

Metadata for describing High Energy Physics data

Summary of preliminary exploration in 2012-2015 with
LUTH Paris, LUPM Montpellier, CTA Grenoble, CTA-CEA Paris, etc ..

□ People involved

- Claudia Lavalley, LUPM Montpellier
- Catherine Boisson, LUTH, Paris Meudon
- CTA members (Grenoble, Madrid)
- François Bonnarel, Mireille Louys, CDS

- Karl Kosack, Bruno Kehlifi, CEA
- Mathieu Servillat
- Michèle Sanguillon, Johan Brejon, LUPM Montpellier

□ Initial work description

This work was initiated by Catherine Boisson (LUTH)

At the time IVOA was finalizing the ObsCore data model :
a set of description metadata to **discover** and **retrieve**
observational data for **multi-wavelength** analysis.

- **Development thread:**

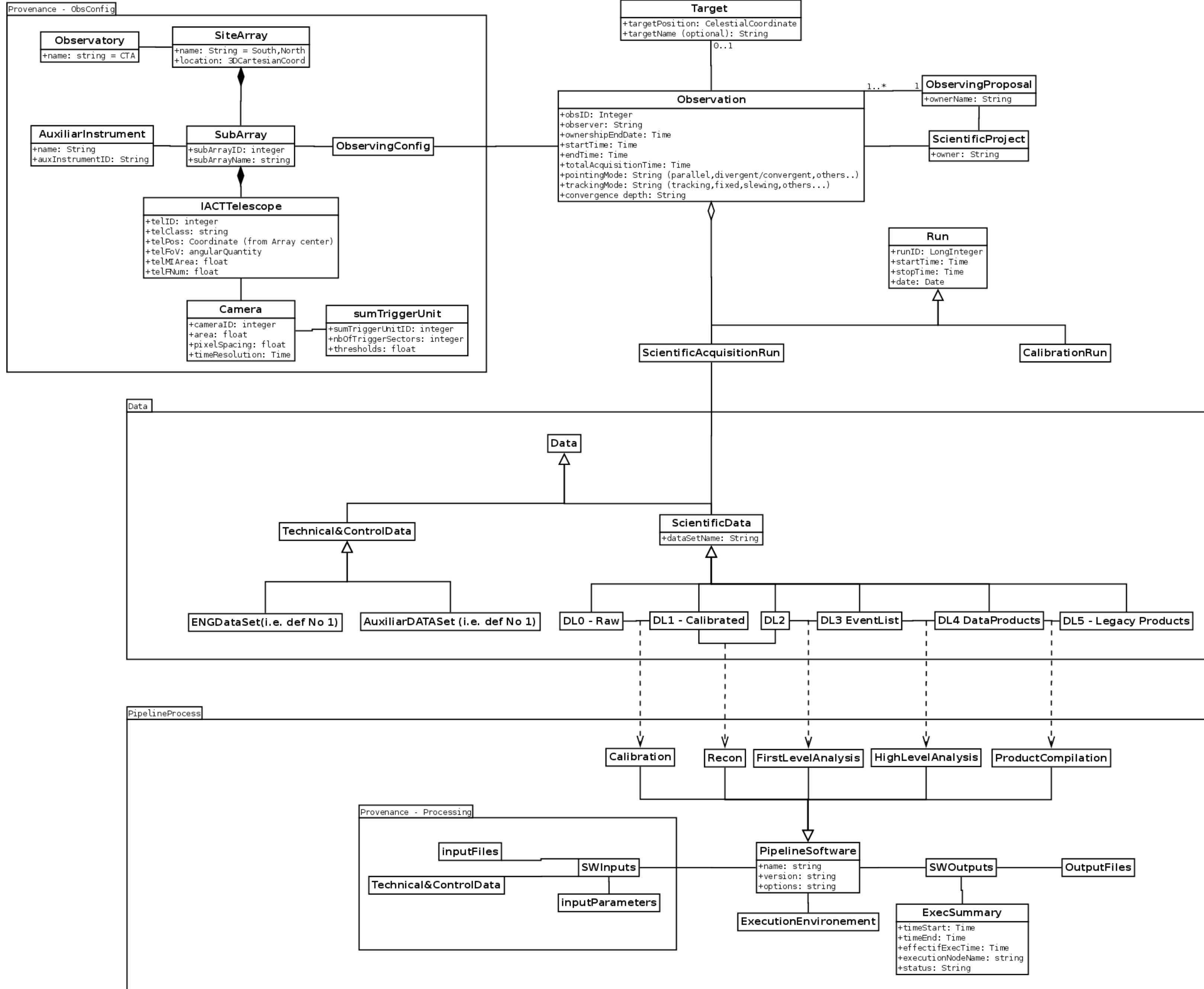
Describe use-cases on the analysis side and categorize data to answer the question :

Which HEP data to expose in the IVOA for multi-wavelength analysis?

