EUROPLANET

European Planetology Network

Activity N7: IDIS
Integrated and Distributed Information Service

Activity Coordinators

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N7: IDIS

Objectives

• N7 IDIS is intended to design with, and for the planetary science community, a common and integrated access to the data and information produced by the various research activities

•N7 IDIS is presently focused around disciplines represented in the Cassini-Huygens mission, but its scope and structure has to be done in order to be later enlarged

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Objectives (2)

- Foster interoperability between data bases related to a given field: planetary interiors, surfaces, atmospheres, exospheres, interplanetary medium
- Offer a benchmarking facility for planetary simulations
- Foster interdisciplinary investigations: data analysis, models, observations

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Specificities of the activity

• IDIS will not duplicate existing services, but instead will propose an integration of existing services, and possibly propose new services following explicit needs

• IDIS will take advantage of present and past initiatives like *EGSO*, *SPASE* and the numerous *VO* projects:
- *EGSO*, European Grid of Solar Observations
- *SPASE, Space Plasmas Archives Search and Extract*

• For all espects related to databases IDIS will rely upon already existing systems like *NASA PDS* and *ESA PSA*, and on national archives or data bases

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Description: building blocks

IDIS is made of building blocks related to the other activities of EuroPlaNet;

1. Earth-based observations: ground & space telescopes, all spectral domains;
2. Space missions, remote and *in situ* observations;
3. Planetary models, physical concepts and numerical simulations;
4. Laboratory experiments: fundamental processes & experimental simulations;
5. Databases and information systems dedicated to given sub-fields;
6. Public outreach effort and educational products: including history of sciences

Building block example: Models

• Most models are dedicated to one or a few aspects of a planet for comparison with a given type of data, but no advantage is taken from other models:
- a thermospheric model for example can provide valuable boundary conditions to an ionospheric model and vice versa
- an exospheric model has to be coupled to an external plasma model to investigate the production of ENAs and the associated atmospheric sputtering

• IDIS could provide online access to simulated data with interface tools in order to present it in the same way the observations are presented

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Organisation

• IDIS has started a general consultation of the community through the release of a green paper and a questionary form.

• IDIS is relying upon an advisory group of experts designated by teams and laboratories members of EuroPlaNet

•A web page has been opened, both via direct access and via EPN home page including a forum

• Reports and discussions during annual general assemblies of EuroPlaNet

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Expected outcomes

- The Level 1 Requirements Document Draft 1 has to be delivered in 2006, Issue 1 end 2007.

- A demonstrator of IDIS is due for the termination of the present contract: it is presently thought as an embryo of a Virtual Planetary Observatory that could be our following project during the 7th Framework Programme if IDIS is successful

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IDIS

Web page