

IRENA INNOVATION WEEK 2020

SUMMARY OF THE OPENING SESSION

SESSION OVERVIEW

The 3rd IRENA Innovation Week took place online between 5-8 October 2020 under the theme 'Renewable solutions for transport and industry'. On 5th October, its **opening session brought together high-level speakers** from around the world to share their perspectives on the importance of action on emissions from end-use sectors and ongoing activities and plans to decarbonise transport and industry sectors in the context of a global clean energy transformation. The opening session kicked off 4 days of in-depth technical discussions on emerging solutions as well as current challenges and critical gaps in capabilities.

5 Discussions

7 ministerial speakers

Participants from all continents

SUMMARY OF KEY INSIGHTS

High-level speakers shared visions and plans for solutions that are becoming available, steps they had taken to enable the deep decarbonisation of industry and transport, particularly by leveraging the power of renewables, and what technological, policy, regulatory and economic changes they see as key enablers for further progress in the context of climate and pandemic crisis:

- » **Decision makers commit to innovate and collaborate as a pathway to the climate and pandemic recovery.** Public-public and public-private partnerships including [WEF Mission Possible Platform](#) play central role in advancing discussions and actions to ensure green and sustainable future.
- » **The growing momentum behind green hydrogen attracts global partnerships, initiatives and investments.** Benefiting from falling renewables electricity prices, public and private sectors recognise benefits of hydrogen and join forces through several public-private partnerships including [IRENA Collaborative Framework on Green Hydrogen](#) to ramp up production and reduce hydrogen costs.
- » **Energy efficiency recognised as a low-hanging fruit and should go hand-in-hand with renewables in efforts to decarbonise energy-intensive sectors of industry and transport.** Energy efficiency together with demand reduction is as one of the five pillars towards zero emissions, alongside renewable electricity, renewable heat and biofuels, green hydrogen and e-fuels, and carbon-removal technologies.

WELCOMING REMARKS

In his welcoming remarks, **Francesco La Camera, IRENA's Director General** framed the upcoming discussion by highlighting the importance of action on energy-intensive industry and transport sectors, which if not mitigated, could account for 38% of energy and process emissions by 2050, and the potential significant role of renewables.

Highlights from the welcoming address:

- » **Limiting global temperature rise to 1.5°C requires concerted efforts in all sectors of economy, including energy-intensive industry and transport sectors.** Whilst the progress in the power sector has been tremendous, actions must extend to fully tackle emissions from transport and industry sectors including production of iron & steel, cement & chemicals or transport modes of aviation, shipping and road freight.
- » **Insights into viable solutions and their prioritisation, and enhanced understanding of economic and societal impacts are key for policy makers to act.** A pathway to zero CO₂ emissions is documented in IRENA's annual report [Global Renewables Outlook](#), whilst IRENA's report [Reaching Zero with Renewables](#) assesses viable solutions to decarbonise the energy-intensive industry and transport sectors.
- » **Renewables have the potential to deliver over half of the emissions reductions needed for full decarbonization.** Whilst some of those solutions looked impossible just a few years ago, falling technology costs and proven synergies have now opened up a credible path to cut CO₂ emissions to zero. Many far-sighted policies and long-term investments in renewables, efficiency and electrification have taken centre stage in the pandemic investment package.

Fireside chat on regional perspectives

Frédéric Simon, Editor – Energy & Environment, Euractiv moderated a fireside chat with:

- H.E. Kadri Simson, Energy Commissioner, European Commission
- H.E. Dr. Amani Abou-Zeid, Energy Commissioner, African Union

Highlights from the discussion:

- » **EU takes concrete actions to advance hydrogen production to allow deep decarbonisation.** Whilst the direct electrification plays a major role in decarbonising the majority of the end-use sectors, energy-intensive sectors (cement, steel, heavy trucks) require a mix of measures, including indirect electrification. To benefit from falling renewables electricity costs, hydrogen represents a viable solution but can advance only with targeted activities, such as a Swedish pilot project developing green hydrogen to produce steel.
- » **Digitalisation seen as a key enabler to electrify urban transport and industry in Africa.** A quarter of all CO₂ emissions in Africa comes from the transport sector, which incentivizes leaders to leverage the role of renewable-based innovative solutions, mostly digitalisation, to ensure green and sustainable cities. Whilst the industry sector is still nascent, it recognises energy efficiency as a low-hanging fruit to decarbonise it.
- » **Cross-border public-public and public-private collaborations allow complementarity and replicability of solutions to advance the energy transition.** European Commission committed a budget of €5 and €10mio for innovative cooperation between EU and African partners on local and sustainable development, including the Europe-Africa Green Energy Initiative focused on hydrogen.

