IDIS TECHNICAL MANAGEMENT PROPOSAL

Europlanet N2-N7 Meeting
MPS May 2-4, 2007

Walter Schmidt

FMI / Space Research Helsinki, Finland

International Web-Based Database Systems at FMI

Framework: The World Weather Watch

- Global Observing System (GOS)
- Global Data Processing System (GDPS)
- Global Telecommunication System (GTS)
- The Message Switching System (MSS)

Interest of FMI in Functional IDIS System

FMI is involved in nearly all Europlanet activities from the start

Web-based access services exist already for

- Meteorological data
- Aurora Online monitoring ***http://aurora.fmi.fi/public_service/*** **+ restricted service**
- Space weather influence on ground-installations **(restricted service)**
- Ionospheric data in Scandinavia ***http://www.ava.fmi.fi/MIRACLE/***
- Magnetic field data from Scandinavia ***http://www.space.fmi.fi/image/data.html***
- Planetary plasma environment modelling **(restricted service)**
- Planetary atmospheres (Titan, Mars) under construction

IDIS Technical Management Functions (1)

- **Management of the completion of the inventory of resources available to European Planetary scientists**

- **User Requirements from Science Cases**:

 - Collect and analyze N2 science cases, based on work done so far by the N7 group
 - Complete the generation of the IDIS User Requirements Document

Timeframe: input before May 2007, delivery December 2007

- **Coordinate development of design specifications of the Node Leading Institutes**

- Establish information exchange tools between thematic nodes
- Define preliminary design rules for inter-operability
- Organize a workshop between the Node Leading Institute representatives to develop node-related User Requirements
- Coordinate the development of node-related design specifications

Timeframe: Information exchange tools: May 2007, rest by end of 2008

IDIS Technical Management Functions (2)

- **Implementation of top-level Web-Interface**

- Define a preliminary data format for database-like queries
- Build a Web-interface allowing simple queries by keywords

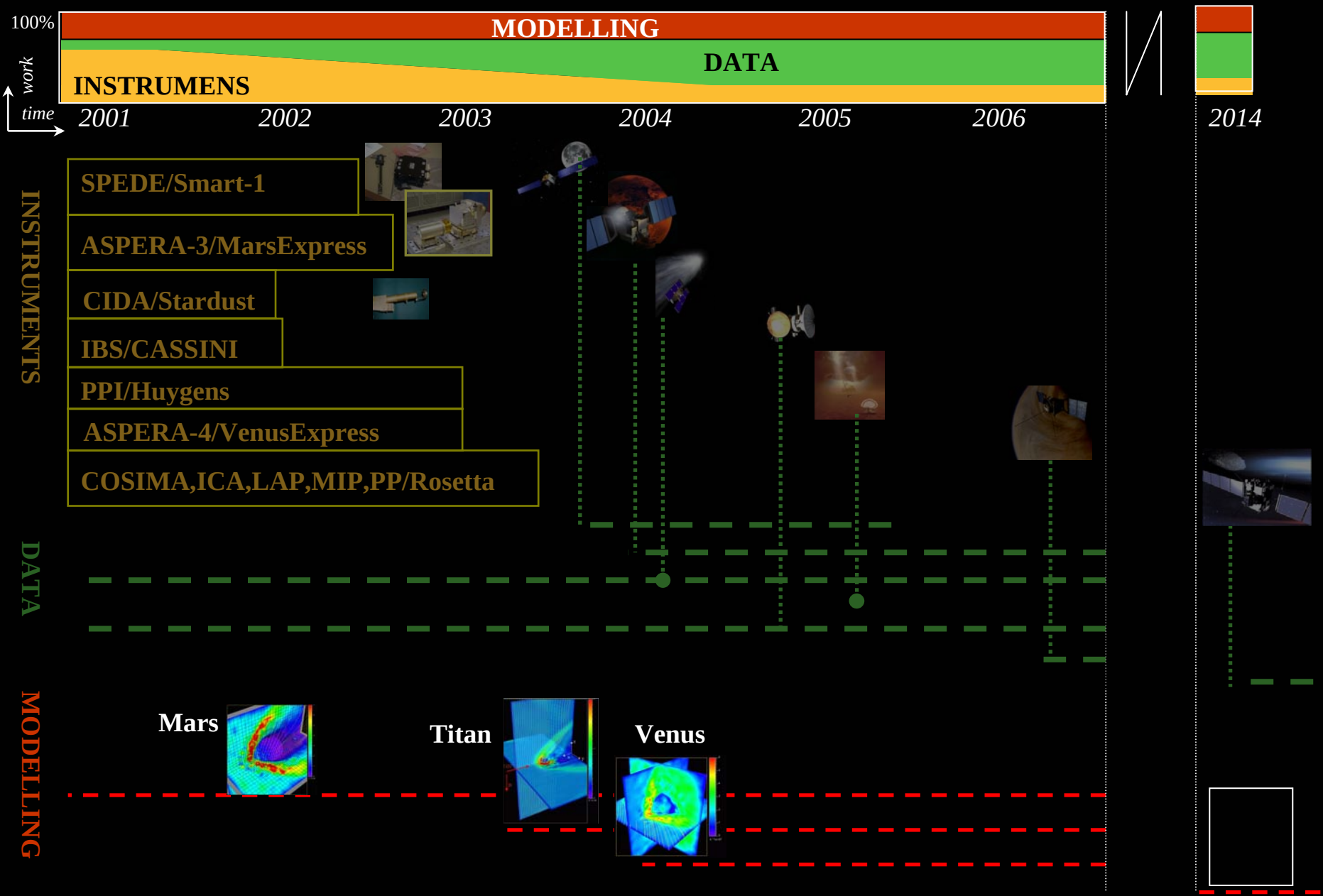
Timeframe: input before May 2007, done Nov 2007

