

IRENA INNOVATION WEEK 2020

SUMMARY OF KEY INSIGHTS FROM THE CLOSING SESSION: WAY FORWARD

SESSION OVERVIEW

The 3rd IRENA Innovation Week took place online between 5-8 October 2020 under the theme 'Renewable solutions for transport and industry.' The last session of the 3rd IRENA Innovation Week summarized and reflected on key insights from all sessions, discussed what it means for the Paris Agreement and brought the previous technical discussions into a broader context by discussing how policies, regulatory frameworks and finance can help to scale-up decarbonisation of energy-intensive industry and transport sectors.

2 Discussions

8 Expert speakers

Participants from 64
countries

SUMMARY OF KEY INSIGHTS

High-level speakers shared perspectives on deep decarbonisation in the context of policy, regulation, and finance, reiterating the need for cross-pollination and collaboration across different stakeholders:

- » **There is growing momentum towards post-pandemic net-zero recovery plans.** Long-term strategies need to lay foundations for an irreversible shift to a resilient, net-zero and inclusive world economy.
- » **A cross-sectoral collaborative approach across the value chain** is key to decarbonise industry and transport sectors. Solutions should activate the ambition loop, create jobs, and reduce the economic crisis.
- » **Political ambition and a systems approach across technology, policy and socio-economic structures are instrumental for the energy transition.** Only fully integrated policies across sectors taking advantage of the synergies with direct and indirect electrification, bioenergy and synthetic e-fuels.

KEY TAKEAWAYS AND REFLECTIONS ON THIS WEEK'S DISCUSSIONS

Dr Dolf Gielen, IRENA's Director of Innovation and Technology Centre summarized his key insights from the week's session which involved over 100 experts from over 35 countries.

Key takeaways from this week's discussions:

- » **Affordable and scalable renewable solutions for the industry and transport sectors are on the horizon.** The energy transition discourse is rapidly shifting as deep decarbonisation is now a priority for more and more decision makers.
- » Renewable solutions based on **electrification with renewable power or by using green hydrogen** produced from renewable power are **gaining prominence as important decarbonization solutions.**
- » **A significant potential role exists for bioenergy and biomass feedstocks** within the industry and transport sectors.
- » **A massive upscaling effort is urgent.** For example, in the field of electrolyzers, the required increase is four orders of magnitude, which equals a growth rate of 135% per year sustained over 30 years.

Key reflections from this week's discussions on topics that require further analysis and mapping:

- » Agreeing **standards and certification procedures** for green energy carriers.
- » Establishing **enabling infrastructure** such as a hydrogen and renewable fuels distribution networks.
- » Improving the **economic viability** further through technological learnings and upscaling.
- » Expanding **Enabling policies** for the accelerated energy transition.
- » Utilising **Digitalisation** as an enabler and driving force for the energy transition.

FIRESIDE CHAT ON CLIMATE ACTION IN THE INDUSTRY AND TRANSPORT SECTORS

Elizabeth Press, IRENA's Director of Planning and Programme Support discussed ambitions and implications of industry and transport decarbonisation in the context of climate negotiations with:

- **Gonzalo Muñoz**, High-Level Climate Champion, Chile
- **Catherine Bremner**, Director of International Climate and Energy, Department for Business, Energy and Industrial Strategy, UK

Highlights on the climate action in the industry and transport through the lenses of initiatives from COP25 and COP26 presidencies:

- » **On maintaining momentum and getting a critical mass to decarbonise all sectors of the economy:**
 - **Commitments** to reach net-zero are **on the right track and expanding unprecedentedly** among decision makers even in COVID times, including China and California.
 - **Call to scale up** renewable solutions **faster** and implement the most **appropriate mix of renewable solutions** per challenge.
 - **Accelerate innovation through various approaches** in support of COP26 UK presidency priorities. The UK highlighted new political forums, campaigns to double the pace of transition, creation of green hydrogen transport hubs, a low carbon hydrogen development programme, a hydrogen strategy, and a new CCUS infrastructure fund with dedicated £800 million to establish at least 2 CCUS clusters in the UK.
 - **4Ps as a pathway to reach net-zero: pledge** to net zero, **plan** actions, **proceed** to deliver and **publish** activities and deliverables.
- » **On concrete public-public and public-private actions to accelerate climate action feed into more ambitious NDCs and long-term strategies and reach net-zero:**
 - **Non-Party stakeholders** have a fundamental role to play in climate action to reduce carbon emissions and should come together under the Race to Zero campaign and commit. The **Race to Zero campaign** mobilizes actors outside of national governments to join the [Climate Ambition Alliance](#). The campaign has seen many stakeholders' collaborating that is creating an ambition loop that will lead to enhanced and more ambitious NDCs.
 - Launched in September 2020, [COP26 Energy Transition Council](#) brings global political, financial, and technical leadership (including IRENA) in the power sector to work together in the run-up to COP26 to accelerate the transition from coal to clean power as part of a green economic recovery from the COVID-19 pandemic. Additionally, [Transport Decarbonisation Alliance](#) brings 3Cs - countries, cities/regions, and companies - to accelerate the global transformation of the transport sector towards a net-zero emission mobility system before 2050.
- » **On the post-pandemic green and sustainable recovery:**
 - Call on the government to adopt **recovery plans that lay foundations for an irreversible shift to a resilient, net-zero and inclusive world economy**. Governments should embrace and build plans **around cost-competitive renewables**, electric battery and storage systems. This, in turn, brings benefits including the creation of new industries, jobs, and clean sustainable livelihood and environment.
 - To unlock public and private finance, such **recovery plans require financial system transformation**. In efforts to provide a replicable framework to do some, the Task Force on **Climate-Related Financial Disclosures** was established and provide a framework for companies to calculate their exposure to climate risk and disclose it to investors.

