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Abstract:

During the first year the WP12 (networking activity NA1: Innovation through Science Networking), has ramped up its activity. We have arranged the Kick-Off meeting and several planning meetings, as well as several topical workshops and expert exchange visit Calls, which facilitate short-term visits and exchange of personnel (including industrial partners) to share best practice and expertise and to expand the horizons of the ERA community. Through these activities, NA1 will enhance the ability of European planetary scientists to participate on the global scene with their own agenda. We have worked on the scientific topics that are currently most relevant to bring together the various sections of the European planetary science communities, inclusiveness states, early stage researchers, amateur associations, commercial and industrial organizations. During the first project year we organized six workshops and eight internal planning meetings to accomplish our objectives.

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1. Continuous Reporting

The following sections will be also fed into the portal, under the continuous reporting, so that this document constitutes part of the first periodic report, for the first 12 months of the project.

1.1. Dissemination

Up-to-date list of NA1 dissemination activities are located on:

<https://docs.google.com/spreadsheets/d/1KYgqt7cwBF49T4pFfJSKHODgla-1gfvGEo0DzQwjUZA/edit?usp=sharing>

1.2. Deliverables

Deliverable Number	Deliverable Title	WP number	Lead beneficiary	Type	Dissemination level	Due Date (in months)
D12.1	1st NA1 Annual Report	WP12	10- FMI	Report	Public	12

1.3. Milestones

Milestone number	Milestone title	Lead beneficiary	Due Date (in months)	Means of verification	Status
MS90	NA1 Kick-off meeting	10 - FMI	2	NA1 Kick-off meeting 24.-25.11.2015	OK
MS91	NA1 website	10 - FMI	4	NA1 website. Launched 30.10.2015.	http://fmispace.fi/index.php?id=na1epn2020
MS92	1st Annual meeting of NA1	10 - FMI	11	1st Annual meeting of NA1	Will take place 31.Aug – 1.Sept
MS96	Year 1 NA1 task 3 meetings	18 - Wigner RCP	12	By month 12, at least 3 meetings will have been held for NA1 Task 3 led by ISSI and Wigner RCP	Three ISSI-Forum plann. meetings (telecons): 14-Apr 2016 15.2.2016 8.2.2016
MS100	Year 1 NA1 Task 4 Meetings	12 - ABER	12	By month 12, at least 3 meetings will have been held in this year for NA1 Task 3	Meets will take place in Sept-Oct 2016: 13 -15.9 Bern 21-23.9, Luxem. 24-27.10 Pasad.

				led by ABER and FMI	14-18.11, Antw.
MS104	Year 1 NA1 Task 5 meetings	8 - OEAW	12	By month 12, at least 3 meetings will have been held in this year for NA1 Task 5 led by OEAW and VU	OK 11.-13.5.2016 20.-22.6.2016 2.-12.8.2016 25.-27.10.2016
MS108	1st ISSI Workshop	34 - ISSI	12	1st ISSI Workshop	Under prep. Takes place 13.-14. Sept 2016

2. Explanation of the work carried out by the beneficiaries and Overview of the progress

2.1. Objectives

2.1.1. WP 12.1 Objectives of the first year

The WP Coordination Team is led by FMI, supported by the deputy coordinator from Wigner-RCP, who are members of the Impact and Innovation Sub-Board. They are advised by a broader Core Team, made up of the leaders of NA1 tasks 2-5. The WP 12.1 Lead will be in charge of the overall NA activities, coordinating the task Leaders, be responsible for dissemination, and manage the WP webpage.

