

Notes from the COST Action meeting 4-5 June, 2015, Brussels:

Participants: Ali Nadir Arslan, Charles Fierz, Aynur Sensoy Sorman, Patricia de Rosnay, Carleen Tijm-Reymer, Juan Ignacio Lopez, Samuel Morin, Giovanni Macelloni, Deniz Karaca, Ghislain Piccard

Ali introduced the meeting and welcomed the participants.

After the MC meeting that was held in Grenoble in March, some issues related to field campaigns organisation need to be clarified. The objectives of this meeting are to define the 2016 field campaign and to review the status of the action. Core group / small committee discussion is appropriate and efficient to discuss in details and to agree/solve some issues and define working plan to propose to the MC members.

Agenda:

- Review the action plan and objectives and tasks
- Work plan for 2015:
 - Questionnaires for WG1,2,3;
 - STSM for 2015,
 - 2nd MC meeting in Helsinki in November 2015
- Draft working plan for 2016
- AOB
- Ideas for field campaigns, objectives, topics, STMs, drafting a call for field campaign for 2016.

Samuel M. will attend a meeting on Friday 4 June (so he can only attend the COST meeting on 3 June) on the avalanche prediction EAWS (European Avalanche Warning Service). They include several countries from Europe. EAWS is relevant to this COST action. Most of EAWS countries are also part of our COST action, except Romania. Samuel M will propose them to join the COST action.

Ali NA went through the COST ES1404 action slides to remind the status of the action. In WP1: Physical characterisation of snow properties there are four tasks:

- 1.1: identify and assess the essential snow variables
- 1.2: physical characterisation of snow variables
- 1.3: snow network optimization, data QC and homogenisation
- 1.4: harmonization of snow observations in terms of measured variables.

Charles F.: we should address 1.3 and 1.4 first. WG3 people should interact with W1 people to agree on what measurements, a demonstration workshop and meetings would be more useful than collecting data. To harmonise in Europe we need to bring these people together. This can be done through meeting and exchange of information.

Patricia dR presented the snow Watch actions conducted together with Sam Pullen to improve both the snow depth report availability on the GTS and the reporting practices regarding snow free conditions.

Deniz K joint the meeting in the afternoon to clarify the COST actions rules that are useful for us to define the working plan and field campaigns. It is all right to do more than the proposal objectives provided that the action objectives as defined in the MoU are completed. Always have the possibility to reshuffle the work content

When there is money left after a meeting, it can be used to STSMs without any approval. Today's meeting uses the money left after the Grenoble meeting. D.K this needs to be approved by the MC.

Deniz K. last general statement: Need to follow the MoU and vote in MC to define the path to reach the objectives. COST is not a research project, this is networking. Try to get unified and don't waste too much time on details on the organization. There are good examples of COST actions that became organizations, such as ECMWF.

Coffee Break

Discussion on the questionnaire:

Ali NA presented the draft questionnaire for WG1-WG2. It is available on the COST page. The details of its content will have to be reviewed. He also presented WG3 questionnaire, which is in quasi final form after fruitful iterations between the WG3 participants.

Ghislain: there is a harmonization to do, for example the list of variables has to be the same. For WG1-WG2 questionnaire: **Ali** send first to the WG leaders. **Charles** proposed to make it shorter and to ask the WG participants to complete it. **Giovanni:** we could also have some optional questions.

The Questionnaire titles (WG1-2 and WG3) should be changed.

STSMs: four missions must be done this year. Otherwise the money is lost.

Giovanni will send an email to advertise the STSMs for 2015.

2nd MC meeting:

In Finland there is a meeting in Helsinki (6th Seminar on snow) on the 2nd of November. This meeting will be focused on snow and ice. It will include talks on living with snow and ice, snow properties, snow observations and instrumentation, snow in models, snow in climate. The next COST meeting could start on 3rd of November with day one would be a COST plenary meeting, then MC meeting and then WG meetings. So, the 2nd MC meeting could be from the 3rd of November. COST plenary and WG sessions, with two sessions in the morning and two in the afternoon.

Topical workshop I 2016

Inclusive countries should be considered more in the activities, meetings (inviting more people from those countries or organizing meetings there).

We should plan the working plans for 2016 earlier.

On Friday morning, we discussed the organisation of the field campaign.

Milestone 11 consists in a 1st field campaign of instruments and exchange of information inter-comparison and Milestone 12 is a 2nd field campaign for testing the developed snow measurements protocols. Deliverables include assessment of measurements errors and inter-calibration

measurements techniques.

Ali NA presented ideas for a field campaign that will be held in Sodankylä. This campaign will focus on snow albedo (broadband albedo over sloping topography and define broadband and spectral albedo in satellite footprint). Snow temperature and snow depth could also be measured for open field, forest, lake and urban area. The advantage of organising the campaign in an already well instrumented area is that the logistics is already in place and instruments are available. However the drawback is that a place such as Sodankylä is already well known. Using STSMs will be useful to contribute to the campaign, but the biggest part of the work is the campaign preparation.

It was also pointed out that addressing albedo, snow depth and snow temperature is too much for one campaign. For the COST action it would be perhaps more relevant to focus on one topic. Snow albedo and temperature measurements are really research topics. Snow temperature is a very important topic, but it is extremely difficult to design a campaign for snow temperature. It is a research topic in itself. Snow depth is different as one of the objectives could be to harmonize the data. At the moment it is impossible to do snow climatology in Europe. It would be very useful to do a campaign focused on the snow depth and SWE harmonisation objective.

Charles and Ghislain could write a small text to propose the MC members that the 1st field campaign focuses on snow depth and SWE. The WG members themselves can be supported in the context of WG meetings.

In terms of location, several countries could be interested to host the campaign, such as Bulgaria, Turkey. Not much instruments are required to measure SWE and snow depth.

Charles F will also look at the possibilities in Bulgaria.

Aynur SS will check the possibilities in Turkey. The field campaign can be combined with WG1-2 meetings.

In terms of dates a campaign in Turkey should be in January or February. In Finland it would be rather in March 2016. In Bulgaria dates would have to be checked. STSMs can be used to fund some of the missions.

Draft plan for the 1st field campaign

- given with a separate file

Afternoon, questions to Deniz:

- Dissemination: can be publications, website, leaflets, brochures, attending conferences.
- Deniz confirmed that we can combine field campaign and WG meetings.
- There will be a winter training school in Davos (2nd European Snow Science Winter School, ESSWS).