

# Atmosphere and Climate Competence Center (ACCC)

## 2<sup>nd</sup> Impact Week Agenda

**Venue:** Kulttuurikeskus Sofia, Kallvikinniementie 35, 00980 Helsinki

**Apr 11, 2023**

Climate change, climate solutions for civil society

**09:00 Safer Climate networking pre-event**

**Note:** coffee, breakfast and networking starts at 9.00. Programme starts at 9.30

**An informative but informal network meeting with breakfast for Safer Climate members and others interested: we welcome researchers, civil society organizations, students, artists etc. Follow live discussion on Finland's first climate litigation case and get to know others.**

Hosts: Wali Hashi, journalist, Senior Expert at VIKES Finnish Foundation for Media and Development + Rosa Rantanen, D.Soc.Sc., ACCC/ INAR University of Helsinki

Markku Kulmala, Academician of Science, ACCC Director / INAR University of Helsinki

Maiju Mähönen, Doctoral researcher, University of Eastern Finland

Otto Bruun, Early Stage Researcher, University of Eastern Finland

Kaisa Kosonen, Senior Climate Policy Advisor, Greenpeace Norden

**11:00 Lunch**

**12:00 Climate change as a global challenge**

**This session addresses the impacts of climate change into the global community and how to ramp up mitigation efforts in the challenging geopolitical situation.**

Markku Kulmala, Academician of Science, ACCC Director / INAR University of Helsinki

Tarja Halonen, former President of Finland

fr. Joshtrom Kureethadam from the DPIHD as a representative from the Vatican

Ambrosius, Metropolitan

Pekka Haavisto, Minister for Foreign Affairs of Finland

**14:00**      **Coffee break**

**14:30**      **Science and Civil Society: Working Together for Research-Based Climate Action**

**Discussion on the state and necessity of research-civil society collaboration: how to build new, creative spaces for climate change discussion and action? How can researchers and civil society work together for a safer climate in Finland? What opportunities do we have for upscaling joint activities in EU and international levels? How do we ensure that we work for sustainability in sustainable ways?**

Moderator Rosa Rantanen, D.Soc.Sc., ACCC/ INAR University of Helsinki

Pekka Reinikainen, Advocacy and Communications Specialist Finnish Red Cross

Theresia Bilola, D.Soc.Sc., Think Africa

Anneli Pauli, Professor of Practice, ACCC/INAR University of Helsinki

**15:30**      **Break**

**15:45**      **Educating Climate Experts in Finland**

**Finland has set an aim to be carbon neutral by 2035, as one of the most ambitious countries in the world. Transition to carbon neutral society challenges all sectors of the society and new expertise is needed. How can higher education provide support in the required pace? What are the concrete competence gaps in companies and industries at the moment? What does a climate expert need to know, and what skills and attitudes are essential to learn?**

Moderator Laura Riuttanen, University Lecturer, ACCC/INAR University of Helsinki

Hilppa Gregow, Head of Unit, Finnish Meteorological Institute

Helena Soimakallio, Executive Director, Sustainable Development, Technology Industries of Finland

Tuuli Kaskinen, CEO, Climate Leadership Coalition (CLC)

Julia Jousilahti, Senior Expert, Demos Helsinki

Kai Nordlund, Vice rector of the University of Helsinki

**17:00**      **End of the day**

**Apr 12, 2023**

Beyond net-zero - emission reductions, carbon sinks and the role of nature-based climate solutions

**09:00 Beyond net-zero - The need for fast emission reductions and massive carbon sinks**

This session addresses the urgency of climate actions, available carbon budgets and the need for massive anthropogenic carbon sinks while the natural sinks are weakening as well as most important focus areas for the scientific community in the near future.

