Online Meeting
Towards coherent and coordinated atmospheric observation systems
(PEEX / Global Observatory)

Tuesday, 7th June 2022
12:00-16:00+ of Helsinki time

The Global Earth Observatory is an initiative coordinated by Atmospheric Climate Competence Center (ACCC) which is a joint effort of Institute for Atmospheric and Earth System Research (INAR) at University of Helsinki, Finnish Meteorological Institute, Tampere University and University of Eastern Finland (acccflagship.fi/). The Global Earth Observatory Initiative of the ACCC is bridging networks towards integrated climate and environment relevant observations. The aim of the meeting is to discuss, how to best integrate different in situ environmental data and how to best seamlessly bridge the in - situ data with the remote sensing data. This integrative approach includes methods, databases, in situ stations co-location and co-data etc. aspects. Big data is needed to solve Global Grand Challenges (climate change, air pollution, food production) and to meet the UN SDGs. Big data is needed to carry out research such as analysis of land - atmosphere inter-actions and feedbacks and to provide services to society. Integrated observation systems provide steps towards implementation of the future research infrastructures (RIs) and generating big open data.

AGENDA

I - INTRODUCTION

- Opening and introductions of participants & **Presentation 1 (P1):** Aims of the meeting, Global Earth Observatory - *Acad. Markku Kulmala, Director, Institute for Atmospheric and Earth System Research (INAR), Finland*

II - INVITED PRESENTATIONS

chair/moderator, Dr. Hanna Lappalainen, Research Coordinator, Institute for Atmospheric and Earth System Research (INAR), Finland

- **P2:** European research infrastructure landscape - *Dr. Sorvari, Vice President, Research Infrastructure Services, Natural Resources Institute Finland (LUKE), Finland*
- **P3:** EU policy context, research activities in the area of climate observations, future strategies - *Franz Immler, Head of Sector, Environmental Observation, RTD B.3 - Climate & Planetary Boundaries, Belgium*
- **P4:** WMO Global Atmospheric Watch (GAW) - globally-harmonized, quality-assured data on variables of importance to atmospheric composition on all scales - *Dr. Oksana Tarasova, Head, Atmospheric Environment Research Division, Science and Innovations Department, World Meteorological Organization, Switzerland*
- **P5:** GEO Cold Regions Initiative (GEO-CRI) as an example of integrated, remote sensing data pool - *Prof. Yubao Qiu, Head, Key Laboratory of Digital Earth Science, Aerospace Information Research Institute, Chinee Academy of Sciences (AIR-CAS), China*
- **P6:** Svalbard Integrated Arctic Earth Observing System (SIOS) research infrastructure (RI) as an example of integrated observation system - *Dr. Heikki Lihavainen, Director at SIOS - Svalbard Integrated Arctic Earth Observing System, Norway*
- **P7:** Integrated SORPES station concept - *Prof. Aijun Ding / Prof. Wei Nie, University Nanjing, China (ACCC international collaborator)*
- **P8:** Climate Analytics – a new service concept - *Mr. Sami Paatero, Founder, CEO, Climate Analytics Finland (CAF) Ltd., Finland (ACCC Impact program)*

III - DISCUSSIONS, CONCLUSIONS, NEXT STEPS

chairs/ moderators Prof. Tuukka Petäjä and Dr. Hanna Lappalainen, Institute for Atmospheric and Earth System Research (INAR), Finland