



EPN 2024 RI

EUROPLANET 2024 Research Infrastructure

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Project Co-ordinator: Prof Nigel Mason, University of Kent

1. **Nature:** R = Report, P = Prototype, D = Demonstrator, O = Other

2. **Dissemination level:**

PU	PP	RE	CO
Public	Restricted to other programme participants (including the Commission Service)	Restricted to a group specified by the consortium (including the Commission Services)	Confidential, only for members of the consortium (excluding the Commission Services)

Executive Summary / Abstract:

As the main platform for dissemination for the Europlanet 2024 RI project, Networking Activity 1 (NA1 - Community Support, Dissemination and Engagement with Stakeholders) aims to foster a culture of co-operation between Europlanet 2024 RI and its stakeholders, and to extend the user base of the project's facilities and services. The Work Package (WP) is organised around nine tasks that target dissemination, communication and engagement with specific audiences.

The ongoing Covid-19 pandemic has meant that NA1 activities in Year 2 of the project have once more focused on virtual activities. The Europlanet Science Congress (EPSC) 2021 virtual meeting has been the key focus for dissemination of Europlanet 2024 RI activities and the launch of a magazine has provided a new channel for promoting the project's activities and impact.

Following restructuring in the first Grant Agreement, all deliverables have been submitted on time. However, workshops associated with some tasks have not been possible to hold in a virtual format, and changes for the Milestones dates for these will be requested in the next Grant Agreement (to be submitted in January 2022).

Highlights of the year have included:

- The launch of a biannual Europlanet Magazine.
- The launch of the Expert Exchange programme.
- A high-level Industry and Policy session at EPSC2021 that included participation by a Member of the European Parliament (MEP), a representative of the Commission, and representatives of academia and industry.
- The first Global Collaboration Workshop.
- The expansion of the Mentoring Programme from the pilot of 10 pairs of mentors and mentees to a full programme with (at the time of writing) 30 active matched pairs.
- A second internship programme for early career researchers to develop skills in working with the media and social media during EPSC2021.
- Provision of virtual training to outreach and education providers.
- Dissemination of seven educational resources related to Mars and Europlanet 2024 RI planetary field analogue sites.

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1. Explanation of NA1 Work & Overview of Progress

The Work Package (WP) is organised in nine tasks that target dissemination, communication and engagement with specific audiences (see Figure 1).

Figure 1: NA1 Tasks



a) Objectives

The main objectives for each of the nine NA1 Tasks are listed in Table 1.

Table 1: Main Objectives of each NA1 Task

Task	Lead Beneficiary	Main Objectives
1. Management	UNIKENT	To provide overall management of the WP, including: <ul style="list-style-type: none"> Organising WP internal and review meetings Facilitating cross-task collaboration Liaising with other WPs and Europlanet 2024 RI management Ensuring compliance with Europlanet diversity and communication strategies Coordinating activities with the Europlanet Society.
2. Industry	BSSL, ACRI-ST	To foster industry-academia interactions by: <ul style="list-style-type: none"> Developing a network of companies interested in working closely with planetary science academics Developing and maintaining a Europlanet database of EU space-sector companies Delivering workshops Supporting early-career networking events and workshops Using EPSC as a catalyst for industry-academia interactions Initiating discussions with the Europlanet Hub Network in the context of industry activities.
3. Widening Participation	Wigner	To widen participation from countries currently under-represented in the European planetary community by: <ul style="list-style-type: none"> Increasing the visibility of under-represented planetary scientists Increasing their involvement in Europlanet's programs, their awareness and usage of Europlanet's infrastructure.
4. Global Collaboration and	UNIBO, ESF	To strengthen and expand the European planetary science community by providing opportunities for international engagement through:

Integration Development		<ul style="list-style-type: none"> Organising workshops to promote engagement and inclusive growth in emerging space nations, in particular in African and South American countries where TA1 infrastructures are located Administering an Ambassadors' programme to support community-led promotion of Europlanet and European planetary science Defining conditions for a pilot TA programme for reciprocal access to facilities offered through Europlanet 2024 RI and project beneficiaries in China and Korea.
5. Expert Exchanges	FMI	<p>To provide focused support for the community to develop new collaborations and share expertise, particularly in the context of:</p> <ul style="list-style-type: none"> Facilities wishing to develop sites for inclusion in future TA programmes Early-career scientists and applicants from under-represented countries Cooperation between academia and industry.
6. Early Career Training and Education	VU, IWF-OEAW	<p>To support graduate students and early career professionals (typically <7 years after the last MSc or PhD degree) in the field of planetary sciences by:</p> <ul style="list-style-type: none"> Supporting the Europlanet Early Career (EPEC) Annual Week Organising meetings, training workshops and summer schools, particularly in under-represented states Offering mentorship by more experienced members of the community.
7. Europlanet Media Centre	DFET	<p>To promote the socioeconomic impact of Europlanet 2024 RI and planetary science in Europe by:</p> <ul style="list-style-type: none"> Issuing press releases on newsworthy results from Europlanet activities and results presented at the Europlanet Science Congress Maintaining an active presence on Twitter, Facebook and YouTube Administering a media internship programme Providing training for the Europlanet Regional Hubs and the EPEC network to develop distributed capabilities for media and social media engagement Sustainability planning for the Europlanet Media Centre.
8. Policy Engagement	EILST	<p>To engagement with European policy makers by:</p> <ul style="list-style-type: none"> Identifying key events and priorities in the European Parliament and opportunities for Europlanet to highlight the importance and relevance of planetary science and related industry Maintaining and developing communication channels with Members of the European Parliament and European Commission, as well as high-level representatives of ESA, NASA and other space agencies Participating in policy events and conferences Working strategically on policy activities with other related organisations (e.g. the European Astronomical Society, European Geosciences Union, distributed research infrastructures) Supporting the Europlanet Regional Hubs in developing policy links at a local and national level.
9. Education and Inspiration	VU, DFET, INAF	<p>To support the planetary community in engaging with citizens and inspiring the next generation with STEM by:</p> <ul style="list-style-type: none"> Providing training for outreach providers Developing and distributing educational resources linked to Europlanet 2024 RI and planetary topics Building a community of users for the Planets in a Room (PIAR) spherical projector and promoting its use as an education tool.

Table 2: Deliverables for WP11 in Year 2 of the project

Deliverable	Description	Due	Delivery Date
D11.3	NA1 2 nd Annual Report	Month 24	31 January 2022

Table 3: Milestones for WP11 in Year 2 of the project

Milestone	Description	Due	Delivery Date
MS52	2 nd Industry workshop	Month 24	21 September 2021
MS53	2 nd Widening participation workshops	Month 24 (amendment requested to move to Month 52)	
MS28	1 st Global collaboration workshop	Month 24	17 November 2021
MS54	2 nd Global collaboration workshop	Month 24 (amendment requested to move to Month 52)	
MS55	EPEC Annual Week*	Month 24	11 June 2021
MS56	Media internship	Month 24	24 September 2021

* TMS55 and future MS will be renamed from EPEC Annual Week to Early Career Workshops to allow for greater flexibility,

b) Explanation of the work carried in WP

Task 11.1 – Management

Lead: Anita Heward (UNIKent). Deputies: Susmita Datta (UNIKent), Livia Giacomini (INAF).