- Understand the signal acquisition chain
- Identify data products and their dependencies
- Explore existing metadata descriptions to map to ObsCore metadata
- Identify data descriptions uncovered by IVOA data models at the time
—> proposition for updates

OBSERVATION CONFIGURATION

23/09/2013



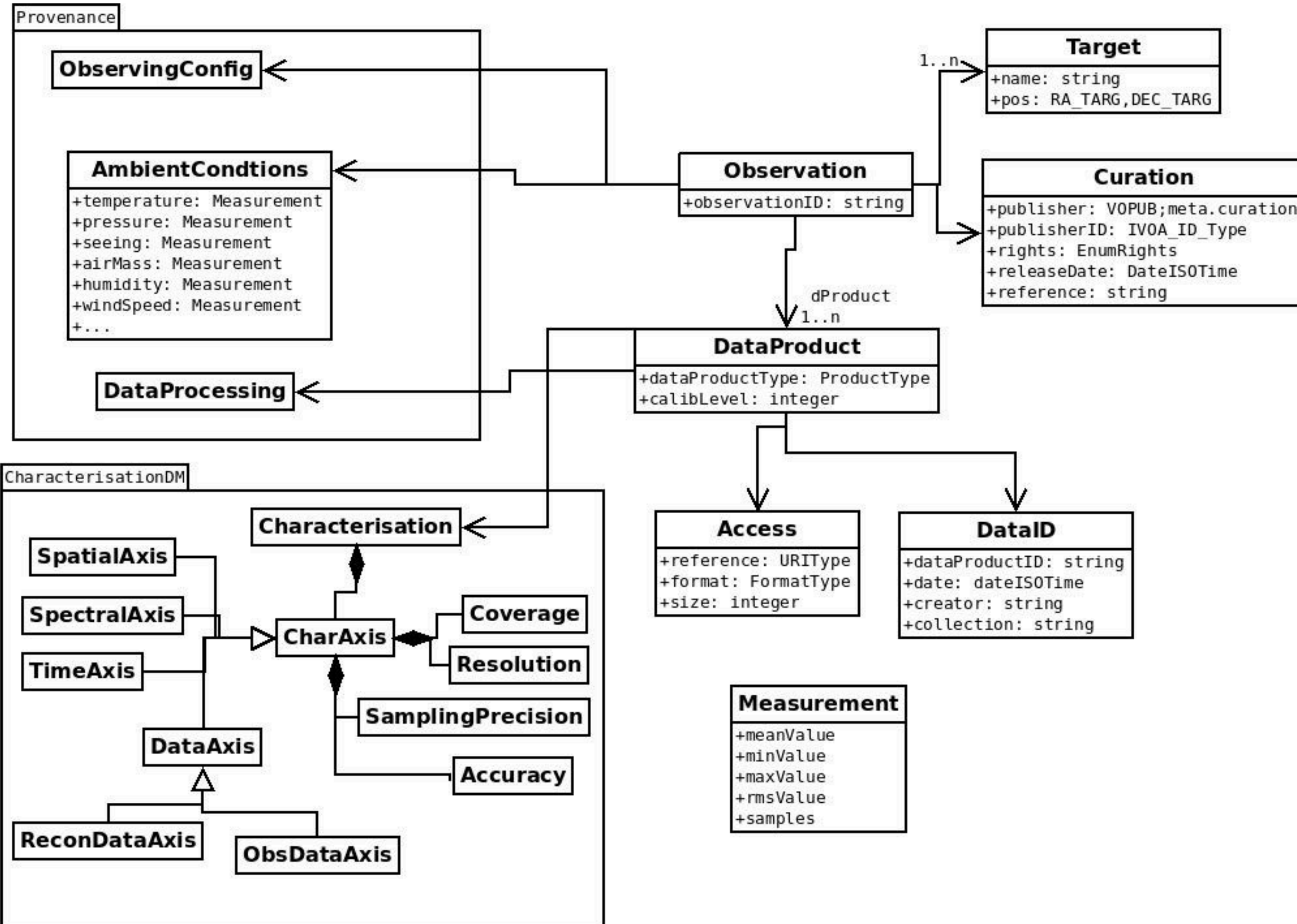
□ Meetings

Brainstorming meetings

- Montpellier Janv 2013 with CTA partners
- Paris Jul 2013 with K. Kosack and B. Khelifi, CEA
- @ivoa interop meetings : starting Provenance DM effort

