



Integrative and Comprehensive Understanding on  
Polar Environments

ERA-PLANET Strand 4



iCUPE Project meeting, February 9<sup>th</sup>, 12:30-16:00

## Agenda and Minutes

Place: Kunnskapsbyen, NILU, Kjeller, Norway

Invited parties: Project coordinator and project office, representatives from each institute

### 12:30-12:35 START OF THE MEETING

- Tuukka Petäjä (TP) opened the meeting at 12:30
- Tuukka Petäjä and Ella-Maria Duplissy (EMD) were selected as chair and secretary of the meeting
- Check for the people present in the meeting
- Attendees:
  - o Tuukka Petäjä (UHEL)
  - o Ella-Maria Duplissy (UHEL)
  - o Hanna Lappalainen (UHEL)
  - o Kostas Eleftheriadis (NCSR)
  - o Henrik Skov (AU)
  - o Vaios Moschos (PSI)
  - o Steffen Noe (EULS)
  - o Vito Vitale (CNR)
  - o Ralf Ebinghaus (HZG)
  - o Zhiyoung Xie (HZG)
  - o Rosamaria Salvatori (CNR)
  - o Roberto Salzano (CNR)
- Those attending through Webex:
  - o Antti Mäkelä (FMI)
  - o Andrea Spolaor (CNR)
  - o Kathy Law (CNRS)
  - o Torsten Sachs (GFZ)
- o Hanna and Henrik and Kostas need to leave earlier
- o Andrea (Webex) also earlier

### 12:35-13:00 GENERAL STATUS OF THE WORK

- Tuukka Petäjä: general words about the status of the work
- Ella-Maria Duplissy: state of the deliverables, timetable for the coming months, practicalities.
- Status of websites and printed materials (EMD)
  - o Ella showed list of deliverables and milestones that are already delivered and will have deadlines on 2018.
  - o Websites in good condition, flyer ready (100 distributed in the meeting)



- Lots of activities and actions planned, everything delivered and reported more or less on time
- Discussion about overlapping activities with IGOSP and other projects that we need to create synergies with
- Tuukka will start more actively to create connections with other strands and start regular interaction

#### 13:00-16:00 CURRENT STATUS IN EACH WP

- WP leaders (or representatives) describe the status of each WP and plans for this year. 20 min / WP including questions
- WP 6 – Hanna K. Lappalainen
  - Everyone will contribute to the wp6, Hanna coordinates
  - Main task to interact with other ERA-PLANET strands
  - Stakeholder engagement started already partly, plan how to provide visibility already made.
  - Vito: Interaction with satellite community important
  - Steffen asking who we define as stakeholders? Hanna sends the current version of the stakeholder engagement plan to everyone (also in internal website)
  - Vito: Arctic cluster, how to connect?
- WP 1 – Henrik Skov
  - Introducing himself and tasks
  - Going through the status of the WP and tasks
  - Task 1.1, identified contributions from partners to databases we are planning to deliver
  - 2018: get more into the datasets we have (discussions with wp 5 needed); cooperation with CNR-IIA; develop polar night AOD measurements; major campaign at Villum res stat in March and April; working towards D1.1.1
  - CAMS84 needs to be listed to stakeholders
  - Task 1.2 Improvement of data flow of NRT data from in-situ measurement stations
  - Task 1.3 Intensive observations in the polar regions: e.g. ALADINA (TROPOS), PAMARCMIP at VRS (AU), mixing state and volatility campaign at Zeppelin (05-2018 – 08-2010), AGAP , ...
  - Vaio explaining about aerosol characterization (HiVol) initiations and plans for 2018
  - FLEXPART for source identification, also others possible
  - WP 1 progressing nicely
  - Henrik and Imad needed to be added to the email list
- WP 2 - Zhiyoung Xie and Andrea Spolaor through Webex
  - Done monitoring work for Emerging Organic Pollutants, to determine the POP levels in environmental and biological samples; seasonal trends; atm dry and wet deposition fluxes; bioaccumulation of ePOPs in migr. birds and fish → ecological relevance and toxicity risk to Arctic species; long-range transport
  - Explaining HiVol air sampling in Ny Ålesund, also air sampling at French station Corbel in NyÅ, passive air sampling, water sampling at the mountain lake and seawater during summer, fresh snow samples from glacier (April/May 2018)



