various facilities where the prototypes were tested, and showcase the annoucement of the Prize winners.

Iain Campbell	Senior Fellow, RMI
Sir Richard Branson	Founder, Virgin Group
Prof. Xavier Moya	Professor, Department of Materials Science & Metallurgy, University of Cambridge
Kanwaljeet Jawa	Managing Director and CEO, Daikin Air-conditioning India; Member of Board, Daikin Industries Ltd., Japan
Suhas Kulkarni	Vice President, Godrej & Boyce Mfg. Co. Ltd.
Mr. Youlin Zhang	Professorate Senior Engineer, Director of Refrigeration Institute of Gree
Prof. Baolong Wang	Professor, Building Science and Technology, Tsinghua University
Vijay Mhetar	Chief Technology Officer, Kraton Corporation
Ryan Melsert	CEO and Co-Founder, M2 Thermal Solutions
Sorin Grama	Co-Founder & CEO, Transaera Inc.
Rajan Rawal	Executive Director, Centre for Advanced Research in Building Science and Energy (CARBSE), CEPT University
Yash Shukla	Technical Director, Centre for Advanced Research in Building Science and Energy (CARBSE), CEPT University



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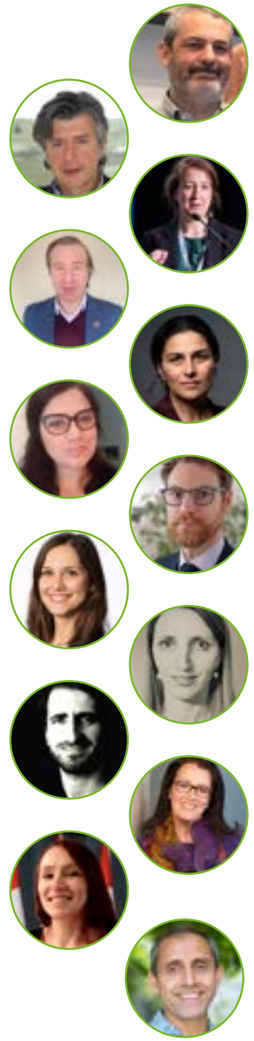
SIDE EVENT

MI-6: TRACKING CLEAN ENERGY INNOVATION PROGRESS:INCREASING THE EFFICIENCY OF R&D POLICIES THROUGH DATA AND ANALYSES

The event - co-organised by the EC, IEA, IRENA and the MI Secretariat - will profile the success of the first phase of Mission Innovation by showcasing the achievements of the "MI Tracking Progress" workstream led by the MI Secretariat in tandem with MI member governments and partner organisations. The event also aims to inform the second phase of Mission Innovation, and in particular the Insights module, by gathering insights on how to strengthen the link between data/analyses and successful impacts of policy making.

Daniele Poponi	Co-Lead, Tracking Progress, Mission Innovation Secretariat – Moderator
	Ingrida Murauskaite-Bull, Project Officer, European Commission– Moderator
Efstathios Peteves	Head of Knowledge for the Energy Union, European Commission Joint Research Centre – Moderator
Jennie Dodson	Head of the Mission Innovation Secretariat
Carlos Barria	Head of Energy Policy and Studies Division, Ministry of Energy of Chile
Aliki Georgakaki	Scientific Officer, European Commission
Roberta Quadrelli	Section Head, International Energy Agency
Simon Bennett	Energy Technology Analyst, International Energy Agency
Martina Lyons	Associate Programme Officer, International Renewable Energy Agency
Helen Fairclough	Lead, Annual Country Analysis, Mission Innovation Secretariat
Per Anders Widell	Programme Manager, International Energy Agency
Kelly Gallagher	Academic Dean and Professor of Energy and Environmental Policy, Tufts University
Wendy Martin	Senior Policy Advisor, Natural Resources Canada
Ambuj Sagar	Founding Head and Professor of Policy Studies, School of Public Policy, Indian Institute of Technology New Delhi



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SIDE EVENT

MI-6: YOUTH FOR MISSION INNOVATION: YOUNG LEADERS AT THE FOREFRONT OF THE ENERGY TRANSITION

Student Energy will deliver a Masterclass featuring young leaders from our network speaking to their expertise on how to deliver on Mission Innovation's objectives.This session will highlight and share youth insights and will encourage decision-makers to begin working with young people to accelerate the low-carbon economy.

