

Europlanet Opportunities for the Romanian Community

Anita Heward Communications Manager



Europlanet 2024 RI has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871149



EU funding for **Europlanet has created** the largest collection of planetary simulation & analysis facilities in the world

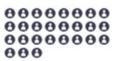
FP6

FP7

H2020

 \rightarrow











27 beneficiaries

33 beneficiaries

56 beneficiaries







Europlanet



Europlanet

2024 RI

→ Sustainability

EuroPlaNet

Europlanet RI

5 TA PFA

11 TA labs



5 TA PFA





12 TA labs

6 TA PFA 24 TA labs (+11 in South Korea)





Countries involved in Europlanet RIs



Who is involved in Europlanet 2024 RI?



https://www.europlanet-society.org/participants-in-europlanet-2024-ri/

Strategic Objectives for Research Infrastructure

- Be a national or world scientific leading RI and an enabling facility to support science
- 2. Be an enabling facility to support innovation
- 3. Become integrated in a regional cluster/ in regional strategies/ facilitate regional collaboration
- 4. Promote education, outreach and knowledge dissemination
- 5. Provide scientific support to public policies
- 6. Provide high quality scientific data and associated services
- 7. Social responsibility



Transnational Access (TA) programme

• Europlanet 2024 RI provides FREE access to the world's largest collection of planetary simulation and analysis facilities.





TA Facilities

Calls issued for access to:

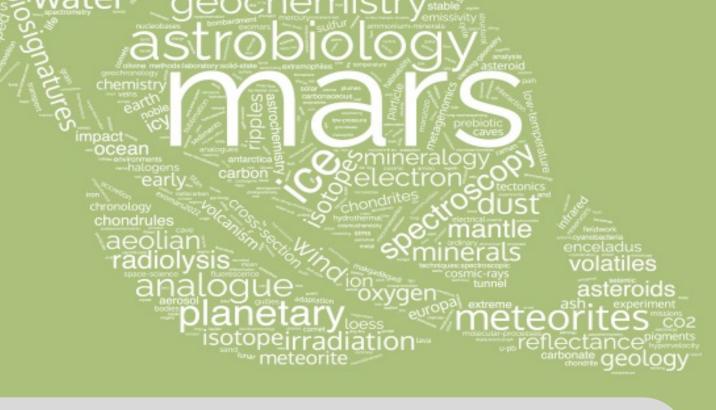
- Planetary Field Analogues (PFA) 7 field sites
- Distributed Planetary Laboratory Facility (DPLF) 24 lab facilities in Europe, plus 11 facilities in South Korea. Further facilities in Korea and China will be added in next Call.

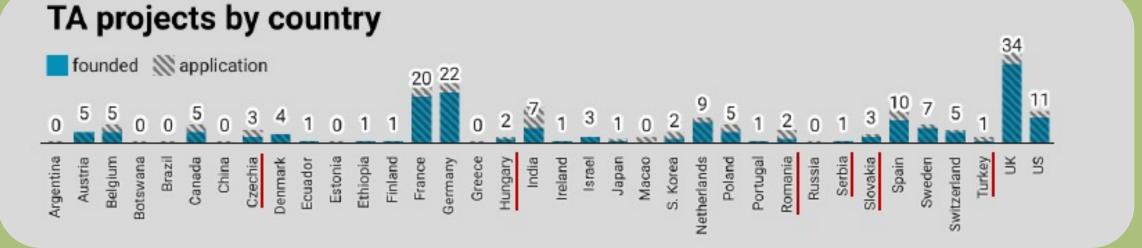
Joint Research Activities - upgrades have been made to 6 facilities that are offered through the TA programme.

