iOBS SG meeting 4th of May 2021

Agenda:

1. Welcome and Presence
2. Approval of the Agenda
3. NeIC announcements
4. Report by Project Manager
5. Deliverable 4.4: Anchoring of email decision to move deadline
6. Deliverables D2.1, D2.2, D5.1
7. Benefit realisation plan for iOBS
8. DP checklist
9. Final report approval process
10. iOBS shepherd for NeIC Affiliate programme
11. Next meeting/concluding meeting
12. AOB

1. Welcome and Presence

Invited:
Anette Lauen Borg, NO, Project leader, Observer
Dan Still, FI, CSC
Jørn Kristiansen, NO, MET Norway
Tomasz Malkiewicz, FI, Chair
Sami Niemelä, FI, FMI
Heiner Körnich, SE, SMHI

Presence: Anette,Tomasz, Heiner, Dan, Jørn, Sami
Quorum: see § 3.6 in Collaboration Agreement

Decision: We have quorum.

2. Approval of the agenda

Agenda and material was sent out on the 21st of April, Indico page and preliminary agenda already online before.

Decision: The agenda is approved.

3. NeIC announcements

- Open call 2021
    - 11 applications for development projects
    - 3 applications for pre-studies

4. Report by project manager

Report:
https://docs.google.com/presentation/d/1aXmwvuDgZl3Irg3-tLpUGTpa2QD9BvIhv3nACaUCShg

Discussion:
Schedule of events until the end of the project.
Deliverable WP2, performance analysis: Comparison different methods, e.g., many stations vs. selected stations (see further discussion below)

Decision: The report is approved.

5. Deliverable 4.4: Anchoring of email decision to move deadline

Project Manager on behalf of WP4 asked the SG to extend the deadline for the last WP4 deliverable, “D4.4 Study of forecast quality improvement (magnitude and duration), relative to using a reference set of observations, from assimilation of novel observations.”

The SG **decided via e-mail** to extend the deadline from 2021-04-30 to 2021-05-31.

6. Deliverables D2.1, D2.2, D5.1

Material shared by email on deadline (30.04.2021)
D2.1 Algorithm descriptions and implementation of spatial QC analysis and automatic adaptive threshold method
D2.2 Pilot machine learning based pipeline for observation data QC

- Some testing of the methods in an operational setting is still ahead
- Performance analysis of the QC-methods of PWS data, task 2.3:
    - The aim of the performance analysis is not clear; what is the performance measuring? The aim should be to use PWS observations to increase the density and frequency of usable observations to complement the conventional observation system. That is, quantify both the estimated observation error and the increased density and/or frequency of PWS observations. Comparing

PWS to CWS should be in order to get an estimate of the benefit of PWS in areas where there are no CWS taking into account that CWS have very strict definitions of placement (e.g. on grass) and therefore are not representative of other (depending on the application, important) environments like urban, marsh, etc.

- For weather forecasting it is the number of observations that is important. For instance, if a given station is exposed to the sun during the daytime and therefore has a large bias, we still would like to use the nighttime observations from this station. The analysis seems to refer to the number of stations rather than the number of observation points.
- How many stations or observation points (this is probably a better measure than stations as some stations might not have been operating during the whole period of the analysis) were used in the analysis presented in Figs. 5-7?
- "The number of accepted PWS stations for a certain method and thinning combination is shown at the end of each combination in the brackets." suggests that most stations are rejected by the QCs? For TITAN we know that more than 80% of the observation points are retained in the setup at MET Norway so this result is perhaps a bit surprising?
- What is meant by thinning and what does the different values represent? What does it mean (e.g. for the user of these data wanting to do DA or PP) that for all QCs there seems to be little sensitivity to the thinning value? For instance, when you say "With these evaluation methods, the smallest mean prediction error in most cases is given by the 2D kriging method." you overlook that with a slightly larger (and perhaps not significant) error you get many more PWS observations out of the QC.
- Report doesn't say which QC method is best
- The exact number of Netatmo observations/stations cannot be explicitly mentioned in public documents according to the contract with Netatmo
    - Ballpark and relative numbers are to be used instead

Decision: Anette will introduce the corrections to the deliverables together with Jørn and send the corrected version to the SG, giving the SG two weeks for further comments, no comments will mean approval. After the approval the deliverables will be published in NeIC Zenodo

D5.1 Report on e-infrastructure evaluation, including any documentation

- Dan will check with CSC if there is a suitable journal for possibly publishing these technical results in a (peer reviewed) paper

Publishing the iOBS results: A couple of papers for a special issue on Machine Learning and Numerical weather predictions are planned. Topics: Assimilation of Netatmo data, and machine learning QC methods

Decision: A summary should be added at the beginning of the deliverable document 5.1. Anette will coordinate with CSC adding the summary and send the corrected version to the SG, giving the SG two weeks for further comments, no comments will mean approval. After the approval the deliverables will be published in NeIC Zenodo

7. Benefit realization plan

Benefit realization plan:
https://drive.google.com/file/d/1NZfSED8hwY3lqGRNgBdLoX3HfD-fmppH/view?usp=sharing

The benefit realization plan will be discussed in the reference group (RG) tomorrow 05.05.2021:
https://indico.neic.no/event/159/

The benefit realization plan will be updated at the concluding SG meeting at the end of project.

Adding a new benefit to be considered: Collaboration in the Nordics on Quality Control of conventional observations. Anette and Tomasz discussing 1:1, if benefit(s) to be added to Benefit Realisation Management plan, SG to be consulted.

8. DP checklist

https://docs.google.com/document/d/1uXT15ai2-0PBS-_Duhs-CIv_Hwh6m86OJBGpfnUROsk/edit

Decision: The current version of the DP checklist is up-to-date.

9. Final report approval process

Project manager to submit the Final report, reviewed by the Project Owner, to the SG for comments and approval.

SG view on the project can be included as the SG members' statements or gathered in a feedback form, examples:

- https://wiki.neic.no/w/ext/img_auth.php/9/96/Glenna2_Final_Report_V1.1.pdf (Glenna2, page 27)
- https://wiki.neic.no/w/ext/img_auth.php/e/ea/Dellingr_Project_Final_Report_public.pdf (Dellingr, page 13)

Decision: Questionnaire, any other comments field to be added.

10. iOBS shepherd

iOBS shepherd for NeIC Affiliate programme

- List of NeIC affiliates: https://neic.no/affiliates/
- Shepherd contacted from time to time
    - Benefit realisation plan update yearly or so
    - Affiliate call for support yearly
    - NeIC news item from time to time

Decision: Anette selected as a shepherd.

11. Next meeting (final SG meeting)

Proposals:
- 11th of August 2021, 10:00 - 12:00
- 6th of July 2021, 10:00 - 12:00

Decision: online on 11th of August 2021, 10:00 - 12:00 CEST.

12. AOB

Physical meeting for iOBS project in 2021, to be possibly hosted at FMI

- 2021-11-16 - 17 not suitable
- FMI positive