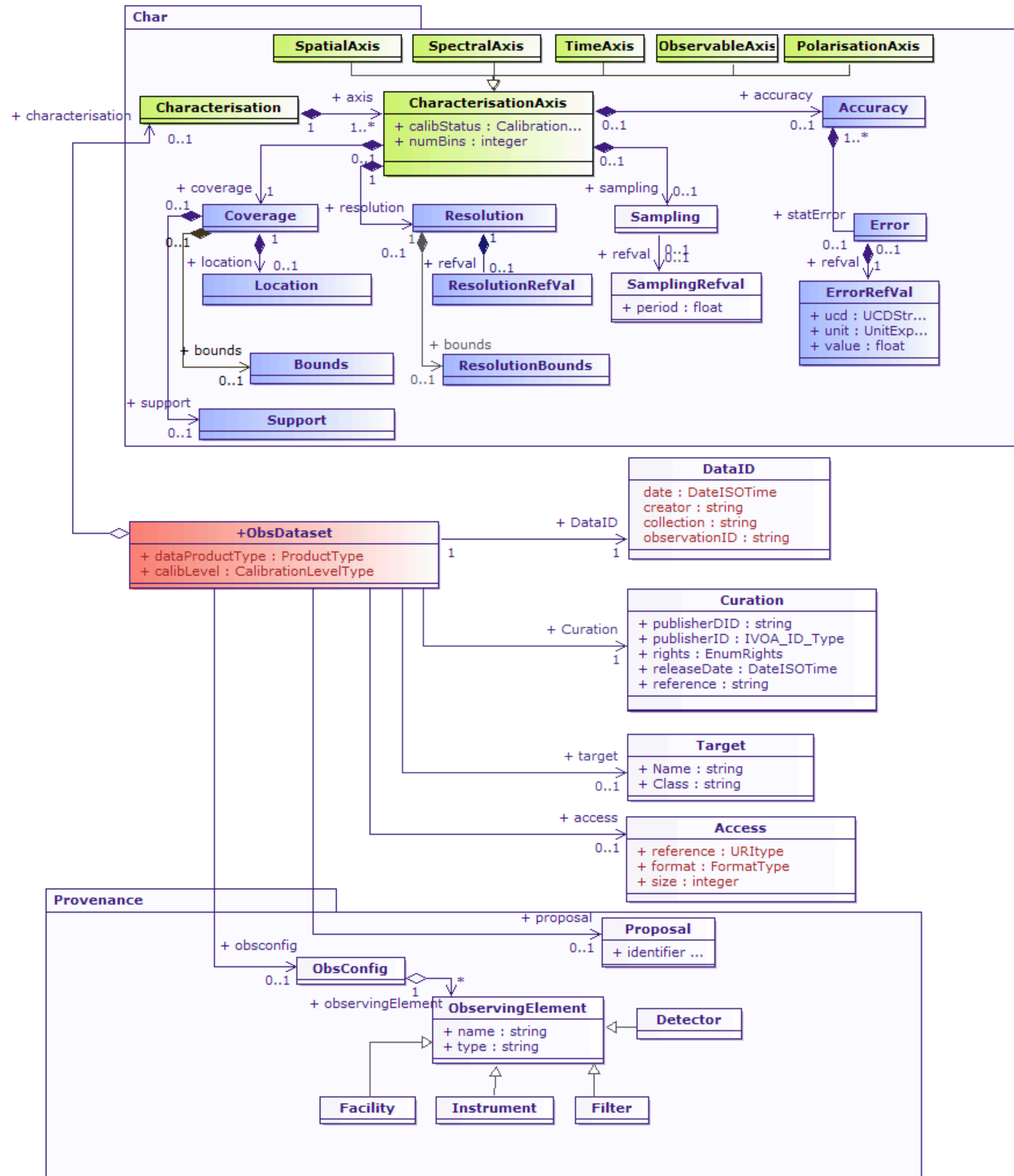
Results, summary presentation

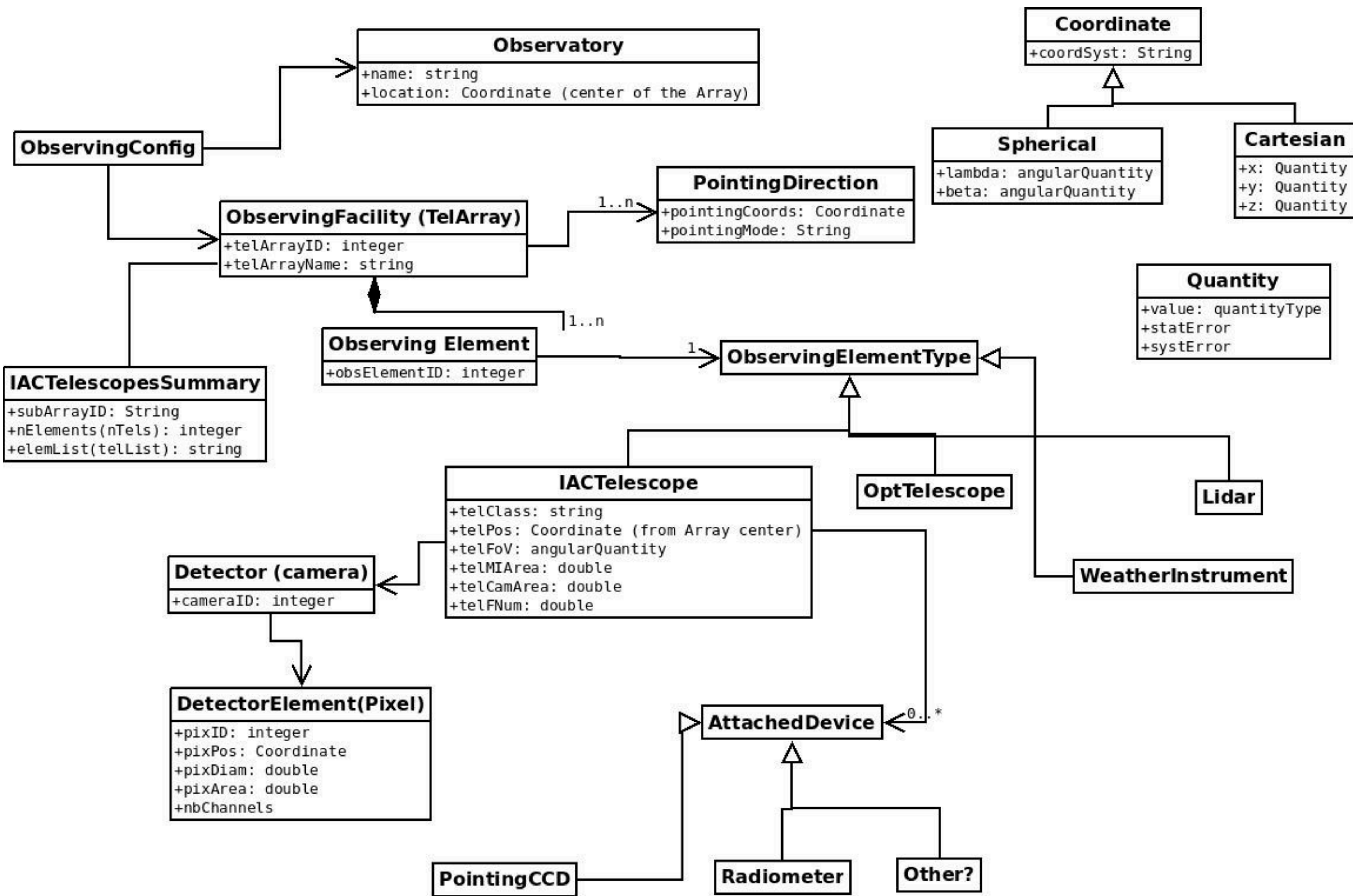
- at various IVOA interoperability meetings
- Cosadie : Euro-VO Astronomical Data Center Forum: June, 10-11, 2013 [prog](#)
see Catherine Boisson's talk [here](#)
- more recently : workshop @Luth Meudon , July 2021