In Year 2 of the project, the NA1 Management team has organised bimonthly virtual meetings with Task Leaders to discuss progress and identify any issues arising within the Work Package (WP). Activities and requests for input have been communicated within the Europlanet 2024 RI project to the Management Team via weekly meetings, to other WP leaders via monthly Project Management Committee (PMC) meetings and to all beneficiaries via presentations at the Council Meeting in October 2021.

News, updates and opportunities resulting from NA1 have been disseminated to the wider planetary community each month via the Europlanet newsletter, which currently has 1964 recipients. Regular items on NA1 have been featured in the RI News, Open Calls, Early Career and Training Opportunities, Funding Opportunities and Policy Reports segments of the newsletter.

Task 11.2 – Industry

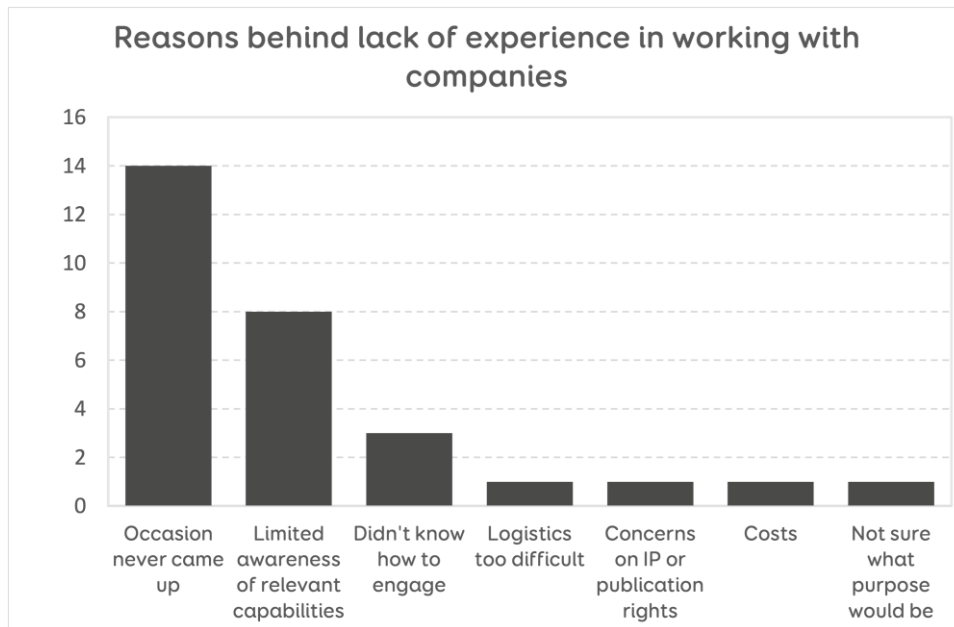
Lead: Marcell Tessenyi (BSSL). Deputy: Jeronimo Bernard-Salas (ACRI-ST).

A core objective of the Europlanet 2024 RI project is to increase collaborations between planetary science's academic community and industry.

Efforts in Year 2 of the project have again focused on online activities. The Industry Team sent out a survey in August 2021 to find out about the experiences and priorities of the

planetary community in working with companies outside academia. Early results show an interest from the respondents in becoming involved in collaborations, but a perceived lack of opportunities for engagement and limited awareness on industry capabilities relevant to research.

Figure 2: Preliminary results from the industry survey.



An online database designed to help planetary scientists find companies that could be relevant to their research areas has been created. It includes about 1000 companies from over 25 countries, with filters allowing the selection of companies across ESA's Technology Domains and per country. The database will be of value to companies that are seeking visibility among the planetary science community of academics, either for specialised areas of expertise (partnerships, consultancies) or for potential recruitment opportunities. The database implementation online has been progressed, with an internal, functioning version live. Current work is focusing on improving user experience (design and accessibility) and defining the process for updating the contents of the database with up-to-date information through the wider Europlanet network. A preliminary version will be rolled out to a group of beta-testers in spring 2022 and their feedback incorporated for a release of the full database to the whole Europlanet community planned for the summer of 2022.

In collaboration with Task 8 Policy, a high-level session on Industry and Policy was organised at EPSC2021 (on 21/09/21). The session was held as an open access community event to ensure that industry participants were not deterred by the abstract submission system and fees.

The session speakers included Niklas Nienaß MEP and Andreas Jenet of the European Commission's Joint Research Centre (JRC), as well representatives of other research infrastructures who presented on their experiences in collaboration with industry. The Industry Team gave an overview of preliminary results of the survey, as well as a presentation on industry and planetary science collaboration on data services. Presentations were followed by a Q&A session with the community. The session was attended by 43 live

participants and recordings of the full session have had 62 views to date on Vimeo. Clips of individual talks have had a further 214 views on LinkedIn. A full report on the meeting, along with videos of the speakers' presentations can be found on the Europlanet website.

The industry team has contributed articles to Issues [1](#) and [2](#) of the Europlanet Magazine to raise awareness of industry-academia benefits and opportunities.

Conversations with the Europlanet Society Hub network have also been pursued over the last 12 months, with a second inter-hub call held in June 2021 involving both Industry and Policy representatives.

Task 11.3 – Widening Participation

Lead: Andrea Opitz, Wigner Institute

In Year 2 of the project, activities have continued to be focused online. The Widening Participation Task was represented at the Diversity and Inclusion Community event at EPSC2021 on 23 September 2021, which was attended by about 15 participants and discussed challenges faced by members of the community from Under-Represented States (URS).

Support for a Massive Open Online Course (MOOC) to provide training in communication and soft-skills for researchers in South East Europe has been put in place. The project will be coordinated through the Hellenic Amateur Astronomy Association, with support from the Europlanet Society South East Hub, and will be implemented in Year 3 of the project.

As face-to-face contact remains an important part of effective engagement with the URS community, planning has also started for a Europlanet Research Infrastructure Meeting (ERIM) that will be held in Budapest in 2023. The ERIM is designed to bring together multiple workshops organised through Europlanet 2024 RI to exploit synergies and raise awareness amongst user groups of the project's range of services, facilities and activities. As EPSC will be held jointly with the American Astronomical Society's Division of Planetary Sciences (DPS) in San Antonio, Texas, in 2023, the ERIM meeting will be an opportunity to convene the planetary science community in Europe. The hosting of the meeting in Hungary should help ensure good participation from the URS community.

Task 4 – Global Collaboration

Lead: Barbara Cavalazzi (UNIBO). Deputy: Nicolas Walter (ESF).

Sub-Task 11.4.1: Global Collaboration and Integration Workshops

Lead: Barbara Cavalazzi (UNIBO).

