

# Concluding remarks

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- Insight on the evolution from pathfinders to ESFRIs (from experiments to observatories) – data/alerts getting public, a cultural evolution for the astroparticle community
- A good view of how Research Infrastructures can make use of the VO – DADI has an impact
- Not reinvent the wheel
- Confirmation that VO used for interoperability (data discovery/distribution) but also provides components for off line/on line data management/pipelines (ESO, CTA)
- Progression towards projects are becoming actors of the VO
  - Key aspect for the future – at least being an active user
- Other data providers also interface progressively with the VO
- Useful to be more inclusive in these forums

- Possible synergies CTA/KM3Net were conspicuous
- Provenance, but not only
- Strong incentive to organise a specific meeting or specific focused meetings
  
- More generally useful to share information on how things are done

- Time domain useful for many
- Provenance useful for many
  - To conceptualise as early as possible when conceptualizing pipelines
- Data cubes incl. spectra are useful for many (radio, optical astronomy)
- Visibility important as pathfinder for SKA
- Fields of View for discovery – ObsCore?
- Formats? HDF5

- ESFRIs/data producers use VO standards and libraries and VO enabled tools and services
- Long list of standards used
- Feedback from implementation essential – please ask questions and report issues
  
- Importance of providing help to users
  - Templates to use advanced methods
  - ESO Community Forum
  - Also to understand data itself (ASTRON portal talk)
  
- Tools to explore data
  - Can be made interoperable

- WP3/WP4
- « Cross-disciplinary » aspects
  - Astronomy/astroparticle common endeavours at the core of DADI
  - EST: the way EST can make use of the VO has to be explored
    - It would be useful to organise a meeting before the end of ASTERICS but calendar problem on EST side to include all the relevant teams beyond KIS? – **try to make it happen**
    - Should include people from planetary sciences/EuroPlaNet involved on VO
    - Interest in time domain in particular
    - The way planetary sciences interact with the VO is a possible model
      - Specific Interest Group
      - Active participation in relevant Working Groups
  - VAMDC
- Python more and more ubiquitous
- Useful to have a look at RDA Recommendations
- Move processing to data
- Software sharing framework

- Data publication tools but also VizieR for dissemination/curation
- Many data publication tools. Need to make informed choice but how to inform potential users?
- Publication in registry not easy and not so well documented
  - There is a page. Talk to Markus D
- A&A widely used / Federated Identity Management – a meeting to exchange on how to? (cf CTA talk on implementation of many methods)
  - Yes for a meeting
- Data set/DOIs
  - Exchange on practices
    - IVOA Data Curation & Preservation IG – deal with it at next meeting and see if additional action is useful. Adass BoF
    - Specific meeting?

# Only 10 months left in ASTERICS

Priorities linked to ASTERICS/DADI high level goals

- Complete Provenance as an IVOA Recommendation (next IVOA)
- Time Domain Data Model
- Support CTA-KM3Net synergies