Objectives for the first year were:

- Establishing the NA1 webpage and internal portal for tasks
- Integrating and linking NA1 activities to the overall EPN2020 activities efficiently
- Supporting the Expert Program
- Overall coordinating and supporting the work done within the NA1 tasks
- Supporting the workshop activities within the NA1 tasks
- Arranging the NA1 meetings
- Preparing the documentation/deliverables

2.1.2. WP 12.2 Objectives of the first year

The major objective of the task is to bring together the different science teams, especially new teams working on similar science topics and missions, to strengthen links and counter the fragmentation that still exists in the European planetary science community. Meetings will be made widely accessible by teleconference, e.g. Webex, tools. Meeting presentations will be made available on the project's web page; a summary report will be prepared for the broad community. Special efforts will be made to involve scientists from Inclusiveness States. Topical science workshops will be organized, many of which will be based on the currently active ESA/NASA missions and in preparation of future missions.

2.1.3. WP 12.3 Objectives of the first year

The objectives of the first ISSI-Europlanet forum of the H2020 contract will be to gather approximately 25 of the leading experts in Solar System planetary science, together with a few experts in space mission technology, to address the following issues:

- Identify the outstanding open questions concerning our modern understanding of Solar System objects, their origin, formation and evolution, their processes and their system aspects, and their potential habitability;
- In association with this list of outstanding open questions, identify related representative ambitious space missions that could potentially address these questions over the coming 50 years, in preparation for the upcoming AAE-Cospar-Europlanet Colloquium on "Planetary Exploration, Horizon 2061";
- Address these objectives in the context of the rapidly-expanding science of exoplanets and their systems, which was the subject of the previous 2012 ISSI-Europlanet forum (Lammer et al., 2013);
- Propose a short list of Workshops addressing some of these outstanding science questions, with the aim of helping to make progress in the understanding of the science issues and in the elaboration of the corresponding representative space missions; the Workshops would be organized in the ISSI-Europlanet collaboration framework over the coming three years (2017-2019).

2.1.4. WP 12.4 Objectives of the first year

The overarching objectives of the WP12.4 for the first year were:

- WP12.4 will deliver two thematic workshops with participants from industry and academia
- Bring together the EPN2020-RI Industry Officer along with science and industrial teams to promote the innovation that is inherent in space activities because of the challenging environments they work in.
- Workshops on innovative instrumentation for planetary missions.
- Workshops on cooperation between EUROSPACE and the European planetary science academia.

2.1.5. WP 12.5 Objectives of the first year

The main objective of the first year of NA1-Task 5 (WP 12.5) was the organisation of 3 topical workshops for the ground-based support of space mission. As already proposed within the Grant Agreement, one of these workshops was considered to be in support of the Rosetta Mission to continue the coordinated ground-based observations, which were already initiated in Europlanet-FP7 Networking Activity 1.

Other objectives of the first project year were the development of NA1-Task 5 Workshop & Reimbursement Guidelines, the establishment of contacts to the amateur astronomer community in the new member states, the preparation and discussion of the extension of the ground-based observatories database (the so-called NA1-Matrix), and the development of a feedback survey for NA1-Task 5 workshop participants.

A further continuous objective of project year 1 was the regular communication within NA1-Task 5.

2.1.6. WP 12.6 Objectives of the first year

The objective of Expert exchange program (Task 6) is to support the activities of Europlanet RI with experts and scientific exchange whenever it is needed.

During the reporting period, six applications for the Expert exchange were received and approved. The visits were proposed to be made to Jacobs University Bremen, Germany, Open University, UK (4 applications in total), and Aarhus University, DK.

2 reports of the exchange visits have been received, the rest are currently pending.

2.2. Explanation of the work carried for NA1

2.2.1. WP 12.1

During the first year the management structure of the NA1 activity was established as follows:

