# Semantics summary

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*IVOA interoperability meeting*

*Victoria 2010 may 21*
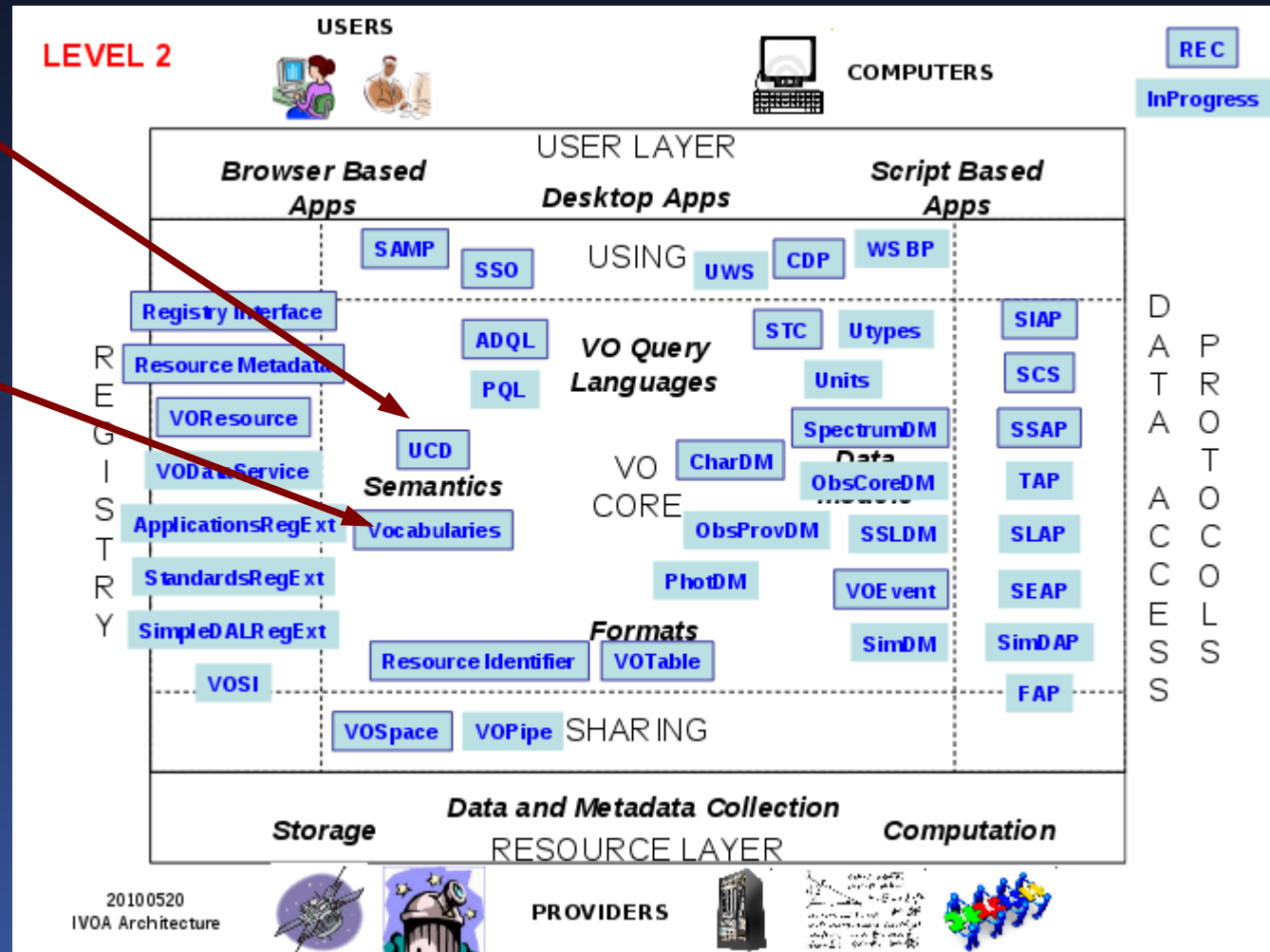
# VO Architecture



Image © 2010 DigitalGlobe
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# Semantics standards

