

Expanding the mission



At this September’s Global Clean Energy Action Forum, delegates should consider ways to expand innovation goals while protecting collaborations amid a changed energy landscape.

Among the various announcements in late 2021 at COP26, two major international initiatives – Mission Innovation (MI) and the Clean Energy Ministerial (CEM) – discussed how they would deliver on clean energy ambitions.

The CEM was formed in 2010 and provides a platform to promote policies, programmes, lessons and best practices around clean energy technology. MI, formed in 2015 alongside the Paris Agreement, unites governments, the private sector, and academia to accelerate research, development and demonstration (RD&D) of affordable and accessible clean energy technologies.

This September, the two organizations will undertake joint ministerial meetings in Pittsburgh, USA for the Global Clean Energy Action Forum. To coincide, this month we present a [Focus issue](#) that offers reflections on critical areas of RD&D and innovation policy for Forum delegates. Particular attention is paid to how MI could further develop to meet the aims of its recently launched second phase.

The Forum’s theme is rapid innovation and deployment: a subject that could not be more vital in today’s landscape. The geopolitical turmoil following Russia’s invasion of Ukraine reminds us again of the fragility of the energy transition, as nations rush to fill gaps in their fossil fuel supplies by looking to reopen coal mines, expanding domestic gas production, and securing new import contracts from allies. Meanwhile, energy price rises are exposing failures in market design and regulation, creating further space for anti-renewables propaganda and false narratives to perpetuate.

This new landscape offers difficult terrain for delegates at the Global Clean Energy Action Forum. Their task was already challenging: in November, COP26 President Alok

Sharma described the 1.5 °C goal as “alive, but its pulse is weak”. While recent moves like the US Inflation Reduction Act provide optimism and leadership on the green transition, renewed energy security concerns among many nations risk pushing clean energy ambitions back down the agenda while short-term crises are tackled.

Support for clean energy technology development and deployment thus remains paramount. A critical element of MI’s phase-two plans is its targeted ‘Missions’, which provide welcome targets for essential RD&D activities. However, as David Hart and Hoyu Chong [write](#), critical innovation gaps remain that must be filled: not only in the portfolio of technologies under consideration but also in terms of the scale of activity in areas like demonstration projects.

Meanwhile, as Zdenka Myslikova, Amy Jaffe, and Kelly Sims Gallagher discuss in their [Comment](#), it will be important to try and protect initiatives like MI from the shifting geopolitical landscape. They highlight growing nationalistic controls around foreign investments or exports and imports of technologies or the minerals needed for their manufacture as key risks. This theme is echoed by Hart and Chong, who underscore the important role of international cooperation in blunting the impact of domestic policies intended to stem knowledge flows abroad. Gallagher and colleagues offer ideas for supporting the much-needed collaborative approach of MI and the CEM.

In his [Comment](#), Ambuj Sagar discusses the need for a broader perspective if clean energy ambitions are to be fully realized. While both MI and the CEM acknowledge the need for universal access to clean energy under accelerated transitions, they provide little concrete detail around how they will address this for developing countries. Sagar discusses the importance of greater recognition of the particular challenges faced by developing countries, calling for more work on capacity building to support these nations’ transitions.

Sagar also discusses the need for more attention to the just transition. As he explains, including such considerations in innovation agendas will enable a more comprehensive

and beneficial transition. In our [Q&A](#), three members of the MI Secretariat describe efforts along these lines. Nonetheless, the unique convening powers of MI and the CEM at the Forum provide an opportunity for further reflection on – and hopefully more formal integration of – justice and equity concerns into frameworks and cooperation agreements.

The Secretariat members we interviewed further highlight their aspirations for the joint meeting. They emphasize the importance of collaboration all along the technology value chain. This is certainly essential: dialogue between academia and industry is critical to ensure that RD&D proceeds in a way that is mindful of real-world constraints and performance needs. At the same time, we need to find ways of supporting greater risk appetites if we’re going to deliver the kinds of technologies needed to combat climate change, on the necessary timescales.

Governments play a crucial role here. Indeed, public RD&D funding is essential to supporting and accelerating the transition. Yet understanding the drivers of public funding and the structure and evolution of public institutions remains unclear. To that end, [a recent study](#) from Jonas Meckling and colleagues examines public clean energy RD&D funding for eight major economies since 2000. The work shines light on how institutions were created and shaped in response to the 2008 financial crisis, the launch of MI, and recent competition with China.

Finally, it’s important to remember that technology alone will not save us. Substantial work is still needed on, for example, understanding behaviours and attitudes around energy use, and on mechanisms for supporting households and communities through the energy transition. These kinds of questions would also benefit from the sort of approach adopted by MI and the CEM. In the rush for technological development, we should not overlook the central role played by people, and ensure that we are also fostering innovation and collaboration at the social level. Too much is at stake on too short a timescale.

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