

INNOVATION CLIMATE AND THE FUTURE

HOW TO ACCELERATE THE CONTRIBUTION
OF NEW TECHNOLOGIES TO TACKLE CLIMATE



9TH OF DECEMBER 2019
9:00-18:00

REPRESENTATION OF NORTH RHINE - WESTPHALIA TO
THE EUROPEAN UNION, RUE MONTOYER 47,1000 BRUSSELS

A dramatic landscape of snow-capped mountains and glaciers under a twilight sky. The scene is dominated by dark, jagged mountain peaks and large, flowing glaciers. The sky is a deep, dark blue, suggesting dusk or dawn. The overall mood is serene yet powerful, emphasizing the scale and beauty of the natural world.

With the intention to introduce a European Green Deal within her first hundred days in office, European Commission President-Elect Ursula von der Leyen has placed addressing climate change at the forefront of the EU's upcoming political agenda.

For Europe to meet its ambitious objective to become the world's first carbon-neutral continent and reduce CO₂ emission by at least 50 percent by 2030, the EU will have to establish a policy and regulatory environment that encourages the creation and innovation of new technologies critical to meeting this important challenge.

Although progress has been made in this regard over the last few years - through for example the sustained emphasis on the circular economy, or, more broadly, the introduction of the Better Regulation Guidelines - still more can and should be done to harness the EU's capacity to innovate and embrace the future.



PROGRAMME

● **8:30-9:00 / Registration and Coffee**

● **9:00-9:20 / Welcome and Introduction**

Mark Ferguson, *Director General, Science Foundation Ireland, Chief Scientific Adviser to the Government of Ireland and newly appointed Chair of the European Innovation Council (EIC) Advisory Board*

● **9:20-9:35 / Opening Keynote**

Daria Tataj, *Former Chairwoman of High-Level Advisors to European Commissioner for Research, Science & Innovation; Member of the Advisory Board of Re-Imagine Europa*

● **9:35-11:00 / Session 1: An improved policy framework to foster innovation for climate change**

To address the challenge of climate change, society will need an effective policy framework to manage scarce resources, support sustainable innovation and employ new technologies that can help reverse and mitigate increasing climate volatility as well as advance sustainable production and consumption.

- How can we improve our innovation eco-system to more effectively develop sustainable solutions?
- Do we need to reform our political institutions and processes to manage resources better and accelerate the employment of new technologies to reverse climate change?
- Which new policy tools or processes could help us achieve a better co-evolution of technical and social innovation to develop sustainable solutions for society?

Speakers:

Alexandre Affre, *Director for Industrial Affairs & Entrepreneurship, Business Europe*

Felice Simonelli, *Senior Research Fellow, Centre for European Policy Studies*

Daria Tataj, *Former Chairwoman of High-Level Advisors to European Commissioner for Research, Science & Innovation; Member of the Advisory Board of Re-Imagine Europa*

Chair:

Robert Madelin, *Chairman of FIPRA International, former Director-General of DG CONNECT*

● **11:00-11:15 / Coffee Break**

● **11:15-12:45 / Session 2: The role of science in developing solutions to tackle climate change**

Science plays a key role in informing policy decisions, particularly in the area of climate change, where the generation and interpretation of evidence is essential for developing effective instruments and policies. However, in an age where facts are often contested or falsified, society needs an effective system of scientific advice, high quality data generation and a credible institutional framework that does not tolerate misinformation.

- How can we improve the impact of science in generating and analyzing data as well as devising effective policies to tackle climate change? What role should academia, key societal stakeholders, media and political institutions play in this process?
- How can we ensure that the social sciences and social innovation play a prominent role in developing new solutions to the climate crisis?
- What role can citizens and citizens science play in advancing science to better understand and address climate challenges?