- In the core of the NA1 activity is the WP Coordination Team led by the NA1 Lead Dr Ari-Matti Harri from FMI, together with the deputy Lead Dr Karoly Szego from Wigner-RCP. The Coordination team will be in charge of the overall NA activities, coordinating the task Leaders, be responsible for dissemination, and manage the WP webpage.
- The NA1 Executive team made up of the leaders of NA1 tasks 1-6 will support the Coordination team. Individual Task Leaders will define the annual activities of their Tasks. The NA1 Executive team will have a meeting (mostly telecon) approximately every 1-2 months. The **NA1 Exec Team** consists of
 - Dr. Ari-Matti Harri (FMI), Chair
 - Prof. Karoly Szego (Wigner-RCP)
 - Dr. Norbert Krupp (MPG)
 - Prof. Manuel Grande, U. Aberystwyth
 - Dr. Gunter Kargl, OEIF
- The NA1 Advisory Board will provide the reviewing functions for the NA1 activity. The proposals for the Expert Exchange Visits and the annual plans of the Tasks will be sent for the advisory Board for review to be approved. The members of the **Advisory Board** are:
 - Dr. Maria Teresa Capria (INAF), Chair
 - Dr. Philippe Louarn (CNRS), Deputy Chair
 - Prof. Karoly Szego (Wigner-RCP)
 - Dr. Ari-Matti Harri (FMI), secretary (no voting power)

The webpage serving as the principal information channel for the NA1 was put on place as the main information channel of the NA1 activity including:

- Overall presentation and information regarding the NA1 activities, objectives and results
- Expert Program electronic application and reporting section
- Intranet webpage for NA1 task leaders (password protected)
- All workshop information (upcoming and past)
- “Propose a workshop” webpage where anyone can propose a new workshop for NA1
- The ASIME16 (Asteroid Science Intersections with In-Space Mine Engineering 2016) workshop webpage (held 21.-22. September in Luxembourg).

The responsibility of the overall maintenance and development of the NA1 webpage lies on the FMI.

WP 12.1 organized eight internal NA1 planning meetings during the first year of the EPN2020. These meetings were to plan and ramp up the NA1 operations and to communicate among the Task leaders. The meetings that were mostly teleconferences were arranged as follows:

- 31.8-1.9.2016 1st Annual Meeting of NA1
 - Meeting considered about NA1 workshops/meetings Impact metrics and NA1 first year results and activity summary
- 8.7.2016 from 9 to 10 CET: NA1 Executive Team Meeting (Teleconference)
- 21.4.2016: Europlanet NA1 Meeting, Vienna, EGU 2016, Austria
- 14.4.2016 from 10 to 11 CET: EPN/ISSI Forum in Sept-2016: Conveners Meeting #3 (Teleconference)
- 3.3.2016: NA1 Executive Team meeting (Teleconference)
- 15.2.2016 from 9 to 12 CET: EPN/ISSI Forum in Sept-2016: Conveners Meeting #2 (Teleconference)
- 8.2.2016 at 9.00-11.00 CET: EPN/ISSI Forum in Sept-2016: Conveners Meeting #1 (Teleconference)
- 24.-25.11.2015: Kick-off meeting, Göttingen, Germany
- 29.9.2015: NA1 Planning Meeting (during EPSC), La Cité des Congrès, Nantes, France

Minutes of the meetings are available via NA1 intranet webpage for task leaders and others who has access to the page.

2.2.2. WP 12.2

The WP12.2 has worked on the scientific topics presently most relevant to bring together the various sections of the European planetary science communities, amateur associations, commercial and industrial organizations. Two workshops have been organized: Kick-off meeting, Göttingen, Germany (24.-25.11.2015), and support for Workshop on Mars 3D visualization, MSSL, Surrey, UK (7-9 June 2016).

Planning for additional science workshops has been performed, especially such that will be based on the currently active ESA/NASA missions and in preparation of future missions. Topics for such workshops have been identified as follows:

- Active moons in the solar system (support of JUICE, Cassini, Europa Clipper); interior, surface, atmosphere, plasma environment of Europa, Io, Enceladus, ...)
- Comparative planetology in our solar system, templates for exoplanets
- Asteroids and Kuiper belt objects (support of DAWN, New Horizons) ☐ TNO and Asteroid mining
- Eroding atmospheres
- Cometary science (Rosetta oriented). Focus on cometary activity? ☐ Cometary science
- Mercury science (Bepi Colombo oriented). Review of the state of knowledge, including modelling ☐ MERCURY ISSI WORKSHOP
- Mars science (from Curiosity and MAVEN via Exomars to Mars2020). ☐ 3d visualization of Mars
- Giant planets science. Galileo/Cassini/Juno/ links with Hinode (auroral physics at giant planets and related processes). ☐ High-latitude plasma physics at Jupiter and Saturn

