Planetary VO:
context and project

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Contexte national

Atelier OV planéto 2009

4 premières éditions : tour d'horizon des projets nationaux

- Pour l'essentiel des bases de données avec interface web
  => pas d'interopérabilité
- Parfois de gros projets, liés à des missions ou des grands programmes

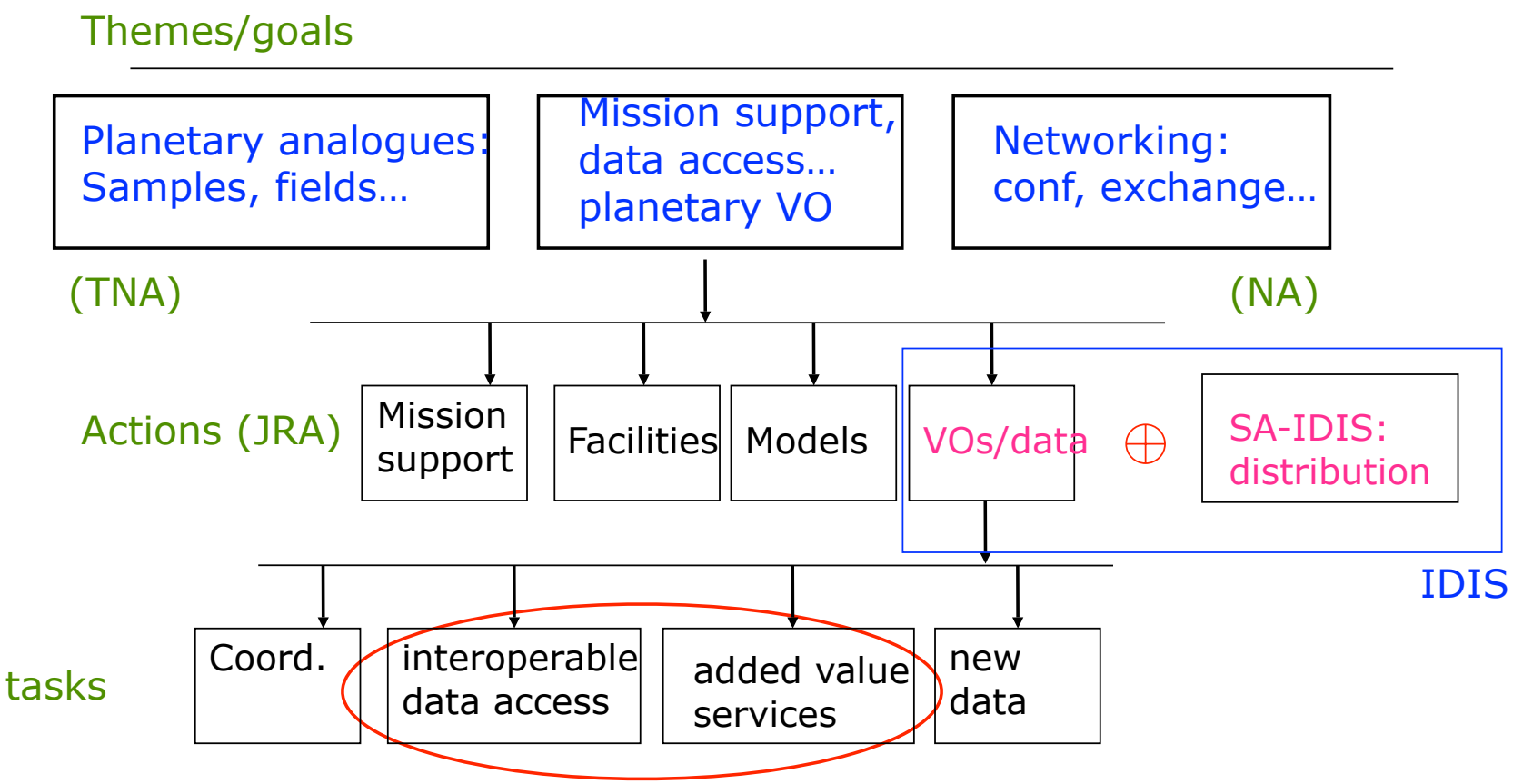
Conclusion

Atelier OV planéto 2010 :