The first workshop in a series to kickstart the creation of a network for planetary science in Africa was held at the Botswana International University of Science and Technology (BIUST) from 15-17 November 2021. The workshop on 'Satellites for Space Science and Technology in Africa' brought together space technology specialists, representatives of space agencies, scientists and students to discuss current topics in the rapidly developing field of space. The workshop was opened by Federico Berna, Head of Cooperation at the Delegation of the European Union to Botswana and SADC, and over 40 people joined the hybrid meeting

virtually, with 15 participants attending the meeting in-person in Palapye. Participants included representatives from the UK, Brazil, India, Italy, Germany and India, plus 10 countries within Africa, and included 10 early career researchers. The workshop was featured in news stories by [Europlanet](#) and the [Università di Bologna](#) and was featured on the [EU Botswana Delegation Facebook](#) page.

Planning is now in progress for the next workshop, which will be held in Cordoba in Argentina in July 2022 on the topic of astrobiology. A third workshop will be organised in Casablanca in Morocco. Plans for workshops in Ethiopia and Egypt have been shelved due to the respective political situations.

Sub-Task 11.4.2: Defining the boundary conditions for pilot TAs with China and Korea

Lead: Jonas L'Haridon (ESF).

Through the Memorandum of Understanding with Korean partners implemented in Year 1 of the project, 11 facilities from the Korea Basic Institute of Science (KBSI) were included in TA Call 2. Korean facilities received three applications, of which two were funded (results announced in April 2021). The facilities were also included in the first Fast Track TA Call (results to be published in February 2022). Further Chinese and Korean facilities will be included from TA Call 3 onwards. The programme will enable 6-7 teams of European researchers to access planetary facilities in China and Korea in each call, with 6-7 Asian teams making reciprocal visits to Europlanet 2024 RI facilities.

Sub-Task 11.4.3: Global collaboration strategic planning

Lead: Barbara Cavalazzi (UNIBO).

In Year 2 of the project, first steps were taken in implementing Global Collaboration and Integration Development Strategy (delivered at the end of Year 1). Meetings have been held to discuss opportunities for collaboration with the Africa-Europe Science and Innovation Platform, AERAP. A session on [Africa-European collaborations in planetary science](#) was convened at EPSC2021, and this was attended by 18 people, including six speakers from Africa that were supported by Sub-Task 11.4.3.

Planning for the first pilot project for the Europlanet Ambassadors Programme – a tour of the French SpaceBus outreach initiative in Togo, with support of the SG2D Togolese science outreach association – has been ongoing, though the proposed dates of the tour in February 2022 have been postponed due to Covid.

Task 11.5 – Expert Exchanges

Lead: Maria Genzer (FMI). Deputy: Harri Haukka (FMI).

The Expert Exchanges Programme was launched on 28 May 2021, after a year's delay due to the Covid-19 situation.

To date, four applications have been received and two expert exchanges have taken place.

- Frédéric Foucher of CBM, CNRS, Orléans, visited the team of Barbara Cavalazzi at the Università di Bologna from 8-12 November 2021. The main objective of the expert

exchange was to provide training on theoretical and practical aspects of Raman micro-spectroscopy and imaging, in order to support development of the Bologna lab facility and to reinforce the collaboration between groups.

- Keyron Hickman-Lewis of the Natural History Museum, London, visited the Università di Bologna from 7-13 November 2021 to advise on sample selection and preparation for micro-CT analyses of stromatolites sourced from a planetary analogue (the East African Rift system) and conduct preliminary optical microscopy analyses of these materials with the host (Barbara Cavalazzi). Dr Hickman-Lewis also conducted high-resolution Raman microspectroscopic mapping of thin sections of microfossil-rich stromatolites from his own collections, thereby gaining important data for publications using instrumentation unavailable at his home institution. His involvement with several student research projects in Bologna also provided him with experience of student supervision that will prove invaluable given his status as an Early Career Researcher.

Task 11.6 – Early Career Education and Training

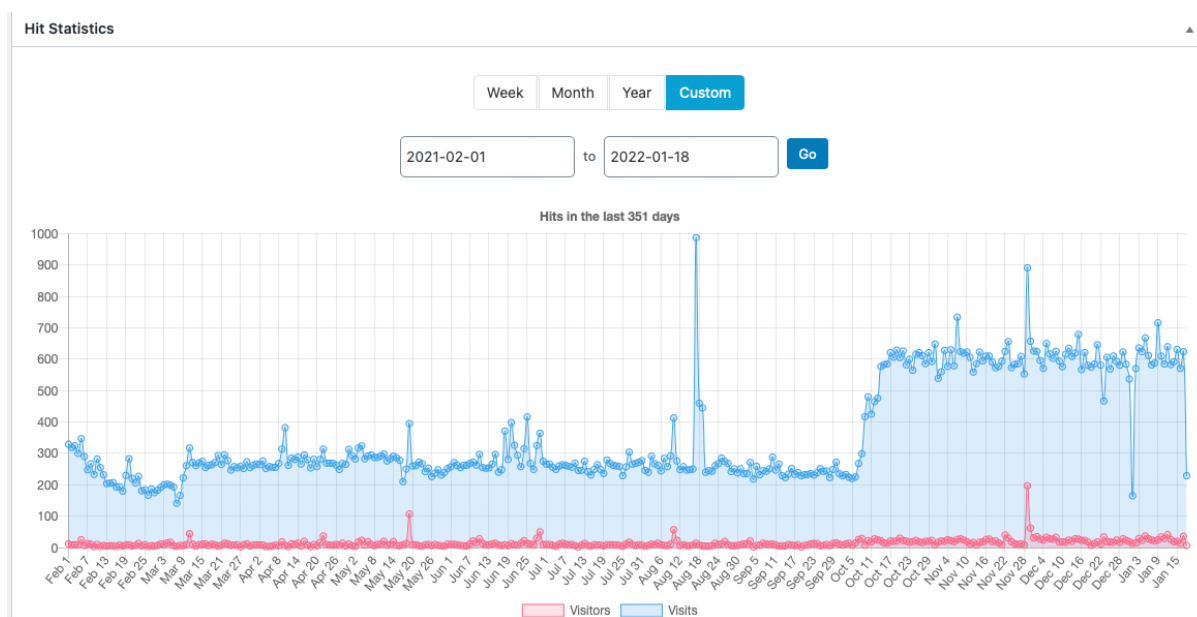
Lead: Grazina Tautvaisiene and Edita Stonkute (Vilnius U.), Manuel Scherf/Guenter Kargl (OEAW-IWF).

The second year of the project has seen the ongoing maintenance of the Early Careers Training and Education Portal <http://www.euoplanet.tfai.vu.lt>, which provides information on PhD positions, job opportunities, summer schools, and meetings relevant to early career professionals working in planetary science and related fields.

Announcements of twelve PhD advertisements (including 25 PhD opportunities) and over 25 early career positions in planetary sciences at various institutions have been posted over the past 12 months. The team has replied to several direct emails asking for advice on questions related to mentoring and early career job opportunities in planetary science and related fields.

The portal includes a section dedicated to mentorship. The aim of the Europlanet Mentorship Platform is to help early career scientists to develop expertise, ask questions and discuss career plans with the support of more established members of the planetary community.

Figure 3: Visits and unique visitors to the Early Careers Training and Education Portal in Year 2.



The initial ten pairs that were matched during the pilot phase of the project from September to December 2020 have been contacted to start evaluation of the programme. The Evaluation Officer, Jen DeWitt, has also developed an evaluation plan with the aim of:

- 1) Providing an illustrative case study of a mentorship programme in planetary science
- 2) Informing and strengthening further development of the programme itself.