Meredith Adler	Executive Director, Student Energy
Chibunna Ogbonna	Regional Coordinator for Sub-Saharan Africa, Student Energy
Linette Knudsen	Regional Coordinator for Europe, Student Energy
Joshua Miguel Lopez	Regional Coordinator for Southeast Asia, Student Energy
Nabila Putri Salsabila	Regional Coordinator for Southeast Asia, Student Energy
Arsenii Kirgizov-Barskii	Regional Coordinator for Eastern Europe & Central Asia, Student Energy

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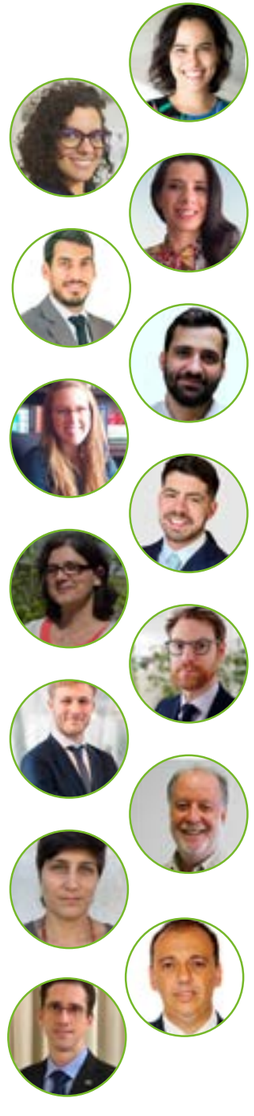
SIDE EVENT

MI-6: ENERGY INNOVATION INVESTMENT TRACKING -PODCAST

As part of Mission innovation Ministerial program in 2021, this podcast of 5 short episodes, go through some of the main challenges when building and feeding innovation investment databases and explore this topic from the perspective of the efforts carried out by Brazilian institutions in collaboration with international partners. We'll talk about the designing of database, engaging stakeholders, and using data to support policy making for clean energy Research, Development and Innovation (RD&I).

Camila Ferraz	Energy Research Analyst at Brazilian Energy Research Office (EPE) Moderator
Clarissa Forecchi	Deputy Head of the Division for Energy Progress of Ministry at Foreign Affairs, Brazil (MRE) – Moderator
Agnes da Costa	Head of the Regulatory Advisory Office at Ministry of Mines and Energy (MME)
Thiago Barral	Executive President at Brazilian Energy Research Office (EPE)
Gustavo Naciff	Deputy Head of Energy Economics at Brazilian Energy Research Office (EPE)
Camila Gramkow	Economic Affairs Officer at the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) at its Office in Brazil.
Mariano Berkenwald	Latin America Programme Officer at International Energy Agency (IEA)
Roberta Quadrelli	Head of Energy Balances, Prices, Emissions, RDD & Efficiency Statistics – IEA
Simon Bennett	Energy Technology Analyst– IEA
Jean-Baptist Le Marois	Energy Innovation Analyst at IEA
Marcelo Poppe	Adviser at The Centre for Strategic Management and Studies (CGEE)
Bárbara Bressan	Adviser at The Centre for Strategic Management and Studies (CGEE)
Paulo Luciano	Head of Research and Development and Energy Efficiency at National Electricity Agency (ANEEL)
Guilherme Arantes	Electricity Sector Manager at Brazilian National Development Bank (BNDES)



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SIDE EVENT

MI-6: GREEN GRIDS INITIATIVE

As the climate crisis flashes red warning lights, the world knows it must transition urgently to green energy. The Green Grids Initiative explores one of the most exciting solutions on offer to the world leaders meeting in Glasgow at COP26 this November: the vision of an integrated energy system that enables clean energy to be shared, instantly and precisely, all around the planet.