- explicitement dans le cadre Europlanet
- avec une orientation vers le développement des standards
- contributions des fournisseurs de données et utilisateurs potentiels

Les documents seront ensuite proposés comme 1re version des standards Europlanet (General IDIS meeting, fév. 2011)

VO-Paris + Europlanet-RI



IDIS, activité de service :
- Distribution des bdd développées dans le programme

JRA44, activité de développement :
- Mis en place des bases d'un OV planétologie européen

2009-10, VO-Paris: Functional analysis of IDIS' VO project

Open items addressed in this study:

- Perimeter of data to be accessed
    + Physical access to the data?

- Mechanisms:
    Data Access Layer / Access protocol
    Data Model
    Metadata exchange format
    Registries
    + VO visualization tools: which ones? Interface requirements?

2009-10, VO-Paris: Functional analysis of IDIS' VO project

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EuroPlaNet objectives:

- Improve support to planetary space missions
- Set the basis of European planetary science VO

=> *requirement to provide access to PSA (at least)*

+ requirement to provide access to data bases produced by EuroPlaNet activities

+ open, contributive system

2009-10, VO-Paris: Functional analysis of IDIS' VO project

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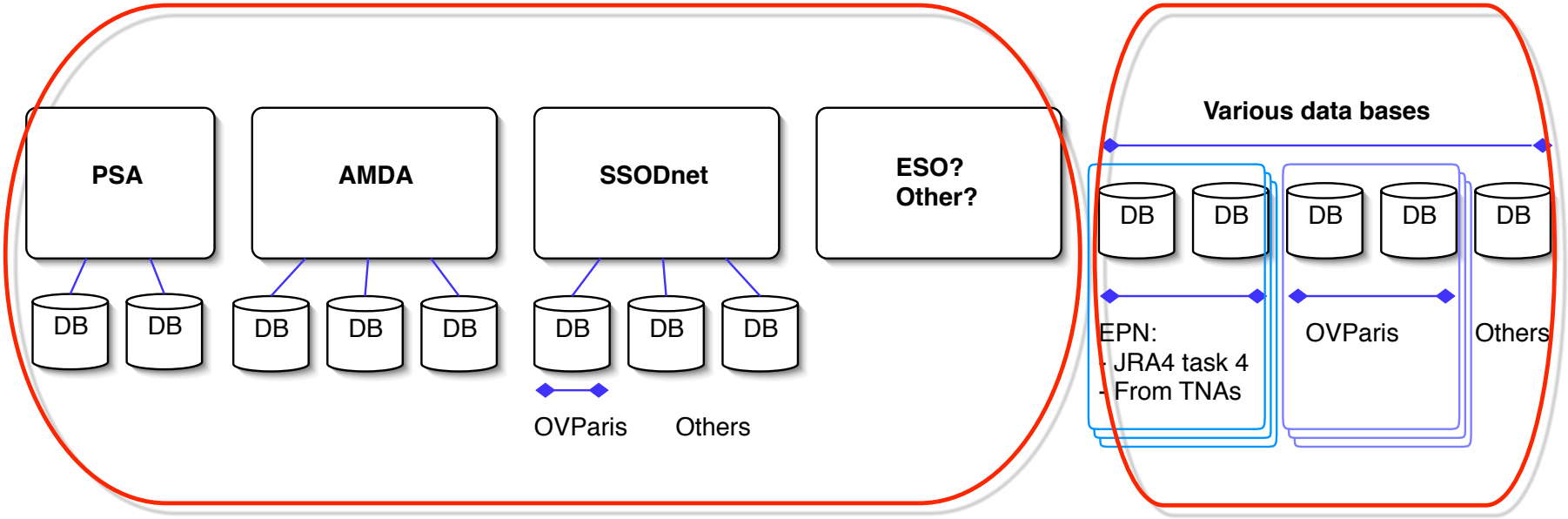
Existing / natural solutions:
IVOA system
e.g. visualization tools: Aladin, VOSpec, TopCat…
PDAP protocol (IPDA)