- Astrobiology, life in extreme environments (related to EXOMARS but also habitability with JUICE). Modelling this in laboratory. ☑ Sun's influence on planets
- Future instruments and methods in planetology. ☑ Horizons 2061
- Future mission concepts to Outer planets: Why do we need to (re)visit Uranus and Neptune.
- From planets to exoplanets, how diverse planets can be.... and how diverse are their interactions with their star. Future observational capabilities.
- Preparing sample returns and their analysis (including meteorite analysis).

2.2.3. WP 12.3

During the first year the WP 12.3 (NA1 Task 3), together with the ISSI staff, planned and prepared the first joint ISSI-Europlanet meeting at ISSI. Key persons in this effort were Prof. Michel Blanc and Prof. Karoly Szego, assisted by the NA1 executive team members. The organisation of the ISSI-EPN Forum meeting is well under way, it will be on 13-14 September 2016 at ISSI. Its formal name is ISSI-Europlanet Forum on "*Future outstanding questions for solar system planetary science and associated key representative space missions*" (details presented in the section 1.1.3). The number of participants is about 30, representing both science and industry. The participation is by invitation only, the letters of invitation have already been sent out. According to the current plan, a bulletin will be published summarizing the forum results. There will be a dedicated session focusing on space technology on 15th September, the day after the two scientifically focused days. Furthermore, we are planning to reach an agreement with ISSI on new possible topics of the planned ISSI workshops taking place on the subsequent EuroPlanet project years; the list of topics will be circulated for approval.

The expected outputs of the first ISSI-Europlanet forum will be submitted to the autumn 2016 session of the Science Committee (SC) of ISSI, in order for ISSI and Europlanet 2020 to be ready to implement the proposed set of joint Workshops in the relevant timeframe.

At the end of year 2015 we planned the first workshop on Mercury science; however it turned out to be in conflict with the plans of the Messenger team, so this workshop is now postponed.

2.2.4. WP 12.4

The NA1 Task 4 have recently recruited Patrick Dixon who will strengthen our NA1 (and PSWS) activities. Patrick will have his PhD viva on 23 September 2016. It is anticipated that as he gets up to speed he will play an important part in Task 4 organisation activities. Giving support also for NA1 Task 4, Europlanet has recruited a new Industry Officer, Dr Marcell Tessenyi, the Chief Executive of Blue Skies Space Ltd, who will work with Helene Bothias (Eurosace) to support Europlanet (and thus also NA1 Task 4) in building a pan-European network of industry and SMEs of relevance to planetary science and of improving the visibility of planetary science within the European space industry.

Cartography and GIS Foresight Workshop, Nantes September 2015

The meeting kicked off with a powerpoint summary of the discussion from the 2014 Foresight Workshop, detailing:

1. the present day status of cartography/remote sensing in the planetary sciences
2. what new mapping/GIS techniques/technology we would like in order to answer key science questions?
3. when would this technology/techniques become available?
4. what new software techniques will be needed?

5. GIS developments.

Each of these five main topics were discussed to see how requirements had changed, what innovative techniques had been applied - and on what missions, and in particular what software/GIS/web interfaces had been developed. Following this topics discussed were varied, but included: the use of LEDs next to a camera for zero phase 3D tracking of close range dust particles through their orb effects, super-resolution high resolution imaging using multiple image/phase angle coverage of a planetary surface, long range narrow angle flash photography for imaging shadowed areas of planetary terrain, and new GIS modelling and visualization tools such as NASA's LMMP and Vesta Trek. The workshop was attended by 4 delegates (including the chair person). The participants involved planetary scientists, a JPL NASA Scientist from the USA, and a member of industry from Brazil.

