

Science Debate under the Portuguese Presidency of the Council of the European Union:

Climate neutral by 2050: the role of measurement science in delivering the EU's Green Deal

Hosted by IPQ and EURAMET

Wednesday, 5 May 2021 | 15:00 – 16:30 UTC+1

Online debate

Speakers

João Correia Neves, Deputy Minister for the Economy, Portugal

António Mira dos Santos, President of IPQ, National Metrology Institute of Portugal

Hans Arne Frøystein, EURAMET Chairperson

João Gonçalo Maciel, Centre for New Energy Technologies, EDP – Energias de Portugal

Emma Woolliams, European Metrology Network for Climate and Ocean Observation

Arul Murugan, European Metrology Network for Energy Gases

Gert Rietveld, European Metrology Network for Smart Electricity Grids

The event aims to:

- bring together stakeholders from policy, industry and science and all other interested parties;
- encourage discussions on future needs for industry, climate observation and a costefficient energy transition in Europe; and
- introduce the European measurement science networks that will foster research and support innovation in these areas.

Description

The European Commission has stated that, "becoming the world's first climate-neutral continent by 2050 is the greatest challenge and opportunity of our times". The European Green Deal is arguably its most ambitious commitment to date in terms of mitigating climate change and preserving the environment. Its aims are:

- A successful energy transition towards a zero-carbon, climate-resilient future, requires secure, clean, efficient and sustainable energy systems.
- European and international organisations need to make complex, inter-related decisions to meet their ambitious climate change targets. Such decisions require reliable climate models and a robust, integrated, global climate observing system.
- To underpin the role of renewable gases as an alternative fuel source, Europe must address outstanding challenges to ensure their safety, compatibility, and reliability.

The role of European metrology networks

European policies aimed at mitigating anthropogenic climate change, and to developing new energy efficient technologies need to be based on sound science and accurate data.

This is where metrology, the science of measurement, plays a crucial role, by developing the infrastructure and tools required by the green economy. EURAMET, the European Association of National Metrology Institutes, has established seven European Metrology Networks; including networks for Climate and Ocean Observation, Energy Gases and Smart Electricity Grids.

The metrology networks will establish a single point of contact across Europe that can provide measurement science expertise for society and industry in specific areas, to support the implementation of the EU's Green Deal. These networks are working to identify both current and future European and global measurement needs, and to address these needs in a coordinated and collaborative manner that will bridge the gap between research and enduser communities.

In addition, EURAMET's networks aim to promote a reliable and robust measurement infrastructure by supporting standardisation, testing, services and knowledge transfer, at both the national and European level. By formulating a common metrology strategy, the networks will facilitate the establishment of a safe, reliable, and future-proof energy infrastructure.

Topics for debate:

- How does Europe's measurement science community support climate observation, data accuracy and industry?
- What can measurement science do to facilitate and scale-up the use of hydrogen to support the energy transition?
- What measurement support is needed to increase the uptake of renewable energy sources by electricity grids?
- What is measurement science doing to support the digital transformation in the energy sector?
- How to ensure that measurement research and innovation are widely accessible?
- How to ensure that measurement research and innovation have relevant and effective impacts on policy and regulation?