

DELIVERABLE D10.1

Minutes of Board Meetings

1st SOLARNET Board Meeting (Kick-off Meeting) - Brussels, April 10 - 11, 2013 (p. 2)

2nd SOLARNET Board Meeting – Madrid, April 30, 2014 (p. 14)

WP10 Project Coordination and Management

1ST Reporting Period

November 2014

PROJECT GENERAL INFORMATION

Grant Agreement number: 312495

Project acronym: SOLARNET

Project title: High-Resolution Solar Physics Network

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Funding scheme: Combination of Collaborative Project and Coordination and Support Action for Integrating Activities

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Date of latest version of Annex I against which the assessment will be made: **13/02/2013**

Periodic report: 1st 2nd 3rd 4th

Period covered: from **01/04/2013** to **30/09/2014**

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1ST SOLARNET BOARD MEETING

(KICK-OFF MEETING)

Brussels, April 10th - 11th, 2013

AGENDA, PRESENTATIONS AND MINUTES

*[\(Click on **speakers** to download oral presentations\)](#)*

WEDNESDAY, APRIL 10th, 2013

9:30 – 10:30 WP10 “Project organization and management” [M. Collados](#) & [J. Burgos](#)

General overview, project structure, governance, funding, deliverables, consortium Agreement

10:30 – 11:00 WP20 “Integrated operation and exploitation of solar physics facilities and coordination with other research infrastructures” [R. Schlichenmaier et al](#)

Access programme, guidelines for pipeline procedures, data archives and SVO, coordination with other infrastructures, queue observing mode.

11:00 – 11:30 *Coffee Break*

11:30 – 12:30 WP20 (cont'd)

12:30 – 13:00 WP40 “Innovation towards industry” [J. Marcos Olaya](#)

13:00 – 14:30 *Lunch break*

14:30 – 15:30 WP30 “Solar physics networking” [F. Zuccarello](#) (HELAS [M. Roth](#))

Meetings, mobility of young researchers, training schools

15:30 – 16:00 *Coffee Break*

16:00 – 17:30 WP50 “Tools for innovative data handling: pipelines, data-bases and SVO” [D. Kiselman](#)

THURSDAY, APRIL 11th, 2013

9:30 – 11:00 WP60 “Advanced instrumentation development” [A. Feller](#), [M.v. Noort](#) & [M. Collados](#)

Large-diameter etalons, image slicers, micro-lens spectrograph, fast solar polarimetry

11:00 – 11:30 *Coffee Break*

11:30 – 12:30 WP70 “Wavefront control: turbulence characterization and correction” [M. Collados I](#), [M. Collados II](#) & [F. Berrilli](#)

MCAO simulations, AO for THEMIS, local seeing, heat rejecter for GREGOR

12:30 – 13:00 WP80 “Synoptic observations: Solar Physics Research Integrated Network Group” [M. Roth](#).

13:00 – 14:30 *Lunch break*

14:30 – 15:15 WP90 “Transnational Access Programme” [R. Schlichenmaier et al](#)

Telescopes and instruments involved in the Access programme

15:15 – 15:45 *Coffee Break*

15:45 – 16:15 WP100 "Access to Science Data Centres. Space missions" [S.V.H. Haugan](#) & G. Cauzzi

Data centres involved in the Access programme

16:15 – 17:45 Splinter meetings

WP30. "Solar Physics Networking" [F. Zuccarello](#)

WP70. "CFD analysis to measure local seeing" [R. Codina](#)

WP70. HANKOM [R. Hammerschlagg](#)

WP70. MCAO simulations [I. Montilla](#)

WP70. Prediction-based AO control [M. Stangalini](#)

WP70. Profile measurements [A. Kellerer](#)

FRIDAY, APRIL 12th, 2013

9:30 – 13:00 EAST General Assembly

Minutes of the 1st SOLARNET Board Meeting (Kick-off Meeting)

April 10-11, 2013 - Brussels

Board members present or represented:

IAC: Manuel Collados

KIS: Rolf Schilchenmaier (representing Oskar von der Lühe)

INAF: Francesca Zuccarello

CNRS: Bernard Gelly

UToV: Francesco Berrilli

MPG: Michiel van Noort (representing Sami Solanki)

UiO: Mats Carlsson

AIP: Horst Balthasar (representing Carsten Denker)

SU: Göran Scharmer

QUB: Mihalis Mathioudakis

UCL-MSSL: Sarah Matthews

AISAS: Ales Kucera

AIASCR: Michal Sobotka

HVAR: Roman Brajsa

ROB: Veronique Delouille

IGAM: Arnold Hanslmeier

IRSOL: Michele Bianda

IAA-CSIC: Luis Bellot Rubio

HANKOM: Rob Hammerschlag (representing Hans Kommers)

CIMNE: Ramón Codina

SRS: Fabio Manni

PNSensor: Christiane Müller (representing Barbara Titze)

TECNALIA: Jesús Marcos Olaya

NSO: Frank Hill (representing Thomas Rimmele)