Clean, renewable energy is clearly key to achieving a net-zero future. But we need a worldwide system to ensure the delivery of reliable energy supplies even when the sun isn't shining and the wind isn't blowing. Such a system could also provide important opportunities for countries in the global south to sell their sunshine and export their wind energy – especially with micro-grids being developed at village and community level in Africa, Asia and Latin America, in tandem with larger-scale grids supporting cities, cars and factories. As Senator Abshiro Soka Halake says in the film: 'For Africa, this could be the new oil.'

Nicholas Dunlop Co-Founder and Secretary-General of the Climate Parliament

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SIDE EVENT

MI-6: GREEN HYDROGEN: THE ROLE OF AFRICA

In this trigger talk, Moroccan Hydrogen Expert DR. Samir RACHIDI will explain how Power-to-X technologies have become a key driver to making clean energy widely affordable and has created new collaboration pathways between Europe and Africa. In a potential future global Power-to-X (PtX) market, Morocco and other African countries compete with other potential PtX suppliers around the world. However, the strength lies, for example, in the low costs of renewables, the growing experience in building a renewable system and the proximity to potential foreign PtX import markets.

The development of new energy systems like a PtX economy requires the support and facilitation of politicians and administrations. The creation of a global PtX industry can greatly leverage existing transport and distribution infrastructure and be based on current energy systems.

Dr. Samir RACHIDI PhD/Dr-Ing., R&D Director at IRESEN
(Research Institute for Solar Energy and New Energies)

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SIDE EVENT

MI-6: INNOVATION FOR SUSTAINABLE AVIATION FUEL

Aviation fuels are prime candidates for part replacement of fossil fuels and can result in a substantial reduction in GHG emissions. The aviation sector presently contributes about 3.5 % of GHG emissions. Presently, very limited Sustainable Aviation Fuels are used due to challenges as low feedstock availability and higher costs. In this talk, experts address roadblocks in this sector and pathways to developing newer technologies. National perspectives are presented with an overarching goal of technology development and demonstration for sustainable and affordable aviation fuels.

Renu Swarup	Secretary, Department of Biotechnology, Govt of India
Michael Berube	Deputy Assistant Secretary for Transportation, Office of Energy Efficiency and Renewable Energy US Department of Energy
Sangita Kasture	Sr. Scientist, Department of Biotechnology, Government of India
Anjan Ray	Director, CSIR-Indian Institute of Petroleum, Dehradun
Mark A. Shmorhun	Technology Manager, US Department of Energy, Bioenergy Technologies Office
Eduardo do Couto e Silva	Technology Manager, US Department of Energy, Bioenergy Technologies Office
Longlong MA	Professor and Director of Guangzhou Institute of Energy Conversion, CAS
Lasse Rosendahl	Professor and Head of Department, Department of Energy Technology, Aalborg University
Kees W. Kwant	Senior Expert on Bioenergy and Circular Biobased Economy at the Netherlands Enterprise Agency (RVO)
Paolo Frankl	Head of the Renewable Energy Division, International Energy Agency (IEA)










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SIDE EVENT

MI-6: MI IC1 ON SMART GRIDS: FINAL EVENT

MI Innovation Challenge 1 (IC1) on Smart Grids members agreed on winding down IC1 activities. During this final event IC1 main achievements and outcomes will be showcased.
In the spirit of MI, this event will highlight the importance of international collaboration: ministry level representatives from IC1 co-Leading countries and high level speakers from IC1 members will acknowledge the joint work performed to accelerate the power systems modernization and innovation, that is so crucial for the clean energy transition.

During the event the “Consolidated Report on IC1 Achievements”, the two released “IC1 Country Reports” and the Smart Grids Innovation Accelerator (SGIA) knowledge sharing platform will be presented.

Finally, it will be highlighted how the IC1 highly collaborative work and broad experts’ network will be fully exploited to maximize impacts in the MI second phase (MI2.0).

