

K4I Forum Dinner Debate in cooperation with EURAMET and ESTEP - including speakers from Copernicus Climate Change Service and the World Meteorological Organisation

Climate change: The future of European research and collaboration to address the challenge

Hosted by Ricardo Serrão Santos, MEP

Tuesday, 5 March 2019

19:00 – 22:00

Members' Salon, European Parliament, Brussels

Description

The report of the Intergovernmental Panel on Climate Change (IPCC) examining the impacts and effects of climate change has shown the critical need for environmental action over the next decade. Europe must act now to mitigate climate change and pollution whilst ensuring sustainable growth and safeguarding citizens' quality of life. Common effort from policy, industry, science and civil society is needed.

The European Union committed itself to the Paris Agreement and has decided to seize global climate leadership to delineate ways to reduce carbon emissions to the rest of the world. Energy-intensive industries, such as steel, will have to implement new, breakthrough technologies to meet the EU's commitment.

European policies aimed at mitigating anthropogenic climate change, implementing adaptation measures and the development of new technologies need to be based upon sound science and accurate data.

How do European players including the European Union, climate scientists, data collectors, measurement scientists and industry collaborate to address this challenge? Why is research important and how can collaboration be improved? What more needs to be done?

Topics to discuss:

- The European framework: EU environmental policy, objectives and challenges
- How can energy-intensive industries mitigate greenhouse gas emissions and become carbon neutral by 2050?
- How can industrial plant control and real-time decision making be improved to tackle climate change? What is needed to get there?
- Challenges and improvements in measuring Essential Climate Variables
- How do earth observing organisations collaborate?

- How can climate monitoring be improved?
- How does Europe's measurement science community support climate observation, data accuracy and industry?
- How to build a future-proof collaboration of all crucial players?

Speakers

Host:

Ricardo Serrão Santos, *Member of the European Parliament*

Speakers:

Emma Woolliams, *Chair of the European Metrology Network for Climate and Ocean Observation, EURAMET*

Fernando Belda Esplugues, *Director Observing and Information Systems Department, WMO*

André Obregón, *Evaluation and Quality Control Manager, Copernicus Climate Change Service*

Valentina Colla, *University SSSA Pisa, Coordinator of Center ICT for Complex Industrial Systems and Processes*

Enrico Malfa, *Tenova, R&D Director Metals*

Event programme

19:00 – 20:00 – Cocktail reception

20:00 – 20:15 – Welcome by hosting MEP

Starter Served

20:15 – 20:30 – Emma Woolliams, *Chair of the European Metrology Network for Climate and Ocean Observation, EURAMET*

20:30 - 20:45 – Fernando Belda Esplugues, *Director Observing and Information Systems Department, WMO*

Main course served

20:45 - 21:00 – André Obregón, *Evaluation and Quality Control Manager, Copernicus Climate Change Service*

21:00 - 21:15 – Valentina Colla, *University SSSA Pisa, Coordinator of Center ICT for Complex Industrial Systems and Processes*

Dessert served

21:15 – 21:30 – Enrico Malfa, *Tenova, R&D Director Metals*

21:30 – 21:50 – Q&A, *All participants*

21:50 – 22:00 – Closing remarks

Host & Speakers



Ricardo Serrão Santos, *Member of the European Parliament*

Ricardo Serrão Santos is Member of the European Parliament since 2014 and full member of the European Parliament's Committees on Fisheries and Agriculture and Rural Development.

He is Coordinator of the Progressive Alliance Socialists and Democrats at the Committee of Fisheries, Vice-Chair of the European Parliament's Intergroups on "Seas,

Islands, Rivers and Coastal Areas" and "Climate Change, Biodiversity and Sustainable Development".

Ricardo Serrão Santos holds a PhD from the University of Liverpool. During his academic career he was the coordinator and president of several scientific organizations in the EU, Portugal and the Azores. He is Speciality Chief Editor at the scientific journal *Frontiers in Marine Sciences*.

He remains a member of several scientific advisory bodies, including the Paris Oceanographic Institute. Recently was selected to join the IOC/ UNESCO "Executive Planning Group" for the "United Nations Decade of Ocean Science for Sustainable Development (2021-2030)"

Serrão Santos is a member of the Portuguese Academy of Sciences and emeritus member of the Portuguese Navy Academy. He was honoured with several honours and prizes, among which a Gift to the Earth by the World Wildlife Fund for Nature (WWF) in 2002 and the Autonomous Recognition Award granted by the Azores Regional Legislative Assembly and the Government of the Azores in May 2012. In 2013 he was with the title of "Chevalier de l'Ordre de Saint Charles" by SAS Prince Albert II of Monaco.

Emma Woolliams, *Chair of the European Metrology Network for Climate and Ocean Observation, EURAMET*



Dr Emma Woolliams is Chair of the European Metrology Network for Climate and Ocean Observation. Her scientific research is on establishing methods for calibrating and validating satellite data to provide reliable climate records.

This has involved establishing a site in the Namibian desert where instruments continuously measure the reflectance of the ground and the transmittance of the atmosphere, so satellite observations can be compared with ground truth. Also she supported the development of methods to recalibrate satellites that operated in the 1980s, so we can get long term climate records.