NA1-Task 4 Workshop organisation

For the remainder of 2016, Europlanet 2020 NA1-Task 4 has organised or co-organised 4 workshops that will take place as follows:

- 13 -15 Sept, Bern. ISSI-EPN forum on the "key questions in planetary science for the next 50 years" will explicitly address the key technologies required. There will be a final tech dedicated session, the day after the two science days. For more information contacts Michel Blanc, Manuel Grande (michel.blanc@irap.omp.eu, m.grande@aber.ac.uk)
- 21-23 Sept, Luxemburg. Asteroid mining will address the scientific inputs needed to enable this technology. For more information contacts Amara Graps, Manuel Grande (graps@psi.edu , m.grande@aber.ac.uk)
- 24-27 Oct. Pasadena. IWIPM-3 is the annual US technology foresight meeting, arranged this year to coincide with the EPSC-DPS joint meeting in Pasadena. It will feature a Europlanet branded panel discussion, and we will support the presence of European technology providers. For more information contact Manuel Grande (m.grande@aber.ac.uk)
- 14-18 Nov 2016, Antwerp. Space weather and radiation design (in conjunction with PSWS). A workshop proposal has been accepted by the European Space Weather week (ESSW), the leading venue for commercial space weather providers in Europe. For more information contact Manuel Grande (m.grande@aber.ac.uk)

Four of us attended a meeting in Paris with the executive in Paris in January 2016. Eurospace see themselves as a possible link with interested businesses, and we are also investigating with Eurospace the possibility of a coordinating meeting to scope the possible extent of industry participation, expected for late 2016/early 2017. Norbert Krupp attended a Eurospace EPFL meeting in Lausanne (26-27 April) on behalf of Task4. The future direction of co-operation will be discussed at the Na1 Helsinki progress meeting

Plans for future WP 12.4 workshops:

Meetings in 2017-19 will be arranged on the basis of one per year free standing and one per year attached to EPSC. The following topics have been proposed:

- Planetary Robotics
- Large Planetary Telescopes
- New detector technologies
- Nuclear generators for power and thermal control
- Low cost systems (cube sta., penetrators,...)
- Geographic Information System
- Space weather and radiation design

- Advanced fabrication techniques
- Propulsion techniques (solar sail, RTG, ...)
- 2017 Planetary Environment models
- 2017 Planetary Exploration 2061
- Future instruments and methods in planetology
- Future mission concepts to Outer planets:
- Preparing sample returns and their analysis (including meteorite analysis).

2.2.5. WP 12.5

NA1-Task 5 Workshops Guidelines and Reimbursement Rules

Already at the beginning of the project NA1-Task 5 established the “Guidelines on EPN2020 NA1 / Task 5 Coordination Meetings and Workshops”. This document guides the SOC in workshop organisation, execution, and post-processing and is intended to be sent to the workshop chair already at the beginning of workshop preparations. The document also includes detailed “Reimbursement Rules”, which have to be sent to all workshop participants prior to the workshop to secure a smooth reimbursement of costs of participants, who are funded by NA1-Task 5. The guidelines also assure a common high standard of NA1-Task 5 workshops.

The document can be downloaded at <http://tinyurl.com/hh4lgua>; the Reimbursement Rules as a stand-alone document are available via <http://tinyurl.com/jfkx6g7>.

Establishment of contacts to the amateur astronomer community in the inclusiveness countries

Already within Europlanet FP7 contacts to European amateur astronomers were established, however, these contacts had its focus on Western Europe. In view of that, NA1-Task 5 started to extent these contacts to inclusiveness countries, in particular to the new member states. NA1 Task 5 benefitted from the fact that one member of the task leaders is based in Vilnius in Latvia. Thus, during the first year of the project additional contacts to well over 100 amateur astronomers were built up, among them over 50 amateurs in Lithuania and more than 20 in Poland. NA1-Task 5 will continue to establish amateur contacts and will further foster cooperation and the participation of the amateur community in relevant training sessions and ground-based observation workshops.

