

**FACT SHEET: China Hosts Second Mission Innovation Ministerial, 8 June 2017**

Eighteen months ago, leaders of 20 countries came together to launch Mission Innovation (MI), a landmark 5-year commitment to boost investment, accelerate the pace of innovation and make clean energy widely affordable and accessible worldwide. MI now comprises 22 economies and the European Commission, representing the European Union, and collectively accounts for more than 80 percent of the world's total public financing of clean energy R&D.

The means for advancing these goals are to be determined independently by each MI member, but include increased and more effective public sector investment, new or strengthened voluntary cross-border networks and cooperation, increased private sector engagement and investment in energy innovation, and sharing of information on clean energy strategies, priorities and best practices.

The increased focus on innovation by both public and private sectors is expected to give rise to new and advanced technologies, performance breakthroughs, and significant cost reductions. These, in turn, will create opportunities for new industries and jobs and expand markets for reliable and clean energy – for both production and demand. The lower costs will spur economic growth and accelerate market uptake, enabling the realization of the benefits of accessible, reliable and affordable clean energy worldwide.

This week, ministers and other high-level delegates from 22 countries and the European Union convened at the Chinese National Convention Center in Beijing for the second Mission Innovation Ministerial (MI-2), 6-8 June. Highlights from the event include:

- Ministers and other high-level delegates from all MI member governments participated in a business meeting on June 7 to discuss plans, progress, country highlights, and preview a series of public announcements on selected areas of joint cooperation. Additional details on the proceedings may be found in the [Chair's Summary](#).
- MI members provided updates to their national priorities and clean energy strategies, as well as sharing progress on MI goals and objectives. Details including selected country highlights may be found on the MI website under [country narratives](#).
- Ministers and delegates gave their encouragement to the delivery of an MI [Action Plan](#) to guide activities through the end of MI's 5-year term and beyond. This Plan highlights a number of priority areas for cooperative work, as identified by MI members who have opted-in, in joint research, business and investor engagement, and information sharing.
- Mission Innovation hosted a roundtable on June 7 on accelerating innovation via public-private synergies, "[Getting to the Future Faster: Accelerating Innovation in Clean Energy Technology through Public and Private Collaboration](#)". European Commission Vice President for Energy Union Maroš Šefčovič chaired the roundtable, which considered the roles of the private and public sectors in the innovation ecosystem, synergies between the two, and successful models for feeding the innovation pipeline and accelerating outcomes. [A summary will be forthcoming].

The meeting of Mission Innovation ministers took place in conjunction with the 8<sup>th</sup> meeting of the Clean Energy Ministerial (CEM-8) and related activities hosted by the China's Ministry of Science and Technology and National Energy Administration. The [related activities](#) included 22 side-events; 16 TED-Talk-like speakers in the Innovation Theater; 35 businesses showcasing innovative concepts in the

Technology Exhibition; 6 panels of distinguished leaders focused on innovation; 5 Roundtables of dialogue between ministers and leaders from business, technology developers, the investor community and academia; numerous keynote speakers; and opening ceremonies by high-level Chinese officials. Participation included 900 registrants for the Public-Private Action Summit and 2,000 registrants for the side events.

## Innovation Challenges

Mission Innovation developed and launched 7 Innovation Challenges in November 2016. These Innovation Challenges focus on selected technical areas in which MI members believe increased international attention would have a significant impact. They are supported by coalitions of self-selected mutually interested MI members. Over the past year, teams of MI members have worked to engage interested parties and develop Challenge Work Programs. Additional details made under the Innovation Challenges can be found [here](#).

Highlights include:

1. [Smart Grids Innovation Challenge](#) – this Challenge aims to enable future grids that are powered by affordable, reliable, decentralized renewable electricity systems. Work is being advanced under four sub-challenges, allowing for a more focused approach. The goal is to hold two deep-dive workshops a year to identify priority opportunities and track progress, with the first one alongside MI-2. The development of key performance indicators is also underway. Additional actions to increase private sector engagement and foster deeper collaboration will be developed in late 2017 and into 2018. Additional details regarding the progress made under the Smart Grids Innovation Challenge can be found [here](#).
2. [Off-Grid Access to Electricity Innovation Challenge](#) – this Challenge aims to develop systems that enable off-grid households and communities to access affordable and reliable renewable electricity. Activities include member surveys and international expert workshops (Delhi, May 2017; Paris, July 2017), which aim to inform gap analysis and target-setting. A ‘state of play’ review will be published in June 2017. Actions to deepen engagement with innovators and investors are in development and progress will be demonstrated in a new ‘state of play’ review to be published in 2020. Additional details regarding progress made under the Off-Grid Access to Electricity Innovation Challenge can be found [here](#).
3. [Carbon Capture Innovation Challenge](#) – this Challenge aims to enable near-zero CO<sub>2</sub> emissions from power plants and carbon intensive industries. Work to date has been focused on organizing a major international Experts’ Workshop (Houston, September 2017) to identify priorities, gaps and opportunities. The workshop’s conclusions will be published in January 2018 to aid the identification of future areas of research and international collaboration. Activities to engage the technical and business communities, and longer-term activities focused on collaboration, will be developed in 2018. Additional details regarding progress made under the Carbon Capture Innovation Challenge can be found [here](#).
4. [Sustainable Biofuels Innovation Challenge](#) – this Challenge aims to develop ways to produce, at scale, widely affordable, advanced biofuels for transportation and industrial applications. A joint survey with the Biofuture Platform, with support from the International Energy Agency, has been