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- Showing some results of PBDEs and alternative BFRs from 2011/2012
  - Results from OPEs in air will be published this year (part of iCUPE)
  - PFASs in Arctic snow, phthalate esters
  - 2018-2019: focus on biota samples, bioaccumulation (collaboration with AWI and NP)
  - Andrea was in Antarctica, talking about ice core sampling (35 m core this year), will be in their lab on May. Also working on base elements (mercury, halogens), proceeding well
- WP 3 – Jyri Heilimo
- Satellite based EO methods at FMI Arctic Space Centre + maintaining Sodankylä
  - Task 3.1 streamlining satellite remote sensing data flows for new multi-sensor, multi-dimensional products; semi-supercomputer level of capacity to process data; own Sodankylä NSDC Arctic data products (NH snow cover, SWE data, ...)
  - Hosting satellite ground station in Sodankylä: Local reception of Sentinel-1 direct broadcast and National Sentinel mirror site
  - Task 3.3 Activities and progress: Planning for installation of SmartMet Server for M2M distribution of Sodankylä in-situ data (Open data API); test installation of GeoServer software, planning the requirements and definition of database API
  - Task 3.4 started, questionnaire being prepared
  - Vibrant discussion about satellite data products
  - Roberto Salzano:
    - Task 3.2 : Optical remote sensing, focus on defining properties of snow; will integrate terrestrial photography with remote sensing
    - Activities centered in automation (in Svalbard): ground-based systems, time-lapse photogrammetry (already existing public data from web will be used, owners at least CNR, NILU, NPI, UNIS)
    - Data processing, combining digital elevation model (satellite) and webcams, a lot of discussion how to do it
    - Angelika send an email about her part; Tuukka reads the email → progress going on
    - Sabine send an email about her part; Tuukka reads the email → progress and even a publication already published
- WP 4 – Kathy Law
- Trying first to connect
  - Reminding about WP 4 tasks: integrating in-situ and satellite data
  - Gotten feedback from Task 4.3
  - 4.1 several people working on this (different proxies). Also same for 4.2; now installed a new weather radar and measurements started (Tuukka provides a more detailed update later)
  - Kostas comments: they are working at Zeppeling on BL height and this could be connected to WP 4.
  - Tuukka comments on BL height new methodology to characterize the BL more in detail, he will connect people from Helsinki to Kathy (ask Antti Manninen to share BL Doppler analysis results from Hyytiälä, Jyri saying there is also one from Sodankylä – collection of activities needed)
  - 4.3: Sources and sinks and transport of Arctic pollution, analyzing campaign data (lidar + satellite) from Siberia, Kathy showing data analyzed by Gerard Ancellet (LATMOS)



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- Similar stuff also done at INAR about Northern Finland -> Tuukka sees a clear way forward
  - Results from WRF-Chem (with ECLIPSEv5 emissions), BC from flaring
  - Analysis of pollution, YAK October 2014 campaign
  - AMAP: BC, Ozone, methane in the Arctic, IIASA -> GAINS, new emission inventory (ready by the end of this year). There could be interactions with iCUPE and AMAP model evaluation exercise: Kathy suggesting WP 1 to connect with the expert group → someone from WP 1 will go to next AMAP meeting in Bologna
  - Kathy talking about other activities
  - Tuukka talking about Anna Nikandrova's results from BAEC campaign, layering of aerosols from lidar and aircraft measurements
- WP 5 – Steffen Noe
- First deliverable done (DMP), is a living document and will be updated often. Teasers of datasets.
  - List of datasets as deliverables in the internet
  - Steffen showing about coming datasets, 3 teasers already in the website
  - Links with other datasets, outside of iCUPE (connections within PEEEX and Alexander's own other connections), people interested to contribute
  - Data questionnaire sent out (Alexander), waiting for results
  - D5.3.1 due in this month → came up an issue that needs to be discussed with Nicola Pirrone first (whole ERA-PLANET DMP by the end of February, then finalize iCUPE data management principles based on the step before → latest March)
  - A topic raised up by Urs: too much work if two documents; adjust timing of requests; discussion before do "large" requests
  - Any comments on DMP valued. Also comments on the clarity (to dataset providers) of DMP
  - Satellite products - are these in the DMP?
  - Not much text about automated interfaces yet. What about them?
  - Ralf commenting about iGOSP
  - Discussion about datasets and about end-products. We deal internally and then propose a way to do for ERA-PLANET.

#### Final words from Tuukka.

- WP meetings whenever necessary: let Ella and Tuukka know when they are held
- Next iCUPE meeting is together with next ERA-PLANET meeting in October
- WP leader meetings regularly? May-June, WP leader meeting through Webex or Skype and before the general assembly also.
- Ella reminds WP leaders always about upcoming deliverable deadlines
- Tuukka ended the meeting at 16:00