



#### H2020-INFRAIA-2019-1

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# **Deliverable D11.9**

**Deliverable Title:** WP11 NA1 4th Year Report

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> Nature<sup>1</sup>: R

Dissemination level<sup>2</sup>: PU

> Work package: 11

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Contributing beneficiaries: DFET, BSSL, ACRI-ST, Wigner, UNIBO, ESF, VU,

IWF-OEAW, EILST, INAF, NHM

Final Document status:

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

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

2. Dissemination level:

 $\mathbf{PU}$ PP

Public Restricted to other programme participants (including the

Commission Service)

RE

Restricted to a group specified by the consortium (including the Commission Services)

CO

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.

With travel restrictions due to the Covid-19 pandemic largely lifted during Year 4 of the project, there has been an intense focus on in-person activities, although hybrid and virtual opportunities have also been exploited.

In particular, the first Europlanet Research Infrastructure Meeting (ERIM) 2023 in Bratislava, held as a hybrid in-person and virtual meeting, has been a key focus for dissemination of Europlanet 2024 RI activities.

Highlights of the year have included:

- Multiple interactive sessions related to all NA1 tasks at ERIM 2023, with strong participation from under-represented states (URS).
- Support for events for Early Careers, including EPEC Annual Week (co-hosted with ERIM) and the Europlanet Summer School 2023 (hosted by the Moletai Astronomical Observatory in Lithuania).
- Exhibition stands at events reaching diverse audiences (Fantasy Basel (outreach), Space Tech Expo Europe in Bremen and UK Space Conference in Belfast (industry)).
- A successful event for UK and Hungarian Industry hosted at the Hungarian Embassy in London.
- Workshops organised by the Global Collaboration team in Morocco on planetary defence and in Argentina on Connecting Earth with other planets.
- A new issue of the Europlanet Magazine, featuring several articles on Europlanet 2024 RI activities, including the laboratory upgrades funded through the Joint Research Activities, and the Dinner Debate at the European Parliament (held at the end of Year 3).
- Press releases and articles highlighting VA activities to a global audience (SPIDER, GMAP, Machine Learning)
- Over 10 Expert Exchange visits completed.
- The Mentoring Programme has continued to grow, with 69 mentor-mentee pairs matched.
- Development of a major virtual exhibition about Mars Sample Return.



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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	Main Objectives
	Beneficiary	
<ul> <li>Management</li> </ul>	UNIKENT	To provide overall management of the WP, including:
		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.
<ul><li>Industry</li></ul>	BSSL, ACRI-	To foster industry-academia interactions by:
	ST	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



	I	
		Using EPSC as a catalyst for industry-academia interactions
		Initiating discussions with the Europlanet Hub Network in the
		context of industry activities.
<ul> <li>Widening</li> </ul>	Wigner, VU	To widen participation from countries currently under-represented in
Participation		the European planetary community by:
		Increasing the visibility of under-represented planetary scientists
		Increasing their involvement in Europlanet's programs, their
		awareness and usage of Europlanet's infrastructure.
		Supporting a programme of visits for Ukrainian researchers to carry
		out research, build new collaborations and develop additional skills.
<ul><li>Global</li></ul>	UNIBO, ESF	To strengthen and expand the European planetary science community by
Collaboration		providing opportunities for international engagement through:
and		<ul> <li>Organising workshops to promote engagement and inclusive</li> </ul>
Integration		growth in emerging space nations, in particular in African and South
Development		American countries where TA1 infrastructures are located
		<ul> <li>Administering an Ambassadors' programme to support community-</li> </ul>
		led promotion of Europlanet and European planetary science
		<ul> <li>Defining conditions for a pilot TA programme for reciprocal access</li> </ul>
		to facilities offered through Europlanet 2024 RI and project
		beneficiaries in China and Korea.
Expert	FMI	To provide focused support for the community to develop new
Exchanges		collaborations and share expertise, particularly in the context of:
		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.
Early Career	VU, IWF-	To support graduate students and early career
Training and	OEAW	professionals (typically <7 years after the last MSc or PhD degree) in the
Education		field of planetary sciences by:
		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.
Europlanet	DFET	To promote the socioeconomic impact of Europlanet 2024 RI and
Media Centre		planetary science in Europe by:
		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.
Policy	EILST	To engagement with European policy makers by:
Engagement		Identifying key events and priorities in the European Parliament
Liigugeillellt		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
		as well as high-level representatives of ESA, NASA and other space
		Participating in policy events and conferences     Working strategically on policy activities with other related.
		Working strategically on policy activities with other related     organisations (e.g. the European Astronomical Society European
		organisations (e.g. the European Astronomical Society, European
		Geosciences Union, distributed research infrastructures)



		<ul> <li>Supporting the Europlanet Regional Hubs in developing policy links at a local and national level.</li> </ul>
<ul> <li>Education</li> </ul>	VU, DFET,	To support the planetary community in engaging with citizens and
and	INAF, NHM	inspiring the next generation with STEM by:
Inspiration		Providing training for outreach providers
		<ul> <li>Developing and distributing educational resources linked to</li> </ul>
		Europlanet 2024 RI and planetary topics
		<ul> <li>Building a community of users for the Planets in a Room (PIAR)</li> </ul>
		spherical projector and promoting its use as an education tool
		Developing a virtual exhibition on Mars Sample Return.