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conducted to map the technology landscape and identify key innovation gaps and opportunities. Stakeholder workshops are planned in India and Brazil in 2018, and a series of reports on research priorities and opportunities will be published in 2018 and beyond. This Challenge intends to work with private sector stakeholders moving forward. Additional details regarding progress made under the Sustainable Biofuels Innovation Challenge can be found [here](#).

5. [Converting Sunlight Innovation Challenge](#) – this Challenge aims to discover affordable ways to convert sunlight into storable solar fuels. An international experts’ group has been established to help define Challenge targets and scope joint actions. There are also plans to participate in multiple international scientific conferences to publicize the Challenge and engage the technical community. Additional activities to engage the private sector, and strengthen and expand collaboration between members, will be explored. Additional details regarding progress made under the Converting Sunlight Innovation Challenge can be found [here](#).
6. [Clean Energy Materials Innovation Challenge](#) – this Challenge aims to accelerate the exploration, discovery, and use of new high-performance, low-cost clean energy materials. A three-day Experts’ Workshop (Mexico City, September 2017) will be held to identify research priorities, gaps and opportunities. A workshop report will be published in late 2017. Following the workshop, there are plans to develop an integrated platform to facilitate faster materials innovation, and to work with the World Economic Forum (WEF) to deepen private sector engagement. Additional details regarding progress made under the Clean Energy Materials Innovation Challenge can be found [here](#).
7. [Affordable Heating and Cooling of Buildings Innovation Challenge](#) – this Challenge aims to make low-carbon heating and cooling affordable for everyone. Six priority innovation areas have been identified as a focus for collaborative actions. Surveys of member interests and plans will inform relevant international technical expert workshops to be held in 2017 to identify and highlight key innovation gaps and opportunities. WEF has also identified this Challenge as one of the sectors to deepen private sector engagement. A number of additional collaborative research opportunities to meet the targets defined will be developed in 2018 and other mechanisms of collaboration (e.g. prizes) to accelerate innovation will be explored. Additional details regarding progress made under the Affordable Heating and Cooling of Buildings Innovation Challenge can be found [here](#).

## Engaging Businesses and Investors

Private sector engagement is a critical driving factor of development and deployment of clean energy technologies, and Mission Innovation members are working to enhance synergies between Mission Innovation and energy companies, private-sector clean-energy investors and philanthropists.

- Mission Innovation will be collaborating with the [World Economic Forum](#), an international organization for public-private cooperation, to engage private sector members from the Forum’s [Communities](#) with MI, including through specific Innovation Challenges; to collaborate on a joint high-level platform for strategic public-private dialogue; and to facilitate sharing of knowledge research, information and technological development on clean energy. Additional information on the collaboration with the World Economic Forum can be found [here](#).
- The [Breakthrough Energy Coalition](#) (BEC), a group of entrepreneurs, business leaders, and institutional investors that committed to help bring promising new zero-emissions energy

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technologies to market and was launched in parallel with Mission Innovation, announced in December 2016 a commitment to invest more than US\$1 billion through the [Breakthrough Energy Ventures](#) (BEV) fund. BEC and BEV are continuing to work towards making investments in next generation technologies to provide reliable, affordable, zero-carbon energy, food and products to the world, focusing these investments in Mission Innovation countries.

- As part of efforts to increase the interest and investment of the private sector in clean energy innovation, Canada, as co-lead of the Business and Investor Engagement (BIE) Sub-group (with Mexico and France), has been leading actions to build a deeper understanding of the clean energy innovation landscape, and in particular of its investment ecosystem. In this regard, Canada has developed a scan of the various players, such as investors, funds, corporations, and others, that play a key role in financing clean energy innovation. The scan aims to assist MI member countries to better target businesses and investors to engage with and to make more informed decisions on how to best use public funding for clean energy R&D policies and programs. The scan can be found [here](#).

## Looking Ahead

- European Commission Vice President for Energy Union Maroš Šefčovič and Sweden's Minister for Policy Coordination and Energy announced that the European Commission and the Nordic Countries will be co-hosting the Third Mission Innovation Ministerial (MI-3) alongside the Ninth Clean Energy Ministerial (CEM9). The event will be held in the Öresund region in 2018.
- Canada's Minister of Natural Resources Canada James Gordon Carr announced that Canada will be hosting the Fourth Mission Innovation Ministerial (MI-4) alongside the Tenth Clean Energy Ministerial (CEM10).