1- Scope of IDIS-VO project

Data to be included/accessible in EuroPlaNet IDIS



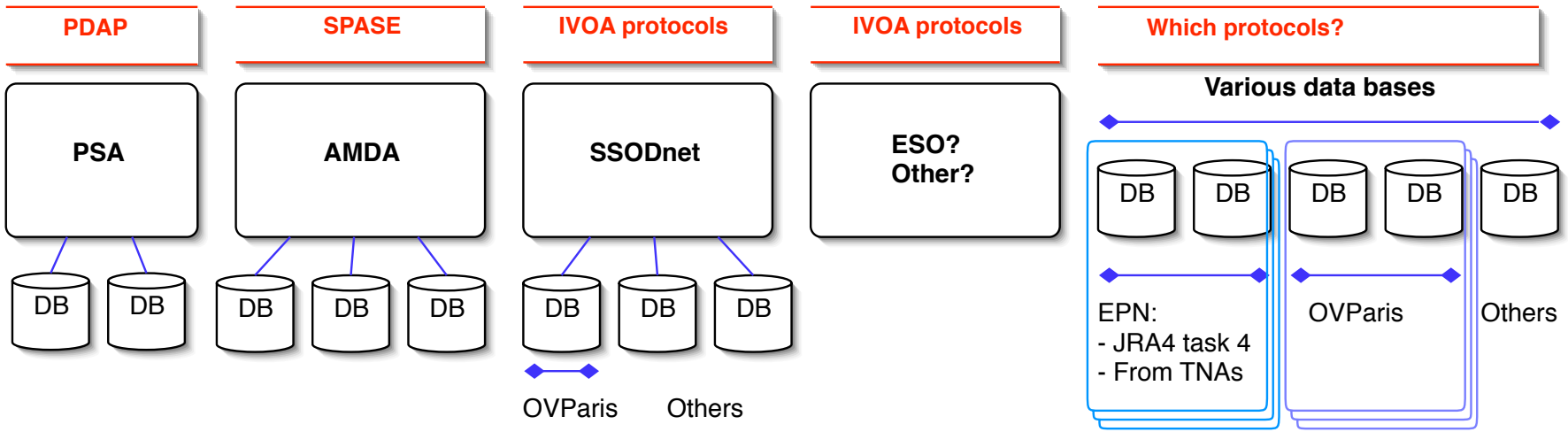
Big data repositories

Individual data bases
+ collections related to EPN

