Water quality IE update

The 125th OGC Member Meeting

With the support of

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Tony Boston, ANU

20 February 2023

Context

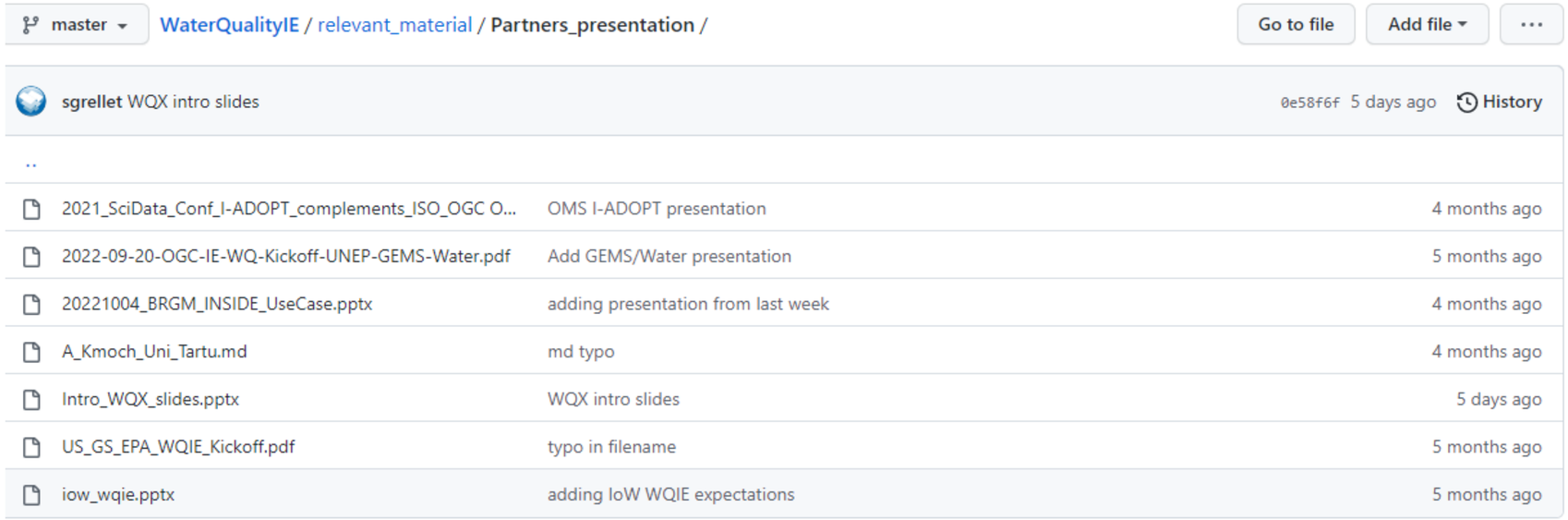
- Water Quality workshop March 2022
- Kick-off : 13/09/2022
- Weekly webconf every Tuesday since then
- The reference point : https://github.com/opengeospatial/WaterQualityIE/
  - Link to living G.Doc for minutes then GoToMeeting webconf link etc…,
  - Issues,
  - Model : until we move it to OGC Sparx Cloud.

Progress overview

- Partners expectations regarding the IE
- OMS crash courses
- Use cases identifications and phasing
- Object diagrams
  - From doodles to real ones
- Serializations examples
- Test implementations from the various partners: server, client
- Report

Building the team momentum

- Partners expectations regarding the IE -> various presentations
  - Other partners are expected -> La Plata basin (through WMO)



master ▾ WaterQualityIE / relevant_material / Partners_presentation / Go to file Add file ▾ ···