The evaluation will focus on the following questions:

- 1) Who is participating in the mentorship programme (programme reach)?
- 2) What outcomes are achieved from participation (particularly for mentees)?
- 3) What feature of the programme are acting as supports and barriers to achieving these outcomes?
 - a. What is the experience of the mentors in the programme?
 - b. What is the experience of the mentees in the programme?
 - c. How might the programme be improved?

To date, 33 pairs have been matched, with 30 active pairs and three applications from mentees awaiting a suitable mentor.

Online meetings have been held with Europlanet Early Career (EPEC) Network Committee and EPEC@EPSC Working Group Members to support the Mentoring@EPSC 2021 programme and help them with recruitment. This year the Mentoring@EPSC programme had an oversubscription of mentees (56 mentees, up from 38 in 2020) but an undersubscription of mentors (21 mentors, down from 23 in 2020). Given the overabundance of mentees, some mentors were asked to take on additional mentees and six mentees were matched with each other, so they could at least benefit from their multiple experiences. More than 75% of mentees reported finding the programme very useful, but new and effective ways to attract mentors need to be found. The EPEC Annual Week took place from 7-11 June, with more than 50 early careers from all over the world and sessions covering funding, outreach and writing papers.

The Task 11.6 team, in collaboration with WP12, organised a hybrid-mode summer school on asteroid photometry, which took place from 16-27 August. 51 applications were received and 24 participants were selected to take part, with a further 26 early career researchers accessing the plenary lectures and exhibition. Participants were given remote hands-on experience in CCD photometry of asteroids using the wide field Maksutov type telescope of the Molėtai Astronomical Observatory and in analysing the observational data. The participants were also trained in writing and submitting observing proposals to different facilities of the Europlanet Telescope Network.

Tasks 11.6 and 11.4 also supported the EANA International Spring School on Hydrothermal Vents, which was attended by 200 early career researchers.

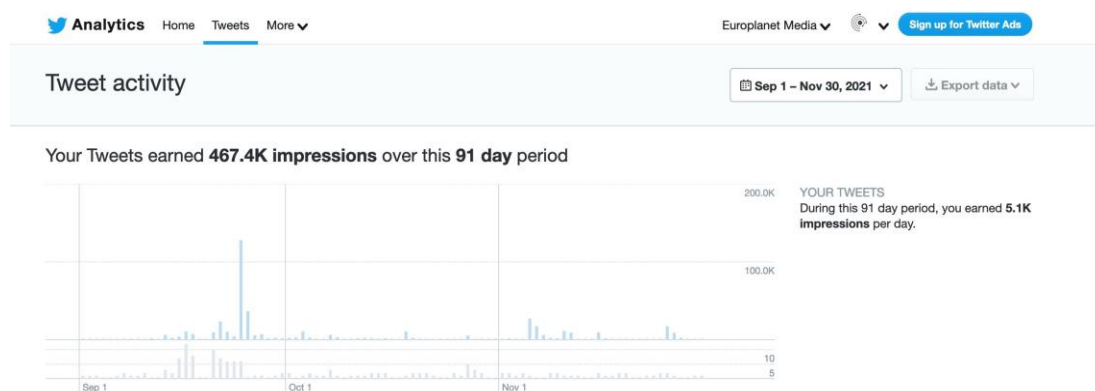
Task 11.7 – Europlanet Media Centre

Lead: Anita Heward (DFET). Deputy: Helen Usher/Luca Nardi (DFET)

The Europlanet Media Centre has issued fifteen press releases on activities by the Europlanet 2024 RI, the Europlanet Society and the Europlanet Science Congress. The stories have been covered by the worldwide media, including ANSA, Forbes, Daily Mail Online, The Indian Express, El Periodico, Radio Canada, Space.com, IFL Science, Universe Today, New Scientist and Nature.

The Social Media team has issued regular (~ twice daily) updates on Europlanet 2024 RI activities and planetary topics throughout Year 2 of the project on Twitter and Facebook. The Twitter following has grown to 3242 (from 2205 at the start of the project) and the Facebook following to 2479 (from 2015 at the start of the project).

Figure 4: Tweets activity by @europlanetmedia from July-September 2020



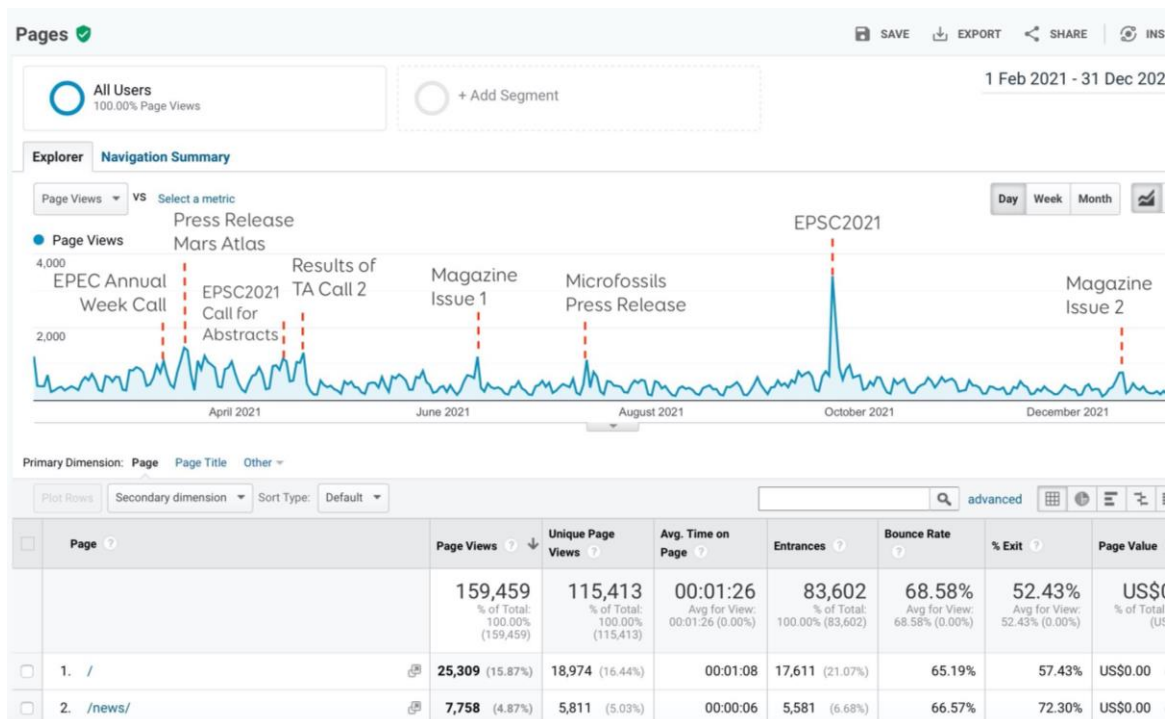
The Social Media team has participated in a number of campaigns over Year 2 including:

- SuperLuna!, a collaboration with EduINAF to gather images of the Moon submitted by amateur astronomers, schools and members of the general public. Over [40 works were submitted](#) and a livestream event by INAF that included a summary video of the entries had over 27K views.
- EPSC outreach activities, including EPSC Goes Live for Schools (see Task 9), the second EPEC-EPSC contest for early career researchers, and the #InspiredByOtherWorlds arts contest 2021.