Project Officer present: Mrs. Elena Righi-Steele

Board members absent and not represented: UPS: F. Paletou

UWR: Arkadiusz Berlicki

UCAL: Vincenzo Carbone

WU: Oscar Hartogensis

UoB: William Chaplin

CNR-INO: Vincenzo Greco

WO: Philippe Godefroy

CfA-SAO: Alisdair Davey

Other participants attending the meeting:

Andrés Asensio Ramos (IAC)

Kevin Benson (UCL-MSSL)

Jesús Burgos (IAC)

Raymon Burston (MPG)

Gianna Cauzzi (INAF)

Dario Del Moro (UToV)

Ilaria Ermolli (INAF)

Stein Vidar Hagfors (UiO)

Sebastian Ihle (PNSensor)

Jan Jurcak (AIASCR)

Aglae Kellere (Univ. Durham)

Dan Kiselman (SU)

Mats Löfdahl (SU)

Benjamin Mampaey (ROB)

Iciar Montilla (IAC)

Markus Roth (KIS)

Guus Sliepen (SU)

Héctor Socas Navarro (IAC)

Marco Stangalini (INAF)

Koen Stegen (ROB)

Matt Townson (Univ. Durham)

Luc van der Voort (UiO)

Robbe Vansintjan (ROB)

Wednesday, April 10, 2013

9:30 Opening

Manuel Collados welcomed the representatives of the SOLARNET Consortium and gave a short overview on the past achievements, status of the Grant Agreement and Consortium Agreement. He welcomed the Project Officer Elena Righi-Steele.

Elena Righi-Steele introduced herself and congratulated the European Solar Physics Community for its achievements.

The Board elected/confirmed the chairs of the Network Activities (NAs) and Joint Research Activities (JRAs). Furthermore Markus Roth was elected as chair of the Executive Board.

10:00 WP10 “Project Organization and Management” – Manuel Collados

Manuel Collados gave an overview on project structure, governance, deliverables and milestones. Furthermore he presented the distribution of the budget as outlined in the DoW.

Action items:

- The project logo was suggested to be the EST-Logo by replacing the lettering “EST” by “SOLARNET”. It was decided by the Board to wait until April 19, 2013 for suggestions. If no further suggestions are submitted the logo presented by Manuel Collados shall be accepted.
- All presentations given at this meeting shall be collected by Jesús Burgos and put online.

10:10 WP10 “Grant Agreement” – Jesús Burgos

Jesús Burgos provided information on the current status of the Grant Agreement (GA) which awaits the signature by the Commission. The reporting periods are P1: months 1 – 18, P2: months 19 – 36, P3: month 37 – end of project. The pre-financing amounts 3,2 M€ but 300k€ of this amount will be directly transmitted by the EC to the Guarantee Fund and not to the Consortium. He explained that six institutions have a budget that is planned to exceed 375k€, so that those institutions will have to provide financial certificates. He furthermore explained the budget breakdown, which lists the total project cost and not only the EC contribution.

Concerning management costs IAC and KIS will provide human effort and have costs related to that in their management budget. All other partners have only audit costs listed, if needed.

Concerning the human effort listed in the work package tables, the indicated person months are the best estimates of human effort that the partners will deliver. The respective Grant Preparation Forms (GPFs) show the indicated fund distribution per institute and per activity.

Moreover, Jesús Burgos showed a chart with the unit-costs per day for each facility participating in the Access Programme.

Following the presentation on the budget distribution, Jesús Burgos explained the procedure of the interim payments, where the EC contribution amounts the justified and accepted costs times the funding rate. **The total amount of the pre-financing and interim payments shall not exceed 90% of the total EC contribution.**

The partners will have to present their Form Cs at the end of the reporting periods, which will be the basis for the calculation of the individual shares on the next EU payments. It might not be unlikely that partners will have to advance money until the next tranche is distributed.

He emphasized that the Coordinator will keep 5% of the EC payment for common funds to pay attention to particular cases, e.g. when partners run out of funds. Jesús Burgos skipped slides, but promised to make them available later online. Concerning the Transnational Access and Service Programme (TAS) he

informed the Consortium that the respective budget for travel and subsistence support will be concentrated at IAC to have a centralized reimbursement system. However, EC contribution related to user fees will be directly transferred to owners/operators of the facilities involved.

Elena Righi-Steele clarified that the response time of the European Commission to the reports is 90 days. She mentioned the importance of the person-month recording (time sheets) at each participating institution, since often the time sheets are sources for problems during audits. According to the GA the first payment will be transferred by the EC within 60 days after signature of the GA by the Commission. For SOLARNET she expected the signature of the GA within one week.

Action items:

- In the meantime, and once the GA has been signed by the EC, partners should sign the Accession forms to the Grant Agreement (Form A – Annex IV).
- Jesús Burgos will send a table with the expected funds for each partner
- Jesús Burgos asked for a reference that might be necessary for each institute to identify the bank transfer on the accounts.

10:40 WP20 “Integrated operation and exploitation of solar physics facilities and coordination with other infrastructures”

Rolf Schlichenmaier led to the presentation of WP20. He introduced the ideas of WP20, i.e. the coordination of the access time at the European solar telescopes and research infrastructures and this networking activity in form of the Forum for Access and Services and the Time Allocation Committee (TAC), which will be the EAST-TAC.