sgrellet WQX intro slides 0e58f6f 5 days ago History

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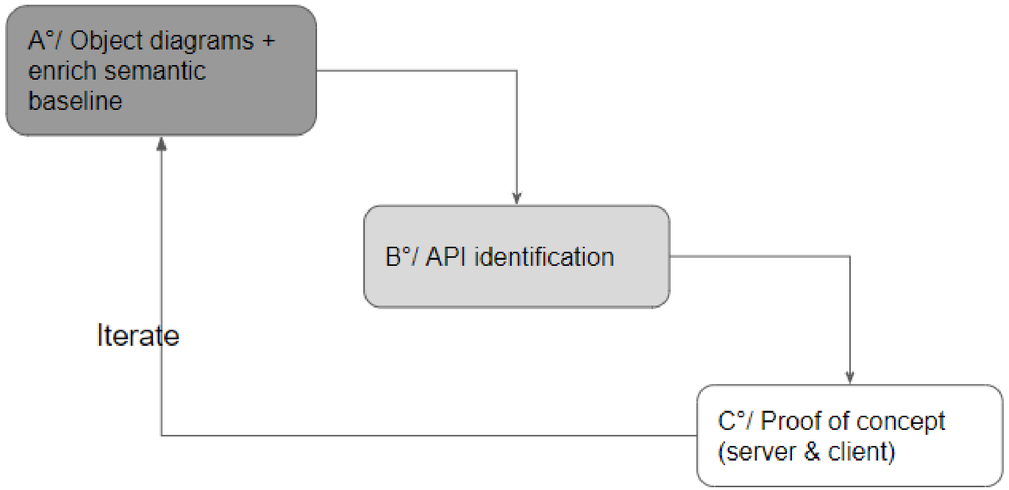
2021_SciData_Conf_I-ADOPT_complements_ISO_OGC O...	OMS I-ADOPT presentation	4 months ago
2022-09-20-OGC-IE-WQ-Kickoff-UNEP-GEMS-Water.pdf	Add GEMS/Water presentation	5 months ago
20221004_BRGM_INSIDE_UseCase.pptx	adding presentation from last week	4 months ago
A_Kmoch_Uni_Tartu.md	md typo	4 months ago
Intro_WQX_slides.pptx	WQX intro slides	5 days ago
US_GS_EPA_WQIE_Kickoff.pdf	typo in filename	5 months ago
iow_wqie.pptx	adding IoW WQIE expectations	5 months ago

- OMS crash courses
  - Highly important to share a common language

Use cases identifications and phasing

	Org	FoI Type: Water (Surface and Ground together at this stage)			
Method	*Observed Property group*	Quantity	Physical properties	Chemistry	Biology
	Samples	Here as a support to WQ	1	2	3
	Sensors				
	Hydro Models				
	Remote Sensing				

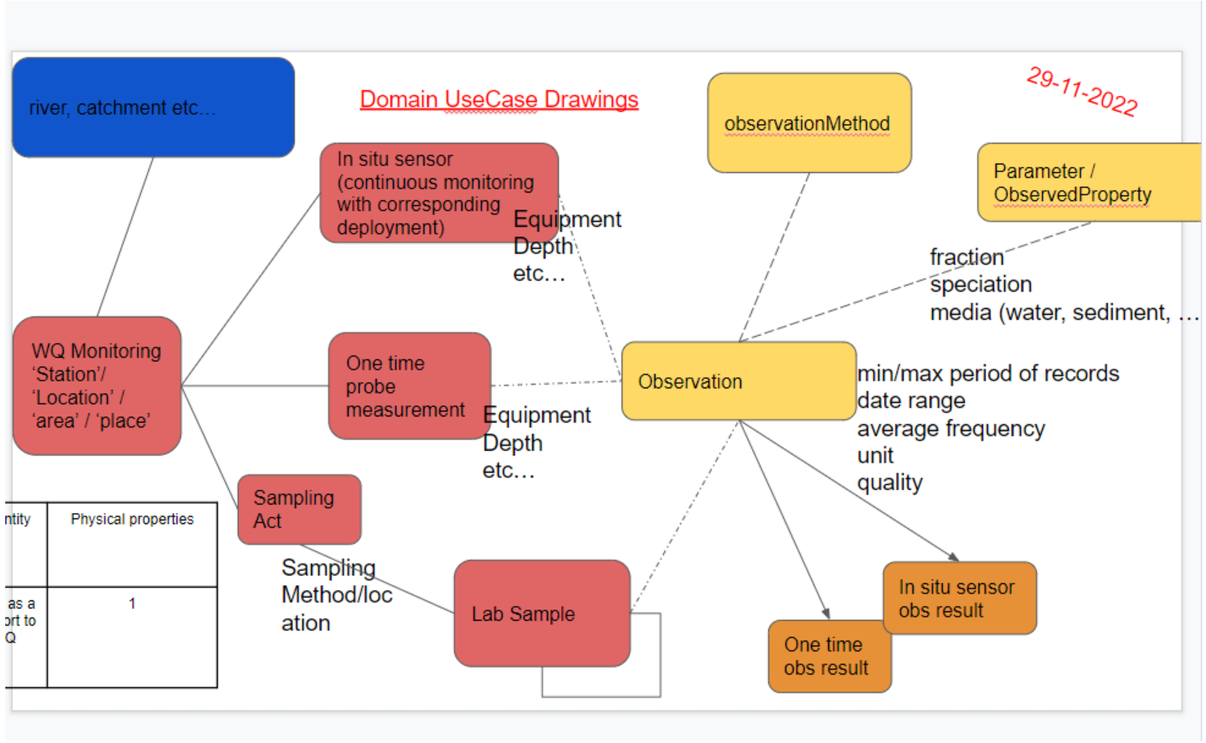
Rationale (per Use Case)