Emma has led several European coordinated research projects and technical committees working in radiometry, thermometry and satellite Earth Observation.

Fernando Belda Esplugues, *Director Observing and Information Systems Department, WMO*



Dr Fernando Belda studied physics at the University of Valencia and holds a master's degree in Public Direction from the Spanish National Institute of Public Administration. His PhD thesis and further research activities focused on aspects related to remote sensing and climatology, forest fire monitoring, vegetation assessment and impact of climate conditions.

In his role as Director of the Observing and Information Systems Department at the World Meteorological Organisation (WMO) Fernando is leading the activities regarding instruments and methods of observation, WMO's Integrated Observing Systems and WMO's Information Systems and Satellite Programme.

Before taking over his role at WMO, Fernando has been Director of Production and Infrastructure at the "Agencia Estatal de Meteorología (AEMET).

In addition, Fernando is member of the Rector Council of Spain's Metrology Institute and Head of the Meteorological Office at the Spanish Air Force Academy.

As member of the Meteorological Group of NATO's Military Committee, Spanish delegate in the Data Architecture Committee of Global Earth Observations and Spanish delegate in the Councils of EUMETSAT, ECMWF and EUMETNET Fernando is well known on the international stage.

André Obregón, *Evaluation and Quality Control Manager, Copernicus Climate Change Service*



André Obregón is a Senior Technical Officer at the Copernicus Climate Change Service (C3S) which is implemented by the European Centre for Medium-Range Weather Forecasts (ECMWF) on behalf of the European Commission. He oversees the development of a quality assurance framework to ensure climate information provided by the service meets the needs of society.

Before joining ECMWF, he was the Climate Coordinator at the Secretariat of the Group on Earth Observations (GEO), an intergovernmental partnership advocating for full and open access to Earth observation data, information and knowledge. André liaised closely with international bodies including the Global Climate Observing System (GCOS) and the Committee on Earth Observation Satellites (CEOS), and supported climate-related activities in areas, such as agriculture, biodiversity, disasters, energy and urban areas.

He worked at the German Meteorological Service (DWD) where he was responsible for setting up the satellite-based climate monitoring component within WMO's Regional Climate Centre for Europe and the Middle East. At DWD, he was part of a preparatory project for the C3S. For many years, he served as lead author for the European chapter of the BAMS Annual State of the Climate Reports. He holds a PhD in Geography from Marburg University.

Valentina Colla, *University SSSA Pisa, Coordinator of Center ICT for Complex Industrial Systems and Processes*



Valentina Colla graduated from the Engineering Faculty of the University of Pisa in 1994 and got a PhD in Industrial and Information Engineering at Scuola Superiore Sant'Anna (SSSA) in Pisa in 1998. Since 2000 She was researcher at SSSA and She is currently Technical Research Manager and Coordinator of the Research Center "ICT for Complex Industrial Systems and Processes" (ICT-COISP) of the TeCIP Institute of SSSA.

She holds more than 20 years of experience in modeling, simulation, monitoring and control of industrial processes, with a particular focus on the steel sector. She is also an expert in the application of Artificial Intelligence and Machine Learning techniques for advanced modeling, monitoring and control within the industrial context.

She participated as scientific and technical coordinator of the activity developed by SSSA within 59 Projects funded by the EU (13 currently ongoing, 4 as Project Coordinator) and a number of project funded by private industries, mostly on issues related to industrial automation and process monitoring and control. She had several experiences as evaluator of research project proposals submitted in response to EU calls and She is the representative and delegate of SSSA within the SPIRE (Sustainable Process Industry through Resource and Energy Efficiency) Association and the European Steel Technology Platform (ESTEP).

Currently She is lecturer at SSSA for the topic of fundamentals of Neural Networks and other Bio-Inspired approach and UNIPI for the discipline of Structural Materials for Engineering.

Valentina Colla is author and co-author of more than 300 papers published in international and national journals, conference proceedings and book chapters. The complete list of Her publications is available at https://www.researchgate.net/profile/Valentina_Colla/.

Enrico Malfa, *Tenova, R&D Director Metals*



Enrico Malfa holds a degree in Aerospace Engineering, obtained at Politecnico di Milano (Milan, Italy) in 1987. He gained experience in international corporations like Aermacchi, Italcementi and ABB, where he managed a team for new equipment and processes development, supporting the marketing and sales activities of new technologies. In 2002, he joined Centro Sviluppo Materiali (Center for Materials Development), where he became responsible for the offices at TenarisDalmime in 2012. Currently, he is R&D Director of the Metals Division at Tenova, a Techint Group company, worldwide partner

for innovative, reliable and sustainable solutions in metals and mining.

Enrico Malfa holds several institutional positions, like President of WG Planet at the European Steel Technology Platform (ESTEP), is member of Technical Group Steelmaking of Research for Coal and Steel, and is in the board of AFIL - Associazione Fabbrica Intelligente Lombarda (the Association of Smart Factory in Lombardy).

He is the author of more than fifty publications and fifteen patents.