Dr. Linhao Chen	Deputy Director-General, Department of International Cooperation (DIC), Ministry of Science and Technology (MOST)
Dr. Yibo Wang	Professor at Institute of Electrical Engineering, Chinese Academy of Science (IEE CAS)
Prof. Ashutosh Sharma	Secretary, Department of Science and Technology (DST) Government of India
Dr. Stefano Raimondi	Director Division VI - New technologies and research in the energy and geo-resources sector, Ministry of the Ecological Transition (MITE) Italy
Dr. Luciano Martini	Director, Transmission and Distribution Technologies Department, RSE (Italy)





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SIDE EVENT

MI-6: THE CLEAN ENERGY TRANSITION -PODCAST

This podcast episode, especially produced for the MI Ministerial will kick-off a series of The Clean Energy Transition podcast. The Clean Energy Transition podcast features current affairs, research, and innovation for future energy systems. In each episode, your host Tuomas Vanhanen and his guests will provide deep insights into new technology, projects, and discuss on events and policies shaping the world of energy systems innovation. This first episode follows the path of the Mission Innovation pilot call - MICall19- and focuses on Energy Storage system solutions. The podcast is produced by the Joint Programming Platform Smart Energy Systems and supported by the Nessling Foundation.

Tuomas Vanhanen	Host of the Clean Energy Transition Podcast – MODERATOR.
Anna Nilsson	Project Manager at IVL Swedish Environmental Research Institute
Stefan Wilker	Head of the Energy & IT Group at the Institute of Computer Technology of TU Wien
Minna Näsman,	Head of Energy at CLIC Innovation, Finland

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SIDE EVENT

MI-6: THE OCEAN AS A CLIMATE AND ECONOMIC ASSET

This panel discussion will discuss the R&D and energy innovations necessary to realize the ocean's role as valuable climate asset. The panel will look into four thematic themes including: decarbonization of maritime transport, ocean renewable energy, ocean-based carbon dioxide removal, and sustainable offshore aquaculture. Join policy, science, and industry experts from the U.S. in this discussion to understand the ocean's crucial role in mitigating climate change.

Sue Biniaz	Senior Advisor to the Special Presidential Envoy for Climate, U.S. Department of State
Dr. Jane Lubchenco	Deputy Director, White House Office of Science & Technology Policy
Jigar Shah	Director, Loan Program Office, U.S. Department of Energy
Jason Bordoff	Co-Founding Dean, Columbia Climate School, Founding Director Center on Global Energy Policy.
Dr. Lee Kindberg	Head of Environment & Sustainability Maersk North America
Dr. Jyotika Virmani	Executive Director, Schmidt Ocean Institute
Sarah Kaplan	Climate and science reporter, The Washington Post

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Summary of Outcomes

Joint member statement on the launch of mission innovation 2.0

APPROVED 31 MAY 2021 AT THE SIXTH MISSION INNOVATION MINISTERIAL

With the intent to launch a decade of clean energy innovation that mobilises and connects global research, development and demonstration efforts to accelerate the implementation of the Paris Agreement including pathwaysto net zero by making clean energy affordable, attractive and accessible to all, the following members of Mission Innovation, Australia, Austria, Brazil, Canada, Chile, China, Denmark, the European Commission on behalf of the European Union, Finland, France, Germany, India, Italy, Japan, Morocco, Netherlands, Norway, Republic of Korea, Saudi Arabia, Sweden, the United Arab Emirates, the United Kingdom, and the United States of America (hereinafter collectively referred to as the "Members"), commit to an ambitious second phase.

Five years ago, founding countries launched Mission Innovation alongside the historic Paris Agreement to accelerate clean energy innovation,recognising it as indispensable for tackling our shared global challenges of combating climate change, generating sustainable jobs and growth, and ensuring energy access and energy security. To date, twenty-five Members responsible for greater than 90% of global public investments in clean energy innovation have committed to invest more and work together. These Members are now investing an additional USD$5.8 billion annually in research, development and demonstration and Mission Innovation has become a catalyst forstrengthened global cooperation on clean energy innovation as part of an urgent and lasting response to climate change.