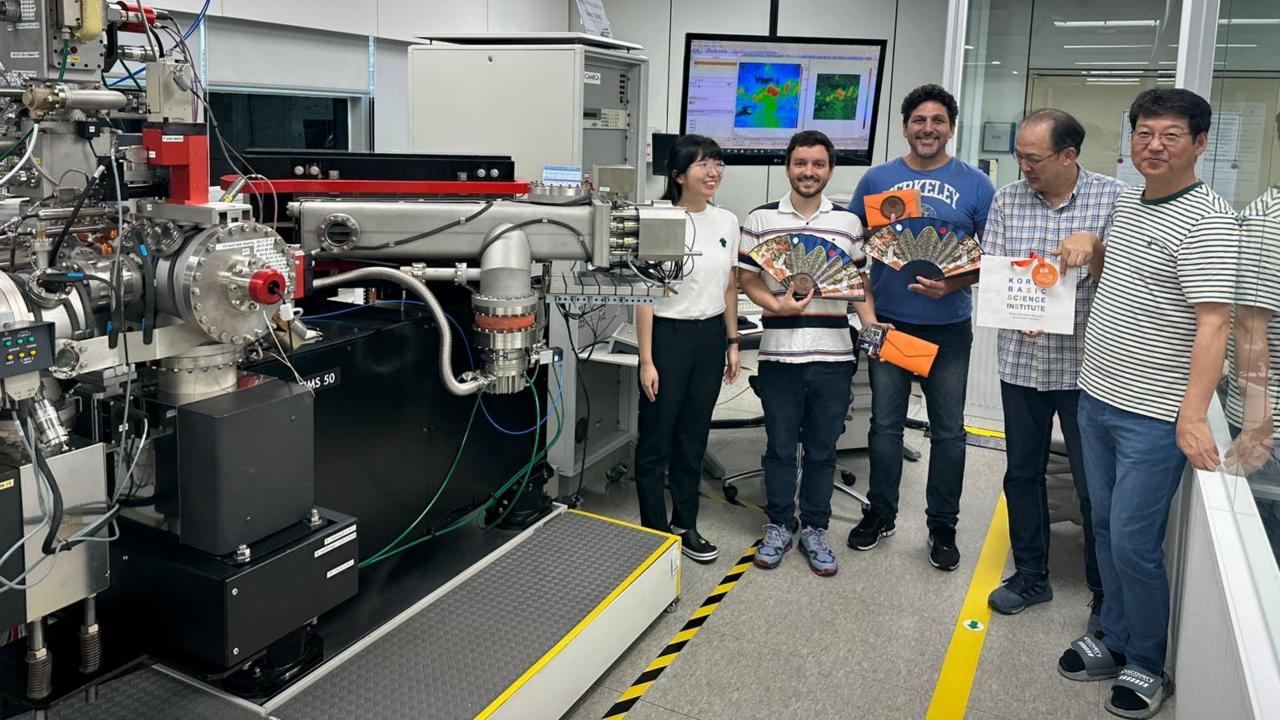
https://bit.ly/europlanet2024ri-ta

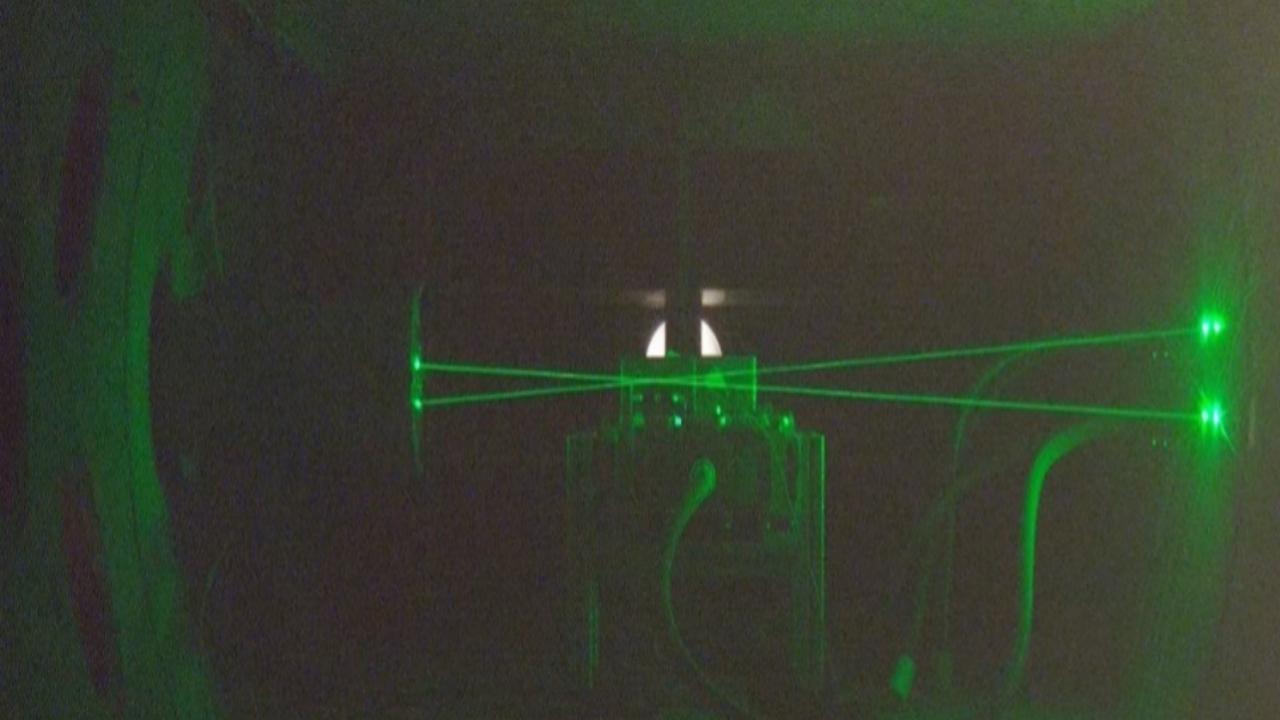
208 TA Visits funded 2 applications from Romania, 1 funded

 Romanian ice caves interested in becoming future TA facility

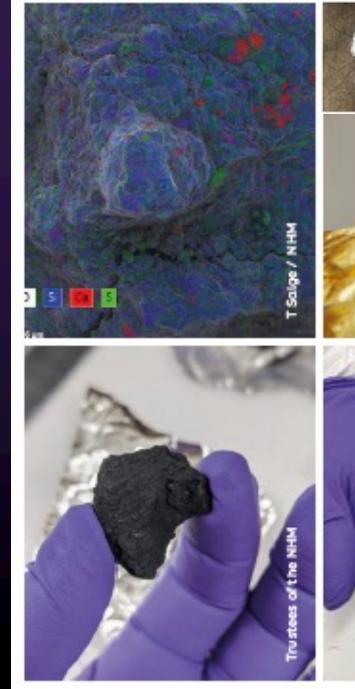










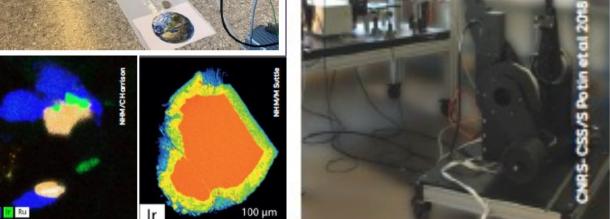














Virtual Access (VA) Services

- **SPIDER** (Sun Planet Interactions Digital Environment on Request) contextual information on predictions & alerts for planetary space weather analysis & spacecraft operations.
- **VESPA** (Virtual European Solar & Planetary Access) Virtual Observatory for planetary data that provides access to 50+ data services & tools.
- **GMAP** (Geologic Mapping) tools & services for geological mapping of any Solar System body.
- Machine Learning tools to address science challenges, applicable to many planetary datasets.