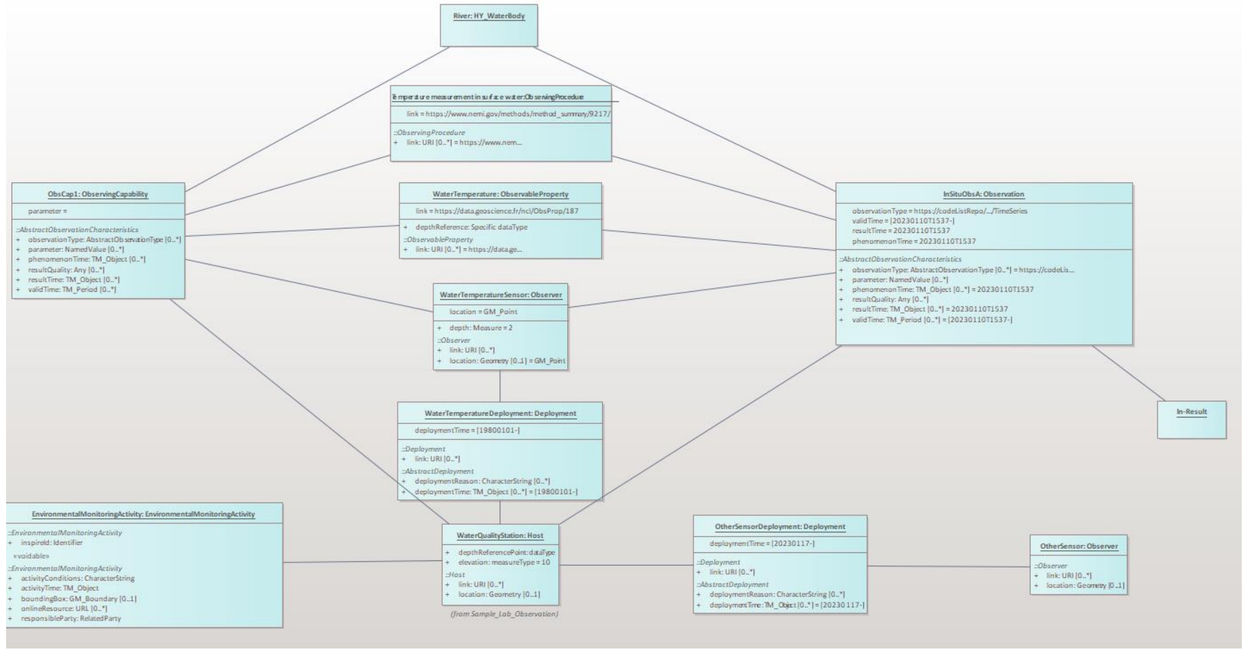
Object diagrams

- Almost everything is in the standard baseline just need to agree on how to use it

