

# HMA for Science Kickoff Meeting

## EO Product Metadata evolution

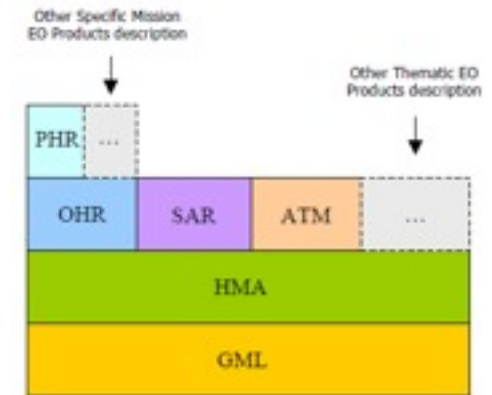
KO Meeting  
24 January 2013, ESRI Frascati

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- Evolve Earth Observation Metadata profile of Observations & Measurements Version 1.0 (OGC10-157r3)
  - On the basis of the ngEO design Phase results identify and collect EO Product metadata evolutions:
    - Assess the quality via quality tags
    - Allow re-grouping of data items
    - Manage product metadata differently according to the timeliness
    - Tailoring proposed for Sentinel-2 cloud mask handling
  - Collect possible other requirements
  - Deliverables:
    - Change requests
    - Updated specification document with updated model including ATS and updated schema's and examples
  
- Participate in the relevant standard working group submitting and getting approved the relevant implementation specification or best practice document.

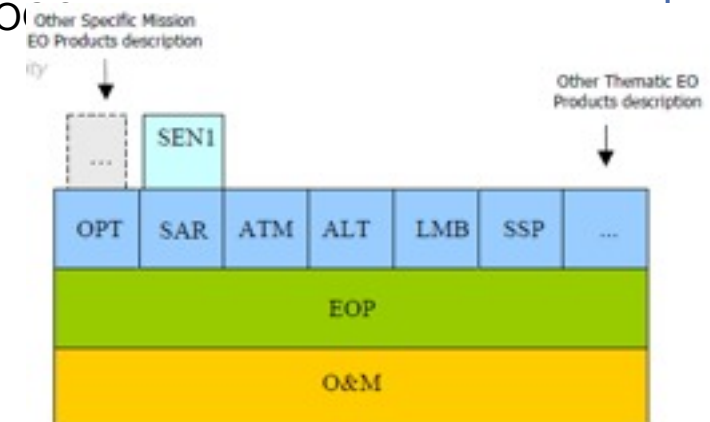
➤ OGC 06-080 (r1=> r5): GML Application Schema for EO Products

- Developed in the initial HMA projects
- Based on the gml:observation model
- Encoded in GML 3.1.1
- Manual derivation of schemas
- 3 Product types: OPT, SAR, ATM
- Best Practices status

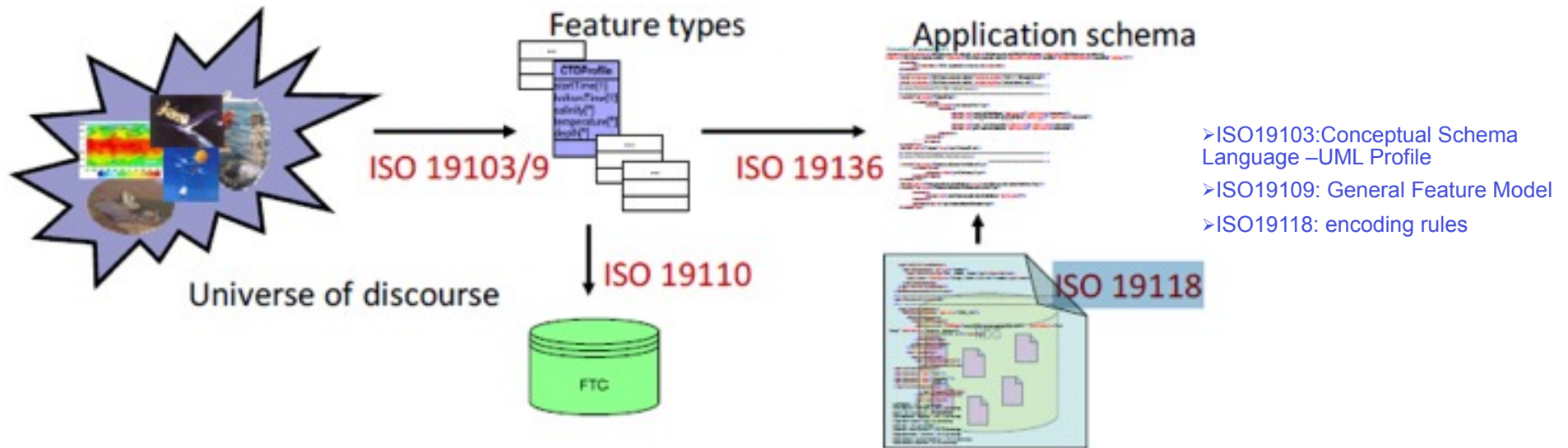


➤ OGC 10-157

- Developed within the HMA Follow On – Task 1 project
- Based on the Observations & Measurements Model (ISO19156/OGC AS Topic 20) and its XML implementation (O&M)
- Encoded in GML 3.2.1
- Derived using the model driven approach
- 6 product types: OPT, SAR, ATM, SSP, ALT, LMB
- Official Profile of O&M = Implementation Specification



- OGC10-157 was developed using Model Driven Approach (MDA)



- Develop UML in tool like Enterprise architect – “auto” generate schemas and documentation

- Identified evolution requirements in Annex B of SoW
  - Allow the expression of the quality of products in a qualitative (through tags) instead of quantitative (%) fashion by
    - addition of an optional imageQualityStatus element taking the values (degraded / normal) and an additional optional element imageQualityDegradationTag that can describe the type of degradation.
      - In addition the QUALITYDEGRADED value is to be removed from the enumeration for status
      - an extra optional element is to be provided that can hold an URL to an external quality report.
  - Introducing an optional productGroupId attribute
  - Allow different EO product metadata in view of the timeliness
  - Allow inline encoding of cloud masks
  - Potentially replace Image by Product in all element names: backwards compatibility issue

- Recuperating the final UML model (from the OGC SVN), integrate it with Enterprise Architect
  
- Collect, establish an inventory, analyse and consolidate the requirements for evolution of the EO O&M.
  - Based on the SoW
  - Others:
    - HMA AWG via forum
    - OGC Revision process

- OGC10-157 did follow the “fast track process with comments” and has now “standard” IS – Profile status
- No Standards Working Group currently existing
- Process foreseen by the TC Policies & Procedures for revision of standards :
  - Create official Change Request Proposals through OGC Portal
  - Form a SWG
    - Draft a Charter
    - Charter Members: GIM, ...
  - Perform the work
    - Note that only CRP may be treated – additional ones may be created
    - Treat the CRPs one by one
    - Vote in the SWG
    - Submitted to TC for consideration and potential adoption
      - Provide a revision notes doc or ppt
    - Vote of TC
    - Approval by PC

- To ESA
  - Input documents / contact person for discussing identified requirements ngEO/Sentinels/...