Table 2: Deliverables for WP11 in Year 4 of the project

Deliverable	Description	Due	Delivery Date
D11.9	NA1 4 <sup>th</sup> Annual Report	Month 48	31 January 2024

Table 3: Milestones for WP11 in Year 4 of the project

Milestone	Description	Due	Delivery Date	Note
MS108	4 <sup>th</sup> Industry workshop	Month 24	21 June 2023	Workshop at ERIM 2023
MS87	3 <sup>rd</sup> Widening participation workshop	Month 52	20 June 2023	Workshop at ERIM
MS88	3 <sup>rd</sup> Global collaboration workshop	Month 52	25-28 April 2023	Morocco Workshop
MS89	3 <sup>rd</sup> Early Careers Events	Month 52	19-23 June 2023	EPEC Annual Week
MS110	4 <sup>th</sup> Early Careers Events	Month 52	8-18 August 2023	Summer School

### 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 4 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 Meetings in June and September 2023.

News, updates and opportunities resulting from NA1 have been disseminated to the wider planetary community each month via the Europlanet newsletter, which currently has over 2225 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 Europlanet website.

Much of the focus for NA1 in Year 4 of the project has been on ERIM 2023, which was designed to consolidate multiple workshops across the Europlanet 2024 RI project and to foster an atmosphere that promoted networking and the development of collaborations. A main driver for organising ERIM was that Europlanet's annual meeting, the Europlanet Science Congress (EPSC), was held



jointly in 2023 with the American Astronomical Society's Division for Planetary Sciences (DPS) in San Antonio, Texas, USA, so there was no other Europe-based gathering planned in 2023 for the planetary community.

All in-person participants at ERIM were offered free accommodation, either in the main venue (Hotel Sorea) or in university hostels (Akademia and Druzba), as well as travel grants. The meeting was fully hybrid, with a customisable platform (Whova) that offered mailing and communications tools as well as virtual access to events. All four rooms at the venue were equipped with a camera (360 degree rotation) operated by the staff from the streaming provider company. During sessions, the camera was primarily focused on the speaker, but it could be directed around the auditorium in case of questions or discussion. Recordings of the individual sessions, edited to include titles, credits and speaker names, have been uploaded to YouTube. Of the €110,557.46 total budget for ERIM 2023, €86,986.00 was contributed by NA1.

Over the course of Year 4, key performance indicators, metrics and opportunities for case studies have been gathered and shared with the Evaluation Officer.

Oral presentations on the impact of Europlanet 2024 RI activities were given at the hybrid DPS-EPSC Meeting, at EAS2023 in Krakow and at the Astromeet 2023 meeting in Dubai, reaching around 100 participants in total.

#### Task 11.2 – Industry

Lead: Marcell Tessenyi and Yoga Barrathwaj Raman Mohan (BSSL). Deputy: Jeronimo Bernard-Salas (ACRI-ST).

ERIM 2023 was a focus for industry and policy activities in the first part of Year 4 of the project. The meeting included an industry workshop, which consisted of a series of 10-minute presentations by a range of organisations (Slovak Space Office, Northern Ireland Space Office, C3S Electronics Development LLC, M2M Solutions, La Plataforma Tecnológica Aeroespacial Española (PAE), Touch4IT, OHB Czechspace, ADVACAM, ACRI-ST, Blue Skies Space Ltd) followed by round table discussions. The workshop had 39 participants (25 in-person attendees and 14 online), and the recording has had 33 views on YouTube. ERIM also included breakout sessions and industry-focused discussion as part of the roadmapping sessions, a session on the role of Europlanet in the future European Space Industrial Landscape, and an introduction to a career in industry (the latter as part of the EPEC Annual Week programme).

Europlanet participated for the first time in the Space Tech Expo Europe, which took place in Germany (Bremen) between 14-16 November 2023. Attending the event provided an opportunity not only to strengthen the Europlanet's presence on the European space scene, but also to highlight its commitment to innovation and technological development in the planetary exploration sector. During the event, Europlanet organised eleven business-to-business sessions, and eighty-one presentations at the stand to share know-how with participants.

At the UK Space Conference from 21-23 November, Europlanet shared a stand with the Hungarian Space Cluster (Hunspace). Over the course of the meeting, the team



had over 100 discussions with members of the UK and international community, in particular with early career researchers and with members of space clusters that represent the different space communities across the UK.

On Friday 24 November, the Hungarian Embassy in London hosted a hybrid inperson and online meeting of the UK and Hungarian Space Communities that was coorganised by Europlanet and Hunspace. Orsolya Ferencz, Ministerial Commissioner of the Hungarian Ministry of Foreign Affairs, and the Hungarian Ambassador to London, Ferenc Kumin, welcomed participants. Presentations by Hungarian and UK space industry and organisations were followed by a round-table discussion. The event was attended by 14 in-person participants and 10 online participants.

# Task 11.3 – Widening Participation Lead: Andrea Opitz, Wigner Institute

In Year 4 of the project, activities have focused on ERIM 2023 in Bratilsava, Slovakia.

A major objective of ERIM was to attract participation from Under-Represented States (URS) in Europe and around the world. Figures 2 and 3 show that ERIM was significantly more successful in attracting URS participations than an average EPSC, with 29% of the 300 attendees coming from European URS, including Slovakia, Hungary, Poland and Czechia. The programme included sessions and breakouts led by the Central Europe Hub, with the aim of providing an opportunity for discussion on common challenges and sharing best practice in widening participation from URS.