As an addition to the FAS he informed that the facility owners under WP100 (e-infrastructures) will be added to the FAS.

Concerning the travel support for scientists participating in the access programme, currently 1.5 persons can be funded per observing campaign. Rolf Schlichenmaier suggested considering the possibility to support 2 persons per campaign. Manuel Collados answered that this was possible within the fixed amount of money.

Göran Scharmer asked to clarify the eligibility criteria for the access programme.

Elena Righi-Steele clarified that the only rule that applies is that the team leader and majority of the team should work in a institution established in a Member State and Associated State, other than the country(ies) where the legal entity(ies) operating the infrastructure is established. Even applications involving users from non-EU member states are possible, provided the team leader and majority of the team comply with the rule stated above.

Action items:

- As a first step the travel support needs to be organized, which will be handled by IAC

10:30 WP20.2 Guidelines for pipelines development – Bernard Gelly

Bernard Gelly presented the guidelines for the development of data pipelines for ground-based instrumentation. They are seen as important for new groups using the telescopes.

Action item:

- Calendar of activities to be prepared

10:40 WP 20.3 Data archives and Solar Virtual Observatory – Mats Carlsson

Mats Carlsson informed about the planned actions to establish common rules for an adequate distribution of data to the community. One possible foreseen data format is the FITS format with suitable FITS keywords and header information.

11:20 WP20.4 Coordination with other infrastructures – Rolf Schlichenmaier (replacing Oskar. v.d. Lühe)

Rolf Schlichenmaier explained that this sub-work package is planned to optimize the coordinated observations between European and non-European ground- and space based high-resolution solar telescopes. Also non-optical facilities like ALMA are of interest.

Roman Brajsa expanded on this by informing about the current status of ALMA: a couple of solar oriented test campaigns with part of the array were already carried out. Soon regular campaigns shall be possible. ALMA provides an array of 60 antennas in Chile. For solar observations this allows in the interferometric mode an unprecedented resolution of 0.02'' in the mm range with an integration time of 10-20 s. Since ALMA is located in a very dry region, which has not seen rain in 600 years, the observations are not limited by seeing. Currently many technical issues still need to be sorted out, e.g. the number and the calibration of the solar filters, possibilities for coordinated observations with other facilities, and parallel work in modeling the solar atmosphere and its dynamic development theoretically. Furthermore Roman Brajsa asked the Consortium to help on this. Furthermore he informed about an upcoming Solar-ALMA meeting in June to be held in Prague.

Manuel Collados asked what an ALMA node is. Roman Brajsa answered that within ESO a network of countries is taking care of the telescope. In these countries some institutions were identified as ALMA nodes, e.g. in the Czech Republic the institute in Ondrejov is responsible for solar observations which includes time allocation and data reduction.

11:55 WP 20.5 Novel queue observing mode – Dan Kiselman

Dan Kiselman introduced the concept of possibilities to observe in the queue observing mode at the solar facilities. A contact from night time observations might be useful to learn how this form of observations can be realized for solar observations. As first instruments, IBIS and ROSA will run in service mode.

Action item:

- Participants in this working group need to be defined

Rolf Schlichenmaier closed the presentation on WP20 by giving an overview on the list of deliverables.

12:05 WP40 Innovation towards industry – Jesus Marcos

Jesus Marcos introduced himself and TECNALIA which has 2000 employees across Europe, which are all experts in space-transfer technology. Similar to the ESA transfer program, TECNALIA helps in the commercialization of technological development results in research. As a possibility for SOLARNET, the work programme foresees to identify which methodologies and data processing tools could be transferred into a commercial product.

Action item:

- Interviews with partners to identify possibilities for commercialization

12:20 WP30 Solar Physics Networking – Francesca Zuccarello

Francesca Zuccarello led through the presentation of WP30. She explained the plans for the schools and workshops, which will be held together at one place, as well as for the meetings. She informed that the philosophy of the mobility programme will be discussed at the splinter meeting on WP30. This applies also for the discussion on the length of the schools.

Then Francesca Zuccarello handed over to the organizers of the individual conferences.

12:40 1st SOLARNET meeting – Mats Carlsson

Mats Carlsson presented the current status of the 1st SOLARNET meeting to be held August 5 – 8, 2013 on the topic “Synergies between ground and space based solar research” in Oslo, Norway. The website is already functional and registration is open. The final programme needs to be defined, and the invitation to speakers will be done next week.

13:00 – 14:00 Lunch Break

14:35 3rd SOLARNET meeting & HELAS – Markus Roth

Markus Roth outlined the current plans for the 3rd SOLARNET meeting to be held on “Helio- and Asteroseismology” in Freiburg in 2015. The conference aims at giving young scientists a chance to discuss their work and possible career opportunities with experienced researchers.

In addition Markus Roth summarized the networking activities carried out under the Coordination Action “European Helio- and Asteroseismology Network – HELAS”, which also organized several workshops and a series of conferences. One point discussed was the possibility of publishing conference proceedings.

14:50 2nd School and Workshop – Ales Kucera

School: Ground- and space-based instrumentation

Workshop: Methods in high-resolution solar physics

Number of lectures: 6- 7

All needed facilities are available at the institute including the hotel. Transportation is difficult but it is currently worked on a transportation plan. It was clarified that also teachers from outside the community can be invited.