Today, as many governments and businesses around the world continue to commit to ambitious climate goals and to reach net zero emissions, the need for innovation has never been greater or more urgent. To achieve the Paris Agreement, all sectors of the economy need access to cost competitive clean energy solutions this decade. We need to scale up the deployment of existing clean energy technologies and accelerate clean energy innovation to deliver affordable solutions for the most difficult climate challenges. Global cooperation on research, development and demonstration between governments, investors, businesses and academia based on shared goals and principles will be vital.By harnessing the ingenuity of researchers and innovators around the globe we can deliver growth, jobs and a cleaner planet for future generations.

Vision for Mission Innovation 2.0

Members are stepping up their collective ambition and cooperation through a second phase of Mission Innovation. We are launching a decade of clean energy innovation, mobilising and connecting global RD&D efforts to accelerate the implementation of the Paris Agreement including pathways to net zero, by making clean energy affordable, attractive and accessible to all. Members will maximise the impact of research, development and demonstration investments, working together and with others. We recognise the importance of ensuring that innovation considers the diverse needs faced by all communities and enables gender equality. Through these efforts we will support faster, cleaner, affordable energy transitions, increasing global confidence to set, or strengthen, ambitious climate and energy goals.

Mission Innovation will:

Be an action-oriented forum for government leaders to pioneer clean energy solutions through domestic innovation action and international cooperation. Members will capitalize on collective expertise, capability and interests to accelerate the development of innovative solutions.

Catalyse global action through public-private Missions that set ambitious and inspirational innovation goals that can lead to tipping points in the cost, performance or scale of clean energy solutions, leading to more rapid technology adoption.

Build confidence in clean energy solutions through an Innovation Platform by analysing global innovation progress and facilitating knowledge-sharing and collaboration to support all countries in planning ambitious clean energy transitions.

Develop pathways to deployment by actively working in partnership with the private and financial sectors and other initiatives to boost demand for new solutions, and to explore ground-breaking opportunities for public-private investment.

Member contributions

Members are clean energy champions committed to pioneering clean energy solutions domestically and internationally. Building on the success of the first phase and recognising the vital need for clean energy investment to accelerate innovation, each Member seeks to sustain, and wherever possible increase investment in clean energy research, development and demonstrations over the second phase.

Mission Innovation is a collaborative, collective endeavour with all Members actively and voluntarily contributing based on their priorities in a spirit of transparency and mutual support. In contribution to this decade of clean energy innovation each Member demonstrates leadership through:

National Innovation Pathways[1]: Members will describe how they will enhance ambition to pioneer clean energy technologies and/or sectors to meet their climate and energy goals.

- Recognising Members' individual priorities and resources, these pathways (1) illustrate energy transition scenarios and identify innovation needs until at least 2030; (2) describe plans to address innovation needs, including institutional design and working internationally (3) indicate how Members will measure innovation outcomes and innovation ecosystem developments; (4) identify preferred modes and methods of collaboration; and (5) may consider domestic competitiveness and economic opportunities and draw on existing climate and clean energy plans as appropriate.

- Members will facilitate constructive knowledge exchange and learning on these pathways. Each Member will report on progress and commit to reviewing and, if applicable, updating its pathway to respond to the emerging innovation landscape.

[1] Forthe European Union, the description will refer to European Commission clean energy activities.

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- Strengthened Cooperation: Members willa ccelerate innovation through strengthened international cooperation in areas of mutual interest. Members will actively participate in at least one major Mission Innovation initiative, through a demonstrable leadership role in either a Mission or the Innovation Platform, identifying opportunities to bring resources to support the delivery of common goals and sharing knowledge. Members will also support coordination through their engagement with other clean energy alliances and initiatives.

- ActiveParticipation: Members will support the success of Mission Innovation by actively contributing to its governance functions including through high-level participation in the annual Ministerial, supporting the Steering Committee, contributing to workstreams and resourcing the Secretariat. We will set up a Technical Advisory Group (TAG) and support its activity. Roles of the TAG will include reviewing the Missions and Innovation Platform to improve our efforts for greater impact and provide support to exchange knowledge across National Innovation Pathways.