Perspective on public-private partnership

Frédéric Simon, Editor – Energy & Environment, Euractiv discussed public-private perspectives with:

- Børge Brende, President, World Economic Forum

Highlights from the discussion:

- » **Public-private partnerships underpin 3 key priority areas to decarbonise industry and transport:**
 - **Digitalisation seen as a key enabler to reach up to 50% efficiency improvements in challenging industry and transport sectors.**
 - **Targeted activities to scale-up deployment of clean technologies essential.** This includes ramping up production of clean hydrogen and sustainable fuels, establishing clean industrial clusters, and circular carbon economy to boost energy transition.
 - **Mobilizing finance to fill the gap between global North and South.** To get on the pathway to net zero emissions, mobilizing finance, especially in developing countries, is essential.
- » **World Economic Forum has launched Mission Possible Platform (MPP) for decarbonization.** WEF-MPP supports 200 companies and aims to help reduce emissions from the “hard-to-decarbonize” sectors

Ministerial perspectives on strengthening energy & climate policy for end-use sectors

Frédéric Simon, Editor – Energy & Environment, Euractiv discussed ministerial perspectives on strengthening energy & climate policy for end-use sectors with:

- H.E. Dr. Abdullah bin Mohammed Belhaif Al Nuaimi, Minister of Climate and Environment, UAE
- H.E. Kwasi Kwarteng, Minister of State, Department of Business, Energy and Industrial Strategy, UK

Highlights from the UAE:

- » **Commitment, collaboration and investments viewed as central to transforming industry in UAE.** UAE leads a multi-partner Al Reyadah project that seeks to decarbonise iron and steel industry by capturing, storing and utilising 5mio tonnes of CO₂. [Emirates Global Aluminium](#) set the performance standards by the Aluminium Stewardship Initiative and has reached less than 8 tonnes CO₂ equal tonne of aluminium.
- » **Different means of transport seen as complementary to decarbonise the transport sector.** A single train journey removed 300 trucks from their roads, which in turn resulted in over 60% CO₂ emissions reductions. For shipping, UAE is scaling up the use of biofuels, hydrogen and ammonia.

Highlights from the UK:

- » **UK was the first major economy to pass a net zero emissions law.** The UK committed to bringing all GHG emissions to net zero by 2050 in part by reducing their dependence on coal & turning towards offshore wind and other renewables. To support industry and transport sectors in this transition, UK focuses on innovative solutions and collaboration with a particular focus on spurring & de-risking innovative new technologies.

- » **UK COP26 presidency calls on countries to bring forward stronger NDCs to accelerate decarbonisation of all sectors of economy.** UK supports cross border partnership to advance innovative solutions globally around the five key priorities on finance, adaptation, resilience, transport and energy.

Ministerial perspectives on the way ahead

The following **Ministers provided** their perspectives on the way ahead:

- H.E. Andreas Feicht, State Secretary Ministry of Economic Affairs and Energy, Germany
- H.E. Arifin Tasrif, Minister of Energy and Mineral Resources, Indonesia
- H.E. Seamus O'Regan, Minister of Natural Resources, Canada

Highlights from Germany's perspective on the way ahead:

- » **Green hydrogen is key to decarbonise hard to electrify sectors in Germany and reach climate neutrality by 2050.** To assume global responsibility in emissions reduction, Germany adopted the national hydrogen strategy in June 2020 and established hydrogen as an option to decarbonise these sectors. As an energy importer, Germany will also require all its energy imports to be carbon neutral.
- » **Making hydrogen cost-competitive by ramping up production and intensifying international cooperation to develop a global market are central to the German national hydrogen strategy.** To address the former, Germany will establish 5GW of the green hydrogen production by 2030 and develop transport infrastructure, alongside regulatory and subsidy schemes to stimulate demand and create a critical mass. To enhance international collaboration, Germany has committed €2bn to fund international projects to create sustainable global market and has joined IRENA's Collaborative Framework on Green Hydrogen.

Highlights from Indonesia's perspective on the way ahead:

- » **Biofuels and biomass production have a long tradition in Indonesia.** To bring stability and predictability for new investments and decarbonise transport and industry, Indonesia increased biofuels blending targets to B30 and for treated vegetable oil to B100. To reduce CO₂ emissions in large-scale industries (cement, steel, pulp and paper), Indonesia has shifted its focus to exploit its immense biomass potential.
- » **Production and increased use of green electricity are the focus of various programs for the economic development.** To benefit from its vast renewable potential, Indonesia has launched renewable energy-based development programs focused on industry and the local economy, including exploiting geothermal energy.

Highlights from Canada's perspective on the way ahead:

- » **Canada's ambitious climate plan puts a price on pollution, phases out coal-powered electricity and commits to exceed their Paris 2030 climate targets and reach net zero emissions by 2050.** Anticipating the directions of markets and accelerating the deployment of new technologies and innovation will be crucial. To reconcile economy and energy, a just and an inclusive transition will ensure support for workers whose livelihoods depend on the carbon-intensive industries.
- » **Canada sees decarbonisation opportunities in the post-pandemic recovery.** Pathways to decarbonise energy-intensive industries recognise a need for a mixture of innovative approaches in the electrification, carbon storage and clean technologies, and should simultaneously focus on radical incrementalism and breakthroughs in energy innovation.

Closing remarks

In his closing remarks, **Francisco La Camera, IRENA's Director General** welcomed a broad recognition for deep decarbonisation and appreciated ambitious strategies and policies, and innovative approaches that are emerging at scale around the globe.

Highlights from the closing remarks:

- » **Together and by focusing on innovation we can transform the economy into a resilient, inclusive and climate-proof one.** The latest IPCC studies urges that the window of opportunity for meaningful action closes fast. This requires technology and finance, but also a change of mind-set.
- » **Strategies for industry and transport must set a clear end goal of zero emissions.** Such a strategy should be built on the five technology pillars of demand reduction and energy efficiency, renewable electricity, renewable heat and biofuels, green hydrogen and e-fuels, and carbon-removal technologies and requires significant technical and economic focus to bring these solutions rapidly to the market.