# Web Coverage Service (WCS) Standardisation Status

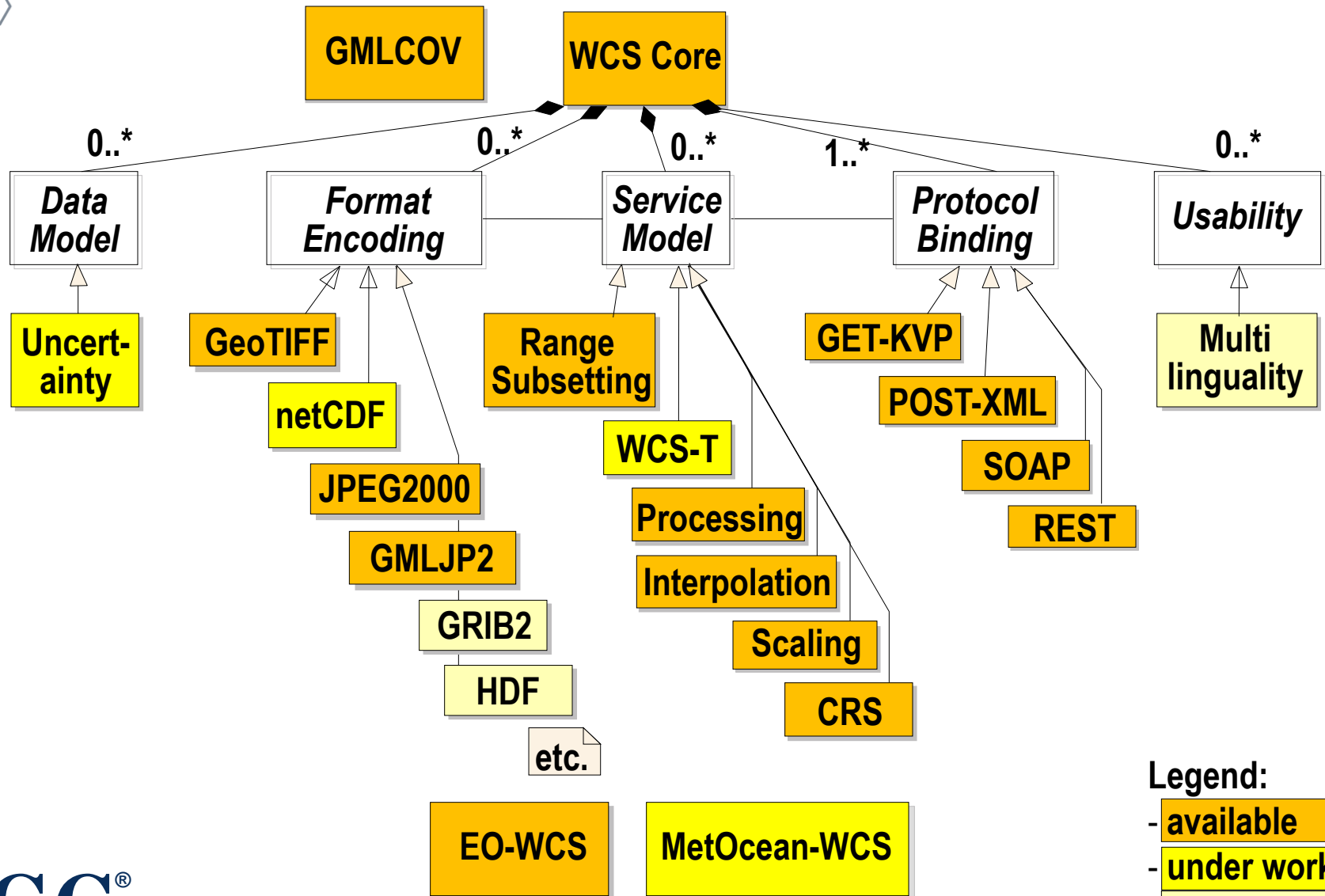HMA AWG Meeting

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January 23, 2013

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Making location count.

