

IRENA Innovation Week 2020

Closing Session: Way forward – challenges and opportunities to decarbonise industry and transport

Thursday, 8 October 2020 • 14.00 – 16.00 CEST

Concept Note

Background

Building on the IRENA Innovation Weeks in 2016 and 2018, the International Renewable Energy Agency (IRENA) is hosting a third IRENA Innovation Week in 2020. This time it will be a virtual gathering of leading policy makers, innovators, developers and investors from across IRENA's diverse global membership, convened to explore how systemic, innovative, renewable solutions can support the deep decarbonisation of industry and transport sectors.

Effectively tackling climate change will require the complete decarbonisation of all sectors of the economy by the second half of this century. That will be very challenging. And particularly so in some key industry and transport sectors where viable options are currently limited. Renewables, supplemented with other options, can play a pivotal role in these sectors. However, their potential to date has often been underestimated or undervalued by both governments and industry.

IRENA Innovation Week 2020 is intended to both inspire and inform decision makers by showcasing emerging renewables-based solutions from around the world and by exploring the actions needed to fully unlock the potential of renewables in the end-use sectors.

With renewables now the most cost-effective option for new power generation in much of the world, the significantly increased use of renewable-electricity in the end-use sectors of transport, industry and buildings, is a viable and attractive option. IRENA's analysis indicates that electricity will need to provide over 40% of final energy demand in end-use sectors by 2050. Biomass, green hydrogen and synthetic-renewable-fuels will also play an important role in decarbonising key industrial sectors such as the petrochemicals, iron & steel production, as well in transport and as a potential replacement for natural gas use. IRENA's scenario shows that a five-fold increase of biofuels would be needed by 2050 and over a hundred-fold increase in hydrogen production.

Supported by insights from IRENA's analysis and work on the ground, informed by the experience of recent projects and drawing on the expertise of a diverse range of speakers and attendees, IRENA Innovation Week 2020 will explore the challenges and the emerging innovations in technology, business models and system operation that can support the decarbonisation of the end-use sectors.

Objective of the closing session

In the high-level closing session, IRENA will summarise key insights and takeaways from sessions from across the preceding 3 days of discussions, reflect on main challenges and opportunities and identify next steps.

Fireside chat with climate champion, industry representative and the UK COP26 presidency will share their commentaries from the sessions and their perspectives on challenges and opportunities for the complete decarbonisation of these sectors to achieve Paris Agreement and how it fits the pathways towards COP26 and beyond.

The final panel discussion will bring technological solutions into a broader context and discuss how policies, regulatory frameworks and finance can help to scale up decarbonisation of challenging industry and transport sectors.

Format of the closing session

The format of the session aims to be interactive to allow for sharing high-level commentary and next step:

Way Forward

Thursday, 8 October 2020

Key takeaways

14:00 – 14:15

Dr Dolf Gielen, IRENA Director of Innovation and Technology Centre

Climate action in the industry and transport sectors (fireside chat)

14:15 – 14:45

Moderator: Elizabeth Press, IRENA Director of Planning and Programme Support

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

14:45 – 14:50

Digital Break

Public private panel discussion

14:50 – 15:50

Scene setter and moderator: Dr Rabia Ferroukhi, IRENA Director of Knowledge, Policy and Finance Centre

- **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

Closing remarks

15:50 – 16:00

Francesco la Camera, Director General, IRENA

Speaker biographies

Key takeaways

Dr Dolf Gielen, Director of Innovation and Technology Centre, IRENA



As Director of the IRENA Innovation and Technology Centre in Bonn since 2011, **Dr Dolf Gielen** oversees the agency's work on advising member countries in the area of technology status and roadmaps, energy planning, cost and markets and innovation policy frameworks.

Way Forward

Elizabeth Press, IRENA Director Planning and Programme Support [moderator]



As the Director of the Planning and Programme Support (PPS), **Elizabeth Press** oversees the internal co-ordination and the strategic integration of extra-budgetary resources in IRENA's programmatic work. She leads the reporting on programmatic matters to governing bodies and individual donors, facilitates Agency-wide participation in global or thematic initiatives and contributes to strengthening IRENA's presence in Europe, including at the EC level and with Germany as Host Country.

Ms. Press joined IRENA in November 2010 and was a member of the team that led the transition from the Preparatory Commission to becoming a full-fledged Agency in April 2011. Prior to joining IRENA, Ms. Press had some 18 years of international experience, mainly with the United Nations, in the field of development, humanitarian assistance, rule of law and political affairs. She has served in HQ duty stations in New York and Geneva, as well as in different field locations, including Rwanda, Kenya, Burundi, DRC, Cambodia, and Kosovo. Ms. Press holds an MA in Public Administration.