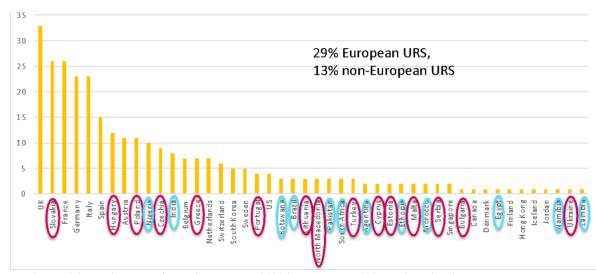


Figure 2: Breakdown of registered attendees at ERIM 2023 by country (n=300). Pink circles show European Under-Represented States (URS). Blue circles show URS in the rest of the world (non-European).



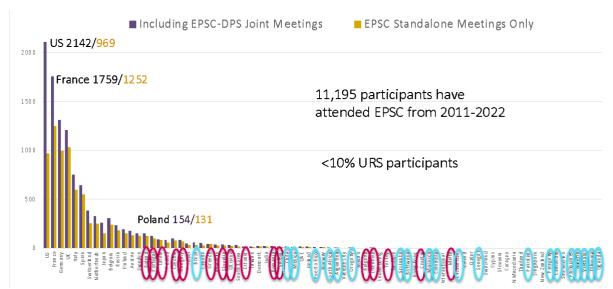


Figure 3: Breakdown of cumulative attendance by country for the Europlanet Science Congress (EPSC) from 2022-2022. The purple includes the joint meetings held in 2011, 2016 and 2019; the yellow shows just the standalone EPSC meetings (2012-14, 2014-15, 2017-18 and 2020-2022). Pink circles show European Under-Represented States (URS). Blue circles show URS in the rest of the world (non-European).

A poster on "Advancing Diversity and Inclusion within the Europlanet Community" was also presented during the DPS-EPSC Joint Meeting in San Antonio, Texas, in September 2023.

# Subtask 3.1 Support of Ukrainian scientists Lead: Grazina Tautvaisiene (Vilnius)

In May 2022, a scheme to support research trips for Ukrainian scientists was launched, with 10 visits completed within the first 9 months. During Year 4 of the project, reports from a further 3 applicants have been received and travel expenses reimbursed to the total amount of €6,865. Three papers resulting from research trips have been published by the Ukrainian colleagues and several more have been submitted for publication. Consultations have been provided to support Ukrainian colleagues in preparing of applications for the European Commission MSCA4Ukraine programme. An article summarising the outcomes to date of the Europlanet support for Ukraine programme will be published in the next issue of the Europlanet Magazine.

# Task 4 – Global Collaboration Sub-Task 11.4.1: Global Collaboration and Integration Workshops Lead: Barbara Cavalazzi (UNIBO).

Three further events in the Europlanet 2024 RI Workshop Series were held during Year 4 of the Project.

Planetary defence was the focus of discussion at a workshop in Casablanca, Morocco, held 25-28 April 2023. Over the four days of meetings, dialogue and handson training, topics covered included meteorites, meteoroids, impact craters, protection of extraterrestrial material heritage and impact-related astrobiology. The 'Rocks from Space and Planetary Defence' workshop was the third in a series organised as part of the Global Collaboration and Integration Development Task of



the Europlanet 2024 RI project. The series is designed to promote and support the development of planetary sciences in Africa – in line with the African Union's objectives for the African Space Strategy. The workshop in Morocco aimed to lay the foundations for forming a community of specialists on planetary defence. Researchers and PhD candidates attended from all over Morocco (Casablanca, Marrakech, Rabat, Errachidia, Laayoune, El Jadida, Kenitra, Tangier, and Teutan), alongside around 40 international participants who joined online from Africa (Ethiopia, Mozambique, South Africa, Nigeria, Botswana), Europe (Italy, England, Germany), and around the world (China, Jordan, India, Pakistan, Mexico and China).

The first Europlanet Latin America Planetary Science Workshop, 'Connecting Earth with other Planets', was held in Buenos Aires from 31 October – 03 November 2023. The workshop was attended by 30 in-person participants, with 30-60 online participants joining at times during the programme. All participants contributed to the discussions and the Europlanet workshop was recognised as important in terms of networking and as a bridge for putting local communities in touch. The workshop also had the participation of Comisión Nacional de Actividades Espaciales (CONAE) and a representative of the Latin American and Caribbean Space Agency (ALCE).

Additionally, a one-day course on 'Exploring the field of Astrobiology' was held in Addis Ababa, Ethiopia, on 14 December 2023 in hybrid mode.

A final workshop will be organised in La Paz, Bolivia, in February 2024. This workshop will be held during 4 days at the Institute for Geological and Environmental Research (Instituto de Investigaciones Geologicas y del Medio Ambiente UMSA) in La Paz, Bolivia. The purpose of the workshop is to provide tools for the processing and mapping of planetary surfaces, exploring different planets and analogous environments in Bolivia and Latin America.

The workshop have been featured in news stories by <u>Europlanet</u> and the <u>Università</u> di Bologna.

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

Lead: Jonas L'Haridon (ESF).