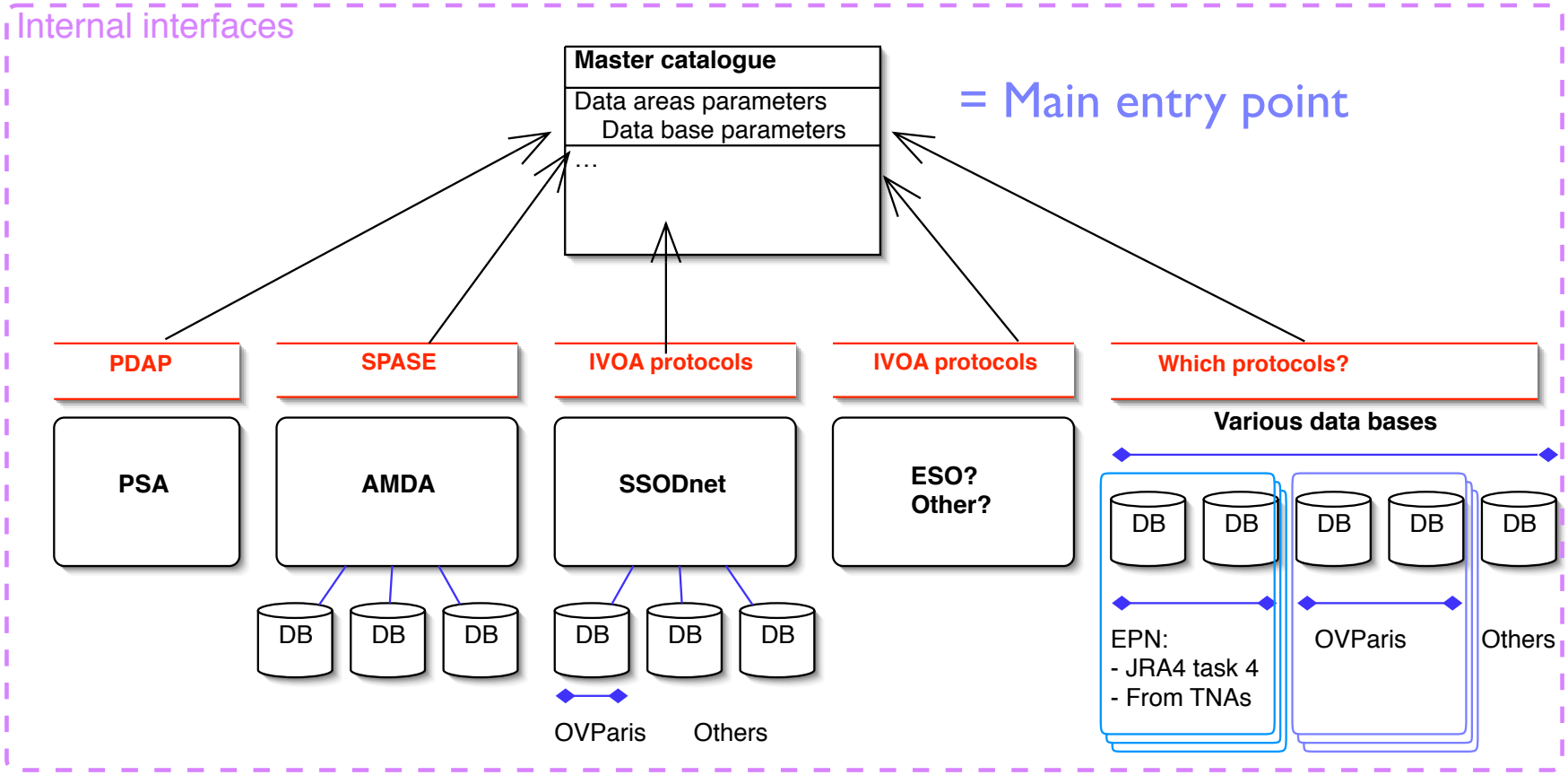
2- Individual data access layers

Mechanisms to access the data products
=> IDIS will have to deal with those

Define IDIS standard?