Speakers:

Steffi Ober, *Team Leader Economics and Research Policy, NABU - Naturschutzbund Deutschland e.V.*

Richard Meads, *Rapporteur at European Risk Forum*

Luca De Biase, *Editor in chief - Nòva Il Sole 24 Ore*

Chair:

Keith Sequeira, *Head of Unit EIC Governance & Coordination, DG RTD*

● **12:45-13:45 / Lunch**

● **13:45-15:15 / Session 3: Technology Area 1 – Digitalization & Climate Change**

Digital tools and new sources of data can help scientists, policymakers, manufacturers, farmers, and other citizens improve their understanding of the dynamic relationship between land, life, water and climate and act accordingly. This session will discuss some of those tools and their potential impact. Questions that will be addressed include:

- What are the biggest challenges to deploying these tools for a positive effect on climate issues? How can we overcome those challenges?
- Recognizing that digitalization also has its own climate and environmental costs (e.g., energy-intensive data storage centers, rare earths and precious metals used in manufacturing digital tools), how can we also ensure that digital tools are as climate-friendly as possible?
- What other digital advances are on the horizon that could contribute in this area?

Speakers:

Sam Baker, *Partner, Strategy/ Purpose/ Innovation, Monitor Deloitte*

Stephanie Hampton, *Division Director, Division of Environmental Biology at National Science Foundation (NSF)*

Susanna Mäkelä, *Sr Director Government Affairs at Microsoft EU office*

Chair:

Bernd Halling, *Head of Corporate Policy and Strategy at Bayer*

● **15:15-15:30 / Coffee Break**

● **15:30-17:00 / Session 4: Technology Area 2 – Life Sciences & Climate Change**

The life sciences already affect our daily lives, from the medicines we take to the food we eat and the ways that they are produced. This session will look at some of the latest developments in this field and their current and future contributions to tackling climate change. Questions that will be addressed include:

- From the perspective of scientists, what can policymakers do to help realize the full potential of these applications from a climate perspective?
- What societal and market forces affect the deployment of life science technologies to address climate change and benefit sustainable development?
- In a world of sound bites and click bait, where science is hard to communicate, what role do scientists play in the public debate on these issues?

Speakers:

Dirk Inzé, *Science Director of the VIB-UGent Center for Plant Systems Biology*

Julia Harnal, *Vice President, Global Sustainability & Governmental Affairs at BASF*

Tobias Erb, *Director of Department at the Max Planck Institute for Terrestrial Microbiology*

Chair:

Angela Karp, *Director for Science Innovation, Engagement and Partnerships at Rothamsted Research*

● **17:00-17:20 / Closing Keynote**

Mariya Gabriel, *European Commissioner for Research, Innovation, Education, Culture & Youth*
Former Commissioner for the Digital Economy and Society

● **17:20-18:00 / Networking Cocktail**

CHAIR



PROF. MARK FERGUSON

**Director General, Science Foundation
Ireland and Chief Scientific Adviser
to the Government of Ireland**

Professor Mark W.J. Ferguson commenced as Director General of Science Foundation Ireland in January 2012 and as Chief Scientific Adviser to the Government of Ireland in October 2012. Professor Ferguson is Chair of the European Commission Pilot Advisory Board for the European Innovation Council and is a founding member of the Small Advanced Economies Initiative. He was Chair of the eHealth Ireland Committee, (2015 – 2017), a member of the EU High Level Expert Group on Horizon 2020 Impact (2017) and has been involved in a number of international reviews of R&D systems, including Hungary, Denmark and Canada. Previously he was Professor in Life Sciences at the University of Manchester (since 1984) and co-founder, CEO and Chairman of Renovo Group plc (1998-2011).

He is the recipient of numerous international research awards including the 2002 European Science Prize (jointly), and is the author of 329 research papers and book chapters, 61 patent families and author / editor of 8 books. He has contributed to a number of scientific films, documentaries, TV and radio programmes and held offices in 16 international scientific societies, including President of the European Tissue Repair Society. He has wide ranging research interests in cellular and molecular mechanisms in scarring and wound healing, developmental mechanisms in normal and cleft palate formation, alligator and crocodile biology including temperature dependent sex determination.