From

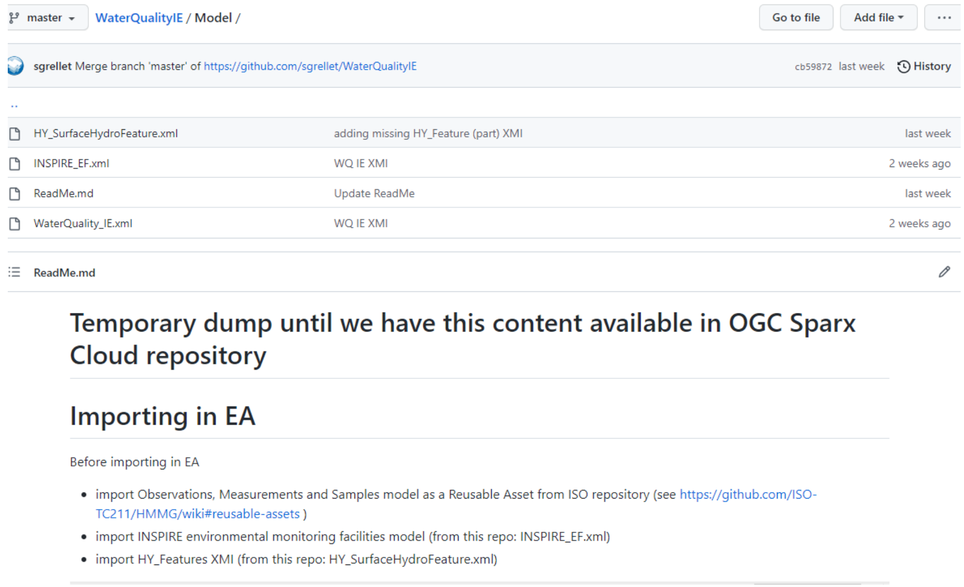


To



Object diagrams

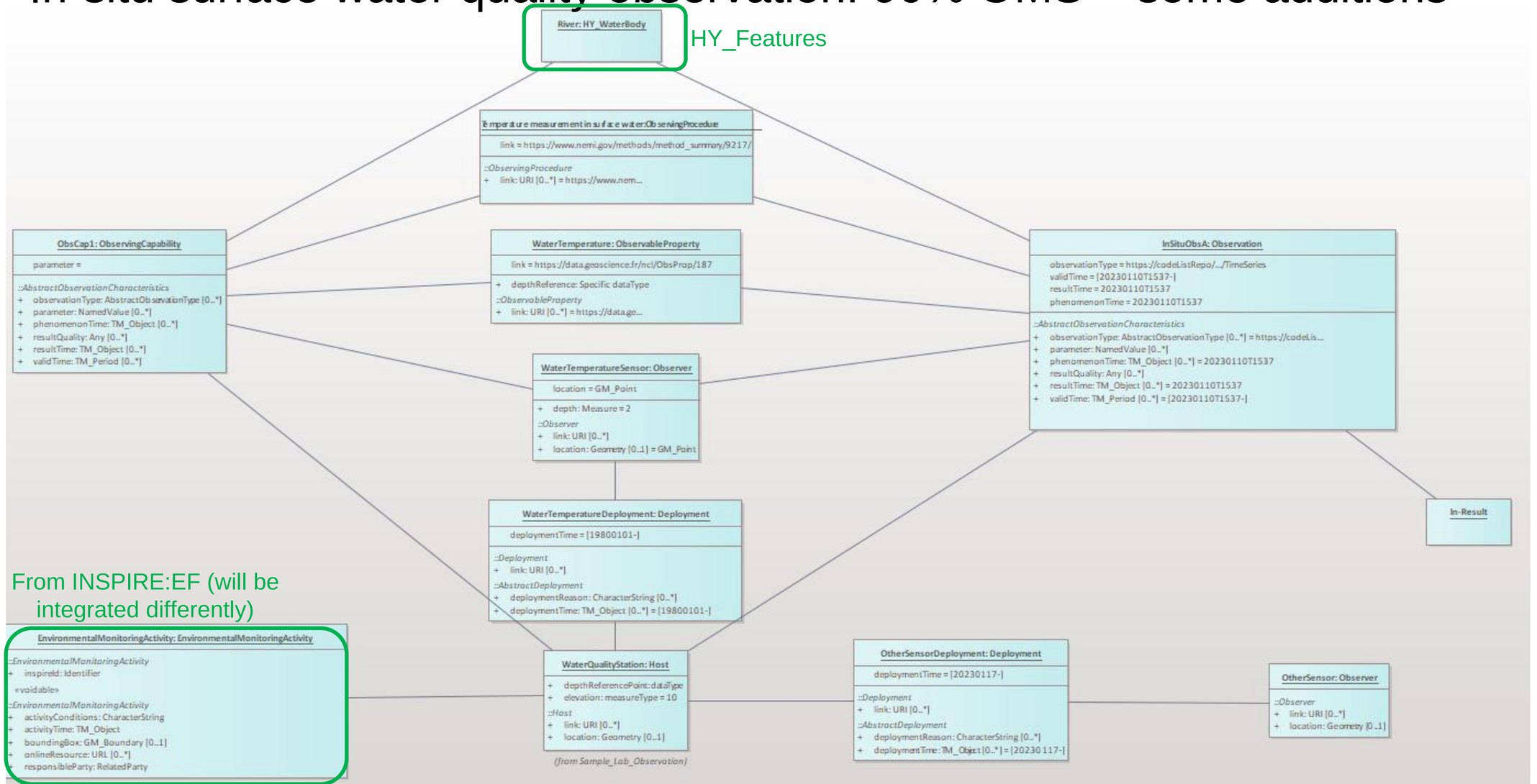
- So far under the WQ IE Github: https://github.com/opengeospatial/WaterQualityIE/tree/master/Model