# Coverages in OGC

- Unified Coverage Data Model: aka „GMLCOV"
  GML 3.2.1 Application Schema Coverages, 1.0.1 [09-146r2]
  - Independent from WCS, can be served through SOS, WPS, too
  - Encoding in GML, GeoTIFF, NetCDF, JPEG2000, GMLJP2, ...
  - Concrete, interoperable definition
    (note: ISO 19123 is abstract → not interoperable per se!)

- Coverage Service Model:
  Web Coverage Service – Core, 2.0.1 [09-110r4]
  - Modular, simple, scalable from simple subsetting to ad-hoc processing
  - High-performance parallelizing implementations available

# WCS Core, Extensions, App'Profiles: Status



**GMLCOV**

**WCS Core**

0..*

0..*

0..*

1..*

0..*

*Data Model*

*Format Encoding*

*Service Model*

*Protocol Binding*

*Usability*

**Uncert- ainty**

**GeoTIFF**

**netCDF**

**JPEG2000**

**GMLJP2**

**GRIB2**

**HDF**

etc.

**Range Subsetting**

**WCS-T**

**Processing**

**Interpolation**

**Scaling**

**CRS**

**GET-KVP**

**POST-XML**

**SOAP**

**REST**

**Multi linguality**

**EO-WCS**

**MetOcean-WCS**

Legend:
- **available**
- **under work**
- **planned**

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| Document | Idea | SWG | OAB | SWG | RFC | SWG | OAB | Vote | Rel. |
|---|---|---|---|---|---|---|---|---|---|
| GMLCOV 1.0.1 | green | green | green | green | green | green | green | green | green |
| Core 2.0.1 | green | green | green | green | green | green | green | green | green |
| KVP Extension 1.0.0 | green | green | green | green | green | green | green | green | green |
| KVP Extension 1.0.1 | green | green | green | green | green | green | green | green | red |
| XML/POST Extension 1.0.0 | green | green | green | green | green | green | green | green | green |
| XML/SOAP Extension 1.0.0 | green | green | green | green | green | green | green | green | green |
| GMLCOV GeoTIFF Extension | green | green | green | green | green | yellow | | | |
| WCS GeoTIFF Extension | green | green | green | green | green | yellow | | | |
| EO-WCS | green | green | green | green | green | yellow | | | |
| GMLCOV JPEG2000 Extension | green | green | green | yellow | | | | | |
| CRS Extension | green | green | orange | | | | | | |
| Range Subsetting Extension | green | green | yellow | | | | | | |
| NTS for CRS Best Practice | green | green | gray | gray | gray | gray | green | red | |
| Scaling Extension | green | green | yellow | | | | | | |
| Interpolation Extension | green | green | yellow | | | | | | |
| Processing Extension | green | green | yellow | | | | | | |
| RESTful Extension | green | yellow | | | | | | | |
| WCS JPEG2000 Extension | green | yellow | | | | | | | |
| GMLCOV/WCS NetCDF Extensions | green | yellow | | | | | | | |
| MetOcean-WCS | green | yellow | | | | | | | |
| WCS-T Extension | green | yellow | | | | | | | |
| Masking Extension | green | yellow | | | | | | | |
| XML/POST Extension 1.0.1 | green | yellow | | | | | | | |
| Uncertainty Extension (GMLCOV-U) | green | yellow | | | | | | | |
| XMP/SOAP Extension 1.0.1 | yellow | | | | | | | | |
| GMLCOV/WCS GRIB2 Extensions | yellow | | | | | | | | |
| GMLCOV/WCS HDF Extensions | yellow | | | | | | | | |
| Multilinguality Extension | yellow | | | | | | | | |
| JSON Encoding Extension | yellow | | | | | | | | |

# CITE Testing Status

ATSs:

- Done:
  - Range subsetting
  - Scaling
  - Interpolation
  - CRS
  - Processing
  - GeoTIFF
- Started:
  - JPEG2000
  - NetCDF

**ETSs (available in new TEAM Engine v4):**

  - **GMLCOV Corrigendum**
  - **WCS Core Corrigendum**
  - **WCS CRS Extension**
  - **EO-WCS**

- **5+ known open-source implementations of WCS**
  - **Branding can start**

**cf. OWS-9 WCS CITE Engineering Report [12-162r1]**

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