In the spirit of an inclusive and global reach, Members intend to welcome additional members that endorse this Statement and formulate their proposal to join based on the membership commitments above. We further welcome the continued collaboration with the following existing organisations and global efforts including: Breakthrough Energy, CEM, IEA, IRENA, the Global Covenant of Mayors, the Mission Possible Partnership, the World Bank, and the World Economic Forum. Mission Innovation looks forward to building new partnerships in the same spirit of results-based collaboration.

The Members reaffirm our commitment to look forward to sustained and strengthened cooperation across sectors and key technologies as we work to accelerate the clean energy revolution. We will build momentum at COP26, our annual Ministerial and working with future G20 and COP Presidencies to profile, strengthen and accelerate innovation efforts needed to meet our Paris goals. We commit to assess progress, review core activities and recommend a path forward for Mission Innovation five years after the approval of this Statement.

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General Outcomes

- Mission Innovation 2.0 will spearhead a decade of innovation to catalyze increased investment in clean energy research, development and demonstrations to deliver affordable clean energy solutions by 2030.

- Action will initially focus on three global Missions: power systems, shipping, and hydrogen, and a new global Platform for insights, collaborations and Incubators to maximize national investments.

- Mission Innovation was launched alongside the Paris Agreement in 2015, to accelerate public and private investment, collaboration and innovation to make clean energy widely affordable.

- Member governments' clean energy innovation investments are now USD$5.8bn per year higher than 2015, with a total USD$18bn of additional investments since 2015.

- Ministers commit to sustained and strengthened cooperation across public-private sectors and key technologies to build momentum towards COP26 and accelerate innovation to meet the Paris goals.

25 MEMBERS MINISTERS

300 SPEAKERS PARTICIPATED THROUGHOUT THE EVENT

+125.000 WEBSITE VIEWS

+ 120 DIFFERENT **COUNTRIES**

19 HIGH LEVEL **SIDE EVENTS**

+ 8.000 REGISTERED THROUGHOUT THE EVENT

+60 HOURS OF TRANSMISSION

LAUNCH OF **4 NEWS INICIATIVES**

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Acknowledgements

General Acknowledgements

The entire Mission Innovation community extends its deepest gratitude to Chile for hosting the 6th MI Ministerial including the launch of MI 2.0 at the Innovating to Net Zero Summit: an exceptional example of how the world can come together to progress important discussions and efforts even during these difficult times.

The commitment of MI Ministers to the second phase of MI, and the hard work done by officials across all member countries to prepare the Ministerial meeting, is to be applauded. The prodigious progress made over the last six months to prepare MI 2.0 is testament to the vision, enthusiasm and willingness of members to work with each other and with the MI Secretariat. I would also like to thank those who facilitated the participation of an impressive number of very high level ambassadors for clean energy innovation at the Summit – shining a light on the importance of clean energy innovation to deliver the Paris Agreement.

A suite of well-prepared, engaging and important side events were delivered by members and the clean energy innovation community more broadly across the week; as always these events were a valued addition to the MI programme and I would like to thank all organisers and participants for their hard work in bringing them to fruition.

I would like to thank our collaborating organisations: Breakthrough Energy, the Global Covenant of Mayors, International Energy Agency, International Renewable Energy Agency, World Bank and World Economic Forum for their active engagement and look forward to strengthening our alliances as MI 2.0 proceeds. I thank our colleagues in the Clean Energy Ministerial Secretariat for the cooperative and constructive spirit they display as we work together to deliver these important fora on an annual basis.

The Mission Innovation Steering Committee plays a crucial role in providing strategic guidance and oversight of the initiative. We would like to thank all Steering Committee members, and in particular the Chair and Vice-Chair leadership team. We also pay tribute to Thomas Rollason, Adelaida Baeriswyl and the excellent team in Santiago who worked so hard over recent months to deliver the Ministerial.

Finally, I would like to thank my colleagues in the MI Secretariat and the MI 2.0 workstream leads for their tireless dedication to Mission Innovation and for helping to deliver an engaging, professional and important programme of events.

Jennie Dodson
Head of Secretariat

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