3- Interfaces / catalogue



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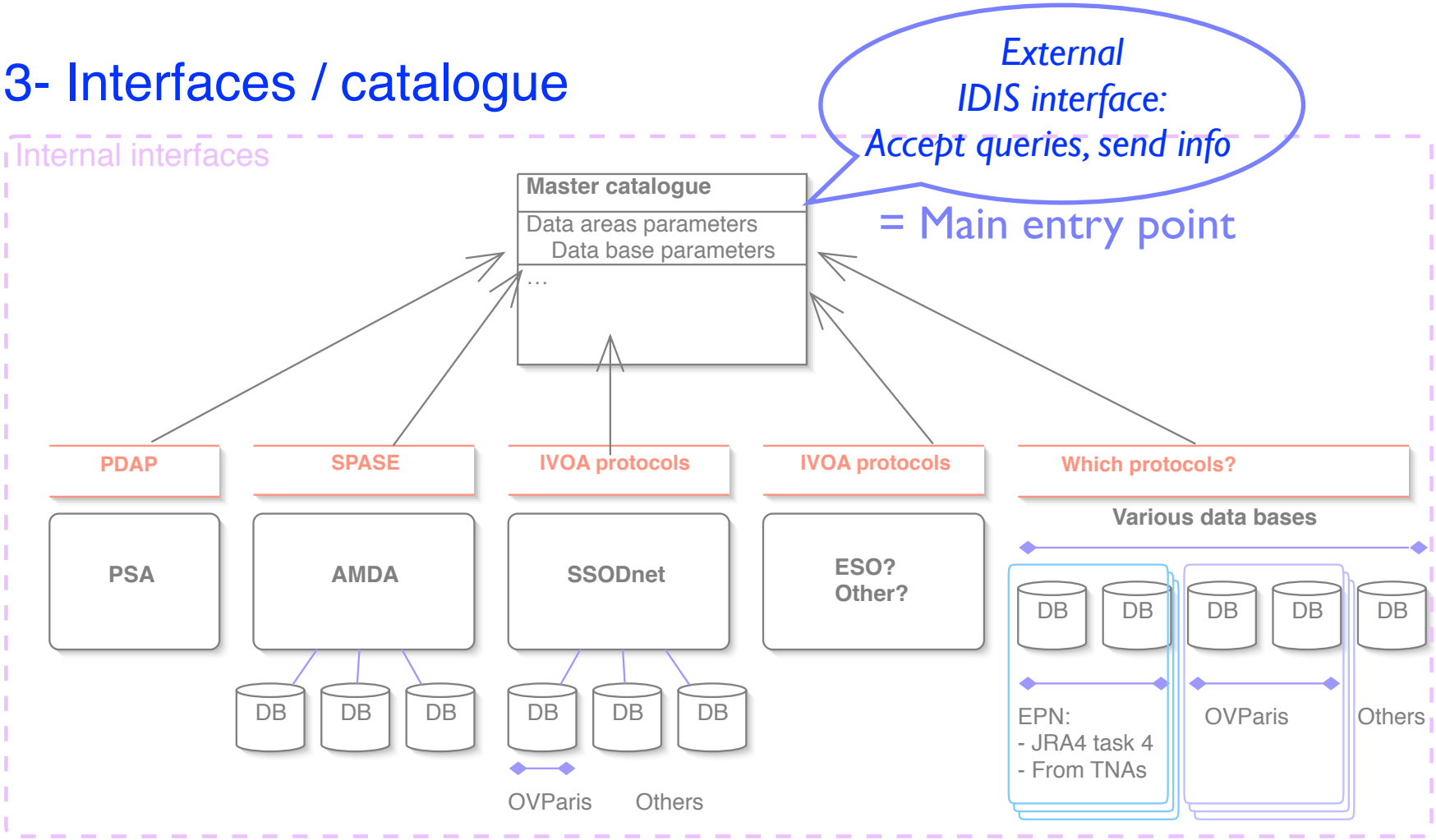