- UCD
  - method
  - words
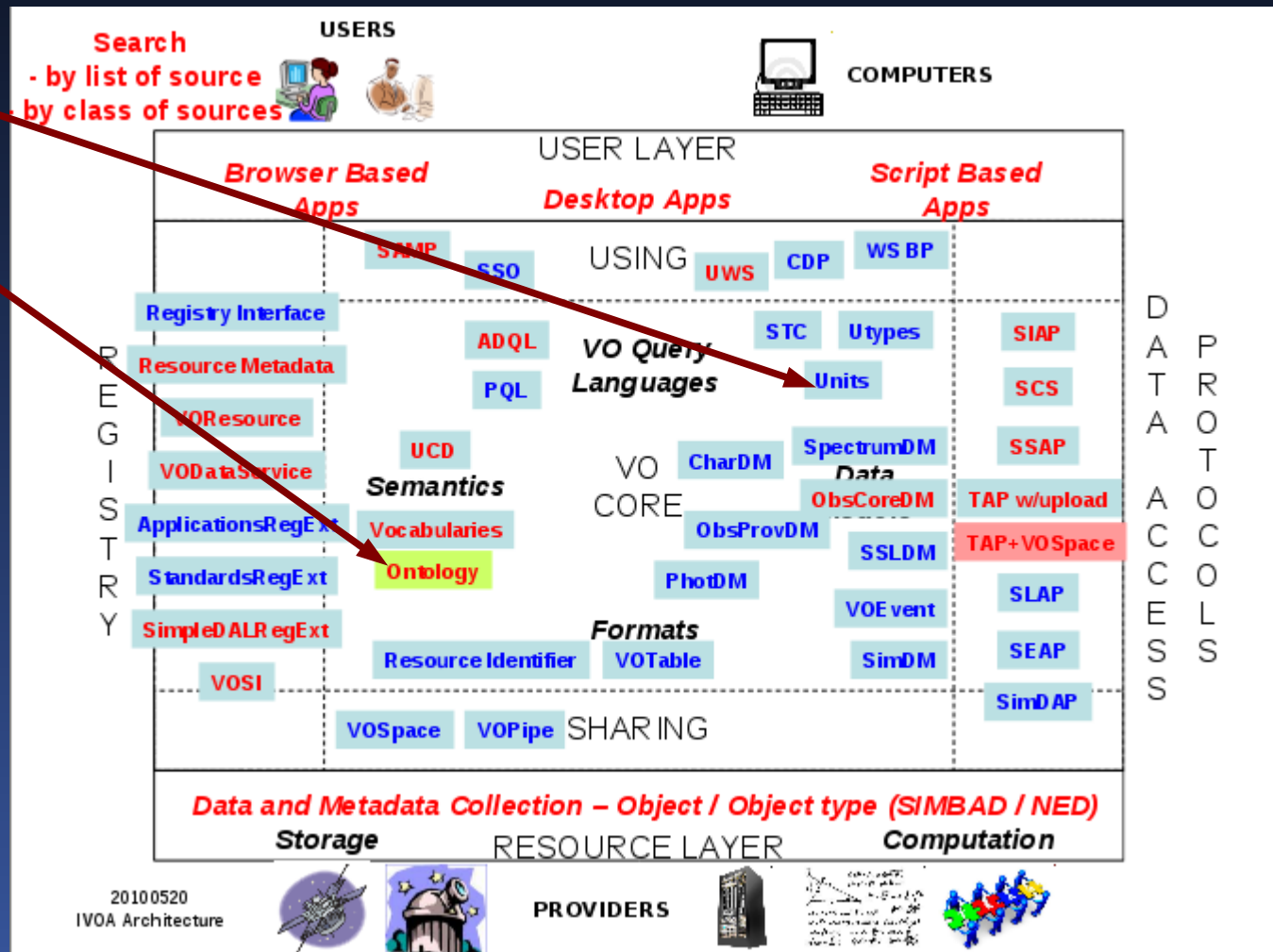- Vocabularies

# Existing standards: Vocabularies

- Use in other WGs
  - use/extend existing vocabularies
  - issues in discovering, accessing, browsing vocabularies
  - define precisely the use cases !
- Need for
  - cookbooks, examples
  - list of use cases
  - vocabulary repository with versioning

# Existing standards: UCDs

- Updated list of words : WD → PR → REC
- Wiki page with UCD tips

# New standards

- Units
- Ontology

# Units

- Core IVOA component

- Contribution from Semantics WG to DM

# Ontology standard

- Identified as core IVOA component for scientific use case : queries by source class
- Ontology of astronomical object types
  - IVOA Note by INAF&CDS
- What gets standardized ?
  - Maintenance & frequent updates ? (cf Gene ontology)
  - Adopt same approach as UCDs : REC describing process and have the ontology itself as a separate document

# Semantic applications

- Build simple tools or libraries
  - simple reuse in the VO
- Examples :
  - suggest from vocabulary
  - query rewriting with hierarchy

# Advanced semantics

- Semantic annotations in HTML pages : RDFa
- Semantics for KDD
- ...

# AstroInformatics2010

- AstroInformatics 30 years behind BioInformatics !

- June 19  = Astrosemantics