https://bit.ly/europlanet2024ri-va







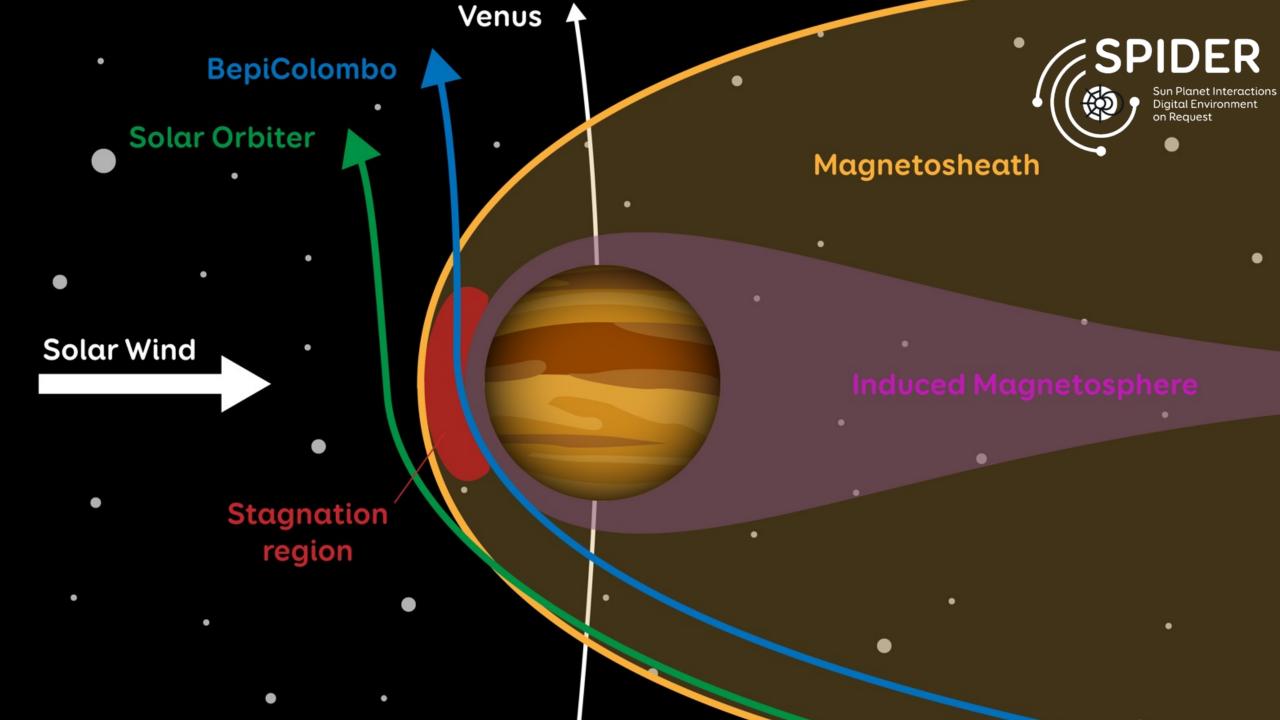


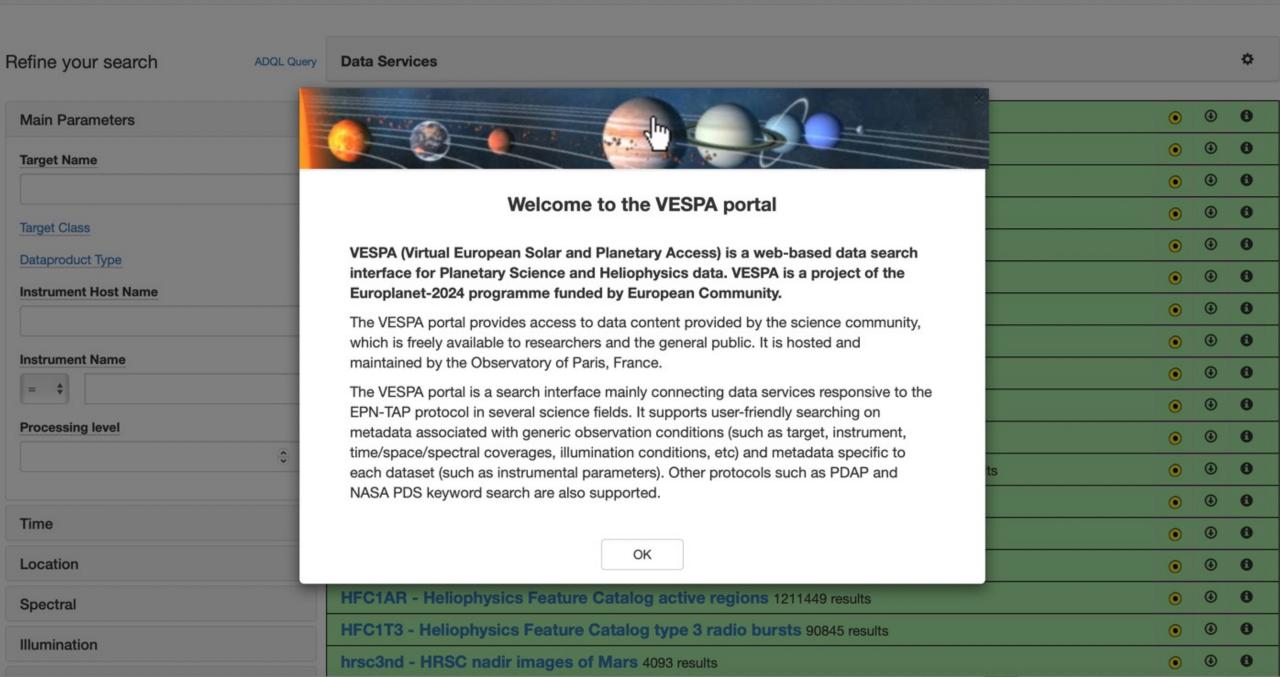














Trace: . start



News

Our paper on @ arXiv!

Start

Glossary

Science cases

- ▼ Science cases
 - AOP science case
 - DLR science case
 - ▶ GMAP science cases
 - ▶ IAP science cases
 - INAF science case
 - IWF science case
 - LMSU science case

Tutorials

- General ML tutorials
- ▶ Science case tutorials
- Other tutorials and links

Workshops/Seminars

- Workshops of our ML activity
- = Other

Additional information

- Presentations
- Media
- News

Follow us on \(\bigcirc \text{Twitter.} \)

Welcome to our Machine Learning Portal!





This webpage, called the Machine Learning Portal, provides access to all activities related to the work package entitled "

JRA4 ML - Machine Learning Solutions for Data Analysis and Exploitation in Planetary Science" of the project "

Europlanet 2024 Research Infrastructure" (Europlanet 2024 RI).



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This site will be filled with more and more content during the progress of our work package. There is a general













Networking Activities (NA)

Webinars, workshops, funding and resources to support:

- Industry-academia collaboration
- Widening participation
- Global collaboration & international development
- Expert exchanges
- Early career support & education
- Policy engagement
- Europlanet Media Centre
- Outreach & education
- Mentoring

http://bit.ly/epn2024rinetworking



Europlanet Mentoring Programme

- Supports mentees in pursuing their career paths
- Fosters open-minded collaboration and leadership
- Provides opportunities to ask questions, develop expertise and discuss career plans
- Currently 67 pairs matched



Outcomes from Dr Iharka Csillik's mentorships of Simon Anghel and Marcelo de Cicco

- In November 2020, Research Fellow Dr Iharka Csillik, working on celestial mechanics and dynamical astronomy (Romania) started mentoring a PhD candidate Simon Anghel (doctoral thesis about the atmospheric impacts e.g. airbursts, fireballs, meteors), and supporting him by sharing experience in areas such as career pathways, fundraising, and increasing visibility in the community.
- After one year of Mentorship, Iharka Csillik agreed to be a mentor for another PhD candidate Marcelo de Cicco from Brazil (in the field of planetary science, meteoroids, meteors) by supporting him to develop skills in meteor science dynamics and publishing. Marcelo and Iharka met for the first time in Cluj at an international conference in summer 2022. They had a presentation together about Earth-grazing fireballs.