Preparation and discussions on future extensions of the ground-based observatories database

The so-called NA1-Matrix (see <http://iwf.oeaw.ac.at/matrix/>) was already developed within Europlanet FP7. It is a database on ground-based observatories and gives amateurs the opportunity to include their own observatories and telescopes. It is planned to extent the database within the next years of Europlanet 2020 in cooperation with the Virtual Observatory VESPA. Within the first project year, several discussions took place, on how to include the Matrix into VESPA, among them were two dedicated telecons on the technical implementation of the database into the Virtual Observatory and on how to make it compatible with EPN-TAP. An outcome of these telecons is the plan to implement a simple data model for the description of ground-based observatories, which will be used for the implementation via EPN-TAP. The database will also be extended in such a way, that it will give amateurs the opportunity to upload their own data directly into the database and therefore making it available via the Virtual Observatory of VESPA. A test system for the NA1-Matrix was already established at IWF-Graz. This will be used to implement and test future changes in the database software.

NA1-Task 5 Workshop organisation

During the first project year of Europlanet 2020 NA1-Task 5 organised and held 3 workshops, of which one was an amateur training workshop / summer school. These 3 workshops are

- Workshop on “Ground-based support of Juno by amateur astronomers: Science & Public Impact”, May 12-13, 2016, Observatoire de la Côte d’Azur, Nice, France. 33 participants, among them 22 amateur astronomers. The dedicated workshop website can be found at http://www.ajax.ehu.es/Juno_amateur_workshop/. This also hosts announcement, agenda, presentations, and participants of the workshop. All talks were filmed and documented; moreover a team from Discovery Channel also filmed the workshop as part of a Juno documentary, which aired on July 05, 2016, on Discovery Science Channel. Two press releases about the workshop were released, which were received very well. Among other journals, the very well-known Sky & Telescope journal published a dedicated article. The workshop ended with a very well attended public talk by a local French amateur astronomer. A detailed report can be found at <http://tinyurl.com/zswlzc>. This workshop was supported by NA1-Task 5 with 10,000 Euro.
- Workshop on “Ground-based Observations of 67p/Churyumov-Gerasimenko”, June 20-22, 2016, Hotel Schloss Seggau, Seggau near Graz, Austria. 40 participants, among them 2 amateur astronomers and the representative of the Rosetta amateur ground-based campaign. To facilitate the communication between ground-based observers and the Rosetta instrument teams several representatives from orbiter instruments were invited to give talks on the latest results from the mission. The dedicated workshop website can be found at <http://www.rosetta-campaign.net/meetings/2016-seggau>. This website also hosts announcement, agenda, presentations, and participants of the workshop. An interview for the local radio station ORF Steiermark were performed and aired on June 23, 2016. Furthermore the workshop was accompanied by a press release, from which an English version for the international audience and a German version for the local Austrian audience were distributed. A detailed report of the workshop can be found at <http://tinyurl.com/zymulqt>. This workshop was supported by NA1-Task 5 with 20,000 Euro.
- “Europlanet & European Astrobiology Campus Summer School 2016 on Exoplanets”, August 02-12, 2016, Molėtai Astronomical Observatory, Molėtai, Lithuania. The dedicated workshop website can be found at <http://mao.tfai.vu.lt/exoplanets2016>. This Summer School was supported by NA1-Task 5 with 10,000 €. [Finalize after workshop has ended...]

Besides the organisation of these 3 workshops, NA1-Task 5 already has organised a fourth workshop, which will take place from October 25-27, 2016, at Hotel Schloss Seggau in Seggau near Graz, i.e. the 8th International Workshop on Planetary, Solar and Heliospheric Radio Emissions. The dedicated workshop website can already be found at <http://pre8.oeaw.ac.at/>. NA1-Task 5 will focus the support of this workshop on the participation of young scientists.