Mark graduated from the Queens University of Belfast with degrees in Dentistry (BDS 1st class honours), Anatomy and Embryology (BSc 1st class honours, PhD) and Medical Sciences (DMedSc), holds Fellowships from the Royal Colleges of Surgeons in Ireland (FFD), and Edinburgh (FDS), Fellowship of the Irish Academy of Engineering and is a Founding Fellow of the UK Academy of Medical Sciences (FMedSci). He is a member or Fellow of a number of learned Societies, and was made a "Commander of the British Empire" (CBE) by the Queen in 1999 for services to Health and Life Sciences.

<http://www.sfi.ie/about/organisation/sfi-directors/prof-mark-ferguson.html>

KEYNOTE SPEAKERS



MARIYA GABRIEL

**European Commissioner for Research, Innovation, Education, Culture & Youth
Former Commissioner for the Digital Economy and Society**

Bulgarian-born Mariya Gabriel is the current European Commissioner for Digital Economy and Society.

She was the Vice-President of the EPP Group in the European Parliament from 2014-2017.

Mariya Gabriel was a Member of the European Parliament, EPP/GERB (Citizens for European Development of Bulgaria) from 2009-2017.

Since 2012, Mariya Gabriel has served as Vice-President of EPP Women. Prior to this she was Parliamentary Secretary to MEPs from the GERB political party within the EPP Group in 2008-2009.

She is part of project teams, such as Digital Single Market, Energy Union, Better Regulation and Interinstitutional Affairs, Budget and Human Resources, and Jobs, Growth, Investment and Competitiveness. As a member of the project teams, her responsibilities include launching ambitious proposals for the completion of a connected Digital Single Market, supporting the development of creative industries and of a successful European media and content industry, as well as other activities turning digital research into innovation success stories.



DARIA TATAJ

Former Chair of High-Level Advisors to European Commissioner for Research, Science and Innovation; Member of the Advisory Board of Re-Imagine Europa

Dr. Daria Tataj, Founder & CEO of Tataj Innovation, is the world expert on innovation and Network Thinking. Based in Barcelona, Tataj Innovation helps companies, cities and entire countries develop new growth models using research and the Network Thinking methodology. As a Chairwoman of High-Level Advisors to European Commissioner for Research, Science & Innovation, Dr. Tataj led the policy reflection on €100 billion Horizon Europe budget. Dr. Tataj played an instrumental role in setting up the EIT and the first KICs. She shapes the global agenda as author, influencer and thought leader of the World Economic Forum. Prof. Manuel Castells endorsed her book 'Innovation and Entrepreneurship. A Growth Model for Europe Beyond the Crisis' as 'the fundamental book that will reshape the way we think.'



ALEXANDER AFFRE

Director for the Industrial Affairs, entrepreneurship & SMEs department at BusinessEurope

Alexander Affre joined BusinessEurope in 2007 as advisor in environmental affairs. Since 2013, Alexandre is responsible for coordinating the organisation's positions on industrial policy, energy, climate, environment, research and innovation, as well as entrepreneurship and SMEs.



SAM BAKER

Partner, Strategy/ Purpose/ Innovation, Monitor Deloitte

Sam has been a partner in Monitor Deloitte, Deloitte's strategy consulting practise, since 2006. He works primarily across the Telco, Media, Technology and Education sectors, developing purpose inspired, digitally informed, growth strategies. He has also held a number of firm management positions including acting as CSO for the UK firm and practice lead for Monitor Deloitte in EMEA.



LUCA DE BIASE

Editor of Nòva24 – Il sole 24 Ore, Media Director at Re-Imagine Europa

Luca De Biase is chief editor at Nòva24 – Il sole 24 Ore, the innovation section in the main financial newspaper in Italy, which he founded in 2005. Luca is "innovation journalism" visiting professor at Padua University and "digital humanities" visiting professor at Pisa University. The Media Ecology Association awarded Luca with The James W. Carey Award for Outstanding Media Ecology Journalism 2016.



TOBIAS ERB

Director at the Max Planck Institute for terrestrial Microbiology

Tobias Erb studied Chemistry and Biology at the University of Freiburg (Germany) and the Ohio State University. His research centers on the discovery, function and the design of novel CO₂ converting enzymes and their use in engineered and artificial photosynthesis, as well as the design of synthetic chloroplasts and cells.