The team has posted 57 stories and announcements related to Europlanet 2024 RI on the Europlanet website during Year 2 of the project, many of which have resulted in notable peaks of traffic to the site (**Error! Reference source not found.**). Aggregators have been set up so that reports on TA visits and expert exchanges are posted on the relevant pages around the Europlanet site.

A second paid internship programme was held in September 2021 to support early career researchers in developing skills for engaging with the media and social media. Two media interns and three social media interns joined the communications team for EPSC2021. The social media interns supported the social media team in covering live sessions during the meeting. The media interns supported the press office team in preparing materials for the media. One of the interns (Amy Riches) contributed an [article to the Europlanet Magazine](#) about her experiences during the programme.

Figure 5: Page views of the Europlanet website during Year 2 of the project



Task 11.7 was responsible for putting together the schedules for daily interviews and briefings hosted by Dr Niamh Shaw during EPSC2021. Europlanet 2024 RI representatives, including the Project Coordinator, VA lead, TA visitors and facility leads, global collaboration, and the Europlanet Magazine editor, were invited to participate as guests. The briefings were viewed an average of 114 times (including livestream and recordings). As with the EPSC2020, clips from these sessions have been edited to produce a number of promotional videos for Europlanet 2024 RI activities. This resource of video content will continue to be exploited for marketing Europlanet 2024 RI in 2022.

A major innovation for 2021 has been the launch of the Europlanet Magazine, the management of which is shared by Task 11.7 and WP 1. The design and support for content development is provided through the WP1 marketing budget. At present, the magazine is only available [online](#) as a pdf that can be viewed as a flip-book or downloaded, or as separate articles in web-story format. However, the magazine has been designed to meet print-quality requirements so that physical editions of back-issues may be produced for dissemination at future events (e.g. EPSC2022, ESOF 2022 and EAS 2022).

The main objectives of the magazine are to summarise highlights emerging from Europlanet activities (including the 2024 RI project, past projects, the Europlanet Society and EPSC) in order to raise awareness amongst the wider community (ranging from interested general public and policy makers to researchers) and to provide case studies that may be used as a basis for impact reports. Articles on the RI in the magazine include a description of the new field sites in Argentina, a feature on the TA programme and reports on TA visits, a feature on how VESPA has enabled Europlanet to join the International Planetary Data Alliance (IDPA), a report on how the Winchcombe Meteorite is being analysed through Europlanet 2024 RI facilities at the NHM, updates on industry engagement, and an overview of the GMAP service.

The first issue of the magazine (published on 11 June 2021) has had 2583 page views and 1854 unique views. The second issue (published on 17 December 2021) has had 1323 page views and 935 unique views to date.

Figure 6: Covers of Issues 1 and 2 of the Europlanet Magazine



Task 11.8 - Policy

Lead: Policy Team (EILST)

The Covid-19 pandemic has continued to have a significant impact on policy activities over the last 12 months, with face-to-face policy networking activities still not possible due to closures and travel restrictions. In particular, although MEP Niklas Nienaaß and MEP Marian-Jean Marinescu agreed to co-host a Europlanet dinner debate at the European Parliament in the autumn of 2021, the Parliament remains closed to visitors and so the event has not been able to go ahead.

During Year 2 of the project, regular [policy reports](#) have been compiled and updates disseminated through the Europlanet Newsletter and in [26 posts](#) on the Europlanet website. All resources have been shared with the Europlanet 2024 RI project team via the SharePoint policy folder.

The EPSC2021 daily briefings included a clip and link to a longer interview with Andreas Jenet of the JRC, and a follow up interview with Niklas Nienaaß was published in the Europlanet Magazine and featured in a discussion webinar with members of the Europlanet Society on 25 January 2022.

The Policy Team participated in planning of a virtual workshop, led by the ESF, for distributed RIs held on 17-18 March 2021. The meeting brought together 128 RI representatives and policy makers to discuss the status of distributed RIs, common goals and strategies, sustainability issues, eventual harmonisation of RIs across Europe, and demonstration of the societal impact of RIs to further increase their visibility.

In addition, the Policy Team convened a Regional Hub Policy-Industry Officers meeting on 29 June 2021, which was attended by policy and industry officers representing most of the Europlanet Society's Regional Hubs. The meeting provided a platform to exchange ideas on policy strategy and engagement at a regional level.

Task 11.9: Outreach and Inspiration

Lead: Anita Heward (DFET). Sub-Task Leads: Grazina Tautvaiseine (VU), Paul Roche (DFET), Federica Duras (INAF)

Sub-Task 11.9.1: Outreach Community Support

Lead: Anita Heward (DFET) / Federica Duras (INAF)

Following the withdrawal of Norrbottens Museum from the project during Year 2, the funding allocated for Sub-Task 9.1 will be redistributed in the next Grant Amendment. The Natural History Museum in London will now develop a virtual exhibition on the theme of Mars sample return. The remainder of the funding will go to Task 11.1 to support the project's sustainability activities.

Vilnius University, in collaboration with Europlanet and EduINAF livestreamed the solar eclipse on 10 June 2021 and reached approximately 7000 people online. The event was also covered on Lithuanian television.

Sub-Task 11.9.2: Training

Lead: Grazina Tautvaisiene (Vilnius U.)

Due to Covid-19, it has still not been possible to run the planned “train-the-trainers” workshop to provide outreach training to members of the Europlanet community. However, a number of outreach training activities have taken place as webinars, virtual meetings or through the development of online resources. These include

- Media training for 12 researchers, organised through AstrobiologyOU on 19 May 2021
- A Europlanet Evaluation Toolkit workshop, held as part of the Planetarium360 Workshop organised by the Royal Astronomical Society on 5 May 2021, attended by 30-40 planetarium operators, outreach providers and researchers.
- An invited talk on the Europlanet Evaluation Toolkit at 3rd IAU Shaw workshop, attended by ~55 participants.
- A further Wikipedia training workshop on how to translate, edit and produce new Wikipedia profiles (organised as part of the EPSC2021 Planetary Science Wiki-Edit-a-thon), in collaboration with the Europlanet Diversity Committee, WikiDonne and Women in Red. Resources [can be found here](#).

Sub-Task Task 11.9.3: Education and Inspiration

Lead: Paul Roche (DFET). Deputies: Rosie Cane, Jose Utreras, Ulysse Pedreira-Segade (DEFT).

Development of educational resources in Year 2 of the project has focused on publication and dissemination of resources linked the TA1 Planetary Field Analogue sites and astrobiology, as well as the development of new resources linked to icy moons, Mars and impact craters. Seven classroom lessons (presentation materials, videos and teachers’ notes) aimed at students aged 11-14 cover a range of physics, chemistry and biology topics commonly included in school curricula across Europe. The resources have had 2,137 page views and the videos on YouTube have had 1,221 views.