Through a Memorandum of Understanding with Korean partners, implemented from Transnational Access (TA) Call 2 onwards, Korean researchers have been supported to visit Europlanet's Transnational Access Facilities and European researchers have been able to apply to visit facilities of the Korea Basic Institute of Science (KBSI). In total 11 applications were received from European researchers to visit the Korean facilities, of which 5 were funded, and 3 reports were received in Year 4 of the project. One visit by researchers from the Korea Polar Research Institute to TA2.10 Stable Rare Gas and Radiogenic Isotope Facility (SGRIF), CRPG, France took place in Year 4 of the project.



A visit by Fernando Gomez from the Universidad Nacional de Córdoba in Argentina to TA2.29 Nano Secondary Ion Mass Spectrometer in Korea was featured in an Argentinian <a href="newsreport by Cadena 3">news report by Cadena 3</a>.

# Sub-Task 11.4.3: Global collaboration strategic planning Lead: Barbara Cavalazzi (UNIBO).

In Year 4 of the project, activities have continued to implement the Global Collaboration and Integration Development Strategy (delivered at the end of Year 1).

A session on <u>New Frontiers of Space Science in Africa</u> was organised at ERIM 2023 in Bratislava. It was attended by 21 participants (10 in-person and 11 online) and has had 58 views on YouTube.

The Europlanet Ambassadors programme has supported public outreach activities at PLACE, Casablanca, Morocco from 25-28 April 2023, which included observing the Sun through a pinhole camera and learning how to study and age craters on the Moon. The programme also supported Astro-educational laboratories in Addis Ababa, Ethiopia, two educational laboratories for boys and girls between 9 and 14 years old, held from 12-15 December 2023, which focused on 1) the Moon and the lunar phases and 2) stars and their characteristics.

Barbara Cavalazzi was interviewed on Italian national Radio3Science in May 2023 about activities supported by Europlanet in Africa.

# Task 11.5 – Expert Exchanges Lead: Maria Genzer (FMI). Deputy: Harri Haukka (FMI).

Over the whole project, there were six time-limited calls for applications for expert exchanges (including four calls during in Year 4), as well as one longer period continuous call during the early part of the project when Covid slowed the rate of applications. The website for applications was <a href="https://www.europlanet-society.org/europlanet-expert-exchange-programme/">https://www.europlanet-society.org/europlanet-expert-exchange-programme/</a>. A total of 56 applications were received, 34 of which were approved (13 in Year 4) and 26 reports have been received to date (10 in Year 4). While 4 applications from Ethiopia were approved, only one visit actually took place, and a further visit from Algeria was also cancelled.

Successful applications have involved

Visitors from 14 countries



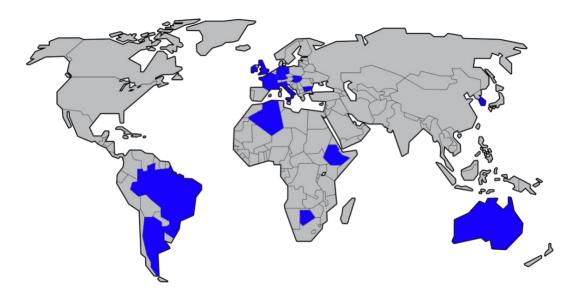


Figure 4: World map representing the approved applications' origin countries. Background image: Wikipedia.

### • Hosts from 16 countries



Figure 5: World map representing the approved applications' visiting countries. Background image: Wikipedia.

The reports are published on the **Expert Exchange pages** of the Europlanet website.

# From 34 approved applications:

- Eight applications were from female participants (23.5%)
- 25 applications involved under-represented countries in the EU or outside EU (73.5%)
- 10 involved visitors or hosts from EU under-representative countries (29.46% of all applications)
- 18 involved visitors or hosts from non-EU under-represented countries (52.9% of all applications)
- Four (TBC) applications and visits were cancelled (11.8% of all applications, TBC)



 Four applicants received two grants during the programme (one visit was cancelled).

# Task 11.6 – Early Career Education and Training Lead: Grazina Tautvaisiene and Edita Stonkute (Vilnius U.), Manuel Scherf/Guenter Kargl (OEAW-IWF).

A highlight of Year 4 was the return of the <u>Europlanet Summer School</u>, hosted by Vilnius University's Moletai Astronomical Observatory (MAO) in Lithuania from 8-18 August.

The topic of the 2023 Summer School, organised in collaboration with WP12 Task 4 (Support of Ground-based Observations), was "Space missions: ground-based observations and science communication". A total of 21 on-site and 47 online participants from 20 countries were trained by 11 lecturers and instructors. The aim of the course was to give participants a thorough, multidisciplinary introduction into space missions and the ground-based observations required by space missions before and after launch, as well as an introduction to science communication. More general subjects about specific space missions (TESS, JWST, PLATO etc), planetary systems, habitability of planets, photometric and spectroscopic techniques were presented. Participants had hands-on experience with analysis of stellar chemical composition, detection of stellar variability and/or exoplanets. The course gave participants the opportunity to develop comprehensive theoretical and practical skills in science communication and engaging with a range of lay audiences, including the public, media, policy makers, schools and educators.





Figure 6: Participants in the Europlanet Summer School 2023

Early Careers were also supported through EPEC Annual Week, which was co-hosted with ERIM 2023. EPEC Annual Week was attended by 45 participants (23 in person and 22 online). The programme for EPEC Annual Week was organised in parallel to ERIM, with EPEC participants joining the other ERIM participants for plenary sessions and a number of workshops. The primary objectives of EPEC Annual Week were to facilitate networking among young scientists, to provide a platform for skills development, and to foster discussions that would contribute to the advancement of the network's activities, particularly within its working groups. The programme was diverse and comprehensive, featuring sessions on career development, communication and proposal writing, mental health, and a variety of interactive group activities. A significant portion of the week was allocated to breakout sessions and collaborative workshops, which were instrumental in refining the roadmap for EPEC's progression.

