

CDMS Specifications

Time-series climate data

Climate metadata

Observations metadata

Station identifier	Station overview	Location
		Sensor
Station status	Station type	Network
Data processing	Local environment	Data transmission

Data provenance

What was changed?	What was done to change it?	Who did they act on behalf of?
When was it changed?	Who / what Changed it?	
What was it derived from?	How / why was it changed?	Who was responsible?

Dataset discovery metadata

Dataset identifier	Dataset overview	Dataset data quality
Distribution	Access constraints	
Dataset maintenance	Spatial representation	Reference systems

Observations data

Climate observations

Atmospheric	Terrestrial	Oceanic
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Logical data models

Climate database

Data dictionary

Foundation standards

Observations and measurements

WMO logical data models

METCE	Climate observations application schema
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WMO standard products

Observation data products

Routine messages	Climatological standard normals	World Weather Records
CLIMAT	Aeronautical climatology	Other

Climate change indices

Core indices
Other indices

Derived climate data

Derived observation data

Homogenized data	Computed
Normals and averages	Other

Gridded spatial distribution

Analysed data
Other

Numerical models

Numerical models

Ancillary data

Spatial

Topography	Impacts data	Administrative	Agricultural	Other
		Health	Environmental	Emergency management

Climate documentation

Documentation	
Various media	Published reports

Climate software

Source code	Testing
Package management	Environment configuration

Required

Recommended

Optional

Revision 4.3 20 May 2014
Bruce Bannerman
Denis Stuber

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Required – Recommended - Optional

- To ensure alignment with WMO Documents : Technical Regulations, Manuals, Guides, Guidelines...
- To push toward standards : WMO, ISO and OGC standards
- To push for the use of common data and services e.g. Reanalysis
- To push for modern tools or functions e.g. Geographic Information System, computed gridded data, etc.

To decide on a definition on “Required – Recommended – Optional “ to help us in deciding on the choices between them. E.g. is “Provenance” required ? Is Reanalysis be used for data control and analysis in CDMS?