4- PDAP-related Data Model

Defines all possible parameters describing data in the planetary VO

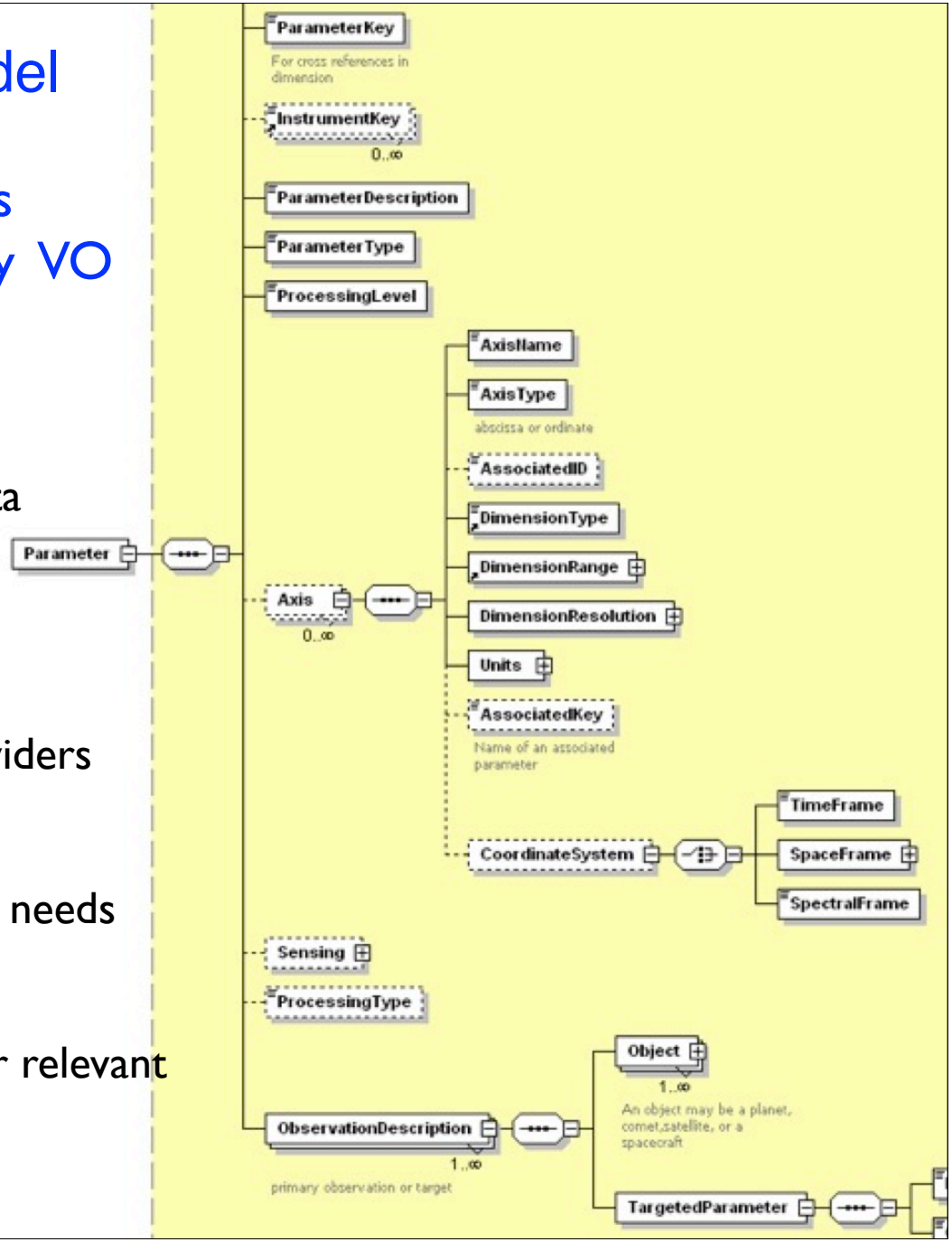
- Currently defined for plasma data only (with CDPP)

- Should be interfaced with PDAP

- To be used by external data providers to integrate their data in IDIS

- Built from PDS/PDAP dictionary, needs extensions.