The fourth year of the project has seen the ongoing maintenance of the Early Careers Training and Education Portal <a href="http://www.europlanet.tfai.vu.lt">http://www.europlanet.tfai.vu.lt</a>, 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 seven PhD advertisements (including many multiple PhD opportunities) and over 14 early career positions in planetary sciences at various institutions have been posted over the past 12 months. Eight advertisements were



posted on summer schools and meetings relevant to early career professionals working in planetary science and related fields. The team has communicated via emails with interested individuals asking for advice on questions related to mentoring and early career job opportunities in the sector.

The portal includes a section dedicated to mentoring. 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. To date, 69 pairs have been matched, with 85 applications from mentees and 55 applications from Mentors. The platform also includes a gallery of the mentors who have agreed for their profile to be made public.



Figure 7: Visits and unique visitors to the Early Careers Training and Education Portal in Year 4.

During the last year, the team has continued to gather evaluation from participants, and has worked together with the Evaluation Officer, Jen DeWitt, who conducted several interviews with participants of the Mentorship programme. The feedback from participants has been constructive and positive.

During the fourth year the Task 6 team has participated in many astronomy conferences to present the Mentorship programme:

- Asteroid Research Training Workshop (Hybrid), 21-25 August 2023, Tartu Observatory, Estonia. "Europlanet Early Career Portal and Mentoring".
- European Astronomical Society Annual Meeting. 10 July 14 July, 2023.
   Development & Outreach SS38: European Forum of Astronomical Communities. Invited talk: "Europlanet Mentorship opportunities".
- European Astronomical Society Annual Meeting. 10 July 14 July, 2023.
   Diversity and welfare SS34: Early Career Astronomers and their supporters.
   Contributed talk "Europlanet Mentorship programme: past, present and future".



# Task 11.7 – Europlanet Media Centre Lead: Anita Heward (DFET). Deputy: Luca Nardi / James McKevitt / Thibaut Roger (DFET)

During Year 4, the Europlanet Media Centre has issued <u>seven press releases</u> on activities by the Europlanet 2024 RI (including on results relating to SPIDER, GMAP and Machine Learning), the Europlanet Society and the Europlanet Science Congress. The stories have been covered by the worldwide media, including the <u>BBC Sky at Night</u>, the <u>Indian Express</u>, Discover Magazine and <u>Space.com</u>.

The Social Media team has issued regular (~ twice daily) updates on Europlanet 2024 RI activities and planetary topics on Twitter and Facebook. The Twitter following has grown to 3957 (from 2205 at the start of the project), Facebook to 2835 followers (from 2015 at the start of the project) and Instagram 885 followers (308 at the start of the project). The transition from Twitter to X has had a profound impact on the effectiveness of the channel (see Figure 8); the number of new followers has slowed from an average of 42 per month in Year 3 to just 13 per month in Year 4 and the number of impressions is also very significantly reduced compared to previous years.



Figure 8: The transition of Twitter to X has significantly affected the impressions per day compared to the previous year

The Europlanet LinkedIn account (https://www.linkedin.com/company/europlanet-society) has continued a trend of increasing traction over the past year. Europlanet has also helped amplify dissemination efforts of its sister EC-funded project, EXPLORE, supporting the industrial link of Europlanet's presence on the platform and highlighting the benefits of industry-academia collaboration.

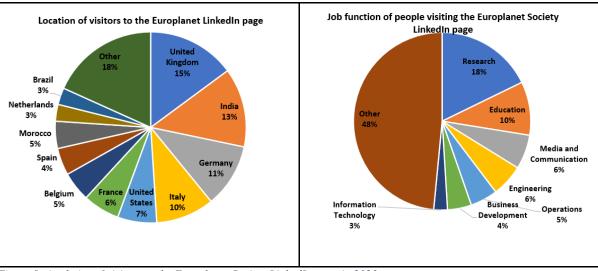


Figure 9: Analytics of visitors to the Europlanet Society LinkedIn page in 2023.

As shown in Figure 9, the Europlanet LinkedIn page maintained a broad international and cross-sector reach in 2023, with visitors from 38 countries. European countries represent 65% of total page visitors, with the remaining 35% coming from around the world, from Chile to Pakistan and from Poland to Venezuela. It can also be seen that most visitors work in a job function closely related to Europlanet's activities, but a variety of ways, from Education to Business Development.



Figure 10: A word cloud showing the industries visitors to the Europlanet Society LinkedIn page in 2023 work in.

Figure 10 shows the wide range of industries visitors to the Europlanet LinkedIn page come from - primarily Research Services but also Staffing and Recruiting, Software Development, and E-Learning providers.



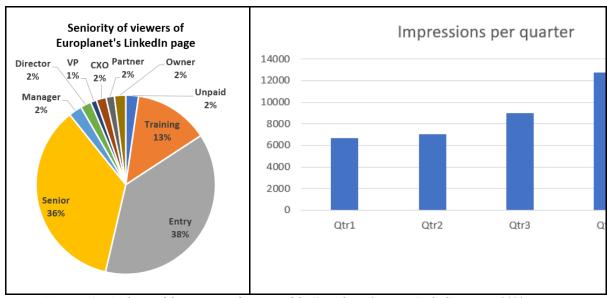


Figure 11(a): Right: Analytics of the seniority of viewers of the Europlanet Society's LinkedIn page in 2023. Figure 11(b): Left: Number of impressions per quarter on posts made by the Europlanet Society LinkedIn page in 2023.