Table 4: Summary of topics for Europlanet 2024 RI educational resources published and disseminated in Year 2.

Europlanet PFA Site	Topic	Curriculum Area	Languages Available
Life in extreme environments	1. Extremophiles	Astrobiology	English, French, Greek, Portuguese, Russian & Spanish.
Danakil Depression	2. A Brief History of Mars	Space Exploration	English, French, Greek & Russian.
Iceland Field Sites	3. Volcanoes on Mars	Geophysics	English, French, Greek & Russian.

Kangerlussuaq	4. Martian Chemistry	Chemistry, Space Exploration, Physics	English, French, Greek & Russian.
High Argentinian Andes	5. Brines on Mars	Chemistry	English, French, Greek, Russian & Spanish.
Makgadi Salt Pans	6. Evaporation and States of Matter	Physics	English, French, Greek, Russian & Spanish.
Rio Tinto	7. pH of Mars	Chemistry	English, French, Greek, Russian & Spanish.

The seven lessons were published in the spring of 2021, and formed part of the EPSC Goes Live for Schools campaign in the autumn of 2021 that was co-organised and led by Lecturers Without Borders. The Lecturers Without Borders team kindly provided the translations of the resources. The seven new educational resources on the topic of icy moons will follow the same format.

An 'Illustrated Guide to Mars' has also been produced with 12 cartoon infographics that cover aspects of the planet Mars and its exploration. The resources are mainly aimed at students ages 14-16, but simplified versions are also available for younger age-groups (11-14) and the general public. Further resources linked to cratering and mass extinctions are also being prepared.

Sub-Task 11.9.4: Planets in A Room

Lead: Federica Duras and Livia Giacomini (INAF)

While 11 DIY kits of Planets In A Room (PIAR) spherical projectors were distributed to the Europlanet Society outreach partners and two online training workshops were delivered in Year 1 of the project, the ongoing Covid restrictions have meant that opportunities to use PIAR in face-to-face outreach has been very limited during most of Year 2. Nonetheless, PIAR was used at the Galassica 2021 festival of astronomy in July and at an evening event in November at the Amazon hub in Rome that was open to the general public.

A request will be included in the next Grant Amendment to convert sub-contracting funding, intended to produce more kits, into personnel costs to create more educational resources.

c) Impact to date

Despite the restrictions on travel and face-to-face contact over the last 12 months, NA1 is largely on track to deliver the expected impacts of the project as described in Section 2.1 of the Description of Action.

The NA1 team is working with the Evaluation Officer to track metrics including participation in workshops and training sessions, coverage of press releases, social media followings, website page views, video views, users of resources etc. Details are logged in [an online](#)

[spreadsheet](#) that is updated at regular points. Case studies can also be an important tool for evaluating and demonstrating impact, and the Evaluation Officer working with the NA1 team to identify potential examples. The survey carried out by Task 11.2 is helping to identify case studies to highlight the range of benefits and opportunities that can arise from industry-academic collaborations. The Europlanet Magazine has also proved a rich source of information on impact for both [this project](#) and previous Europlanet RI projects, with articles describing how TA and JRA funding through Europlanet has resulted in [publications in leading journals](#), testing of [instrumentation now operating successfully on the Perseverance rover](#), and key support for the [successful selection of instruments for the new missions to Venus](#).

Online work remains the main focus for the near future across NA1. However, while online conferences can bring in additional speakers and participants from groups that have limited access to travel, time and financial support, in-depth and one-on-one conversations are less likely to take place in a purely virtual environment. For “hard-to-reach” groups, including representatives from URS and industry, face-to-face events remain a vital networking tool and a priority whenever it is possible, appropriate and safe to hold them.

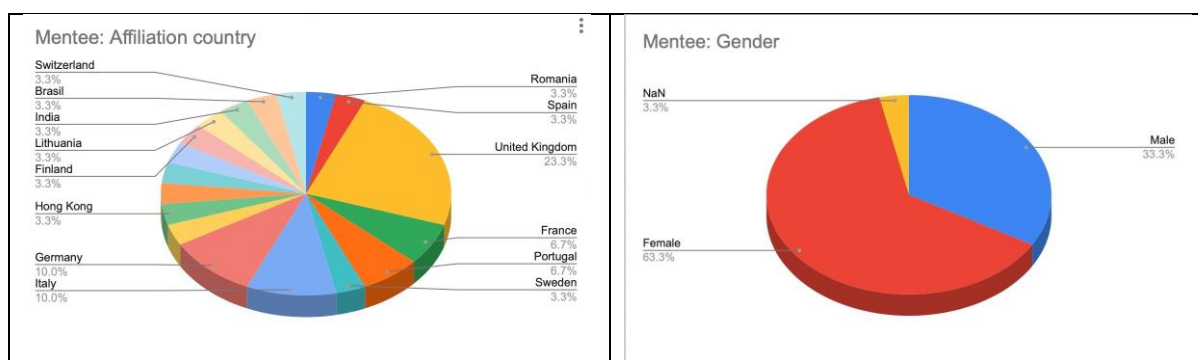
The [Early Career Training and Mentoring Portal](#) has had 5569 unique visitors in its second year (up from 2217 in Year 1). The need of early career researchers for support is highlighted by the high number of mentees signing up for mentoring in both the ongoing and the Mentoring@EPSC programmes. With 30 pairs now active, the Europlanet Mentorship programme is well on track to meet a target of 50 matched pairs by the end of the project. Already, there is a broad geographical reach in countries represented in the programme (Austria, Belgium, Brazil, Finland, France, Georgia, Greece, Hong Kong, India, Italy, Lebanon, Lithuania, Portugal, Romania, Spain, Sri Lanka, Sweden, Switzerland, US, UK). Feedback from participants has been encouraging, for example:

“Overall, I found the conversation and discussion to be beneficial. Some of the topics we discussed have already made an impact in my daily schedule and habits and I’m looking forward to our next meeting.” — Mentee.

“Mentoring is one of the possible ways available to us to encourage the next generation of researchers to blossom. Sharing our respective passion for science leads to a fruitful interaction for both parties. Let us all play our part and contribute to a better world.” — Mentor.

A paper has been published by a pair participating in the programme (Anghel et al, Meteoroid's orbit determination, published in the Romanian Astronomical Journal, Registration No. 2116, 2021), and two mentees have also credited the programme with supporting them in gaining a fellowship and a PhD position.

Figure 7: Affiliation and gender breakdown for mentees participating in the Europlanet Mentorship Programme.



The success of the media and social media internship programmes run at EPSC in September 2020 and 2021 has demonstrated a further mechanism for Europlanet to support early career professionals in developing skills. It has also proved a valuable recruitment service for the communications team, with three of the five interns now having an ongoing role in the team and two further interns staying in regular contact.