Moreover, there are already several plans for future workshops, which will be supported by NA1-Task 5, among others there are proposals for an amateur training workshop in cooperation with Europlanet 2020 Virtual Observatory PSWS, and a workshop for the ground-based support of the joint ESA/NASA mission AIDA.

Feedback survey for workshop participants

Within the first project year NA1-Task 5 developed a feedback survey for workshop participants (web: <http://www.q-set.at/q-set.php?sCode=GCWHZFHVMURM>). The aim of this survey is to gather feedback from the workshop participants; this will aid to enhance and facilitate the organisation and execution of future workshops. The survey was received very well by the community and some of its major outcomes so far are:

- Two full workshop days are better than just one and a half. This leaves much more time for guided and open discussions on topics of interests for the respective workshop.
- Amateurs have a great interest on direct interaction and discussions with professionals. This should be considered in future workshop programs.
- Given the available time, there appears to be a conflict of interest between more or longer talks, which has to be addressed individually for each workshop by the SOC.
- Most participants were invited via the SOC and only a few came across the topic by itself. There still seems to be the feeling that such workshops are not accessible enough for the wider community. This has to be addressed with more in the upcoming project years.
- Remote locations need an elaborate organisation, particular on the travel logistics. Participants have to be informed about travel logistics as detailed as possible already during the first announcement.
- Amateurs usually have a day job. Therefore they need to be notified of the workshop opportunity well in advance. Workshops with a strong amateur participation should ideally be close to or at the weekend actually.
- Funding rules have to be communicated clearly and early on.
- Organizers should provide an appropriate reserve within the workshop budget to cover unforeseen expenses and to avoid cost overruns. This has been shown as best practice for the workshops we already had.

The feedback survey will be continued over the next project years.

Specific NA1-Task 5 activity promotion and dissemination

Already prior to the project start NA1-Task 5 was presented at the ESO-Workshop on “Ground and space observatories: a joint venture to planetary science”, in Santiago de Chile, March 2-5, 2015. Another talk containing the aims and goals of NA1-Task 5 was presented in March, 2016, at the University of Graz. Presentations of NA1-Task 5 were also held at the Juno Workshop, as well as at the Exoplanets Summer School. The aims and goals of NA1-Task 5 were additionally also briefly presented at the Rosetta Workshop.

NA1-Task 5 issued several press releases during the first project year; the first press release was dedicated to the start of Europlanet and was issued for the Austrian audience in October 2015. Additionally to that, all NA1-Task 5 Workshops were accompanied by one or more press releases. The Juno Workshop, as well as the Exoplanets Summer School were also accompanied by one or more public talks, which were open to the local public. One of the public talks of the Exoplanets Summer School was dedicated to Europlanet 2020.

Regular communication within NA1-Task 5

During the first project year regular communications between the beneficiaries of NA1-Task 5 took place. This includes informal discussion meetings at EPSC 2015 in Nantes, at the NA1 Kick-Off Meeting in Goettingen and at the NA1-Task 5 Summer School in Vilnius in August 2016. Besides of that, regular and frequent telecons between Vilnius University and IWF-Graz took place to coordinate the work within NA1-Task 5.

2.2.6. WP 12.6

During reporting period of 01.09.2016 - 31.08.2016 NA1 Exchange Program (Task 6) opened 2 Calls for Expert exchange:

Call 1 with period of visit 1.3.-31.7.2016 and application deadline 29.2.2016.

- 2 applications were received and approved for Call 1:
 - From CITEUC, Portugal to Jacobs University Bremen, purpose: Morphology and mineralogy of Martian dunes: towards an integrated data model
 - From CNRS, France, to Open University, UK, purpose: Publications and Collaboration on experimental flows on Mars

Both exchange visits were realized and reports submitted.

