



EUROPLANET RI: European Planetology Network Research Infrastructure

The EU-funded EuroPlaNet RI project seeks to provide a framework for networking and exchange of information between the many scientific research communities working in the field of planetary sciences in Europe. Building on the successes of EuroPlaNet, EuroPlaNet RI aims to achieve long-term integration of planetary sciences in Europe, providing access to laboratory and field site facilities, advanced modelling, simulation and data analysis resources and data gathered by researchers and institutions involved in the project.

● REACHING FOR THE PLANETS

Planetary science goes behind the curtain to uncover how planetary systems and their components were formed, how they evolved and how they will continue to evolve in the future. Many of the areas it addresses, such as the impact of aerosols on climatic evolution, have important implications for our understanding of Earth.

But today, planetary exploration extends well beyond the borders of Earth into deep space. Thanks to major scientific investment into a number of highly visible research infrastructures, Europe has been participating in several exciting and ambitious space exploration missions aimed at increasing our understanding of distant planets and their systems. These include observation missions to terrestrial planets (Mars Express, Venus Express, SMART-1 to the moon,

BepiColombo to Mercury), small bodies (Rosetta, which is expected to land on a comet nucleus in 2014), and the outer planets of our solar system (Cassini-Huygens mission to Titan and Saturn).

The planetary sciences involve an impressively wide range of disciplines, skills and expertise, including many of the natural sciences (astronomy, astrophysics, space plasma physics, atmospheric sciences, geology, geophysics, geochemistry, etc) and basic disciplines such as physics, chemistry, hydrodynamics, materials science and scientific instrumentation. Successfully advancing research in this field will, to a large extent, depend on how effectively these different disciplines can converge and co-operate to pursue common agendas.



● CONVERGING INTERESTS

EuroPlaNet RI seeks to strengthen the networking of planetary sciences in Europe by promoting exchanges between the different partners, including those from outside Europe, as well as by providing support to planetary exploration missions. It boosts synergies and joint research projects, in particular through working groups, workshops, the exchange of personnel, joint observation campaigns and the development of dedicated tools for the easy sharing of data and information.

Building on Europe's natural interest in space and space exploration, EuroPlaNet RI is developing specific outreach and communication activities aimed at increasing the awareness and understanding of European citizens, especially children

and young people, of the results of planetary observation and space exploration programmes. This task has a double objective – in addition to improving the quality of information provided to the public, it may also help to attract our budding scientists of the future to this important field of research.

The current research infrastructure needs to move beyond solely space missions. Europe has at its disposal various ground-based telescopes, research laboratories, collected data and numerical codes. By reinforcing the planetary research infrastructure, more researchers will have access to these resources and a wider variety of projects and research will benefit from state-of-the-art tools and data.



Project acronym: EuroPlaNet RI

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EU project officer: Hugues Crutzen

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Partners:

Centre National de la Recherche Scientifique (FR)
Finnish Meteorological Institute (FI)
Istituto Nazionale di Astrofisica (IT)
Instituto Nacional de Técnica Aeroespacial Centro de AstroBiología (ES)
Institut für Weltraumforschung/Space Research Institute
Österreichische Akademie der Wissenschaften/Austrian Academy of Sciences (AT)
Research Institute for Particle and Nuclear Physics (HU)
Max Planck Gesellschaft (DE)
Observatoire de Paris-Meudon (FR)
The Open University (UK)

Technical University Berlin (DE)
University College London (UK)
University of Wales Aberystwyth (UK)
Vrije Universiteit Amsterdam (NL)
Armagh Observatory (UK)
University of Aarhus - Mars Simulation Laboratory (DK)
CINECA (IT)
Deutsches Zentrum für Luft- und Raumfahrt (DE)
Forsvarets Forsknings Institutt (NO)
Institute of Atmospheric Physics (CZ)
Space Research Institute of the Russian Academy of Sciences (RU)
University of Stuttgart (DE)
International Research School of Planetary Science (IT)
International Space Science Institute (CH)
Joint Institute for VLBI in Europe (NL)
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Project webpage: www.europlanet-ri.eu/