Luis Bellot- Rubio suggested rescheduling the schools in order to not having them so close. It was decided to discuss the scheduling of the schools in the splinter meeting on WP30.

15:00 WP50 Tools for innovative data handling: pipelines, databases and SVO - Dan Kiselman

Dan Kiselman described that the work on the WP50 overlaps with the networking activity WP20. Then he called for the presentations of the sub-work packages under WP50.1, which included presentations on the general pipeline work by Mats Löfdahl, data compression to allow data transfer via internet by Dario Del Moro and on image restoration by Mats Löfdahl. Furthermore it was mentioned that it needs to be discussed which data products need to be delivered to the clients: raw data, intermediate or science-ready data sets.

Action item:

- Set up of committee with representatives from each institute

15:15 WP50.2 Solar Virtual Observatory – Mats Carlsson

The data pipelines developed under WP50.1 will provide data that conform with the virtual observatory environment, defined under WP20.3. In this work package a prototype for a solar virtual observatory will be developed.

In this context it needs to be discussed whether the respective pipelines need to be developed at the instrument sites and whether the pipelines will run on a centralized server or locally.

Action item:

- Plan for pipeline development

15:30 Coffee break

16:00 Group photo

16:10 Discussion – Rolf Schlichenmaier

Since the meeting went faster as originally planned Rolf Schlichenmaier suggested discussing open questions on the Access program.

New Users

Of special importance was the question: What is a new user and whether the recording of new users at the solar infrastructures serves as a benchmark of successful work. Another suggestion for a useful measure of success was suggested to be the over-subscription rate of the offered access time. Overall it was agreed that it is needed to put effort into attracting new users at the solar infrastructures.

Access by Right

Furthermore the status of “access by right” was discussed. Mihalis Mathioudakis suggested that the proposers should make the case why they want to use SOLARNET time and why the selected site for observations is eligible. Jesús Burgos clarified that “access by right”, in the case of the solar telescopes at the Canary Islands, applies only to the owner/operator of the facility and to Spain (as a result of the International Agreements on Cooperation in Astrophysics), but not to any other institution or country with which the owner/operator has bilateral agreements, usually related to very specific collaborations or instruments. Besides, he clarified that the term “access by right” was invented by the consortium and is not part of EC’s work programme.

Travel Funds

Another discussion evolved during the meeting on the usage of travel funds in relation to IBIS and ROSA, which will run in service mode, i.e. in principle no travel is needed to use those instruments.

Gianna Cauzzi expressed that it needs to be clarified that these instruments only run in service mode, and under certain circumstances, which are not clear yet, a PI mode could be considered.

Manuel Collados added that if the FAS considers the justification from the proposer convincing then an observer could travel to the US. However, it has to be really a special campaign. But in general all observations are done in service mode. But for reasons of flexibility some travel funds were available. He asked the Consortium to decide whether this flexibility should be removed.

Mihalis Mathioudakis emphasized that the decision on this matter would affect the call and the announcement. Gianna Cauzzi repeated that the service mode and the telescope time for ROSA and IBIS were fixed.

Manuel Collados suggested to keep the travel funds for ROSA and IBIS and to decide in the the second half of the project whether there was a need for it. Rolf Schlichenmaier seconded to make this decision with the first project review after month 18, which was accepted by the Consortium.

Participants in the FAS

Finally the list of participants in the Forum for Access and Services (FAS) was compiled:

WP 90: KIS, represented by Rolf Schlichenmaier, Markus Roth, and Oskar v.d. Lühe

SU, represented by Dan Kiselman

CNRS, represented by Bernard Gelly

IAC, represented by Manuel Collados , and Jesús Burgos

AIP, represented by Horst Balthasar, and Carsten Denker

QUB, represented by Mihalis Mathioudakis

INAF, represented by Francesca Zuccarello

WP100:

UiO, represented by Mats Carlsson

ROB, represented by Veronique Delouille

MPG, represented by Raymond Burston

The election of the chair of the FAS was postponed to a later meeting.

Data Base Usage

A final point of discussion was the monitoring of the access to the databases. Manuel Collados suggested to set up statistics on the downloads and the volume. Jesús Burgos mentioned that for the reporting we have just to demonstrate that the database is open, widely advertised, and that it is used. There is not a commitment about the specific number of accesses, as in the case with the solar telescopes, which has to be provided by these databases to fulfil the Grant Agreement. Of course, some actions and statistics need to be implemented to demonstrate the wide interest at EU level on these databases, and specific actions to increase the number of users that should be described.

Thursday, April 11, 2013

9:30 WP60 Advanced instrumentation development – Hector Socas-Navarro

Hector Socas-Navarro leads through the presentation of WP60 and called for presentations on the sub-work packages.

9:30 WP60.1 Large Etalons - Francesco Berilli

Francesco Berilli described the plans on developing large etalons with diameters between 100 – 300 mm. A current type of an etalon with 150 mm costs 68300 € plus VAT plus shipping. Furthermore he described the main technical challenges and the companies that will provide the mechanism and the plates. The reasons for choosing ICOS as company were cost.