Figure 11(a) shows that most visitors to the Europlanet LinkedIn page work in entry-level jobs, are in senior positions, or are in training. This combined 51% of people working in training or entry-level jobs shows the high engagement the Europlanet Society has with early-career professionals.

Figure 11(b) shows the increasing reach of the Europlanet LinkedIn page every quarter in 2023, with the quarterly impressions reaching over 12000 impressions in three months in 2023.

The Media Centre team has posted 114 stories and announcements related to Europlanet 2024 RI on the Europlanet website during Year 4 of the project, many of which have resulted in notable peaks of traffic to the site.

The change from Google Analytics 3 to Google Analytics 4 has complicated tracking of traffic to the website, in that the systems are not equivalent (the way that data is measured is not the same) and the two systems do not overlap. Thus, there is a necessary break between the use of Google Analytics 3 over the first 41 months of the project from 1 February 2020 and the use of Google Analytics 4 for the remaining 13 months from 1 July 2023 until 31 July 2024. However, the new system does provide more details about events and engagements with content on the website (see Figure 12).



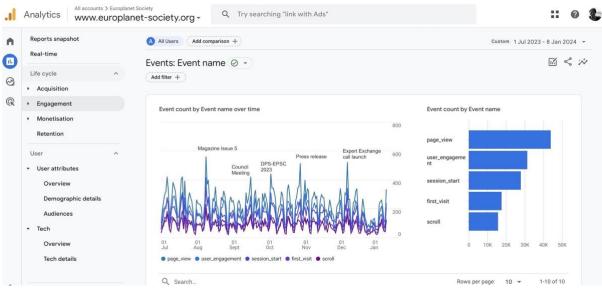


Figure 12: Page views, Engagements and for the Europlanet website since the installation of Google Analytics 4

Following the successful launch of the Europlanet Magazine in 2021, one new issue was published in Year 4 and a further issue is in the final stages of preparation. Management of the Europlanet Magazine is shared by Task 11.7 and WP 1, as the design and support for content development is provided through the WP1 marketing budget. 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.

Issue 5 of the magazine was published <u>online</u> as a pdf that can be viewed as a flip-book or downloaded, or as separate articles in web-story format. Articles featuring the RI in Year 4 of the project included reports on the Joint Research Activities, the Dinner Debate in the European Parliament, SPIDER and the fireball workshops coorganised by the NA2 and Machine Learning Tasks.

Further printed copies of issues 1-3 of the Europlanet Magazine have been distributed at events, including ERIM 2023, the Europlanet Summer School, the EPSC-DPS Meeting and the UK Space Conference. Of the 1250 copies printed, around 1000 have now been distributed. Average online views of the magazine are around 2000 per issue.





Figure 13: Cover of Issue 5 of the Europlanet Magazine

Task 11.8 - Policy

Lead: Policy Team (EILST)

In Year 4 of the project, the Policy Team co-coordinated with the Task 2 Industry team to organise the Industry and Policy activities, including preparing materials to support the Europlanet presence at Space Tech Expo Europe in Bremen.

The Policy team has produced regular policy reports of interest to Europlanet community, updated the lists of funding opportunities and upcoming events, and uploaded these on the Policy website and on Sharepoint. It has also carried out continuous monitoring of meetings at European Parliament, European Commission, Research Committees and Space Agencies, identify networking opportunities and keep the community informed on current and future trends in planetary science.

ERIM 2023 included a session on challenges and practical skills for engaging with policy makers. The policy team welcomed participants and Mr Rodrigo Da Costa, Director of EUSPA contributed a recorded talk. Practical advice was given by Noel Baker (IASB-BIRA), with topics discussed including the role of scientists for informed policy making, the needs of policy makers on order to develop policies based on scientific evidence, skills needed for the scientists to better engage with policy makers and how to translate between the different languages used by scientists and policy makers. The session was attended by around 30 participants and the recording has been viewed 32 times.

ERIM also included a workshop that brought together space science initiatives, networks and research infrastructures to discuss avenues for collaboration to create



a common strategy for communication to key stakeholders. Strategic presentations on the ASTRONET Roadmap, ESA Human and Robotic Exploration (HRSE) strategy, and ESFRI Landscapes were followed by lightning presentations of the RIs represented at the meeting, including AHEAD, APPEC, ESCAPE, ChETEC-INFRA, the European Astrobiology Institute (EAI), Opticon-Radionet Pilot (ORP) and Europlanet. This session has laid the foundations for the establishment of an Astronomy and Space Science Network of Networks (NeoNs), with discussions of next steps ongoing.

Following successful workshops in 2021 and 2022, the Policy Team, NA1 and WP1 Management teams, the European Science Foundation, and MOSBRI and VITALISE research infrastructures have continued to work together to try to establish a community of small and mid-scale distributed RI projects. A <u>survey</u> has been launched in January 2024 to gather information about distributed RI projects to feed back to ESFRI and the European Commission, and a further online half-day workshop is planned for 12 February 2024.