Moderator Ari Laaksonen, Academy Professor, Finnish Meteorological Institute  
Moderator Jouni Keronen, Professor of practice, ACCC / INAR, University of Helsinki

Glen Peters, Research director for the Climate Mitigation group, CICERO (Oslo), Global Carbon project

Markku Ollikainen, Professor, chair of the Finnish Climate Change Panel

**10:00 ACCC Research & Innovation Ecosystem and Roadmap for 2025-2028**

This session introduces the current ACCC R & I Ecosystem. We discuss, how to further develop ACCC's R&I ecosystem and interaction with the stakeholders, how to create and proceed with an integrative and realistic roadmap "towards climate neutrality and beyond in Finland, in Europe and globally"?

Markku Kulmala, director, ACCC / INAR University of Helsinki  
Hanna Lappalainen, dr., ACCC / INAR University of Helsinki  
Jouni Keronen, Professor of practice, ACCC / INAR, University of Helsinki

**10:30 Break**

**10:45 ACCC nature based solutions - showcases**

This session introduces the ACCC nature based solutions and methods in the forest, in the agriculture lands and in urban environments.

Moderator Ari Laaksonen, Academy Professor, Finnish Meteorological Institute

Olli Tahvonen, Professor, ACCC / University of Helsinki  
AI in optimising forest carbon sink and timber production

Jari Liski, Research Professor, ACCC / Chief Scientist, Finnish Meteorological Institute  
Agricultural fields carbon balance and other functions in real-time,

Jukka Pumpanen, Professor, ACCC / University of Eastern Finland  
Forest carbon sink

Leena Järvi, Professor, ACCC / INAR University of Helsinki  
Carbon storage potential of urban green, the potential of carbon sinks in urban environments

Niina Ruuska, Project Manager and senior specialist, Climate and Environmental Policy Unit, City of Turku

Cities: ACCC stakeholder perspectives

**12:00 Lunch**

**13:00 Climate legislation for nature-based solutions**

**This session addresses the existing climate legislation for nature-based solutions, legislation under development and the needs for the future. The path towards net zero emissions set with the Paris Agreement requires radical changes in all sectors of the economy. Land and forest uses play an important role in delivering net zero ambitions. Yet, regulating this sector is extremely complex. The presentations will reflect on climate law- and policy-making on land and forest uses. Also challenges to the implementation of these measures, including by means of litigation will be considered.**

Moderator Anneli Pauli, Professor of Practice, ACCC / INAR, University of Helsinki

Climate law for nature-based solutions: International and EU perspectives  
Yulia Yamineva, Docent, ACCC/University of Eastern Finland

Evolving Climate Change Mitigation Policy of the European Union  
Annalisa Savaresi, Professor, University of Eastern Finland

**13:30 Nature-based solutions in practice**

**This session addresses on how nature-based solutions for climate mitigation can be developed in practice. What are most potential solutions in short and long term? What is needed – policy changes, incentives, permission procedures, R&D, etc. – to get the key measures implemented and operational on time. What are the most important focus areas for the scientific community?**

Moderator Henrik Ehrnrooth, Chairman of the board of Otava, co-chair of CLC Advisory board

Anssi Pekkarinen, Senior Forestry Officer, Global Forest Resources Assessment, FAO

Pekka Pesonen, Secretary General, Copa-Cocega, European farmers and European Agri-cooperatives

Heikki Granholm, Senior Ministerial Adviser, Ministry of Agriculture and Forestry

Simon Kay, Dep Head of Unit with DG CLIMA C3 (Land economy and carbon removals) at European Commission

**14:30 Coffee break**

**15:00 International climate agreements – how to get to net-zero and beyond**

**This session addresses when and how COP parties should update their climate targets so that 1.5C would be possible by the end of the century taking the global stocktake results and the time delays in mitigation actions into account. In addition, the most important and timely focus areas for the scientific community will be discussed.**

Moderator Jouni Keronen, Professor of practice, ACCC / INAR, University of Helsinki

Petteri Taalas, Secretary General, World Meteorological Organization

Janos Pasztor, Executive Director, Carnegie Climate Governance Initiative

Elina Bardram, Deputy Director-General - Innovation, adaptation and resilience, stakeholder relations, DG Climate, European Commission