- "I had an idea that if both mentees work in the same area and projects, they can collaborate in the future. So, at the Cluj international conference, we created a collaboration group of research for detecting and characterizing fireballs (orbit, trajectory, size, etc.) between Romania (MOROI) Brazil (EXOSS) Fripon (International) and Hungary (Baja Observatory)."

Mentor Iharka Csillik

Mentorship programme: opportunities for sharing the knowledge

Stonkutė E.1, Tautvaišienė G.1, Heward A.2, Mikolaitis Š.1 and DeWitt J. 3

¹ Institute of Theoretical Physics and Astronomy, Vilnius University, Lithuania ² University of Kent, United Kingdom ³ Evaluation Officer for Europlanet 2024 RI, United Kingdom

Europlanet Mentorship Platform

In August 2020, Buroplanet launched the Mentorship platform with the aim of supporting early career researchers in these ways:

- Support mentees in purraing their career paths
- D Forter open-minded collaboration and leadership
- D Provide opportunities to ask questions, develop expertise and discours career plans

During the first two years we have matched 46 pairs and now we are using a survey to gather feedback from both mentors and mentees. We are following up with participants informally through chats and e-mails as well.

Inspiring Success Story

In November 2020, Research Pellow Dr Iharka Csillik, working on celestial mechanics and dynamical astronomy (Romania) started mentoring a Phil candidate Simon Anghel (doctoral thesis about the atmospheric impacts e.g. airbursts, fireballs, meteors), and supporting him by sharing experience in areas such as career pathways, fundraising, and increasing visibility in the community.



Montor thanks Crillik (Komanna) with her two Menters: Marcelo de Ctoso (Brazil) on the left and Mimon Angliel (Komania) at the Astronomical Observatory in Chaj Naposa, Chaj,

Working together Iharka and Simon learned a lot from each other and also published their ideas in the peerreviewed Romanian Astronomical Journal in 2021.

After one year of Mentorship, Iharka Csillik agreed to be a mentor for another PhD candidate Marcelo de Cicco from Brazil (in the field of planetary science, meteoroids, meteors) by supporting him to develop skills in meteor science dynamics and publishing.