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Metadata Observation

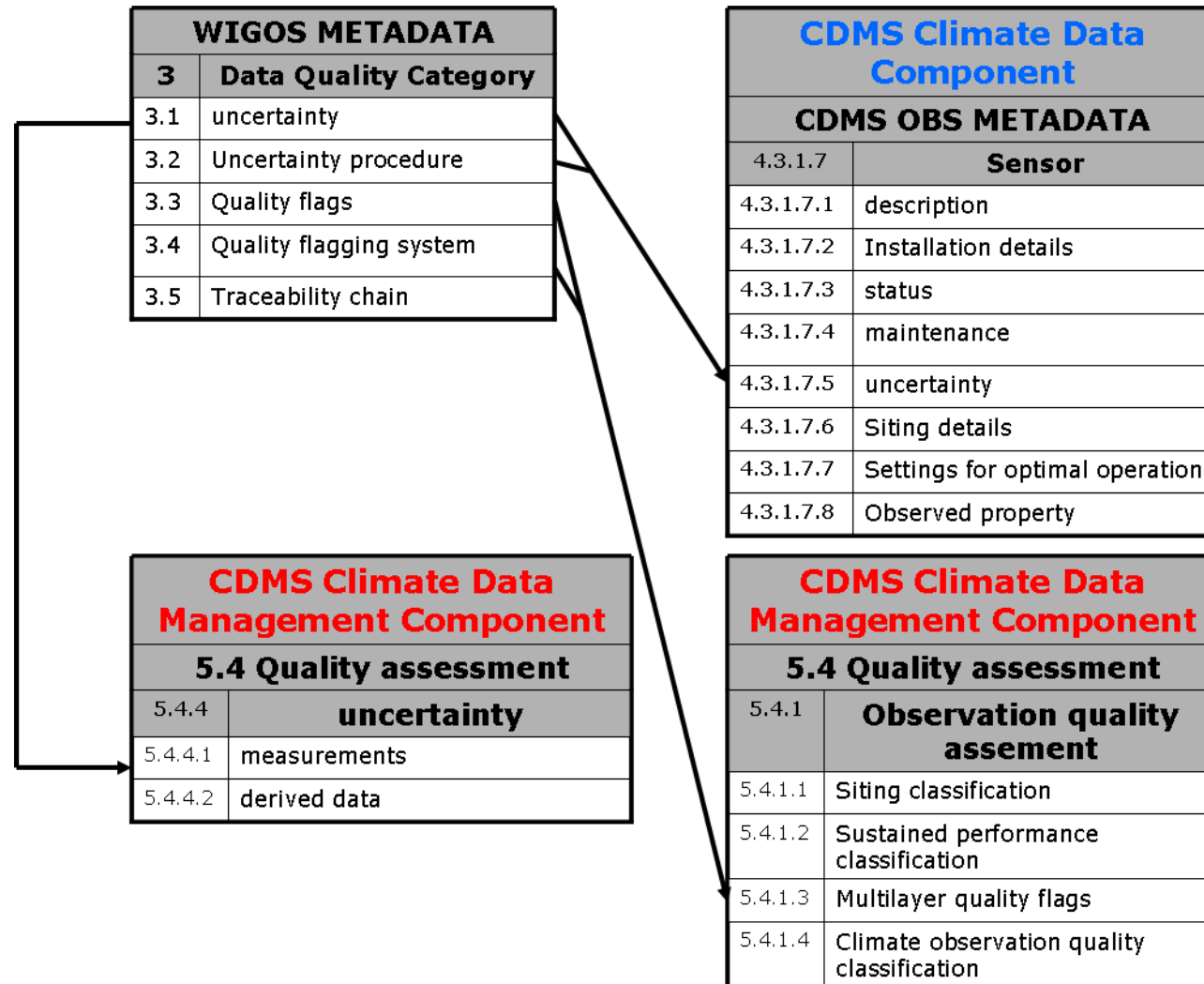
- To update this component by the one of the WIGOS Metadata Standard
- In adding any missing metadata needed e.g. Site Classification, Measurement Classification, etc.
- Is there some specific Marine and Hydro metadata not present in the WIGOS Metadata ? (@Axel, @Uli)

WIGOS METADATA	
#	Category
1	observed quantity
2	purpose of observation
3	data quality
4	environment
5	data processing and reporting
6	sampling and analysis
7	station/platform
8	instrument
9	ownership and data policy
10	contact



CDMS OBS METADATA	
#	Component
1	station identifier
2	station overview
3	station status
4	station type
5	location
6	local environment
7	sensor
8	data processing
9	data transmission
10	network