- Activity to have it under OGC Sparx Cloud in coordination with OGC Conceptual Modelling SubGroup

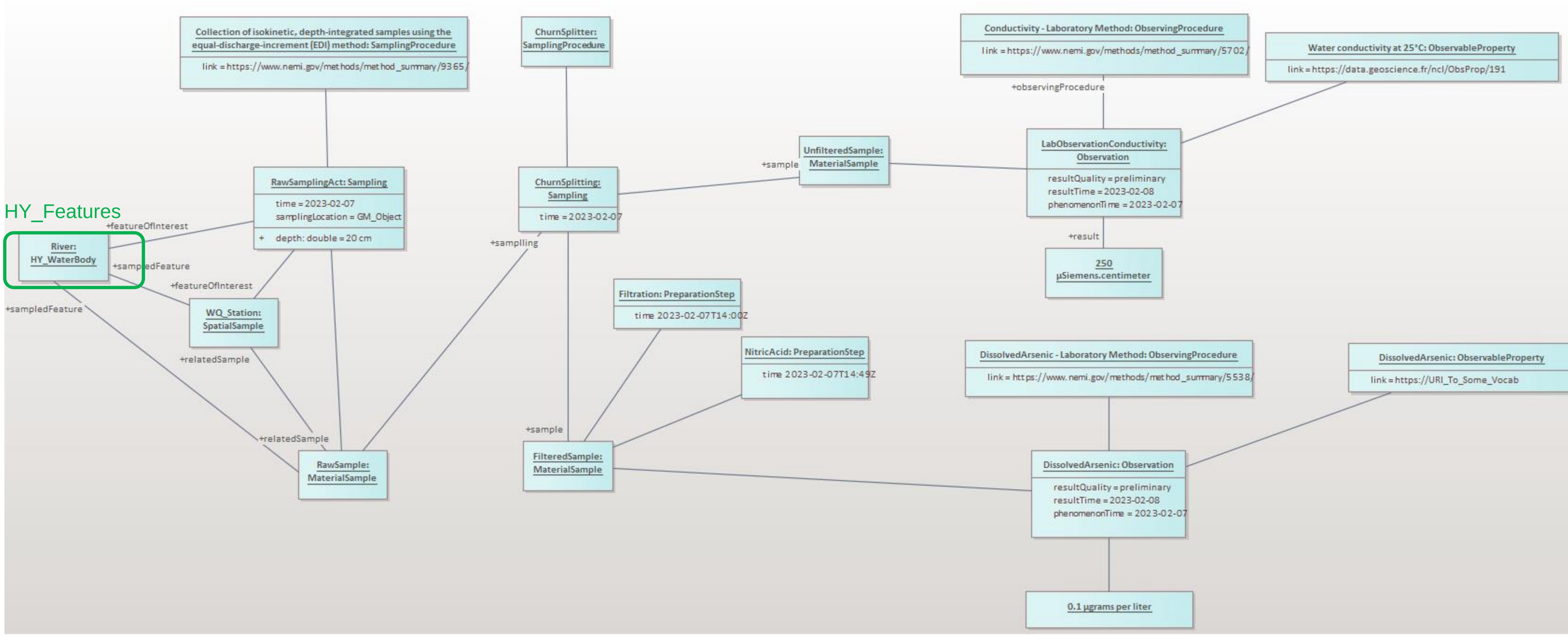
Object diagrams

- In-situ surface water quality observation: 90% OMS + some additions



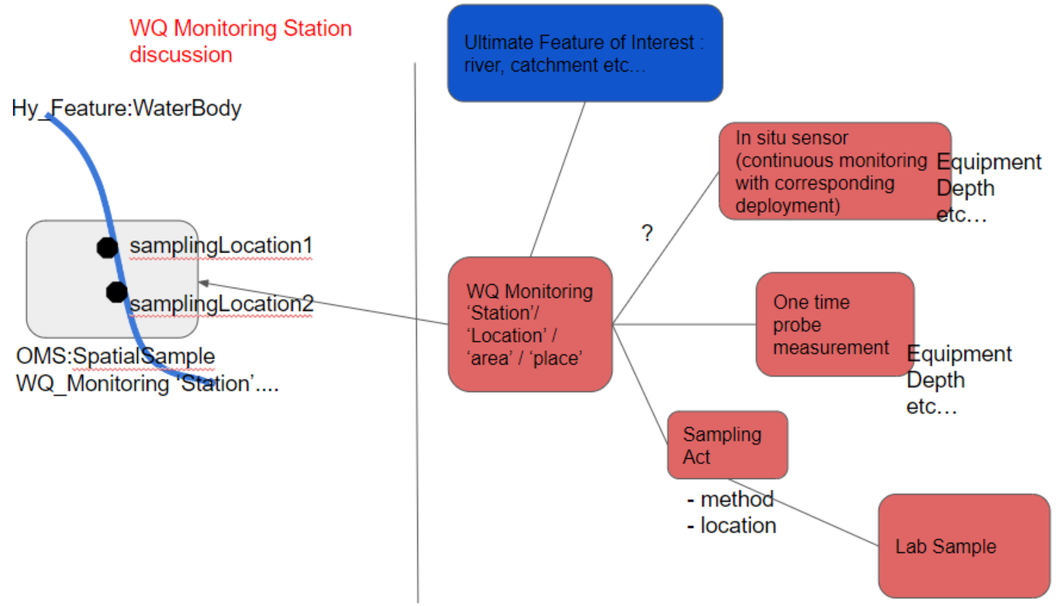
Object diagrams

- Lab surface water quality observation: 90% OMS + some additions



Next steps

- Refining our joint understanding on the needs
  - Enriching object diagrams
  - Need for « WQ specific information / modeling » ?
    - Depth attributes on Observer and/or Host ? -> subtyping Observer | Host ?
    - Concept of Water Quality station (an OMS SpatialSample)
    - Environmental Monitoring Activity ?



Next steps

- OMS serializations example
  - ? JSON only ?

