

OpenPlanetary: An Open Science Community and Framework for Planetary Scientists and Developers

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1. Introduction

OpenPlanetary, OP for short, is a community-driven initiative and effort to address the need of the planetary science community for sharing ideas and collaborating on common planetary research and data analysis problems, new challenges, and opportunities [1].

2. Community

With 300+ members across many countries, the OpenPlanetary community is made-up of and intended for research and education professionals: scientists, engineers, designers, teachers and students, as well as space enthusiasts and citizen scientists.

Our common goal is to promote and facilitate the open practice of planetary science and data analysis for professionals and amateurs. We do so by organizing events and conducting collaborative projects aimed at creating scientific, technical and educational resources, tools and data accessible to all.

3. Framework

We develop and use an online framework to stay connected, share, discuss, collaborate on common community-driven projects, and to reach out to the planetary science community and the general public. Our approach is to connect and administer existing free or low-cost cloud-based solutions, services and open-source tools (such as Slack, GitHub, and AWS S3)

4. Projects and Events

One of our flagship project is OpenPlanetaryMap (OPM), an open planetary mapping and social platform to foster planetary mapping and cartography

on the web for all. With OPM, our goal is to make it easy and collaborative to create and share location-based knowledge and maps of others planets of our Solar System [2].

We held our first “OpenPlanetary Data Café” at the at the European Planetary Science Conference 2017 in Riga, Latvia [3]; the idea for this Data Café was to invite both junior and senior scientists to share their expertise, tools, science use cases and issues through participative hands-on sessions.

5. Toward a non-profit organisation

OpenPlanetary started back in 2015 from an initial participants effort to stay connected and share information related to and beyond the ESA’s first Planetary GIS Workshop [4]. It then continued during the 2nd USGS Planetary Data Workshop [5], and aggregated more people.

We are now establishing OpenPlanetary as a non-profit organisation in order to provide us with a legal framework to sustainably fund our projects and activities, and better serve the planetary science community as a whole. We also intend to enter the Europlanet Memorandum of Understanding (MoU) signatory group [6] so as to gain more visibility and credibility within the community. We will present the challenges, results and our experience of building such a community.

References

- [1] OpenPlanetary website: <http://openplanetary.org>.
- [2] “OpenPlanetaryMap: Building the first Open Planetary Mapping and Social platform for researchers, educators, storytellers, and the general

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[3] “OpenPlanetary Data Café at EPSC 2017”,
http://bit.ly/op-data-cafe_epsc17,

[4] “Summary and Recommendations from the 2015 ESAC Planetary GIS Workshop”, N. Manaud et al., Lunar Planet. Sci. XLVII, #1387,

[5] “Planetary Data: Workshops for Users and Software Developers”,
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[6] EuroPlanet, <http://www.europlanet-2020-ri.eu/consortium>