Metadata Observation



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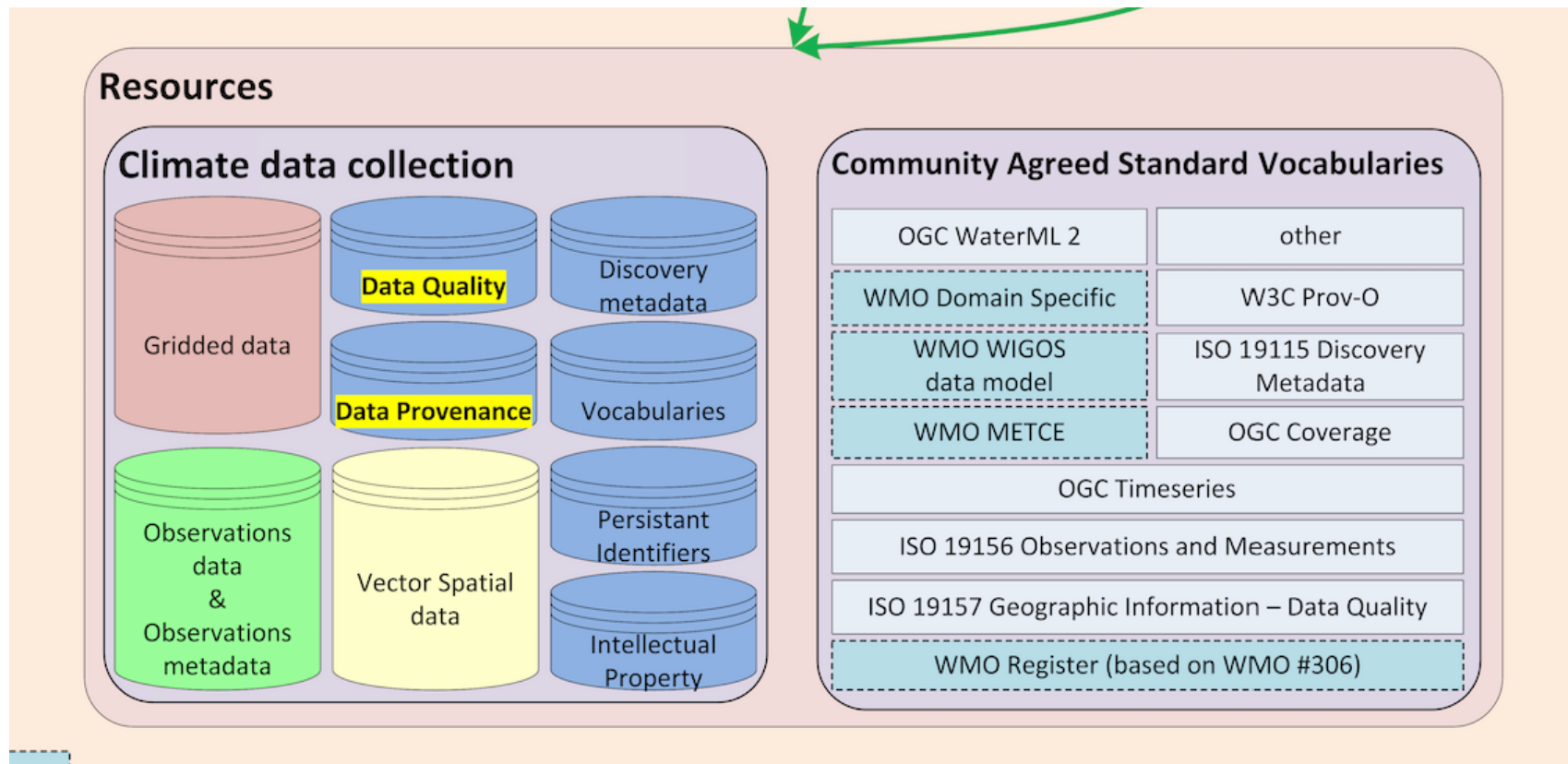
Optional

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Logical Data Model

- Try to better explain (graphics) : Bruce? Tom Kralidis ? Tandy ?
- Try to know the current status (O&M, METCE, ...)
- Is there some specific Marine and Hydro Logical Data Model work ? (@Axel, @Uli)



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Standard Products and Indices

- **Is there some standard products and Services for Marine and Hydro and ... ? (@Axel, @Uli)**
- Manual on Marine Meteorological Services, WMO-No. 558
- Guide to Hydrological Practices, Volume I and II, WMO-No. 168
- Guide to Marine Meteorological Services , WMO-No. 471
- Guide to the Applications of Marine Climatology, WMO-No. 781
- Guide to Agricultural Meteorological Practices, WMO-No. 134
- Guide to Public Weather Services Practices, WMO-No. 1150
- Guidelines, etc.

Other

- Distinguish between Technical requirements (and solutions to same) versus Scientific requirements
- Highlight the Requirements (Specifications) in each Chapter to help members when designing/developing/choosing or producing a call for tender for a CDMS
- Include the use cases and conceptual diagrams