#### Task 11.9: Outreach and Inspiration

## **Sub-Task 11.9.1: Outreach Community Support**

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

Regular meeting of the Europlanet Society Outreach Working Group have been held throughout Year 4 of the project.

### Sub-Task 11.9.2: Training

#### Lead: Grazina Tautvaisiene (Vilnius U.)

The Summer School at the Moletai Astronomical Observatory (see Task 6) included a comprehensive programme of science communication training during the 10-day programme. Students were given an introduction to writing for the media, working with schools, exhibition design and evaluation of activities. All students submitted a press release as an assignment during the Summer School.

#### **Sub-Task Task 11.9.3: Education and Inspiration**

### Lead: Ulysse Pedreira-Segatde / Seda Özdemir-Fritz (DFET) / Federica Duras (INAF)

The Education Team published a <u>new collection of resources on Icy Moons</u> in April 2023 to coincide with the launch of the Jupiter Icy Moons Explorer (JUICE) mission. These resources built on feedback from a survey to try to understand the needs and interests of the science communication and education community and to build a dynamic community of testers, users, and creators of educational resources.

ERIM 2023 included a comprehensive programme of workshops that aimed to allow the Europlanet outreach community to come together and share experiences and clarify common goals for the near future. Sessions also included case studies on how to transform your outreach activity into a business, learning with AstroEdu, and training on soft skills. Sessions were attended by 30-50 people.

Building on the success of the EPSC Goes Live for Schools programme (established in 2020 in collaboration with the NGO Lecturers Without Borders), participants in ERIM 2023 were invited to deliver talks or workshops in schools. Around 20 participants expressed interest; however, since ERIM coincided with the last week of term, the



interest from schools in Bratislava was limited. Nonetheless, two schools events were organised, attended by over 150 students.

# Sub-Task 11.9.4: Planets in A Room Lead: Federica Duras and Livia Giacomini (INAF)

Planets in a Room was presented at <u>Fantasy Basel</u> from 18-20 May 2023. Fantasy Basel is one of Europe's largest science fiction, fantasy and pop-culture conventions. Europlanet shared a stand with the NCCR PlanetS as part of the Space area organised by the Swiss Space Museum to highlight the 'science' in science fiction for visitors to Fantasy Basel. At least 10,000 of the 72,000 visitors passed by the <u>Europlanet stand</u> during the event, where they could pick up stickers and copies of the Europlanet Magazine.



Figure 14: Europlanet at Fantasy Basel 2023

# Sub-Task 11.9.5: Virtual Exhibition Lead: Sara Russell and Pete Grindrod.

Over Year 4, content has been developed by the Natural History Museum in London for an interactive virtual exhibit about Mars Sample Return, using "augmented reality" to bring the NHM's collection of Martian meteorites and the surface of the planet to life. The exhibit emphasises how Martian sample return relies on a diverse team of scientists and engineers, and on extensive international cooperation. The information is aimed at the interested public including adults and teenagers, but is multi-layered, including links to more detailed information and quotes from scientists. A multipage website provides access to "virtual galleries" on topics including: the geology and climate of Mars, importance of sample return missions, Martian meteorites, planetary protection and curation of samples, the history of Mars exploration, and missions including ExoMars, Mars 2020 and MMX. The exhibition is in the final stages of development and will be launched and promoted in Q1 of 2024.



#### c) Impact to date

NA1 remains on track to deliver the expected impacts of the project as described in Section 2.1 of the Description of Action, although the pandemic has meant that some impacts have been achieved in different ways (e.g. the introduction of the magazine and virtual exhibition to replace some face-to-face impacts expected earlier in the project). The no-cost extension of six months to July 2024 has required some internal reorganisation of resources by NA1 beneficiaries and tasks to cover the additional time period, particularly with respect to communications activities. However, it has also provided additional opportunities in 2024 for dissemination at meetings and events, and for monitoring and communicating the impact of activities of the project.

The NA1 team is working with the Evaluation Officer to <u>track metrics</u> including participation in workshops and training sessions, coverage of press releases, social media followings, website page views, video views, users of resources etc. Case studies can also be an important tool for evaluating and demonstrating impact, and the Evaluation Officer working with the NA1 team to identify examples.

ERIM 2023, co-hosted with <u>EPEC Annual Week 2023</u>, proved a major success for NA1 and the Europlanet 2024 RI project as a whole, with the 300 registered participants taking part in 59 interactive workshops that showcased many aspects of the Europlanet 2024 RI project and fostered an interdisciplinary, cross-activity culture. A particular success was the relatively high participation (29%) from European URS, which was significantly higher than the average EPSC attendance of <10% URS. This consolidated previous experiences that the only way to significantly increase URS involvement, and achieve the aim of fostering networking and collaboration with the planetary science community in Baltic states and central, eastern and south-eastern Europe, is to host physical events in those countries.

Feedback on the ERIM 2023 meeting format, content and opportunity for discussion was largely positive. 49 responses were submitted, with 92% giving the meeting a four or five star rating overall. Outcomes of ERIM include increased membership of the Society, as well as new volunteers for roles in committees and working groups. In addition, the roadmapping exercise started at ERIM to develop Europlanet's long term plans for sustainability, has continued over the autumn of 2023 and led to the establishment of a new Europlanet Sustainability Working Group.



relaxed atmosphere
quality of presentations

diversity of topics

CISCUSSIONS

networking opportunities

bringing community together

strategic planning
finding out about europlanet
format of meeting

diversity of participants organisation
early careers

Figure 15: Word cloud of responses by participants as to what they liked about ERIM 2023

The Europlanet Magazine has continued to provide a rich source of information on impact for both this project and previous Europlanet RI projects, with articles reporting how Joint Research Activities have upgraded TA facilities through Europlanet and EC support, and the <u>impact of the VA services</u>.