- **Access control according to rules to be defined in the design specifications**

- public
- restricted to registered EPN users
- others (TBD)

- **Implementation of an operational Web-based top-level search**

- Subject / keyword related forwarding to relevant nodes for further search
- Multi-node keyword search according to node-related design specifications
- Generalized search tool with screened access to public search engines


100%
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MODELLING
DATA
INSTRUMENS
2001
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2006
2014
INSTRUMENTS
SPEDE/Smart-1
ASPERA-3/MarsExpress
CIDA/Stardust
IBS/CASSINI
PPI/Huygens
ASPERA-4/VenusExpress
COSIMA,ICA,LAP,MIP,PP/Rosetta
DATA
MODELLING
Mars
Titan
Venus

Thematic Node Atmospheres

- **Sample implementation of node-specific design specifications**
  - Laboratory addresses
  - Publications
  - Data availability

- **Links to resource providers according to related resource inventory**

- **Subject/keyword/time search tools**

- **Database access to Mars atmosphere simulation runs**
- **Database access to Mars atmospheric data (Viking Lander)**
- **Data access to Huygens Titan atmospheric data**
- **Link of this node into the top-level IDIS portal**

Timeframe: October 2007 – January 2008 : First demo version, fully operational in 2008

Resources Technical Management Function

- Task: Technical Management of IDIS, implementation of topnode
- Personnel: 1.5 man years until end of 2008 (30 kEUR)
  - Technical manager: Walter Schmidt (30%)
  - System engineer: Jouni Rynö (30%)
  - Programming support: FMI software development group (1 programmer) (40%)
- Travel costs for node coordination meetings billed directly to N7

- Infrastructure for top-level node and thematic node implementation will be covered by FMI

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Resources Science Node Atmospheres

- Task: Implementation of Thematic Science Node for Planetary Atmospheres
- Personnel: 2 man years until end of 2008 (25 kEUR)
- Technical manager: Walter Schmidt
- System engineer, responsible for implementation: Jouni Rynö
- Programming support: FMI software development group (1 programmer)
- Science advisor : Dr Teemu Mäkinen, Small bodies, planetary atmospheres
- Science advisor : Dr Ari-Matti Harri, planetary atmospheres and missions

- Travel costs included in offer

- Infrastructure for top-level node and thematic node implementation will be covered by FMI

Open Questions

- Should the technical management function establish the top-node or do only administrative work?
- How and where should the current systems be integrated?
- How to ensure that in 10 months IDIS is operational at least as a demo version?