Gonzalo Muñoz, High-Level Climate Champion, Chile



Gonzalo Muñoz is the High-Level Champion of Chile. He is a business entrepreneur and social change-maker at the forefront of environmental innovation in Chile, who reinvented the country's recycling industry to usher in a future without waste. He did so by founding a recycling company called TriCiclos in 2009 and, ever since, has been presiding over the expansion of the company to other parts of Latin America. TriCiclos produces a recycling station capable of recycling 90 percent of household solid waste. Through the popularity of his innovation, Muñoz has been leading a cultural movement to advance environmental sustainability and social inclusion. In recognition of his leadership, Gonzalo Muñoz was awarded the Circulares 2019 international prize at World Economic Forum's Annual Meeting in Davos and was also invited to join the New Plastics Economy advisory panel at the Ellen MacArthur Foundation. For

years, Gonzalo Muñoz has been at the forefront of environmental innovation in Chile — reinventing the country’s recycling industry to usher in a future without waste.

Catherine Bremner, Director of International Climate and Energy, Department for Business, Energy and Industrial Strategy, UK



Catherine Bremner is responsible for the Science – energy and climate team in the UK’s Government Department for Business, Energy and Industrial Strategy. The team is responsible for the UK’s Greenhouse Gas Inventory and sponsor to the Met Office Hadley Centre. She is also on the advisory board of UK ERC, CSIRO, Climate Works and Climate Bonds Initiative globally.

Her career spans 15 years of experience in clean energy, environmental finance, science and engineering. As Head of Sustainable Finance Solutions – ANZ, Catherine provided advice to clients in developing opportunities for environmental finance solutions and applying her specialist banking expertise relevant to clean energy/environmental sector. She has led development of ANZ’s first Environmental Upgrade Agreement financing, Green Bond, distributed energy financing and energy efficiency advisory roles.

Prior to joining ANZ, Catherine was the Chief Operating Officer at Low Carbon Australia, leading the teams deal to providing finance for energy efficiency and renewable projects to Westpac, National Australia Bank, Macquarie, Commonwealth Bank of Australia, Flexi-rent and Australian corporates. As Head of International Development for the UK Government’s Carbon Trust Catherine negotiated the Joint Venture on low carbon technology development between the Carbon Trust and the Chinese Government State Owned Entity. Furthermore, she was an analyst at McKinsey & Company.

Catherine Bremner holds a Master of Science in environmental management (MSc) from Oxford University and a Bachelor of Chemical Engineering from the University of Queensland. She is also a graduate of the Australian Companies Institute of Directors (AICD) and Chief Executive Women scholarship beneficiary.

Private public discussion

Dr Rabia Ferroukhi, IRENA Director, Knowledge, Policy and Finance Centre [moderator]



As Director of the Knowledge, Policy and Finance Centre (KPFC), **Dr. Rabia Ferroukhi** oversees the Agency’s work on a range of renewable energy policy issues including design, socio-economic benefits and integrated resource management. Dr. Ferroukhi joined IRENA in 2011 and has over 20 years of experience in the fields of energy, development and environment.

She worked in both public and private sectors, including with governments in the Middle-East and North Africa, energy companies in the Mediterranean region and the GCC, and international institutions. Dr. Ferroukhi holds a Master in Applied Economics and a Ph.D. in

Economics from the American University in Washington DC. Please add short biography

Dr Young Tae Kim, Secretary General, ITF – international transportation forum



Dr. Young Tae Kim is the Secretary-General of the International Transport Forum (ITF). He was elected by the transport ministers of ITF member countries at their annual summit on 1 June 2017 and took office in August 2017. Prior to his election as ITF Secretary-General, Dr. Kim distinguished himself in the civil service of his native Korea, most recently serving as Director General in the Ministry of Land, Infrastructure and Transport (MOLIT). As Deputy Director-General from 2015, he was responsible for coordinating various transport policies including on autonomous vehicle, greenhouse gas reduction, urban transportation, Intelligent Transport Systems and road safety, among others. After joining the MOLIT in 1994 as Deputy Director for Urban Transport, Dr. Kim also held several Deputy Director and Director positions with responsibility for housing welfare, integrated city development and overseas infrastructure construction. He was seconded to the Prime Minister's Commission on Administrative Reform in 1996 and the Presidential Committee on Social Inclusion in 2005-2007. From 2010 to 2014, Dr. Kim worked in Washington, D.C., as Counsellor for Construction, Transport and Maritime Affairs at the Korean Embassy. Dr. Kim earned his Master's degrees in Public Policy from Seoul National University, Korea, and in Urban Studies from Paris University de Vincennes-Saint-Denis, France. He also received his Doctorate degree in Political Sociology and Public Policy from the Institut d'Etudes Politiques (Sciences-Po), Paris, France. Dr. Kim speaks fluent English, French and some Spanish, in addition to his native Korean.