9:45 WP60.2 Image Slicer for 2D spectroscopy – Manuel Collados

Two partners participate in this sub-work package: IAC from Spain and WO a French company. Manuel Collados showed a glass prototype and described the plans to build an image slicer for GREGOR. The use of an image slicer also for full-disk observations is conceptually possible, too. The effect on polarization is expected to be small; the Muller matrix may be easily calibrated. The cost is 100k€, i.e. money limits the field-of-view. Dedicated software will be used to the analysis of the stray light and diffraction effects. But given earlier experiences in nighttime astronomy stray light is expected to be low. The difference between the image slicer out of glass and fibers is that fibers are difficult to align. Another promising alternative are micro-lenses. The plan foresees to use eight slits for EST, whereas for GREGOR the prototype is only with one slit.

10:05 Microlens spectrograph – Michiel van Noort

Michiel van Noort described the concept of a microlens spectrograph. The typical sizes of the lenses are 200 μm , which are available from manufacturers. During the following discussion he clarified, that it is in principle possible to also observe the full solar disk, however in low spatial resolution. Further limitations are given by the read-out time of the detector, which could be solved by introducing several detectors.

Another problem to be studied with the prototype is the effect of straylight.

10:25 Fast solar polarimeter – Michiel van Noort (for Alexander Feller)

Michiel van Noort described the development of a fast solar polarimeter. The polarimeter will use a special pnCCD sensor which is a backside illuminated detector with a quantum efficiency of >95% for a broad wavelength range. It is the goal to develop a 1k x 1k detector with a fast cadence of 2 ms read-

out. The smearing effects are in the order of 3-5% for image storing and read-out. The origin of the smearing is the fact that the detector is still sensitive to light while reading out. The problem could be solved with a shutter, e.g. in hardware by a liquid-crystal shutter with 1ms cadence. Furthermore a scheme to cleanup the data with software is developed.

Every single image is read-out with 70 MPx/s, the goal is to achieve 1GPx/s. In this project a design for a large camera will be developed. The cost for an existing 200k x 200k camera was in the order of 200k€. The cost for the planned 1k x 1k detector is in the order of 1M€. The smaller camera and polarimeter exist and were already tested in the laboratory but not yet at a telescope.

11:15 WP70 Wavefront control: turbulence characterization and correction – Manuel Collados

Manuel Collados presented the objectives of WP70, which are investigations of the effects of air turbulence and the implementation of techniques to reduce and correct for these effects. The work package contains five sub-work packages. Manuel Collados continued with the first sub-work package WP70.1.1 on multi-conjugate adaptive optics simulations and tests.

Furthermore Manuel Collados presented sub-work package WP70.3.1 which estimates the local seeing conditions with a SHABAR.

Then he called for presentations on the other sub-workpackages.

11:45 WP70.1.2 Implementation of and AO prototype for THEMIS telescope – Bernard Gelly

Bernard Gelly presented the plans for the implementation of an adaptive optics system at THEMIS. This will require changes in the optical path of the telescope. The planned adaptive optics system will correct for the effect of ground-layer turbulence, as this is the major component affecting the image.

12:00 WP70.3.2 Innovative heat rejecter – Dario Del Moro (for Francesco Berilli)

A new heat rejecter based on a liquid jet impingement cooling system will be developed for GREGOR. This will be an important development as a prototype for EST. The changes in respect to the EST design are that the air suction system is not there and that the number of jets is bigger.

12:05 WP80 Solar Physics Research Integrated Network Group (SPRING) – Markus Roth

High-resolution telescopes need context data, which are planned to be delivered by a new network of ground-based telescopes that provide synoptic data of the Sun with high temporal coverage. The design of such a set of instruments that provide solar full-disk observation data with high temporal and spectral resolution for multiple spectral lines will be designed under SOLARNET.

12:25 WP90 Trans-national Access Programme – Rolf Schlichenmaier

Rolf Schlichenmaier led through the presentation of the solar observing facilities being offered in the trans-national access programme. Rolf Schlichenmaier presented the Vacuum Tower Telescope (VTT) and its instrumentation, and called for presentations of the other telescopes, which were given by Bernard Gelly for THEMIS and Göran Scharmer for SST.

13:00 – 14:30 Lunch break

14:40 WP 100 – Stein V.H. Haugen

Stein V.H. Haugen described the Hinode Science Data Center Europe to which further data will, as those of IRIS, be added. If storage becomes cheap enough a centralized storage could be considered, otherwise the data will remain distributed. Further data sets that could be added are data from the Swedish telescope (SST) and part of SDO.

14:55 SDO data centre at ROB – Veronique Delouille

The SDO data distribution from Stanford to the other data centres worldwide is done via the NetDRMS system. At the Royal Observatory in Belgium (ROB) there are currently 208 TB of redundant (RAID 6)

storage. In total there were 2.5 Petabyte of SDO data recorded. After data is taken by the observatory in the space the first quick-look images are available after a few minutes. The science-ready data becomes available after a few days, only.