Marcelo and Iharka met for the first time in Cluj at an international conference in summer 2022. They had a presentation together about Earth-grazing fireballs. Presently, this pair of mentee and mentor investigates the dynamic problem of mentioned objects, and plan to publish their results in a scientific journal this year.

I had an idea that if both mentees work in the same area and projects, they can collaborate in the future. So, at the Chij international conference, we created a collaboration group of research for detecting and characterizing fireballs (orbit, trajectory, size, etc.) between Romania (MOROI) - Brazil (EXOSS) - Fripon (International) and Hungary (Baja Observatory): - Mentor Ibarka Csillik.





You can ask the advice of our Mentoring Team via e-mail: mentors@europlanet-society.org

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https://www.europlanet-society.org/mentoring







Papers published through Dr Iharka Csillik's mentorships of Simon Anghel and Marcelo de Cicco

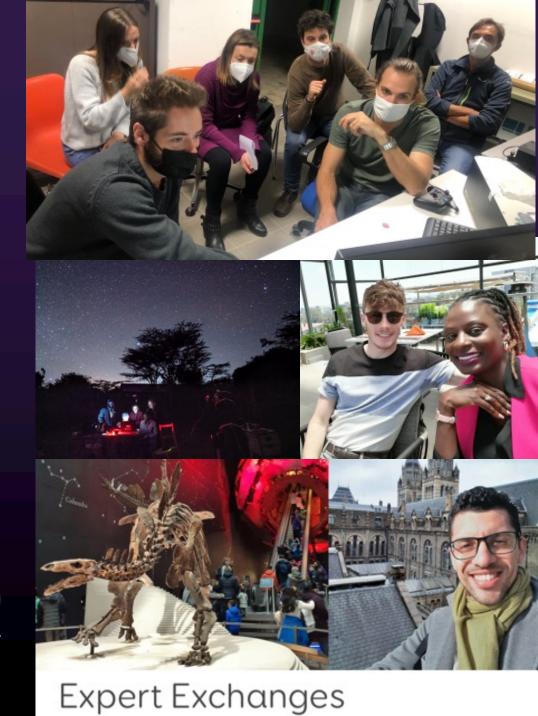
- 1. Anghel, S., Szücs-Csillik, I., Nedelcu, D.-A., Boacă, I., Birlan, M.: Meteoroid's orbit determination, ROMANIAN ASTRONOMICAL JOURNAL, Vol. 31, No. 2, p. 153-169, 2021. https://ui.adsabs.harvard.edu/abs/2021RoAJ...31..153A/abstract
- 2. De Cicco, M., Szücs-Csillik, I., Earth-grazing fireball's recurrence, ROMANIAN ASTRONOMICAL JOURNAL, 32 (3), 175-194, 2022. https://ui.adsabs.harvard.edu/abs/2022RoAJ...32..175D/abstract
- M. De Cicco, I. Szücs-Csillik: An earth-grazing fireball case: simulating close encounters using Rebound Python package and a 4th order Symplectic Integrator, ZAC 2022, Theory, Observations and Data Processing in Astronomy, Astrophysics, Space and Planetary sciences, International conference, 6-8 July 2022, Cluj-Napoca, Romania. https://ui.adsabs.harvard.edu/abs/2022todp.confE...1D/abstract
- 4. M. De Cicco, I. Szücs-Csillik, S. Anghel: A dynamical study of an earth-grazing fireball, Section: Exploration of asteroids, 2nd International Sturdust Conference, 7- 11 November 2022, ESA European Space Research and Technology Centre (ESTEC), Noordwijk, The Netherlands. https://ui.adsabs.harvard.edu/abs/2022stdu.confE...1D/abstract
- 5. De Cicco, M., Szücs-Csillik, I.: Numerical investigation of an Earth-grazing Fireball's Close Approach, 7th International Conference in Astronomy, Astrophysics, Space and Planetary Sciences, 10-12 July 2023, Cluj-Napoca, Romania.

 https://ui.adsabs.harvard.edu/abs/2023aasp.confE...4D/abstract
- 6. De Cicco, M., Szücs-Csillik, I.: How a grazing meteor study can help advance LEO satellites' orbit evaluation? 42nd International Meteor Conference IMC2023, Aug 31-Sep 3 2023, Redu, Belgium. https://imc2023.imo.net/, https://imc2023.imo.net/program. https://ui.adsabs.harvard.edu/abs/2023imc..confE...1D/abstract
- 7. De Cicco, M., Szücs-Csillik, I.: Numerical investigation of an Earth-grazing Fireball's Close Approach, XLVI RASAB Reunião Anual da SociedadeAstronômica Brasileira RASAB2023, 2-5 October 2023, Rio de Janeiro, Brasil. https://ui.adsabs.harvard.edu/abs/2023rasa.confE...1D/abstract

Expert Exchanges

- Supports the mobilisation of the planetary community to share expertise and best practice and to prepare new RI facilities and services
- Funding for short visits (up to one week)
- Marcelo, De Cicco mobilized from Rio de Janeiro (Brasil) to Cluj-Napoca (Romania) for collaboration and ZAC conference in 2022.
- II. Marcelo, De Cicco mobilized from Rio de Janeiro (Brasil) to Bratislava (Slovakia) Baja (Hungary) Bucharest and Cluj-Napoca (Romania) for collaboration and conferences in Bratislava and Cluj-Napoca in 2023.

bit.ly/EuroplanetExpertExchange



Early Careers Support

- Information on PhD positions, job opportunities, summer schools, and meetings relevant to early career professionals working in planetary science and related fields.
- Summer and Winter Schools
- Europlanet Early Career (EPEC) Network
- EPEC Annual Week
- EPEC short courses at EPSC

http://www.europlanet.tfai.vu.lt









Adaptable Outreach resources

- Educational resources
 - Teacher packs
 - Video experiments
 - Additional resources
- Outreach tools (e.g. 'Planets in a Room' kits for spherical projection of planetary data developed by Speak Science)
- Infographics with minimal text for easy translation
- Evaluation toolkit







Support for Ukraine











planetary science community. Here, is a roundup of the latest news, meeting reports and results of projects.