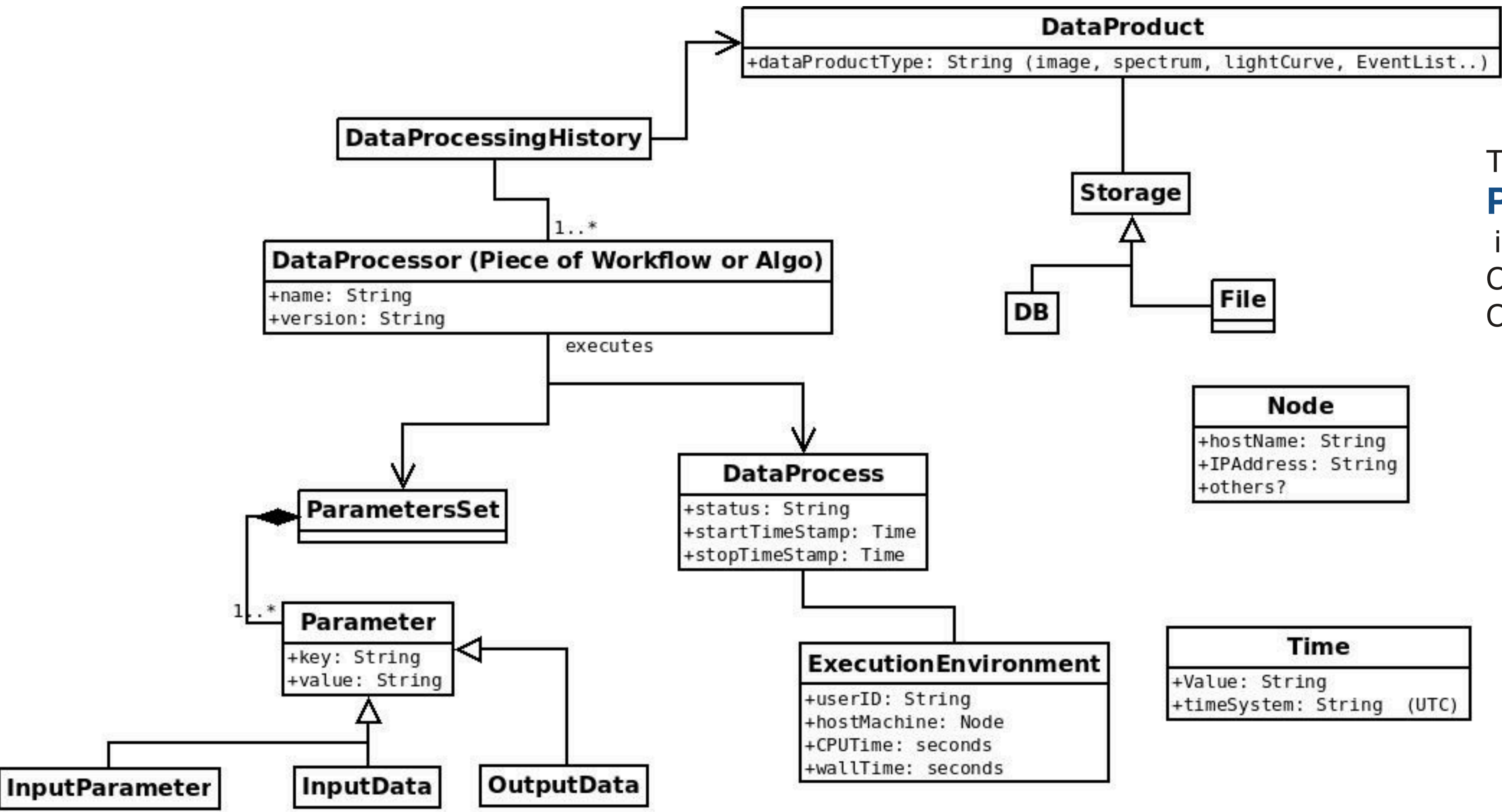
Towards a CTA IVOA Data Model...
(1 : **A global view**).
in Catherine Boisson ,
COSADIE, Astronomical Data
Center Forum

ObsCore data model

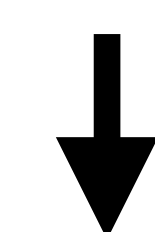




Towards a CTA IVOA Data Model...
Observing Configuration
 in Catherine Boisson ,
 COSADIE, Astronomical Data
 Center Forum



Towards a CTA IVOA Data Model...
Processing
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 Center Forum



**IVOA ProvDM
 &
 Workflow**

□ Conclusion

- We can see this path as a way to build a **distribution model** towards the IVOA ecosystem
- It has commonalities with the CTA project model for final data products
 - data products distributed via Obscore can be represented via model extension
- Implementation of an ObsCore based version for HESS data
—> see M.Servillat next presentation