15:10 WP100.3 German Science Data Centre for SDO – Raymond Burston

Raymond Burston reported that the DLR funding was extended until 2016. The online storage amounts currently 400 TB for all HMI data in 5 years, which is the nominal SDO mission lifetime. In addition a tape library is available with an additional capacity of 200 TB. In order to access any data a client (NetDRMS) needs to be installed by the user.

It was asked whether inversion data could be made available. Raymond Burston answered that these data can be made available, but are not available now.

15:15 WP 90 continued – Rolf Schlichenmeier

Mihalis Mathioudakis gave a short overview on ROSA WP90.4, and G. Cauzzi presented WP 90.5 IBIS, which has proved to be a very stable instrument for recording long time series. Also the polarimetric calibration is solved. NSO will provide an observing time of 15-20 days to Solarnet to accommodate various programmes in service mode. Mihalis Mathioudakis emphasized that this way of operation in service mode needs special guidance for the applicants for observing time. In the following a discussion evolved around, the ranking of the proposals. In summary the experience to be collected with ROSA and IBIS will be a good practicing for ATST. The data recorded, will belong to the PI, i.e. the data will not be made publicly available. Furthermore part of the data reduction is not included yet in the service (e.g. Speckle reconstruction for IBIS data), but could be offered in the future to make the access programme more attractive.

15:30 Coffee Break

16:00 Splinter meetings on WP20-WP50, WP30, WP70

For a summary of the splinter meetings see the presentations of the respective sessions.

18:00 End of Meeting

All presentations are available, after login, at: <http://www.solarnet-east.eu/>

2ND SOLARNET BOARD MEETING

April 30, 2014

Madrid

AGENDA AND PRESENTATIONS

[\(Click on speakers to download presentations\)](#)

9:15 Welcome (M. Roth)

9:30 Report by Coordinator (M. Collados)

10:00 Report by Project Office ([A. Escobar](#), J. Burgos)

10:30 Report by Technical Manager ([M. Roth](#))

11:00 Coffee

11:30 Project Plan for 2nd year

12:00 SOLARNET and H2020 / ASTRONET Roadmap Revision

13:00 Election of Board Chair

13:15 Any Other Business

13:30 End

Minutes of the 2nd SOLARNET Board Meeting

April 30, 2014

Madrid

Board members present or represented:

IAC: Manuel Collados

KIS: Oskar von der Lühe

INAF: Francesca Zuccarello

CNRS: Bernard Gelly

UToV: Francesco Berrilli

MPG: Raymond Burston (representing Sami Solanki)

UiO: Mats Carlsson

AIP: Carsten Denker

SU: Dan Kiselman (representing Göran Scharmer)

UCL-MSSL: Sarah Matthews

AISAS: Ales Kucera

AIASCR: Michal Sobotka

HVAR: Roman Brajsa

ROB: Robbe Vansintjan (representing Veronique Delouille)

HANKOM: Rob Hammerschlag (representing Hans Kommers)

CIMNE: Ramón Codina

TECNALIA: Jesús Marcos Olaya

CfA-SAO: represented by Dan Kiselman (SU)

UPS: represented by Bernard Gelly (CNRS)

IAA-CSIC: represented by Manuel Collados (IAC)

IRSOL: represented by Markus Roth (KIS, Technical Manager)

WU: represented by Rob Hammerschlag (HANKOM)

NSO: Thomas Rimmele (available via phone)

UCAL: represented by Francesca Zuccarello (INAF)

CNR-INO: represented by Francesco Berrilli (UToV)

UoB: represented by Markus Roth (KIS, Technical Manager)

Board members absent and not represented:

QUB: Mihalis Mathioudakis

SRS: Fabio Manni

UWR: Arkadiusz Berlicki

WO: Philippe Godefroy

PNSensor: Barbara Titze

IGAM: Arnold Hanslmeier

Other participants attending the meeting:

Alberto Escobar (IAC)

Jesús Burgos (IAC)

Markus Roth (KIS)

Richard Seddon (TECNALIA)

WEDNESDAY, APRIL 30, 2014

9:15 Welcome & Adoption of Agenda

Manuel Collados and Markus Roth welcomed the representatives of the SOLARNET Consortium.

M. Roth suggested a change in the agenda to have the report by Mats Carlsson on the Astronet Roadmap revision first. The agenda was adopted with this suggested change.

M. Roth revised the list of participants and representatives of the partners who were absent. The consortium confirmed that the number of participants and representatives attending the Board meeting reached the quorum needed to make binding decisions.

9:20 Astronet Roadmap Revision – Mats Carlsson

Mats Carlsson reported about the plans to update the Astronet Science Vision and Roadmap to adapt it to the most recent developments.

A draft will be published in a short time asking for input by the scientific community. There will be a discussion on this revision in Geneva on July 2, 2014 during the EWASS Meeting.

9:30 Report by Coordinator – Manuel Collados

Manuel Collados gave a short report on the management activities carried out in the first year. This included the accession of the 32 SOLARNET partners to the grant agreement and the transfer of the funds corresponding to the first payment to each partner based on the first instalment by the EU. The amount of 145k€ were kept at the coordinator institution, IAC, to allow flexibility in case of urgent needs.

The coordinator also informed that Alberto Escobar had incorporated SOLARNET as Project Manager.