Juhani Damski, Permanent Secretary of the Ministry of the Environment, Ministry of the Environment of Finland

**16:15**

**Invited remarks**

Moderator Kaarle Hämeri, Chancellor, University of Helsinki

Ilkka Herlin, Chairman of the Baltic Sea Action Group

Guo Huadong, Academician of Science, United Nations International Research Center of Big Data for Sustainable Development Goals, AirCAS, China

**17:00**

***Sparkling wine to start the networking dinner at the Sofia Centre restaurant***

**17:00**

*ACCC Science and Impact Advisory Board (SIAB) meeting (only for SIAB members)*

**17:45**

ACCC Impact Week Networking Dinner

## **Apr 13, 2023**

### Research infrastructure and verification methods and tools

**09:00**

**Current status and development need for climate measurements**

**This session addresses the current climate measurements in general, at the ACCC context and the needs for the future. We discuss, how we can contribute to a vision for global observations and research infrastructures in atmosphere and climate sciences.**

Moderator Mari Pihlatie, professor, ACCC / INAR University of Helsinki

Werner Kutsch, Director General, Integrated Carbon Observation System (ICOS) ERIC

Maria Kanakidou, Director Environmental Chemical Processes Laboratory, Dept. Chemistry, University of Crete

Climate-relevant observations in the East Mediterranean: Current knowledge and future needs

**09:40**

**ACCC Measurement Infrastructure**

Moderator Mari Pihlatie, Professor, ACCC / INAR University of Helsinki

Tuukka Petäjä, Professor, ACCC/ INAR University of Helsinki  
Aerosol, Clouds and Trace Gases Research Infrastructure (ACTRIS)

Jaana Bäck, Professor, ACCC / INAR University of Helsinki  
The Integrated European Long-Term Ecosystem, critical zone and socio-ecology Research Infrastructure (eLTER)

Joni Kujansuu, Research coordinator, ACCC/ INAR University of Helsinki  
GlobalSMEAR in Asia, Lessons learnt on the Asian business culture

**10:45 Break**

**11:00 Biosphere-atmosphere interactions – scientific results and knowledge gaps**

**In this session we move from research infrastructures to the science they enable. This session provides some latest research results from the ACCC related to biosphere-atmosphere interactions in changing climate. We discuss what research avenues are enabled by the data and what are the remaining burning questions and needed next steps.**

Moderator Anna Lintunen, Docent, ACCC / INAR University of Helsinki

Katrianne Lehtipalo, Professor, ACCC /INAR, FMI  
Aerosols and trace gases

Annalea Lohila, Professor, ACCC/ INAR, FMI  
Greenhouse Gases and methane

Albert Porcar-Castell, Professor, ACCC / INAR  
Forest ecosystems

**12:00 Lunch**

**13:00 Scientific research in collaboration with industry - research opportunities and examples within the ACCC air quality and climate research ecosystem**

**In this session, we address the research requirements and possibilities for companies working in the field related to climate and air quality. Speakers will present their needs, experiences of working with research, and opportunities for new research, as well as examples of how new knowledge from research informs both policy and business. Moderated by Miikka Dal Maso.**

13:00 Introduction: Moderator Miikka Dal Maso

13:10 Topi Rönkkö (TAU): Examples of joint project with industry stakeholders: BC Footprint and Future Spaces (15 min)

13:25 Teija Laitinen (NESTE): - Tackling climate crisis: Novel sustainable and scalable solutions for transportation and chemicals. (20 min)

13:45 Virpi Puhakka (VALMET) Valmet Beyond Circularity – Transforming waste and emissions into valuable resources for sustainable growth. (10 min)

14:00 Hilikka Heiskari-Tuohiniemi (VAISALA): Science-based measurements required for carbon compensation markets (15 min)

