

# Europa<sup>n</sup> outreach in Horizon 2020

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## Abstract

In Horizon 2020, Europlanet will build on the outreach activities it developed under FP6 and FP7 to engage a wider European audience with planetary science. In addition to providing a professional service for the planetary science community to engage with the media, public audiences and policy makers, and supporting the outreach community with seed-funding, networking opportunities and recognition, Europlanet 2020 will develop new tools for outreach providers based on the science emerging from Europlanet 2020 RI.

## 1. Introduction

Since 2005, the Europlanet project has worked to consolidate the fragmented community of planetary scientists that are spread across Europe's research institutions. Now, in response to the European Commission's Horizon 2020 call, Europlanet is bidding to enter a new phase as a mature Research Infrastructure (RI), with an emphasis on providing services and access to the planetary science community.

Outreach has been a core part of the Europlanet project since its foundation as a Coordination Action under the European Commission's Framework 6 Programme from 2005-2008. Under Framework 7 from 2009-2012, the Europlanet Research Infrastructure formalized its outreach activities into: (i) a European Planetary Media Centre to develop a coherent media presence for the European planetary science community, both within Europe and worldwide; (ii) a framework for outreach providers where best practice on engaging communities with planetary science could be shared [1], innovative ideas for communicating concepts could be supported through funding pilots projects and achievements honoured through the Europlanet Prize for Public Engagement [2]; (iii) a political engagement activity with the dual aims of developing communication channels with Europe's Policy Makers and of creating a more politically-engaged planetary science community; (iv) a training

programme to equip the planetary science community with the skills to communicate with a range of audiences, including the media, policy makers and educators.

In Horizon 2020, Europlanet will develop those mature activities one step further, offering professional expertise in media, outreach and policy activities both to the Europlanet community and to other Horizon 2020 projects, as well as developing new tools for outreach providers based on the science emerging from Europlanet 2020 RI.

## 2. Europa<sup>n</sup> RI Outreach Activities

### 2.1 Outreach Services and Community support

Europlanet 2020 RI will identify, collate and peer-review formal and informal learning-resources available for engaging audiences with planetary science. It will work with its established partnership of outreach networks to promote and disseminate the best resources to educators and outreach professionals across Europe. Europlanet 2020's outreach activity will also provide a professional-quality translation service for selected outreach and dissemination materials. In addition, Europlanet 2020 will identify an effective, user-friendly suite of evaluation tools, both for assessing the impact of its own outreach, engagement and dissemination programmes, and to offer to outreach providers in the community who wish to assess and demonstrate the impact of their activities.

Europlanet 2020 will bring together representatives of different groups of outreach providers in a series of workshops to share best practice and develop new ideas for effective communication. These workshops will target specific roles such as: press officers, schools liaison officers, policy officers and social media managers. Europlanet 2020 will also provide training workshops to equip the planetary science

community with communications skills for engaging with various audiences.

In continuation of the successful funding scheme from FP7, Europlanet 2020 will award grants of between 5000 and 10000 Euros for public engagement activities relating to planetary science. Submissions will be judged according to criteria of innovation, the potential legacy of the proposed project and the possibilities for wide European participation. Europlanet 2020 will also carry forward its annual Prize for Public Engagement with Planetary Science, which is awarded to individuals or groups who have developed innovative practices in planetary science communication and whose efforts have significantly contributed to a wider public engagement with planetary science.

## **2.2 Media, Social Media and Policy Services**

Under FP7, Europlanet built up comprehensive media distribution channels to highlight Europe's contribution to planetary science. Europlanet 2020 will expand on these activities to publicise newsworthy results from research activities, including space missions, ground based observations, laboratory and computer modelling and field analogue tests. It will assist scientists in identifying the best avenue for promoting their results (press release, social media, blog post etc). The Europlanet Media Centre will work in collaboration with the press and education offices of other agencies and institutes to capitalize on opportunities offered by high profile planetary events (mission launches, landings, natural astronomical phenomena (eclipses etc) and anniversaries). It will also offer services to journalists, e.g. putting them in contact with planetary scientists that are experienced in interacting with the media.

Under Horizon 2020, the Europlanet outreach website (<http://www.europlanet-eu.org/>) will be replaced by a cutting-edge web interface that incorporates the latest social media and graphic tools to engage visitors with an up-to-the-second insight into planetary science. Social media will be integrated into all aspects of Europlanet's outreach and dissemination activities. Europlanet 2020 RI will provide a sustained presence on social media platforms and optimise tools for different

engagement objectives (e.g. Twitter for engaging with journalists, LinkedIn to build industry engagement, Google Hangouts on Air for engaging with the general public etc).

Europlanet 2020 RI's policy service will provide the community with a forum to identify key issues and policy areas affecting Europe's competitiveness in planetary science in the Horizon 2020 era. It will maintain and develop communication channels with Members of the ITRE Committee in the European Parliament, representatives of European Commission, as well as high-level representatives of ESA, NASA and other space agencies, through participation in policy events and conferences, individual briefings, themed dinner debates and exhibitions. It will support and advise the Europlanet community in utilizing events and conferences, such as the European Planetary Science Congress, to engage with policy makers at a national level and to highlight the importance of national contribution to this growing area of European expertise.

## **2.3 Outreach tools**

In addition to the activities to provide services and support the planetary science outreach community, Europlanet 2020 will create outreach tools based on science carried out by the Research Infrastructure.

Firstly, it will produce a series of short popular science videos (each lasting about 5 minutes), aimed at school (and general) audiences, that explain key topics related to planetary sciences, complemented with research emerging from Europlanet 2020 RI.

Secondly, Europlanet 2020 will develop a suite of outreach tools based around two of Europlanet's core science themes, planetary analogues and comparative planetology, both of which have proved very effective in engaging audiences with planetary science in activities to date. Europlanet will develop a kit for students to build Arduino-based climate monitors, which they will use to collect data and upload to a database within an online platform. Scientists on planetary analogue field trips supported through Europlanet's TNA programme, will gather comparative climate data from the field sites and share this via the online platform. Data from the REMS instrument and other atmospheric data in the Europlanet Virtual Observatory VAA (climate models for Venus and Mars, data from Venus

Express, data from Mars missions, including Mars Express and MAVEN, as well as Cassini data for Titan) will also be fed into the online platform. Educational resources (activity plans and learning resources) will be developed around the aspects of the project (e.g. climate, weather, seasons, the movement of the sun during the day, position of planets within the solar system, conditions for life etc), which will be made available via the online platform. The platform will include a Wiki where students can share data, ideas and activities. The kits will be disseminated via MakerSpace and Science Centres and other partner networks. The parts list and links to suppliers will be listed on the online platform, in order to reach a wider audience. Scientists participating in Europlanet TNA field trips will be encouraged to carry out at least one live social media event (e.g. live-streaming experiment, Twitter Q&A etc) during their mission, as well as participating before and/or after their mission in link-ups with schools to discuss field results, data gathered by schools and careers in planetary science.

## 6. Summary and Conclusions

Europlanet 2020 will consolidate outreach expertise and best practice learned through FP6 and FP7 to provide the community with a comprehensive service in engagement and dissemination to stakeholder audiences across Europe.

## References

- [1] Entradas, M., Miller, S.: EuroPlaNet Outreach Sessions Through a Lens: Engaging Planetary Scientists in the Communication of Science, CAP Journal, No. 6, pp. 8-12, 2009.
- [2] Heward, A. and Fouchet, T.: Raising the Prestige of Public Engagement within the Planetary Science Community in Europe, CAP Journal, No 11, pp18-21 2011.