All first-year milestones (Project Kick-Off Meeting, and installation of the website) were achieved on time and allow concluding that the management did achieve its project goals.

The statistics on access to the website indicates that SOLARNET has become known not only at European level but also worldwide.

9:45 Report by Project Office – Alberto Escobar

Alberto Escobar continued the Project Office report by giving an overview of the deliverables being due in month 18. Markus Roth suggested uploading all deliverables that are already completed now to decrease the workload in month 18.

The Project Office has given special assistance to WP2 & 9 (TAS programme), WP3 (Solar Physics Network), and WP4 (Innovation Towards Industry).

The Project Office is currently working on an outreach plan and on guidelines for the reporting due in September.

Alberto Escobar finally gave details on the time recording that needs to be done for each person working in the SOLARNET project.

Action Items:

- The Board decided to upload a.s.a.p. all deliverables that are completed.
- The outreach plan should be completed.
- The guidelines for the reporting due in September shall be provided to all partners.

10:15 Report by Technical Manager – Markus Roth

Markus Roth summarized the outcomes of the Executive Meeting that took place the day before

He continued on reporting the day-to-day business, which includes regular videoconferences with the Project Office at IAC, to discuss the evolution of the project on its different topics and take the necessary actions when needed.

Finally, he described the status of each work package individually by giving short summaries on the activities in the sub-work packages.

Concerning the Access Programme, a summary of the amount of observing time offered by the different telescopes was presented.

Board decision:

Since in the Access Programme there might be the need to shift access time from THEMIS, VTT, and GREGOR to SST, the Board was asked to give the agreement to negotiate with the EU – if needed – a shifting of approximately 20 days of access time between the telescopes and to give the FAS the responsibility to redistribute this access time.

The Board agreed on this suggestion.

In this sense, Markus Roth recommended the Board to ask the GREGOR consortium to offer access time as soon as the telescope is ready for operation.

Oskar v.d. Lühe and Carsten Denker agreed to discuss this issue with the GREGOR consortium

All six deliverables due in month 18 under WP20 are on track; D20.2 (Survey document –State of the art of existing pipelines and procedures– Preliminary report on pipelines guidelines) and D20.6 (Report on the facilities for coordination) require some effort, though.

Markus Roth continued by discussing the activities in WP30, which have been up to now successful: Student Mobility Programme, First Science Meeting in Oslo and First School in Wroclaw. He informed the Board that only the joint organization of a school and a workshop requires further thoughts on the format. As a possibility, the upcoming school & workshop in Tatranska Lomnica will be organized in connection with WP80 to attract more scientists to the workshops.

The deliverables on WP30 are all on track.

Board Decision:

Markus Roth asked for a decision of the Board on the request by the organizers of the ESPM-14 meeting on sponsoring the event. Manuel Collados gave further details on this request.

It was decided that the Coordinator is allowed to respond positively on this request by offering travel support to young researchers from the travel funds reserved at IAC (total amount: 3000 €).

Markus Roth continued with the report on WP40, which will be monitored with interest by the EU. He encouraged the project partners to actively participate in WP40, as it offers unique possibilities to identify technologies from other scientific and industrial areas that may be of interest. So far a database of needs and offers was created whose content is meant to be increased by all partners. The deliverables of WP40 are all on track.

Action items:

- **Technical Manager to provide support to WP40.**
- **Oskar v.d. Lühe & Carsten Denker: Discuss within the GREGOR consortium to offer access time as soon as possible.**
- **Oskar v.d. Lühe agreed to work towards the completion of D20.6 (Report on the facilities for coordination) by intensifying the discussion on coordinated observations with ALMA, BigBear, and ChroTel, and further infrastructures like LOFAR. The ALMA Ondrejov Center will be integrated in this discussion.**
- **Coordinator: respond positively on the request of the ESPM-14 organizers for financial support.**
- **Project partners to actively participate in WP40. All partners to be contacted individually by TECNALIA**

11:00 Coffee Break

11:30 Election of Board Chair

Since some partners had to leave earlier, Markus Roth asked the Board to continue with the election of the Board Chair first. Unanimously, the Board elected Markus Roth for the Chair of the Board for a term of two more years.

11:35 Report of TM continued

Markus Roth continued with the summary on WP50. Already discussed earlier, a work plan for the pipeline development needs to be developed. This requires a close interaction with WP20 to define dependencies.

In June 2014 a core team will start working on pipelines for imaging spectropolarimeters.

The milestone MS7 (Analysis of MFBD and Speckle image restoration strategies) was achieved and gives positive prospect on achieving all objectives of this work package.

There is no delay expected on the deliverable D50.1 (Status requirements and development of the instruments pipelines due in month 18).

WP60 has seen a lot of activity in the development of the large diameter etalons, image slicers for 2D spectroscopy, microlens-fed spectrographs, and fast imaging polarimeter.

All deliverables are on track. The deliverable on the 1k x 1k pnCCD conceptual design is already completed and can be uploaded to the EU participant portal.

WP70 has made good progress. The MCAO analysis for EST has progressed as planned, with the analysis of the local seeing conditions inside the structure of the EST building and its outer environment.

The adaptive optics system to be installed at THEMIS was selected and will be installed as planned.