Europlanet Research Infrastructure Meeting (ERIM) and EPEC Annual Week 2023





Europlanet Science Congress (EPSC) Upcoming Events

* Sergiore Hink

Planetary Defence Workshop in Morocco





Europlanet Telescope Network

- Provides remote and physical access to a network of 16 small telescopes (0.5-1.2m diameter) around the world
- Open call for applications, decisions provided within 2 months

https://bit.ly/EuroplanetTelescopeNetwork



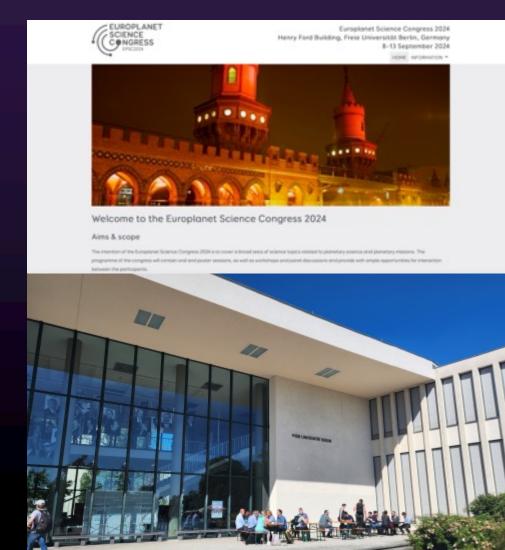


Bursaries for EPSC

- Europlanet Science Congress is the largest annual meeting on planetary science in Europe
- Bursaries offered for:
 - Students and doctoral candidates
 - Researchers from under represented states, including Romania
 - Amateur astronomers
 - Outreach and education providers

http://www.epsc2024.eu







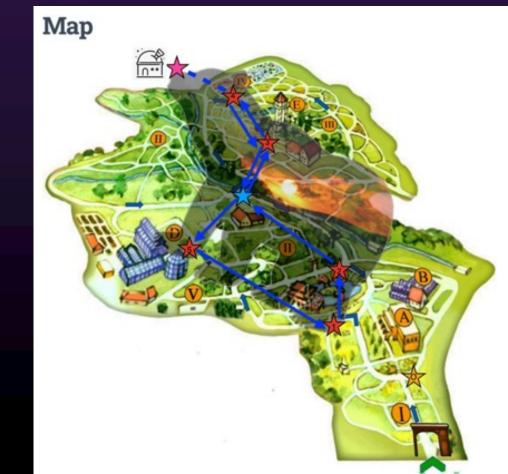
Europlanet Society Funding Opportunities

- Committee Funding projects proposed by Committees (South East Europe Hub)
- Public Engagement Funding Scheme
- €1000-€5000
- Next calls in 2024

https://bit.ly/EuroplanetOutreachFunding

https://bit.ly/EuroplanetCommitteeFunding





Europlanet Society Funded Projects 2023

• Funded Committee projects - total funding €22,940

- Careers workshop at French Planetary Science Congress (€4,900) French Hub
- Pro-Am occultations campaigns with a portable telescope (€3,300) Spain & Portugal Hub
- Orionids 2023 (€1,400) Central Europe Hub
- Variable stars and exoplanet research meeting (€3,060) Central Europe Hub
- Europlanet Early-Career Networking at the British Planetary Science Conference 2024 (€4,380)
 - Ireland- UK Hub
- Terrestrial Analogues for Solar System Studies Conference (€5,000) South-East Europe Hub
- Early Career Activities at DPS-EPSC 2023 (€900) EPEC

Public Engagement funded projects (sponsored by DFET)

- A Blink of a Star: An Occultation Citizen Science Project (4,700€)

Europlanet Public Engagement Funding Scheme 2021 ExoWorld Walk Publications & Conference Presentations

- 1. Ficuţ-Vicaş, D., Szücs-Csillik, I.: ExoWorld Walk at Botanical Garden, ZAC Viewpoints in Astronomy, Astrophysics, Space and Planetary Sciences, Oct 28-29, 2021, On-line Poster. http://dx.doi.org/10.13140/RG.2.2.17527.70566
- 2. D. Ficuţ-Vicaş, I. Szücs-Csillik: ExoWorld Walk Project Connecting Nature to the Universe, International Training Workshop "Educational Psychology and Astronomy for Mental Health and Wellbeing", 19-21 May 2022, Ulaanbaatar, Mongolia. https://ui.adsabs.harvard.edu/abs/2022epam.confE...1F/abstract
- 3. D. Ficuţ-Vicaş, I. Szücs-Csillik: The project "Exoworld walk" an innovative way to engage the public from afar, IAUGA2022, 2-11 August 2022, Busan, South Korea.