Amanda Wilson, Director General, Office of Energy Research and Development, Natural Resource Canada



Amanda is the Director General of the Office of Energy Research and Development at Natural Resources Canada where she is responsible for a number of Government of Canada programs and initiatives in the area of energy innovation. In this capacity she serves as the Canadian representative on the Mission Innovation Steering Committee, and is the chair of the IEA Committee on Energy Research and Technology.

Prior to taking on her current role in 2017, Amanda held the position of Director of Operations for the Smart Cities Challenge at Infrastructure Canada, where she played a key role in the design and launch of the Challenge. She previously served as Executive Director, then Acting Director General, of the Centre for Chronic Disease Prevention at the Public Health Agency of Canada, and was responsible for Government of Canada programming in the area of healthy living.

Amanda has also held executive level positions at Health Canada, including in the Deputy Minister's Office and the First Nations and Inuit Health Branch.

She holds a law degree from the University of Ottawa and an undergraduate degree in political science from Dalhousie University.

Ola Göransson, Senior Advisor in the Climate Division, Ministry of Environment, Sweden



Ola Göransson is a Senior Advisor in the Climate Division at the Swedish Ministry of the Environment. He is currently the project leader for the ministry's work with the Leadership Group for Industry Transition, an initiative that the prime ministers of Sweden and India jointly launched at the UN Climate Action Summit in 2019 and that is joined by 28 governments and major companies. At the ministry he has worked on a range of topics including setting up the Swedish Climate Policy Council and initiatives for sustainable urban development. Ola has studied at the Stockholm School of Economics and at the Royal Institute of Technology.

Michael Hackethal, Head of Division - General issues of international energy cooperation, multilateral energy cooperation, BMWi, Germany



Michael Hackethal joined the German Federal Ministry for Economic Affairs and Energy in 2008 where he has been working in the ministry's energy department since 2014. Before that, Michael worked for the Delegation of the European Commission in Moscow and for a network of microfinance and SME banks in the CIS region since 2001. Michael holds degrees in business administration from Passau University as well as an M.A. in Russian, Eastern European and Central Asian Studies from Harvard University. He heads the division for Multilateral energy cooperation at the German Federal Ministry for Economic Affairs and Energy since October 2019.

Gregory Dolan, CEO, Methanol Institute



Greg Dolan has held a variety of senior management positions with the Methanol Institute over the past 24 years, serving as CEO for the past decade. Mr. Dolan manages MI's offices in Washington, Singapore, Brussels, Beijing, and Delhi, while directing international governmental relations, media relations, public education and outreach efforts. He has presented papers on methanol-related topics at more than 100 international conferences, authored magazine articles, and written book chapters on the methanol industry. Mr. Dolan came to MI after spending a decade in a variety of public information positions in New York State, with the Department of Environmental Conservation, the Energy Research and Development Authority, and the Department of Transportation. Mr. Dolan holds a Bachelor of Arts degree in Political Science from Boston University, and did extensive post graduate work in Political Communication at the State University of New York-Albany.

Soma Banerjee, Executive Director, Confederation of Indian Industry



Ms Soma Banerjee is the Executive Director of the Confederation of Indian Industry. She leads CII’s work in the areas of Economic Affairs, Finance, Public Policy, Regulatory Affairs, Corporate Governance, Legal Services, and Energy & Infrastructure – which includes the core sectors of power, renewables, hydrocarbons, roads & highways, railways, shipping, aviation, real estate, construction and Smart Cities. One of her key responsibilities is to build upon linkages between the federal, state and foreign governments to join the dots on India’s policy landscape. Ms Banerjee and her team of 40 highly qualified professionals work across portfolios as diverse as policy advocacy and sectoral roadmaps, business and technology reports, major events and social development programmes through high-level stakeholder engagements with government officials, industry captains, investors, civil society, and the international community. She has represented CII on different conferences and panels across the world in the space of clean energy. She has also been a strong proponent of clean energy and has led various Government interactions and has accompanied various Ministers and senior Government officials on international delegation for presenting India as a favourable renewable energy destination. As part of CII’s senior management, Ms Banerjee reports to the Director General and is integral to the institution’s efforts to promote India’s sustainable economic growth. Her work has provided CII a range of opportunities to align with the global agenda of driving growth with a human face. Ms Banerjee joined CII in 2014 and is based out of its Central Office in New Delhi. Ms Banerjee’s work experience spans 28 years. Prior to CII, she served as National Economics Editor at India’s largest business daily, The Economic Times, for 22 years. Writing and public policy advocacy comes naturally to her, and she has expounded her skills through numerous articles on subjects such as macroeconomics, government policy, finance, energy and social issues, receiving recognition from global institutions. She was a part of ET’s senior leadership strategy team and played a crucial role in shaping its content and branding. Ms Banerjee holds a Master’s degree in International Relations.

Closing remarks

Francesco la Camera, IRENA Director General



Francesco La Camera is the Director-General of the International Renewable Energy Agency (IRENA). He brings more than thirty years of experience in the fields of climate, sustainability, and international cooperation.