STEPHANIE HAMPTON

Director of the Division of Environmental Biology, US National Science Foundation

Dr. Stephanie Hampton is Division Director for the National Science Foundation's Division of Environmental Biology. Her scientific background is in freshwater biology, statistical analysis, and environmental informatics. Working at the National Science foundation since May 2018, she also continues to serve as a Professor in the School of Environment at Washington State University.



BERND HALLING

Head of Corporate Policy and Strategy at Bayer

Bernd Halling studied history and geography at the Humboldt University in Berlin and the University of Dún Éideann. He worked as Head of Office for a Member of the European Parliament (1995 – 1999) and was Director of Public Policy for the European Biotech Association EuropaBio (1999-2004). Mr. Halling served as Senior Advisor in external affairs for IDEA in Stockholm (2004-2005), an international organization with the task to support democratization as well as director for Communication for IFAH Europe and IFAH Global, the industry representation of the animal health industry (2005-2008). Bernd Halling was Head of the EU-Liaison Office for the Bayer AG (2008-20017) and is since 2017 Head of Corporate Policy and Strategy in Bayer Public and Governmental Affairs.



DIRK INZÉ

Professor at Ghent University, Director of the Center for Plant Systems Biology of the VIB

In 2002, Dirk was appointed Director of the Center for Plant Systems Biology of the VIB. Dirk's research was recognized by numerous awards, such as the Francqui Prize and the FWO Excellence Prize. He is member of the KVAB and European Academy of Sciences and Arts. In 2017, Dirk was awarded with the prestigious World Agriculture Prize.



ANGELA KARP

Director for Science Innovation, Engagement and Partnerships at Rothamsted Research

Angela is Director for Science Innovation, Engagement and Partnerships at Rothamsted Research. She is leading the Institute's overall strategy on external engagement and partnerships, and is developing new mechanisms for collaborative innovation. Angela's career includes more than 35 years' experience in crop genetics and breeding for food and bio-renewables.



ROBERT MADELIN

Chairman of Fipra International Ltd

Robert Madelin is the Chairman of Fipra International Ltd, a global public affairs advisory firm with boots on the ground in 5 continents and 50 countries, including every EU member state. Robert also sits on the International Advisory Council of Teladoc Health, Inc. and holds a Visiting Research Fellowship in the Centre for Technology and Global Affairs at Oxford, where he read History and French as an undergraduate.



SUSANNA MÄKELÄ

Senior Director, Microsoft EU affairs

Susanna Mäkelä has spent most of her career in ICT sector combining senior counseling, policy outreach, transformation, strategy and leadership. She currently works at Microsoft EU office in Brussels managing the operations; she previously lead Japanese team of Microsoft Corporate External Legal Affairs team in Tokyo. Susanna spends as much as possible of her free time in the countryside and she is a big fan of Japanese culture.

RICHARD MEADS

Rapporteur of the European Risk Forum (ERF)

Richard Meads is the Rapporteur of the European Risk Forum (ERF). The ERF is the think tank in Brussels dedicated to the promotion of high-quality risk governance and regulation at the EU level. Richard has been involved in public policy issues for more than twenty-five years. A graduate of Oxford University, he is also a Chartered Accountant.



STEFFI OBER

Founder and leader, Forschungswende project

Since 2004 Dr. Ober is working for the Nature and Biodiversity Conservation Union (NABU e.V.), one of the oldest and largest environment associations in Germany. Since 2014 she is also a guest lecturer at the University for Sustainable Development (Eberswalde). Dr. Ober leads the team Economics and Research Policy at NABU and is the initiator and director of the civil society platform Forschungswende.



FELICE SIMONELLI

Senior Research Fellow and Head of Policy Evaluation at CEPS

Felice Simonelli provided research and advisory services to various public institutions, trade associations, and private companies. He has extensive experience in data collection and analysis across EU countries, including conducting interviews and surveys and planning stakeholder consultations on behalf of the European Commission.

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