+ « which API to serve what ? » discussion

⇒ Partners implementation

Thank you and thanks to

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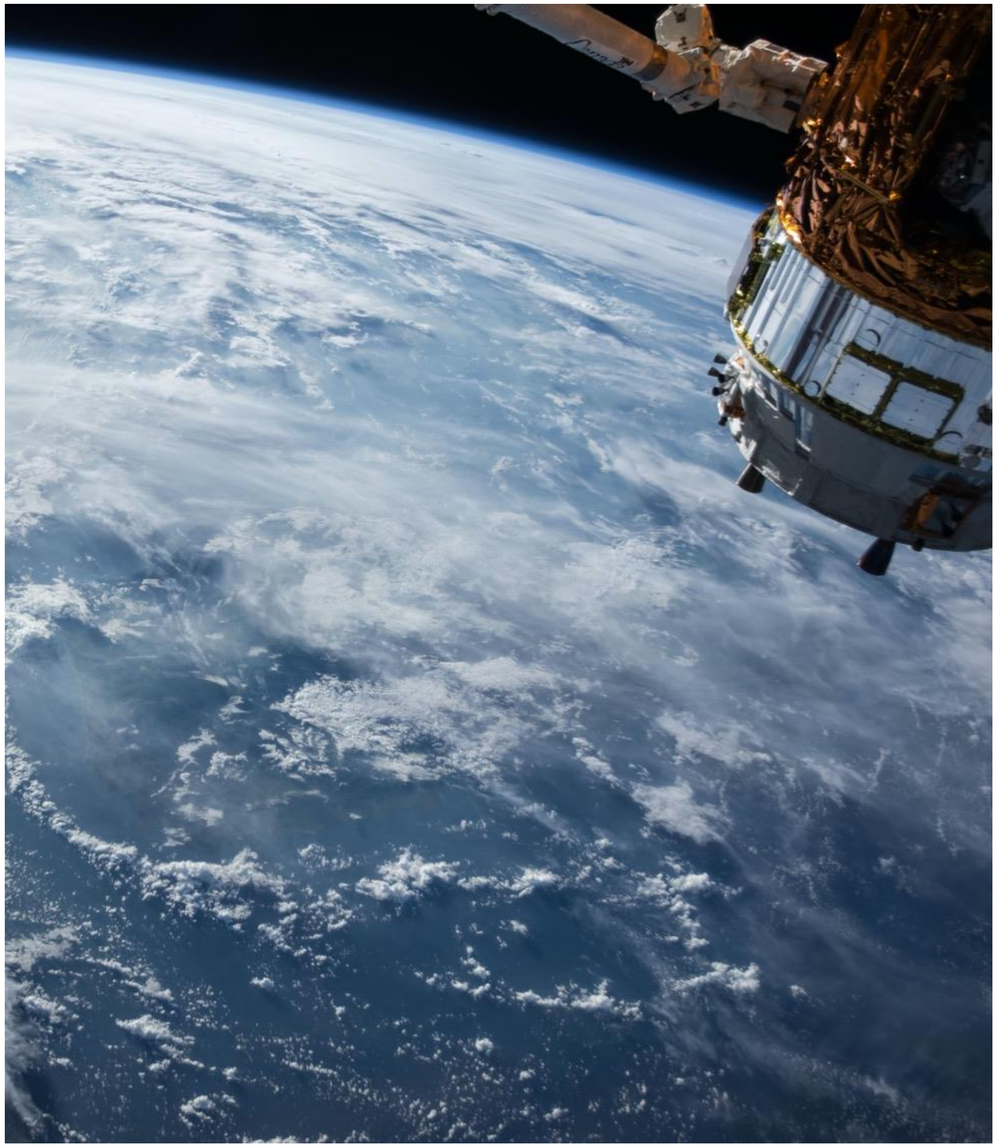
The WaterQuality IE team



Thank You

Community

500+ International Members

110+ Member Meetings

60+ Alliance and Liaison partners

50+ Standards Working Groups

45+ Domain Working Groups

25+ Years of Not for Profit Work

10+ Regional and Country Forums

Innovation

120+ Innovation Initiatives

380+ Technical reports

Quarterly Tech Trends monitoring

Standards

65+ Adopted Standards

300+ products with 1000+ certified implementations

1,700,000+ Operational Data Sets

Using OGC Standards