

IMPEX

Integrated Medium for Planetary Exploration

BETTER SHARING AND PROCESSING OF SPACE MISSION RESULTS

Europe prepares to embark on exciting journeys about the vast space of our solar system. Yet, an integrated framework for better processing of the data we would get back from such missions is needed before takeoff. IMPEX prepares to deliver just that.

Look into the sky and sometimes you see Jupiter; the fifth planet from the Sun and the largest planet within the Solar System, Jupiter is amongst the foreseen destinations for future European space exploration missions. Together with Mercury, Venus, Mars, Saturn and Titan, the gas giant is set to be approached by European spacecraft on missions to expand our understanding of the Solar System.

However, in the past, scientific return on even the most expensive and exciting space exploration missions has been limited as a result of the lack of an integrated framework for the processing of the data that are returned to Earth.

The IMPEX project addresses this shortfall, thereby adding value to the European exploration endeavours. IM-

PEX is aimed at the creation of an integrated framework where data from space missions will be interconnected to numerical models providing a possibility 1) to simulate planetary phenomena and interpret spacecraft measurements; 2) to test and improve models versus experimental data; 3) to fill gaps in measurements by appropriate modelling runs; 4) to solve technological tasks regarding mission operations, including preparation of new missions. Via its infrastructure, IMPEX will enhance the efficiency of space mission data exploitation for scientific research, and make the existing data and computational models available for the broad planetary science community. Thereby researchers who may not themselves be part of space mission teams can benefit from such missions too. That will promote the contribution of European space assets to overall scientific and technological knowledge.



MAXIM KHODACHENKO
IS PROJECT COORDINATOR

QUESTIONS & ANSWERS

What do you want to achieve with this project?

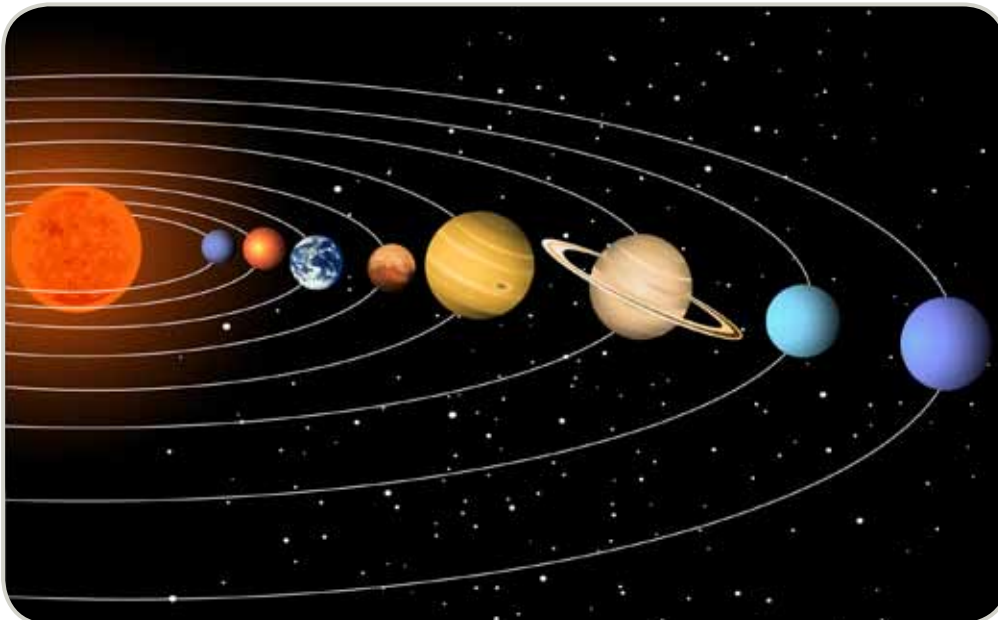
IMPEX will create an infrastructure which bridges the gap between spacecraft data bases and the scientific modelling tools, enabling their joint interconnected operation and serving, therefore, better understanding of related physical phenomena.

Why is this project important for Europe?

IMPEX will ensure longer and more efficient use of European space missions' data in the worldwide research community. This will increase added value of the European space exploration investments and contribute high reputation of the European science and technology.

How does your work benefit European citizens?

The major 'public' impact of IMPEX, as an RTD project aimed at space mission data and numerical models operation, consists in providing its infrastructure for not only professional scientists, but also for public education work at schools, universities, planetaria, etc.



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IMPEX will create an interactive framework for better exploitation of space missions' data, superimposing them with the advanced computational models.

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LIST OF PARTNERS

- Institut für Weltraumforschung, Österreichische Akademie der Wissenschaften (IWF-OeAW), Austria
- Finnish Meteorological Institute (FMI), Finland
- Centre National de la Recherche Scientifique (CNRS), France
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PROJECT INFORMATION

Integrated Medium for Planetary Exploration (IMPEX)
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