The characterization of the atmospheric seeing conditions at OT and ORM are expected to be completed in 2015.

The development of the novel heat rejecter type for GREGOR has progressed as planned.

In summary WP70 has been a very active work package with all deliverables being on time.

Markus Roth then reported on WP80, which he leads himself. He informed the Board that the work package is ahead of its plan, and aims to complete the science requirement study for a new network of synoptic telescopes within one year. Four working groups have been formed to discuss the needs for synoptic observations in the areas: Synoptic magnetic fields, solar seismology, transient events, and solar awareness. The discussions are still open to the science community. No deliverables are due in WP80 until month 18.

Markus Roth finished his report by giving a positive report on WP90, including the present status of GREGOR, and WP100. For WP100 he explained that the user statistics would be used to create a report to the EU that can serve as the deliverable which is due in month 18.

He closed the report by stating that the Project is on track, since all activities have started as planned, the few Milestones expected within the first year of the project were achieved, and no major delays are expected with any of the deliverables.

The budget shall be reviewed with the 1st periodical report in fall 2014.

11:50 Project Plan for 2nd year – Markus Roth

Markus Roth gave a short overview on the deliverables and milestones due in the second reporting period. He asked the partners to report in due time in case of unexpected issues or delays.

Month	D – Deliverables M – Milestones (in red)	WP	Nature
M12- March	MS7 Analysis of MFBF and Speckle image restoration strategies	WP50	-
M18 - September <i>1st Project Reporting Period</i>	D10.1 Minutes of Board meetings	WP10	Report
	D10.2 Report on public outreach	WP10	Report
	D20.1 Reports on the TAC tasks and the TAS Programme	WP20	Report
	D20.2 Survey document –State of the art of existing pipelines and procedures– Preliminary report on pipelines guidelines	WP20	Report
	D20.3 Document on standards for data archiving and VO	WP20	Report
	D20.6 Report on the facilities for coordination	WP20	Report
	D30.1 On-line meeting proceedings	WP30	Other
	D30.2 Progress and final reports issued by host institution concerning short stays	WP30	Report
	D30.6 Training schools material	WP30	Other
	D40.1 Report on workshops	WP40	Report
	D50.1 Status requirements and development of the instruments pipelines	WP50	Report
	D60.1 Preliminary report of FEA of large FPI	WP60	Report
	D60.2 Image slicer design	WP60	Other
	D60.3 Microlens-fed system design	WP60	Other
	D60.5 1k x 1k pnCCD conceptual design	WP60	Other
	D70.1 Results of MCAO correction simulations	WP70	Report
	D70.2 AO prototype for THEMIS and test report	WP70	Report
	D70.3 Results of site-testing campaign at ORM and OT	WP70	Report
	D70.4 Results of the optimization of EST design base on CFD analysis	WP70	Report
	D70.5 GREGOR heat rejecter prototype and test report	WP70	Report
D90.1 Access to ground-based telescopes. Amount of access	WP90	Report	
D100.1 Assessment on access to databases	WP100	Report	
MS9 PnCCD conceptual study	WP60	-	

12:05 Discussion on H2020 – Manuel Collados

Manuel Collados informed about upcoming calls for new proposals under H2020.

A call for Innovative Training Network (ITN) will be announced next September. Francesca Zuccarello will coordinate the preparation of a proposal to complement the training of PhD student, with a step beyond the plans foreseen within SOLARNET.

He also informed the consortium that we have to be prepared for a proposal for the continuation of SOLARNET, within a call for Integrated Infrastructures Initiatives expected to appear around 2016/17. We can be positive that the topic „High resolution Solar Physics“ will be included again in that call.

Rob Hammerschlag asked about the prospects to receive funding to build EST. Manuel Collados answered that the Canary Islands will give 15M€ of structural funds in case EST is built. All partners need to contact their national authorities to keep EST visible and in the planning for funding and, especially, to include EST in the next update of the ESFRI roadmap.

12:30 Any other Business

Markus Roth informed the Board about the upcoming Mid-term review after the second year of the Project. For this review the Board will meet with the Project Officer and one or several external reviewers. There, the status of each work package will be presented and discussed. So far no reviewer was suggested by the EU.

The time and location of the next Board Meeting will be defined later, keeping the SOLARNET schedule of one meeting per year.

Markus Roth and Jesús Burgos informed again about some issues regarding the reporting after month 18. All this reporting will be done online at the EU's participant portal. The report will cover a financial report and a scientific report. Instructions on the reporting will be provided to the partners in summer.

Jesús Burgos informed the partners that travel funds for Project meetings are available to those partners in SOLARNET who have already used up their EU contribution.

Markus Roth asked the partners to keep SOLARNET at a high profile, e.g. informing about the SOLARNET activities, using the logo, and giving an acknowledgement to EU funding where appropriate by using the following wording:

This <ARTICLE/RESEARCH/PRESENTATION/WORK...> was supported by the SOLARNET project (www.solarnet-east.eu), funded by the European Commission's FP7 Capacities Programme under the Grant Agreement 312495.

12:35 End of Meeting

All presentations are available, after login, at: <http://www.solarnet-east.eu/>