 https://ui.adsabs.harvard.edu/abs/2022IAUGA..31E...1F/abstract
- 4. D. Ficuţ-Vicaş, I. Szücs-Csillik: AstroBiology for Climate Change Awareness The ExoWorld Walk Project Approach, Conference Communicating Astronomy with the Public, CAP2022, 12-16 September 2022, Sydney, Australia. https://ui.adsabs.harvard.edu/abs/2022cap..confE...1F/abstract
- 5. Szücs-Csillik, I.: Education case studies for Quality Education in Astronomy, ROMANIAN ASTRONOMICAL JOURNAL, Vol. 32, Nr. 2, p. 159-176, 2022. https://ui.adsabs.harvard.edu/abs/2022RoAJ...32..159S/abstract

Join the Europlanet Society!

www.europlanet-society.org @europlanetmedia

Contact:

contact@europlanet-society.org europlanet2024ri@kent.ac.uk

Training and Resources

Members-only resources and webinars provide access to:

- Training on a range of tapics
- Updates on hot-topics in planetary science
- Opportunities to engage with policy-makers and consultations
- A searchable database of industry relevant to planetary science.

Community on Discord

The Europlanet Society Discord is an opportunity to:

- Get to know other members of the community
- Find out what's going on with Cammittees, Regional Hubs and Warking Groups
- Stay up to date with the latest planetary science news, events and opportunities
- Join reguar get-togethers and social events



Meeting Discounts

Members of the Europlanet Society enjoy discounted fees and exclusive activities at events, including the Europlanet Science Congress (EPSC) - the largest annual planetary science conference in Europe.



bit.ly/JoinEuroplanet

Funding/Prizes

Europlanet supports the community through funding schemes and prizes, including:

- Committee community funding programmes
- Public Engagement Funding
- Bursaries to attend events
- Farinella Prize
- Prize for Public Engagement
- EPSC Outstanding Student Poster Contest
- Information on external funding

Industry and Policy Engagement

Europlanet engages with industry and policy-makers to:

- Foster collaborations and synergies with industry, and stimulate innovation
- Contribute to evidence-based policy-making, and promote the socioeconomic impact of planetary science.

Exhibit or sponsor the Europlanet Science Congress (EPSC), Europe's largest meeting on planetary science:

- EPSC 2024: Freie Universität Berlin, Germany, and online, 08-13 September 2024. Over 1200 attendees expected.
- EPSC-DPS 2025: Joint meeting of EPSC with the Division of Ranetary Sciences of the American Astronomical Society, Finlandia Hall, Helsinki, Finland, 07-12 September 2025. Over 1700 attendees expected.

www.europlanet-society.org/epsc/.



The Europlant Society offers opportunities and membership benefits for individuals and organisations





Europlanet Early Career (EPEC) Network

EPEC is an active network organised by early-career researchers for earlycareer researchers. Thematic groups give an early career vaice and perspective an policy, diversity, career support, outreach and more.

Activities include:

- Training and wark shops at EPEC Annual Week and EPSC
- EPEC community on Discord
- X (Twitter): epec_epn
- Stairway to Space Podcast.

bit.lw/EuroplanetEarlyCareers



Individual Membership

Standard

Researcher and Industry Professional

50€/Year (Regular) / 25€/Year (Under-represented States) *

Reduced

Early Career, Retired, Amateur and Outreach Provider/Educator

25€/Year (Regular) / 15€/Year (Under-represented States) *

Organisation Membership

Premium

Includes 10 individual memberships 1000€/Year (Regular) / 500€/ Year (Under-represented States) *

Standard

Includes 5 individual memberships

500€/Year (Regular) / 250€/Year (Under-represented States) *

* See membership site for a list of countries

https://bit.ly/JoinEuroplanet

Regional Hubs

The Europlanet Society's 10 Regional Hubs organise networking events and workshaps, and support the community in building links with the regional scientific communities, as well as amateur astronomers, industrial partners and policymakers.

Benelux

Italy

Central Europe

Southeast

France

Europe

Germany Ireland & UK Spain & Portugal Switzerland

ireiana a UK

witzeriana

Northern Europe

Diversity Committee

The Europlanet Diversity
Committee acts as a strategic
task force to advise, coordinate
and champion activities that
further the Europlanet Society's
commitment to equality, diversity
and inclusivity.

Working Groups

Europlanet Society Working graups raise awareness of planetary sciences through outreach and educational activities, and engage with industry and policy-makers.



Europlanet Society Regional Hubs

Executive Board Representative

Séverine Robert (Benelux Hub)

