



Kick-off meeting 19-20 April 2017

Venue

Norwegian Meteorological Institute, Oslo, Norway
Meeting room: “Bruun” in Tallhall building

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List of participants

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1) Wednesday only

2) Wednesday morning

3) Thursday morning

green fonts: user reference group

Presentations and discussions on 19 April 2017

- Welcome address of the Director of Research (Harald Schyberg)
- Logistics and agenda (Michael Gauss)
- Tour-de-table: Introduction of meeting participants (All)
- [Transboundary air pollution on regional scales](#) (Hilde Fagerli)
- [Overview of the AIRQUIP project](#) (Michael Gauss)
- [Downscaling regional model output with “uEMEP”: Concepts](#) (Bruce Rolstad Denby)
- [Calculation of local contributions with “uEMEP”](#) (Peter Wind)
- [Air Quality modelling and downscaling activities and methods in China and Jinan University’s role in AIRQUIP](#) (Xuemei Wang)
- [Acquisition of proxy data and emission inventories in China and Tsinghua University’s role in AIRQUIP](#) (Liu Yan)

- Questions and answer session about proxy data for China (Liu Yan, Bruce Rolstad Denby)
- [Experience from the PANDA project](#) (Ming Chang)
- [PANDA forecasts and EMEP model improvement in China](#) (Matthieu Pommier)
- [Acquisition of proxy data based on satellites and *Norsk regnesentral's* role in AIRQUIP](#) (Arnt-Børre Salberg)
- How to include proxy data in uEMEP (Bruce Rolstad Denby)
- Questions and answer session about proxy data for Norway (Arnt-Børre Salberg, Bruce Rolstad Denby)

Presentations and discussions on 20 April 2017

Session on conclusions from yesterday

- Roles of partners (Michael Gauss)
- Action items regional modelling and exchange of data (All)

First session with user reference group:

- Tour-de-table: Introduction of user reference group and AIRQUIP partners (All)
- [Introduction to AIRQUIP](#) (Michael Gauss)
- Example outputs, prototype products from AIRQUIP (Peter Wind, Bruce Rolstad Denby)
- [Norwegian Environment Agency](#) (Isabella Kasin)
- [Agency for Urban Environment in Oslo](#) (Susanne Lützenkirchen)
- [Centre for Ecology and Hydrology Edinburgh/UK](#) (Stefan Reis)
- Discussion about planned AIRQUIP products and user needs (All)

Planning ahead:

- [Outreach activities in Norway and China](#) (Michael Gauss)
- [List of deliverables and milestones](#) (Michael Gauss)

Smaller group discussions:

- Regional modelling (Ming Chang, Peter Wind)
- Data acquisition (Yan Liu, Arnt-Børre Salberg)

Action items

Jinan University:

Ming Chang, with support from Peter Wind and Matthieu Pommier: Download, install and run EMEP model by **end of May 2017**.

Xuemei Wang: consider contacting Sunan Shen from IPE in regard to observational data in China (to be used in downscaling evaluation later this year), **Jun 2017**.

Xuemei Wang: Send suggestions for members of the user reference group China (up to 5), **Aug 2017**.

Ming Chang, with support from Peter Wind and Michael Gauss: Start testing Peter Wind's "local source contribution" tool (LSC) in China, **Sep 2017**.

Ming Chang, with support from Bruce Rolstad Denby and Peter Wind: Start using uEMEP downscaling tool when available, with preliminary proxy data, **Nov 2017** (if tool and data are available by then).

Xuemei Wang, in collaboration with Tsinghua University: Make a suggestion of focus areas in China for which we can provide AIRQUIP products (e.g. air quality forecast and source allocation plots). The choice of regions can be based on local needs and on the availability of observation data for evaluation, **Dec 2017**.

Ming Chang: evaluation against measurements in China, **Feb 2018**.

MET Norway:

Bruce Rolstad Denby: Gather input data for Norway (contact Kystverket, etc.), **continuous task**.

Bruce Rolstad Denby, Peter Wind: Further develop uEMEP, **continuous task** (pre-operational version ready by Nov 2017).

Michael Gauss: Gather population data for Norway: number per address, positions of all houses, dwelling density (contact Statistisk sentralbyrå), **May 2017**.

Michael Gauss with support of Arnt-Børre Salberg: Gather topography data for China, **May 2017**.

Michael Gauss: attend Shanghai MarcoPolo/PANDA modelers meeting to gather ideas on model improvement and report back, **May 2017**.

Michael Gauss, Bruce Rolstad Denby: Complete user reference group Norway (contact Bergen kommune, Bruce to contact somebody in Narvik), **Jun 2017**.

Matthieu Pommier, Michael Gauss: Upgrade emissions being used in EMEP4Asia from PANHAM to MarcoPolo, **Jun 2017** (if emission file format has not changed).

Peter Wind, Michael Gauss: Put LSC tool for Norway on the website, **Aug 2017**.

Michael Gauss, Matthieu Pommier: Consider updating EMEP model to GLC2009 for land use in China, **Sep 2017**.

Norsk Regnesentral:

Start developing proxy data set for road traffic, **May 2017**.

A.B. Salberg: Submit application to ESA for Pleiades images covering Norway and China, June 2017

A. B. Salberg: Submit Digital Globe Imagery Grant application for access to data covering Norway, June 2017

Explore possibilities of additional funding in collaboration with Tsinghua, **Jun 2017**.

Host a face-to-face meeting in mid-June 2017 (e.g. 2 hours) with colleagues from MET Norway to discuss technical details of traffic proxy data and further action items, **Jun 2017**.

Test deep learning method with data sets in Oslo (where other high resolution sets are available to compare with), **Sep 2017**.

Tsinghua University:

Go through the list of proxy data in detail (see below) and identify what is available to Jinan University and to MET Norway, **May 2017**. ('Fake data' is acceptable. We should have data (or fake data) end of June for testing purposes, but as much data as possible by **Sep 2017** to test the downscaling method in China)

Find out if possible, and submit application for data, from Chinese satellite SuperView, June 2017 (<https://directory.eoportal.org/web/eoportal/satellite-missions/content/-/article/gaojing>)

Submit Digital Globe Imagery Grant application for image access to data covering China, June 2017

Send suggestions for members of the user reference group China (up to 5), **Aug 2017**.

Share daily emission profiles of NO₂ for 'PANDA' forecasts with MET Norway and Jinan University, **Sep 2017**.

Suggest on where in China to have the user workshop in first half of 2018 (e.g. Beijing?), **Sep 2017**.

In collaboration with Jinan University: Make a suggestion of focus areas in China for which we can provide AIRQUIP products (e.g. air quality forecast and source allocation plots). The choice of regions can be based on local needs and on the availability of observation data for evaluation, Dec 2017.

Next phone conference (or skype meeting):

Friday 23 June 2017, 08h00 UTC (10h00 Oslo/Bergen, 16h00 Beijing/Guangzhou)

Participants: Hilde Fagerli, Bruce Rolstad Denby, Xuemei Wang, Ming Chang, Qiang Zhang, Liu Yan, Arnt-Børre Salberg, Michael Gauss. Others are welcome to join!

All participants: please send your skype names to Michael.gauss@met.no by 31 May 2017.

List of proxy data:

Power generating industry / factories: Point source position and emissions of NO_x and PM

Traffic: road link positions with allocated emissions per link.

(Population: *landscan* population data from 2010, MET Norway will gather this)

Inland Shipping: any known data sets available?

International shipping: Michael Gauss to contact FMI