Although the MEP Niklas Nienaaß agreed in 2020 to co-host a Europlanet Dinner Debate in the European Parliament during 2021, it has still not been possible to hold the event due to Covid restrictions. Nonetheless, a close link with Mr Nienaaß has been maintained through his participation in the Industry and Policy session at EPSC and a subsequent video interview, which was also published in the Europlanet Magazine.

d) Summary of plans for Year 3

Table 5: Summary of plans for NA Tasks in Project Year 3

Task	Main objectives for Year 3 of the project
1. Management	<ul style="list-style-type: none"> Disseminate and request input for NA1 activities via Europlanet 2024 RI Management, the PMC and the Society. Track metrics and outcomes for project evaluation. Support other work packages with dissemination. Support interaction with the communities via webinars. Work with WP1 on community demographic survey.
2. Industry	<ul style="list-style-type: none"> Progress work on the database of companies with an interest in planetary science. Follow up survey on areas of interest for community in industry-academic interactions. Develop joint programmes with Task 8 Policy.
3. Widening Participation	<ul style="list-style-type: none"> Plan virtual and physical workshops. Support planning of Europlanet Research Infrastructure Meeting (ERIM) 2023 in Budapest. Monitor progress of MOOC in Southeast Europe.
4. Global Collaboration	<ul style="list-style-type: none"> Implement actions from the Global Collaboration and Integration Strategy. Plan the 2nd Global Collaboration workshop in Argentina. Monitor TA visits by European researchers accessing KBSI facilities and Korean researchers visiting Europlanet TA facilities. Promote the Europlanet Ambassadors' Scheme.

5. Expert Exchanges	<ul style="list-style-type: none"> Promote the Expert Exchange programme and outcomes of visits.
6. Early Career	<ul style="list-style-type: none"> Implement evaluation of the mentoring programme. Update the Portal with additional mentoring support materials and advice. Continue to actively circulate the announcements on PhD positions, job opportunities, summer schools, and meetings relevant to early career professionals working in planetary science and related Support the virtual EPEC Annual Week in June 2022, and plan other training workshops and summer schools.
7. Europlanet Media Centre	<ul style="list-style-type: none"> Promote the activities of Europlanet 2024 RI and the planetary community via the media and social media. Adapt video interviews and presentations on Europlanet 2024 RI and key planetary topics for promotional and educational purposes. Support the press office for EPSC2022. Administer the 3rd Media Internship programme around EPSC2022. Solicit content and edit Issues 3 and 4 of the Europlanet Magazine.
8. Policy	<ul style="list-style-type: none"> Plan for a dinner debate in the European Parliament in autumn 2023, with subject "The potential of European Space Programmes and the essential role of space as a strategic asset in Europe", co-hosted by MEPs Nienäß and Marinescu.* Enlarge the MEP/policy contacts data base and strengthen established contacts with stakeholders. Engage policymakers in concrete actions (dinner debate, one-to-one briefings, other Europlanet events).* Hold regular meetings with the Regional Hub policy and industry officers and liaise on relevant national policy events. Enrich and maintain the Europlanet Society Policy website and helping to create updated promotional material. Continue to work closely with the Task 2 Industry team and co-organising a joint session at EPSC2022. Maintain the regular monitoring and reporting of activities already established.
9. Education and Inspiration	<ul style="list-style-type: none"> Further disseminate educational resources related to Europlanet 2024 RI planetary field analogue sites. Publish and disseminate new classroom resources on the theme of "Icy moons" aimed at ages 11-14, and covering core physics, chemistry and biology topics. Support online outreach training and plan "Train the Trainers" workshop* Offer further PIAR related activities (online or in presence) and distribute and use PIAR with a wider community. Translate, adapt and distribute educational activities developed in NA1 for use with Italian schools via EduINAF.

* If Covid-19 travel restrictions are lifted and/or face-to-face meetings are possible in 2022.

2. Update of the exploitation & dissemination plan

The Exploitation and Dissemination plan described in Section 2.2. Annex 1 of the Description of the Action (DoA) is largely on track, with the exception of planned face-to-face activities (expert exchanges, networking activities, physical workshops) that have still not been possible due to the Covid-19 pandemic. Table 6 summarises the key user groups and

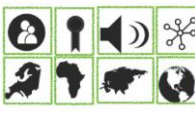

dissemination methods anticipated for each NA1 task in the DoA and the actual engagement/use undertaken. Webinars were not mentioned in the proposal but have been a major dissemination tool in Years 1 & 2.

Table 6: Exploitation methods and dissemination channels (from Section 2.2 of proposal)

Key to user groups and dissemination methods. Green indicates new channel not mentioned in proposal. Green boxes denote engagement or use within Year 2 of project



WP 11 Task	Target group / end user	Desired result	Exploitation method	Dissemination methods
Industry		Active network of industry contacts. New collaborations. Validated database of EU space companies. Innovation potential exploited	EPN-2024-RI project channels, NA channels and networks, Europlanet Society, Regional Hubs, EPEC, Eurospace, national/local industry networks	
Widening Participation		Active networks in URS in academia, industry and wider society. Wider RI user base from URS.	EPN-2024-RI project channels, URS networks, NA channels and networks, Europlanet Society, Hubs, EPEC, external networks.	
Global Collaboration & Integration Development		Extended networks in China, S. Korea, Africa, S. America Asia & globally w. academia, industry and wider society. Wider RI user base from global community.	EPN-2024-RI project channels, IAU Office for Astronomy Development, NA channels and networks, Europlanet Society, Hubs, EPEC, external networks.	
Early Career and Education		A trained workforce that will provide the next generation of users and leaders of the RI. Wider RI user base from early careers.	EPEC, EPN-2024-RI project communications, NA channels, Europlanet Society, Regional Hubs, early career networks (International Space University, SEDS, Space Generation Advisory Council etc.)	
Media Centre		Press releases & social media posts with local, national & international impact.	EPN-2024-RI project communications, NA channels and networks, EPN Media list, Europlanet Society, Regional Hubs, Media subscription services.	
Policy Engagement		Policy makers informed on European planetary science. A planetary science community that actively contributes to	EPN-2024-RI project communications, NA channels and networks, Europlanet Society, Regional Hubs, ITRE	

		evidence-based policy making.	Committee, STOA, national policy bodies.	
Outreach and Inspiration		A European society engaged and aware of developments in planetary science. Students inspired by planetary science & STEM careers. Trained and informed outreach providers.	EPN-2024-RI project channels, NA channels, Europlanet Society, Hubs, external organisations: ESERO, Ecsite, EU Schoolsnet, Scientix, SpaceEU, LCOGT, GTTP	

3. Update of the data management plan

There are no updates required for the data management plan.

4. Follow-up of recommendations & comments from previous review(s)

A number of types of dissemination have been carried out, but they do not in all cases include a reference to EU funding. (Relevant to all WP11 Tasks)

We always endeavour to correctly acknowledge the EC correctly with all our outputs and have gone through the periodic report links to double-check any entries that may not have the acknowledgement embedded within any outputs. We will reinforce efforts to ensure that NA1 activities include the correct acknowledgement.

The Europlanet website is a very good archive for all the deliverables of the consortium within the proposal. As a working environment for users interested in using the VAs the website more difficult to navigate. (Relevant to Task 11.1 Management and Task 11.7 Media)

Some buttons have been added to the front page of the website to make all the RI services easier to find, but the communications team is working with the web designers to find a better solution to increase visibility of the VAs in particular and clearer links to all services.