- Stick to IAU standards whenever relevant



To be developed / discussed today

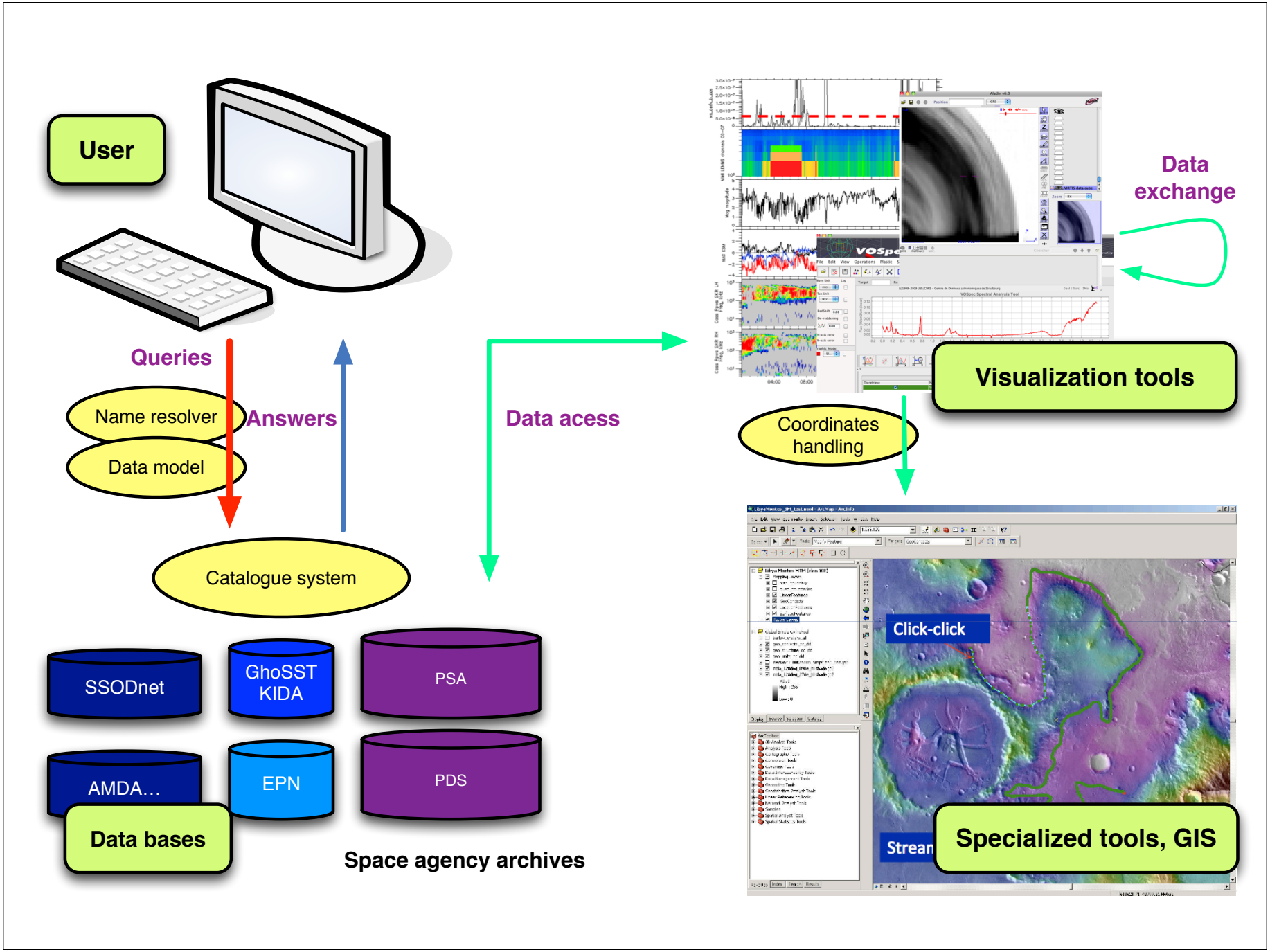
- Global architecture
  => "Proposed architecture for EPN-IDIS VO"

- Data Access Layer (access protocol)
  - TAP (IVOA std)
  - PDAP (IPDA + IDIS assessment)
  => "Proposed extensions for PDAP for planetary science"

- Registry / catalogue?

- Data model for Planetary Science?
  => "Proposed DM for EPN-IDIS"

  - Start from current IDIS drafts
  - Include data providers/users requirements & wishes
  - Indicate science priorities
  - To be submitted to IDIS General Meeting (Feb 2011)


User
Queries
Answers
Name resolver
Data model
Catalogue system
Data acess
SSODnet
GhoSST
KIDA
PSA
AMDA…
EPN
PDS
Data bases
Space agency archives
Data
exchange
Visualization tools
Coordinates
handling
Click-click
Specialized tools, GIS