Benelux

Central Europe

Andrea Opitz

France

Susan Conway

Germany Ireland & UK

Currently undergoing reorganisation

Italy

Stavro Ivanovski

Northern Europe

Harri Haukka

Southeast Europe

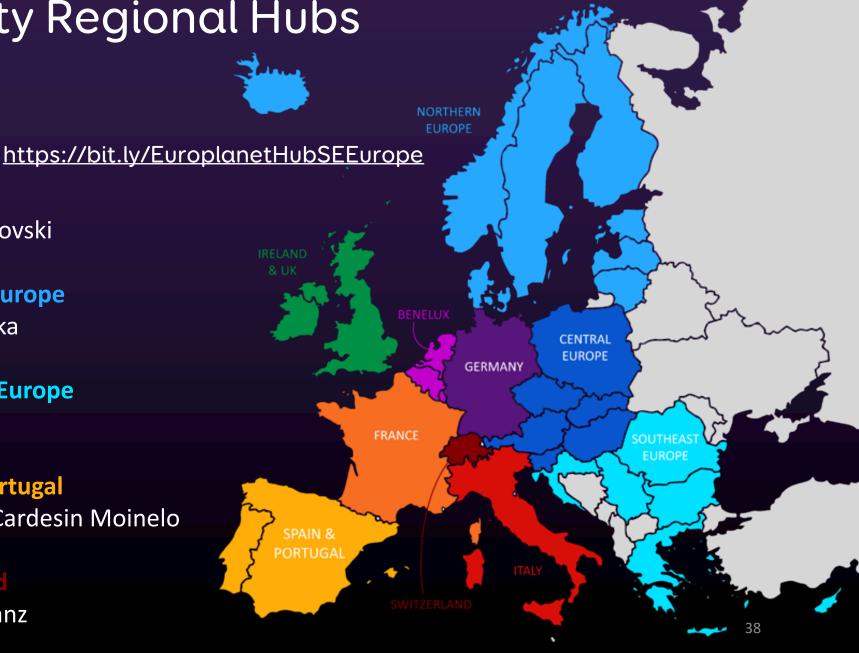
Nick Sergis

Spain & Portugal

Alejandro Cardesin Moinelo

Switzerland

Sascha Quanz



Keep up to date!

MONTHLY NEWSLETTER

- Information for Europlanet **Society Members**
- Europlanet Society News
- Europlanet 2024 RI News
- Funding
- Planetary Science News
- Events and Opportunities

The Europlanet Society Newsletter Inbox x





Europlanet Newsletter <noreply@europlanet-society.org>





- Europlanet News
- Europlanet 2024 RI News
- Planetary Science News
- Events & Opportunities

Society Member Area

General Assembly



All Europlanet Society Members are invited to attend the Europlanet General Assembly online on 10 November from 10:00-12:00 CET. The agenda includes the results of the election of new members of the Europlanet Society Executive Board, the presentation of the Europlanet Annual Report and updates to the Constitution of the Europlanet Society to recognise the Europlanet Association Internationale Sans But Lucratif (AISBL) as providing the legal structure for the Europlanet Society.

Discord Weekly Get-Together!



Last week marked the inaugural session of the society's new weekly Discord get-togethers. The group discussed the shape they want the meetings to take (suggestions still welcome!), heard from the maker of an exciting upcoming film about JUICE, about cutting-edge research on planetary atmospheres, and more. This is your chance to get engaged with the largest planetary science community in Europe! Get-togethers are every week during Friday lunch, at 12:30-13:30 Paris time on Discord.

> Join Discord



EPEC Profiles - Jessica Hogan

Have you read the latest EPEC profile? EPEC co-chair Jessica Hogan outlines her research background, and her involvement with EPEC.

> See Previous Profiles



The Europlanet Early Career Network (EPEC) at DPS-EPSC 2023

The EPEC@EPSC working group teamed up with the DPS Professional Development Subcommittee to offer several activities for early careers at the conference. The activities ranged from a networking reception and social event to a short course on mental health and a mentoring program. Early careers also had the chance to connect with EPEC during the EPEC general assembly and throughout week at the

We appreciate everyone who has participated in our activities and plans to become involved in our network. If you enjoyed our events and would like to help us improve them, we also invite you to fill out this

Europlanet Society Webinar: Horizon Europe Space and Infrastructure Calls for 2024 | Tuesday 28 November 13:00 CET



In this webinar for Europlanet Society Members, Nigel Mason will provide an overview of upcoming funding calls that may be of interest to the planetary and wider space community. We will discuss guidance gathered from workshops and webinars held by the European Commission, as well as our own past



ERIM 2023

- The Europlanet Research Infrastructure Meeting (ERIM), 19 to 23 June 2023 in Bratislava, Slovakia
- Designed to build the community and offer an opportunity to review Europlanet sustainability
 - Discussion forum
 - Training Workshops
 - Community events
 - Networking/social events
- No registration fee, free accommodation and travel grants
- Fully hybrid meeting, 300 registered participants, 137 in person, 249 active on Whova platform



Europlanet Roadmapping Challenges

COMMUNITY CHALLENGES

- 1. Individual membership benefits
- 2. Early career support
- 3. Capacity building for planetary science (geographic EU & non-EU, EDI)
- 4. Industry and policy engagement
- 5. Society structures, recruitment and participation in other projects

SERVICE PROVISION CHALLENGES

- 6. Sustainable access to facilities and field sites
- 7. Europlanet VA services
- 8. Telescopes and pro-am support
- 9. Sustainable community services (Training, Expert Exchange, Outreach, Mentoring, Funding etc)
- 10. EPSC and science-led activities

Europlanet Roadmapping

Priorities

Recommendations

Next steps

What are the most important things for Europlanet to consider in preparing a roadmap for this theme?

What practical actions should be taken to achieve the priorities?

Costings
Potential sources of
funding
Market analysis
Operational planning

New Sustainability Working Group will lead taking ideas and discussions forward into a operational and business plan

Europlanet Results

- Over 200 publications and conference presentations
- Supported hundreds of scientists through TA visits (211 projects) and serving thousands of online users through VA programmes
- 90% of TA visitors planning future collaborative activity with their hosts
- EPN-TAP now a standard in the IVOA, International Planetary Data Alliance (IPDA) and increasingly adopted by ESA and NASA
- SPIDER services have been used by the scientific community during Bepicolombo Venus and Mercury flybys.
- 67 mentor/mentee pairs matched
- Over 200 observation nights supported
- Multiple collaborative research bids across RI and with other universities,
 research institutes
- Multiple projects have received EC funding



www.europlanet-2024-ri.eu

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