Care has to be taken to further activate URS in participating in the TAs, the wide range of already implemented strategies to include URS are less successful than projected.

(Relevant to Task 11.3 Widening Participation and Task 11.5 Expert Exchanges)

We will continue with our widening participation activities in relation to increasing URS participation and success in the TA calls. We plan to host future events (hopefully face to face) within URS countries in order to facilitate more successful applications to the TA scheme. The Expert Exchange programme can support collaborations between URS and non-URS beneficiaries and foster sharing of best practice, grant writing and ideas.

Please consider including education on good data management practises and usage of VA tools in the educational and exchange programmes. (Relevant to Task 11.6 Early Careers).

We will look to incorporate these suggestions into the programme for future summer/winter schools and early career activities, as well as highlighting this as a topic for expert exchanges, possibly through a tailored call.

The project results will to some extent have impact on space policy and especially policies related to solar system exploration missions. The focus of the impact on policy is on informing the policy makers. A Policy Officer is appointed to identify key events and priorities in the European Parliament and opportunities for Europlanet to highlight the importance and relevance of planetary science and related industry. (Relevant to Task 11.8 Policy).

Although we have been unable to organise any face-to-face activities (e.g. a Dinner Debate in the European Parliament), we have held two successful virtual events involving policy makers at EPSC. We have maintained regular contact with MEPs including MEP Niklas Nienaaß who has taken part in both EPSC sessions, and recently gave a more lengthy interview that has been featured in the Magazine and will be included as part of a community discussion webinar in early 2022.

5. Deviations from Annex 1 (DoA)

A number of deviations from the Annex 1 (DoA) for NA1 were addressed in the Grant Amendment, that was approved by the European Commission in March 2021. The reasons for changes and the details of the requests relating to NA1 are outlined in Table 7: Table of changes relating to NA1 made during preparation of Grant Agreement below.

Table 7: Table of changes relating to NA1 made during preparation of Grant Agreement Approved in Year 2

Version	Date	Change Made
9	14.10.2020	<p>Grant Amendment Submitted October 2020, Approved March 2021</p> <p>The disruptions caused by Covid-19 have impacted the Project in terms of being able to enter the work place and being able to travel. This has caused a delay to the submission of certain Milestones and Deliverables. There have been requests to convert funds allocated to travel to personnel to cover the extra time researchers require to convert workshops and meetings to a virtual format.</p> <p>Request for Deliverable submission dates to change (in chronological order)</p> <p>Move Deliverable D11.1 to M11</p> <p>Request to move Milestones dates</p> <p>Move MS28 to M24</p> <p>Move MS29 to M24</p> <p>WP11 NA1</p> <ul style="list-style-type: none"> NA1 Task 2 Industry (change direct costs to personnel, no additional budget). This request moves funding from workshops to personnel and other direct costs at ESF to enable additional development work on the database of companies with an interest in planetary science. 10,080€ (plus overhead) from BSSL WP11 Task 2 moved to ESF WP11 Task 2 NA1 Task 3 Widening Participation (increase person months, no additional budget, but transfer 6K€ to other goods and services) This request is to increase person months from 15 to 19.2 PMs at WIGNER (Beneficiary #46). NA1 Task 5 Expert Exchanges at FMI (Beneficiary #19) Convert 14.2K€ travel to ~2 Person Months, no additional budget. This request is to change travel to personnel to enable a scoping exercise for a virtual expert exchange programme (with a particular focus on support of TA and NA2 facility visits) NA1 Task 4 Global Collaboration (50K€ including overheads additional budget requested for Global Ambassadors programme). The Europlanet Ambassadors programme was listed in the original proposal under NA1 Task 4 but did not have a budget assigned to it. NA1 Task 6 Early Careers (12.5K€ additional budget requested for 2 person

		<p>months). This is a request for additional person months to support the expanded mentoring programme.</p> <ul style="list-style-type: none"> NA1 Task 9 Outreach and Inspiration: change Beneficiary from LTU Beneficiary #28 to Norrbottens Museum NORR as Jose Gordillo has changed Institution. This is a request for a change in beneficiary, due to the change in employer of Jose Gordillo.
10	16/12/2020	<p>WP11 NA1</p> <p>Task 7: Social Media 2.4PM requested Transfer 9.6K€ to DFET (Beneficiary #15) from NORR (Beneficiary #56)</p> <p>Due to the Covid-19 pandemic, there has been a significant impact on conferences and meetings throughout the first year of the project, with many events moving online for the first time. The Europlanet Media Centre team (WP11 Task 7) oversaw the formation of a new Virtual Organising Committee (VOC) for the Europlanet Science Congress (EPSC) 2020, which researched best practice for virtual meetings and worked alongside the conference organisers to define the most appropriate tools and platforms, the format of the meeting and the schedule. Outcomes and lessons learned from this virtual conferencing experience are now being used to inform all EPN-2024-RI meetings and workshops taking place online. EPSC2020 has also generated a very significant resource of video content relating to the EPN-2024-RI project, which will be drawn on to market the project over the next year.</p>

Due to the withdrawal of Norrbottens, a request for the redistribution of the budget for Task 11.9.1 will be included in the Grant Amendment that will be submitted to the Commission in January 2021.

Version	Date	Change Made
9	January 2022	<p>Grant Amendment Submitted January 2022</p> <p>Review budgets:</p> <p>NORR terminated from Project in June 2021 – due to staff turnover – fund temporarily retained at UniKent (~€118783.75)</p> <p>UniKent (NORR budget) -> NHM: Mars Sample Return Virtual Exhibition 10.75PM plus consumables €98,459 (inc overheads)</p> <p>DFET: 4.2PM Task11.1 Management (from NORR Personnel funds currently held at UniKent)</p> <p>Move 4.94 PM (27 171.22 Eur plus overheads) from IWF-OEAW in WP11 to VU for WP12.</p> <p>INAF: PIAR sub-contract €20,000 move to Personnel 5.61PM</p> <p>Deliverables:</p> <p>Add</p> <p>D11.9 4th Annual Report due Jan 31 2024 (PM48)</p> <p>Milestones:</p> <p>MS28 1st Global Collaboration workshop due Jan 2021 (PM24) -> May 31 2024 (PM52)</p> <p>MS53 2nd Widening Participation workshop due Jan 2022 (PM24) -> May 31 2024 (PM52)</p>

		<p>MS54 2nd Global Collaboration workshop due Jan 31 2022 (PM24) -> May 31 2024 (PM52)</p> <p>MS86 3rd Industry workshop due Jan 31 2023 (PM36) -> May 31 2024 (PM52)</p> <p>MS89 3rd Global Collaboration workshop due Jan 31 2023 (PM36) -> May 31 2024 (PM52)</p> <p>MS109 4th Industry workshop due Jan 31 2024 (PM48) -> May 31 2024 (PM52)</p> <p>MS110 4th Widening Participation workshop due PM48 -> May 31 2024 (PM52)</p> <p>MS111 4th EPEC annual meeting due PM48 -> May 31 2024 (PM52)</p> <p>MS55 MS90 MS111 Change the name of EPEC week related milestones (TBA and made more generic)</p> <ul style="list-style-type: none"> •
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