14:15 Juha Jokiluoma (VALMET): Black carbon and visible plume reduction in marine industry by wet electrostatic precipitator technology (10 min)

14:25 Miikka Dal Maso (TAU): One atmosphere – our context for emissions, air quality and climate (5 min)

14:30 Mikko Moisio (DEKATI): From measurement to legislation – some practical examples (15 min)

**14:50 Coffee break (25 min)**

15:15 Joonas Vanhanen or Aki Pajunoja (AIRMODUS): Beyond the Visible: Shedding Light on Standardization of Ambient Ultrafine Particle Measurements (15 min)

15:30: Anssi Arffman (DEKATI): Towards standard measurement of secondary aerosol emissions (15 min)

15:45 Erkka Saukko (PEGASOR): Air quality improvement by periodic technical inspection of particulate (15 min)

**16:15 ACCC International collaboration**

**This session we learn about the Bezos Earth Fund and their Systems Change Lab, which monitors, learns from and accelerates the transformational change required to protect people and the planet. Another example is the Megasense project carried out in the megacity environment in China for the air quality monitoring.**

Moderator Hanna Lappalainen, Docent, ACCC / INAR University of Helsinki

Kelly Levin, Chief of Science, Data and Systems Change, Bezos Earth Fund

Sasu Tarkoma, Professor, ACCC / University of Helsinki

Megasense, Real-time, Scalable, Intelligent, Software-driven air quality monitoring and mitigation system

**17:00 End of the day**

## **Apr 14.4 2023**

### Financing nature-based solutions

**08:45 ACCC Innovation Forum: Markku Kulmala and Sami Paatero**

**09:00 Financing nature-based solutions – invited presentations**

**This session addresses, how to finance nature-based climate solutions by public and private sector including best practises and lessons learned. In addition, the most important and timely focus areas for the scientific community will be discussed.**

Moderator Jouni Keronen, Professor of practice, ACCC / INAR, University of Helsinki

Erkki Liikanen, Chair, IFRS Foundation

Pekka Moren, Coalition of Finance Ministers for Climate Action

Margaret Kim, Chief Executive Officer, Gold Standard

Niklas Kaskeala, Co-Founder & Chief Impact Officer, Compensate

**10:00 Transparency framework for companies**

**This session presents the concrete need for predictable and transparent regulatory framework for carbon removals. Why voluntary carbon removal schemes are not enough? What is important in decarbonization and carbon neutrality plans?"**

Decarbonisation intelligence and actions

Michael Hayes, Partner, Global Head of Renewable Energy  
KPMG Climate Change and Decarbonisation Leader

Climate governance, markets and regulation as drivers of business value

Tomas Otterström, Partner, Head of Sustainable Finance and Corporate Sustainability at  
KPMG

Carbon neutrality and impartial verification of carbon removals

Sami Paatero, ACCC Adviser and Chair of the ACCC Innovation Forum  
Founder & CEO of Climate Analytics Finland Ltd

**10:30 Break**

**11:00 Towards climate neutrality and beyond  
Role of various stakeholders, panel**

Moderator Tuuli Kaskinen, CEO of CLC

Outi Haanperä, Project Director, Nature and the economy, The Finnish Innovation Fund Sitra

Saara Kankaanrinta, Baltic Sea Action Group

Mika Anttonen, Chairman, St1

Markku Kulmala, Academician of Science, ACCC Director / INAR University of Helsinki

Anne Jalkala, Chief Strategy Officer, Vaisala

**12:30 ACCC Impact week concluding remarks**

**13:00 Lunch, refreshments, networking**

**14:00 End of the day**

Sofia Cultural Center, Vuosaari, Helsinki

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2nd #ACCCImpact Week

# CLIMATE CHANGE & GREEN TRANSITION AS GLOBAL CHALLENGES FOR SCIENCE AND SOCIETY

Science based solutions  
and financing the green transition



HELSINKI YLIOPISTO  
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11th-14th April 2023 | Sofia Cultural Center, Helsinki