



# **Integrated and Distributed Information Service (IDIS)**

<http://www.europlanet-ri.eu/idis>

## **INFORMATION NOTE N. 1**







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**IDIS (Integrated and Distributed Information Service) is one of the activities of EuroPlaNet, an international project financed by the European Community under the 7<sup>th</sup> Frame Program. It is composed by an activity of service and an activity of research.**

The task of IDIS is to provide a user-oriented web-based platform to give access to available data from space, ground-based facilities, laboratories and numerical simulations in the various fields of planetary sciences, and to initiate new research activities needed to interpret observations or to solve open questions. IDIS will also help to locate scientists, teams, laboratories and test facilities with special knowledge and capabilities needed for data analysis or the development of new instruments, and exploit synergies between space-based missions and capabilities of ground-based observatories.

A set of tools for describing, accessing and combining information and data from different sources is being developed, with the objective to offer a Virtual Observatory-like access to many observational and model data from European and non-European sources essential for planetary research.

IDIS is organized as six thematic Nodes:

-  **Technical Node, hosted by FMI, Helsinki**
-  **Planetary Atmospheres Node, hosted by CNRS/IPSL, Paris**
-  **Planetary Plasmas Node, hosted by CDPP, Toulouse, and IWF, Graz**
-  **Planetary Surfaces and Interiors Node, hosted by DLR/IPR, Berlin**
-  **Small Bodies and Dust Node, hosted by INAF/IFSI, Rome**
-  **Planetary Dynamics and Extraterrestrial Matter, hosted by the Paris Observatory, Paris**

More information can be found on the IDIS web pages:

<http://www.idis.europlanet-ri.eu/>

## NEWS FROM THE IDIS PROJECT

### THIRD IDIS GENERAL MEETING, PARIS 1-4 FEBRUARY, 2011

During the meeting, IDIS Data Model and IDIS VO Architecture documents have been discussed and reviewed. The first versions of these documents are being released.

## FROM THE IDIS NODES: WHAT'S GOING ON

### PLANETARY ATMOSPHERES NODE

The current major projects for the Atmospheres Node are the extension to new scientific aspects related to the field, in agreement with actual scientific discussions going on in meetings and workshops, as well as more technical points concerning the development of the Planetary Virtual Observatory, with an active participation to standard definitions and application.

### PLANETARY DYNAMICS AND EXTRATERRESTRIAL MATTER NODE

A newly designed web portal is being tested to access local Planetary Science data bases at VO-Paris Data Centre. Results are provided either as VOTable or html, and can be passed to VO visualization tools. It is currently under test and is expected to evolve rapidly.

<http://voparis-srv.obspm.fr/portal/vo.php>

## FROM THE IDIS RESEARCH ACTIVITY

### *TOOLS FOR TRANSFORMING IDIS INTO A PLANETARY VIRTUAL OBSERVATORY*

The research activity part of IDIS is preparing essential tools to support the web-based interrogation of selected data centers, to access and process data and to visualize them.

IDIS is also developing VO-compliant generic infrastructures of spectroscopic databases for solids (ices, minerals, organic molecules, extraterrestrial and synthetic organic matter). The following databases are planned:

- UV-to FIR transmission spectroscopy of ices and organics
- UV-to-NIR bidirectional reflection spectroscopy of solid surfaces (planetary analogue materials)

- NIR-MIR emission spectroscopy of minerals
- Reaction rate coefficients of astrochemical interest, implemented into the Kinetic Database for Astrochemistry (KIDA)

## WHAT'S GOING ON

- Version 1 of the KIDA database will be soon published.
- **IDIS PDAP implementation presented at IPDA TEG meeting**

The Technical Expert Group (TEG) and the Steering Committee of the International Planetary Data Alliance (IPDA) convened in Bremen, 14-17 July 2010. Five IDIS team members (from France, Italy and Germany) participated to this meeting. The main topic of the meeting was about the Planetary Data Access Protocol (PDAP) specification and implementation. PDAP is developed by ESA and NASA to make their respective planetary databases (PSA and PDS) interoperable in the frame of future planetary science Virtual Observatories (VO). Europlanet-IDIS is thus particularly interested in PDAP, and have began PDAP services implementations at CDPP (Centre de Données de la Physique des Plasmas, Toulouse) and VO-Paris (Paris). B. Cecconi (astronomer at LESIA, member of the CDPP and deputy leader of EuroPlanEt-IDIS, JRA4 task 2) presented the PDAP implementation experiences at CDPP and VO-Paris as well as a prototype of a Data Model for Plasma Node data, based on IVOA (International Virtual Observatory Alliance) standards. Cecconi also pointed out various critical points raised by these PDAP implementation tests. These comments were very welcome by the IPDA team and were in fact already partly addressed in the new release of PDAP, that has been presented at the occasion.

IPDA meeting presentations:

<http://planetarydata.org/documents/technical-experts-group/ipda-teg-meeting-bremen-14-17-july-2010-presentations>

CDPP:

<http://cdpp.cesr.fr/>

VO-Paris:

<http://voparis-srv.obspm.fr/portal/>

IVOA:

<http://www.ivoa.net/>

Europlanet-IDIS JRA4 task 2

<http://www.europlanet-idis.fi/index.php?id=190#c335>

## FUTURE IDIS-RELATED MEETINGS AND PRESENTATIONS

**The next IDIS General Meeting will be held in Rome (TBC) on May-June, 2011.**

Please forward this information note to your colleagues. In case of further questions, please email to Maria Teresa Capria [mariateresa.capria@iasf-roma.inaf.it](mailto:mariateresa.capria@iasf-roma.inaf.it) and Gérard Chanteur [Gerard.chanteur@lpp.polytechnique.fr](mailto:Gerard.chanteur@lpp.polytechnique.fr).

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