PUBLIC-PRIVATE DISCUSSIONS

Dr Rabia Ferroukhi, IRENA's Director of Knowledge, Policy and Finance opened the session by briefly introducing policies to support the energy transition in industry and transport:

- » **Global efforts in heating and cooling and transport are significantly lagging due to institutional, technical and financial barriers**. Addressing those barriers needs an integrated and systems approach. Enabling the

transition pathways for heating and cooling sector needs both cross-cutting policies, such as target setting, fossil fuel subsidies removing and private investment mobilisation, and pathway-specific policies.

- » **A systems approach across technology, policy and socio-economic structures is instrumental for the energy transition.** This approach requires the appropriate deployment policies as well as the fundamental systemic changes to the socio-economic structures upon which this transition relies. Only then can we ensure the millions of renewable energy jobs, economic development and health benefits the transition can generate for societies around the world.

Dr Ferroukhi then moderated the discussion on how to scale-up deep decarbonization technological solutions for industry and transport from the policy, regulatory and finance perspectives with:

- **Dr Young Tae Kim**, Secretary General, ITF
- **Amanda Wilson**, Director General, Office of Energy Research and Development, Natural Resource Canada
- **Ola Göransson**, Senior Advisor in the Climate Division, Ministry of Environment, Sweden
- **Michael Hackethal**, Head of Division - General issues of international energy cooperation, multilateral energy cooperation, BMWi, Germany
- **Gregory Dolan**, CEO, Methanol Institute
- **Soma Banerjee**, Executive Director, Confederation of Indian Industry

Highlights from the discussion:

- » **Political ambition is key to support the energy transition.**
- » **Achieving governments' commitment to climate goals need coordinated collaboration and joint efforts at the institutional level.** Various countries set up climate cabinets encompasses different ministries to work together and share responsibilities to implement climate action plans. The monitoring mechanism is important to ensure the implementation on track. The regulatory framework and standards, such as biofuel blending, mandates, EV charging infrastructure, need to incentivise companies and citizens to take additional actions to move forward.
- » **Engaging all stakeholders in the target setting process could ensure better implementation and make the targets more achievable.** Bringing various stakeholders (different relevant ministries, industries and civil society) together around the shared vision requires their alignment around shared objectives and a good understanding of their roles. For example, Sweden's industries developed more than 20 voluntary roadmaps on fossil fuel-free economy to support climate goals.
- » **A cross-sectoral integrated approach along the value chain is essential and should be approached on a step-by-step basis.** Building consensus and knowledge on the decarbonisation of transport and industry is challenging for achieving the targets. Different ways of engagement are needed.
- » **Full range of toolboxes should be used** to accelerate the transition and make renewable-based solutions affordable. **Technologies are mature, but their scalability is their key barrier.** Smart grids and storage system, bio-methanol and e-methanol, hydrogen, and other technologies and fuels all play an equally important role in decarbonising industry and transport.
- » **Affordability and accessibility** of renewable energy are **big issues to consider for developing countries to deploy renewables.** This directly affects the way renewables are integrated into the existing system and challenges related to the power grid and transmission and distribution facilities need to be addressed.
- » **Publicly funded long-term and coordinated research and innovation programmes are key.** The programmes need to be geared towards current and future needs including the needs in energy-intensive industry and transport sectors and aim to achieve technological and non-technological progress.

CLOSING REMARKS

Francesco la Camera, IRENA's Director General concluded the week of discussions with public and private sector experts from across IRENA's global membership with encouraging and inspiring messages:

- » Partnering with organisations around the world and bringing over 100 speakers from over 35 countries brought truly **global perspectives and a broad view of emerging solutions in industry and transport coupled with systemic innovations, financial and policies needs.**
- » Getting to the 1.5-degree pathway is challenging and **commitments from all sectors especially transport and industry are key.**
- » The current pandemic can show us what we can achieve by encouraging innovation and cooperation. We hope to recover better and building a sustainable future.
- » IRENA continues to be fully focused on helping countries realise their renewable transition pathway.