The return to face to face meetings has provided further opportunities to disseminate the results of the project, both through presentations and through exhibitions at major conferences, e.g. Fantasy Basel, SpaceTech Expo Europe, the DPS-EPSC Meeting, European Space Weather Week and the UK Space Conference, highlighting Europlanet 2024 RI activities and reaching an audience of well over 10,000 people in total.



Figure 16: Participants at ERIM 2023

# d) Summary of plans for final 6 months of project



Table 4: Summary of plans for NA Tasks in Project Year 5

Task	Main objectives for Year 5 of the project
1. Management	Disseminate and request input for NA1 activities via Europlanet 2024 RI
J	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.
	<ul> <li>Work with WP1 on community demographic survey.</li> </ul>
2. Industry	Support preparations for the exhibition and industry programme at EPSC
,	2024
	Develop joint programmes with Task 8 Policy.
	Develop sustainability roadmap for Europlanet industry engagement, in
	collaboration with Europlanet 2024 RI management, Europlanet Society
	Board, Industry Working Group and Sustainability Working Group.
	Track metrics and outcomes for project evaluation.
3. Widening	Report on outcomes of Ukraine funding scheme.
Participation	Work with diversity committee on article for JGR planets.
	Track metrics and outcomes for project evaluation.
4. Global	Implement actions from the Global Collaboration and Integration Strategy.
Collaboration	Implement final Global Collaboration workshop in Bolivia .
	Monitor TA visits by European researchers accessing KBSI facilities and
	Korean researchers visiting Europlanet TA facilities.
	Track metrics and outcomes for project evaluation.
5. Expert	Administer final Expert Exchange visits.
Exchanges	Track metrics and outcomes for project evaluation.
6. Early Career	Administer 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 fields.
	Track metrics and outcomes for project evaluation.
7. Europlanet	Promote the activities of Europlanet 2024 RI and the planetary community
Media	via the media and social media.
Centre	Develop sustainability roadmap for Europlanet Media Centre, in
	collaboration with Europlanet 2024 RI management, Europlanet Society
	Board, Executive Office Communications Team, Sustainability Working
	Group and FTP-Europlanet gUG.
	Publish Issues 6 and 7 of the Europlanet Magazine.
	Track metrics and outcomes for project evaluation.
8. Policy	Support distributed RI workshop and evaluation of results of survey.
	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 help to
	create updated promotional material.
	Develop a sustainability roadmap for Europlanet policy engagement, in
	collaboration with Europlanet 2024 RI management, Europlanet Society
	Board, Policy Working Group, Industry Working Group and Sustainability
	Working Group.
	Maintain the regular monitoring and reporting of activities already
	established.



<ol><li>Education</li></ol>	Update and disseminate educational resources (Icy Moons Collection and
and	Craters and Mass Extinctions Collection)
Inspiration	Develop sustainability roadmap for Europlanet outreach and education, in
	collaboration with Europlanet 2024 RI management, Europlanet Society
	Board, Outreach Working Group, Sustainability Working Group and FTP-
	Europlanet gUG.
	Define a long-term sustainability plan for the activities of the Outreach
	and Education team.

<sup>\*</sup> 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 on track.

#### 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 out 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 have reinforced 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)

Buttons were added to the front page of the website to make all the RI services easier to find.

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)

The Expert Exchange programme has effectively supported collaborations between URS and non-URS beneficiaries and foster sharing of technical use of equipment, best practice, grant writing and ideas. ERIM 2023 in Bratislava was also a very successful opportunity to engage with URS communities.

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).



This was noted when preparing the programme for ERIM/EPEC Annual Week 2023 in June.

The project results will to some extend 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).

Europlanet collaborated with the EAS, ESA and ESO on an exhibition and event held in the European Parliament in February 2023, which was visited by several MEPs and staff from their offices. ERIM 2023 included a session that provided insights into how to engage with policy makers.

#### 5. Deviations from Annex 1 (DoA)

#### **Deviations**

#### **Budget Changes**

#### 02 ESF:

€9871.31 >> WP3 04 VUA South Korea Travel Fund +

#### **11 BSSL:**

€43,000+OH >> 01 ESF for Europlanet Research Infrastructure Meeting (ERIM) workshop costs\*

#### 17 EILST:

€3691.8 >> 15 DFET for Dinner Debate Catering<sup>±</sup> €15,300 +OH >> 02 ESF for Europlanet Research Infrastructure Meeting (ERIM) streaming costs\*

#### 46 Wigner RCP:

€29,866+OH >> 01 UniKent for ERIM Workshop costs\*

€7134 +OH >> 15 DFET for ERIM Workshop costs\*

- + This funding has been transferred to the TA2 WP3 to support TA visits to South Korea.
- \* The reason for these deviations was the approved decision to pool resources to co-host NA1 workshops across all tasks at the European Research Infrastructure Meeting (ERIM), held in Bratislava from 19-23 June 2023.
- ± The invoice for catering at the Dinner Debate held in the European Parliament was paid by DFET as EILST unable to make a payment at short notice.