Call 2 with period of visit 1.6.-30.9.2016 and application deadline 31.5.2016

- 4 applications were received and approved for Call 2:
 - From GEOPS University of Paris-Sud, France to Open University, UK, purpose: Installation of reservoirs for liquid flows on the Mars Chamber
 - From J. Heyrovsky Institute of Physical Chemistry, Czech republic to Open University, UK (2 visits): Chemistry and Physics of Shock Impact Events, Spectroscopic Investigation of Shock Radical Chemistry
 - From Finnish Meteorological Institute to Aarhus University, DK, purpose: Utilizing European research infrastructure for advancing planetary atmospheric instruments

All the three exchange visits were realized and reports submitted.

2.3. Impact

The WP12 has been able ramp-up its activity and started successfully its operations. Through NA1 meetings and topical workshops we have been able to make a difference by bringing together European planetary scientists, engineers, and amateurs, as well as approached successfully industrial organizations.

A specific effort has been made to activate the inclusiveness states. This effort is summarized in the Appendix 1 to this report.

The results and impacts will be taken into account in the planning of the second year of the NA1 activity.

At the Europlanet Impact and Innovation Board the NA1 activity will be represented by the NA1 Coordination team or individual Task leaders or their deputies. In the first I&I meeting in September 2015 (UCL) the NA1 was represented by Dr. A-M. Harri.

3. NA1 Advisory board

The NA1 Advisory Board will provide the reviewing functions for the NA1 activity. The proposals for the Expert Exchange Visits and the annual plans of the NA1 Tasks will be sent for the advisory Board for review resulting in approval or disapproval of the proposals. The members of the **Advisory Board** are:

- Dr. Maria Teresa Capria (INAF), Chair

- Dr. Philippe Louarn (CNRS), Deputy Chair
- Prof. Karoly Szego (Wigner-RCP)
- Dr. Ari-Matti Harri (FMI), secretary

APPENDIX 1: THE INVOLVEMENT OF THE INCLUSIVENESS COUNTRIES INTO EPN-2020

One of the objectives of WP12 (NA1: Innovation through Science Networking) is to integrate scientists from the Inclusiveness States (IS) into EPN2020.

The list of all IS is quite broad (20 countries): Bosnia-Herzegovina, Bulgaria, Cyprus, Czech Republic, Estonia, Croatia, Hungary, Lithuania, Latvia, Luxembourg, Malta, Montenegro, Poland, Portugal, Romania, Slovenia, Slovakia, the former Yugoslav Republic of Macedonia, Republic of Serbia and Turkey. There are ESA member states on the list, also quite rich countries (Luxemburg), and countries where probably there is no space activity at all. So a homogeneous approach does not make sense.

To contact IS we are disseminating info:

- Institutional level
 Contacting institutions related with space research activity
- Personal level:
 Contacting colleagues

We are offering:

- short-term visits
- TA

Their voice, their needs:

- „Yes sure, that sounds interesting”.
- We already have our partners. Short term visit? Too many conditions, only one week to gain...
- Great, I do not have partners, will you get me one?
- My partner is not a beneficiary.
- I want to send a student on a short term visit. It is hard to justify the expertise”
- We are engaged in public outreach. We’d like to build a planeterella, can we get money?
- We want to organise a conference, do we get financial support?

RESULTS:

Contacts from NEW Institutions:

- Department of Aeronomy, Institute of Atmospheric Physics CAS, Prague

Contacts from NEW Countries:

- Romania: Dep of Geography, Stefan cel Mare University
- Croatia: Hvar Observatory, Faculty of Geodesy, University Zagreb
- Bulgaria: Solar-terrestrial influences laboratory, BAS

SUGGESTIONS TO CONSIDER

- Support participation on conferences (main form of establishing connections)
- Support organising conferences

- Extend short term visit to 2 weeks for professionals /make it less bureaucratic for students
- represent EPN2020 on Eastern European conferences
- Advertise successful applicants on the web
- Harmonise websites (main EPN2020 and websites of activities)
- Establish fellowship programs for inclusiveness students