

HOW I-ADOPT COMPLEMENTS ISO/OGC OBSERVATIONS & MEASUREMENTS ?

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? Observations & Measurements & Samples (OMS) ?

OGC / ISO standard (19156) used by a huge variety of systems

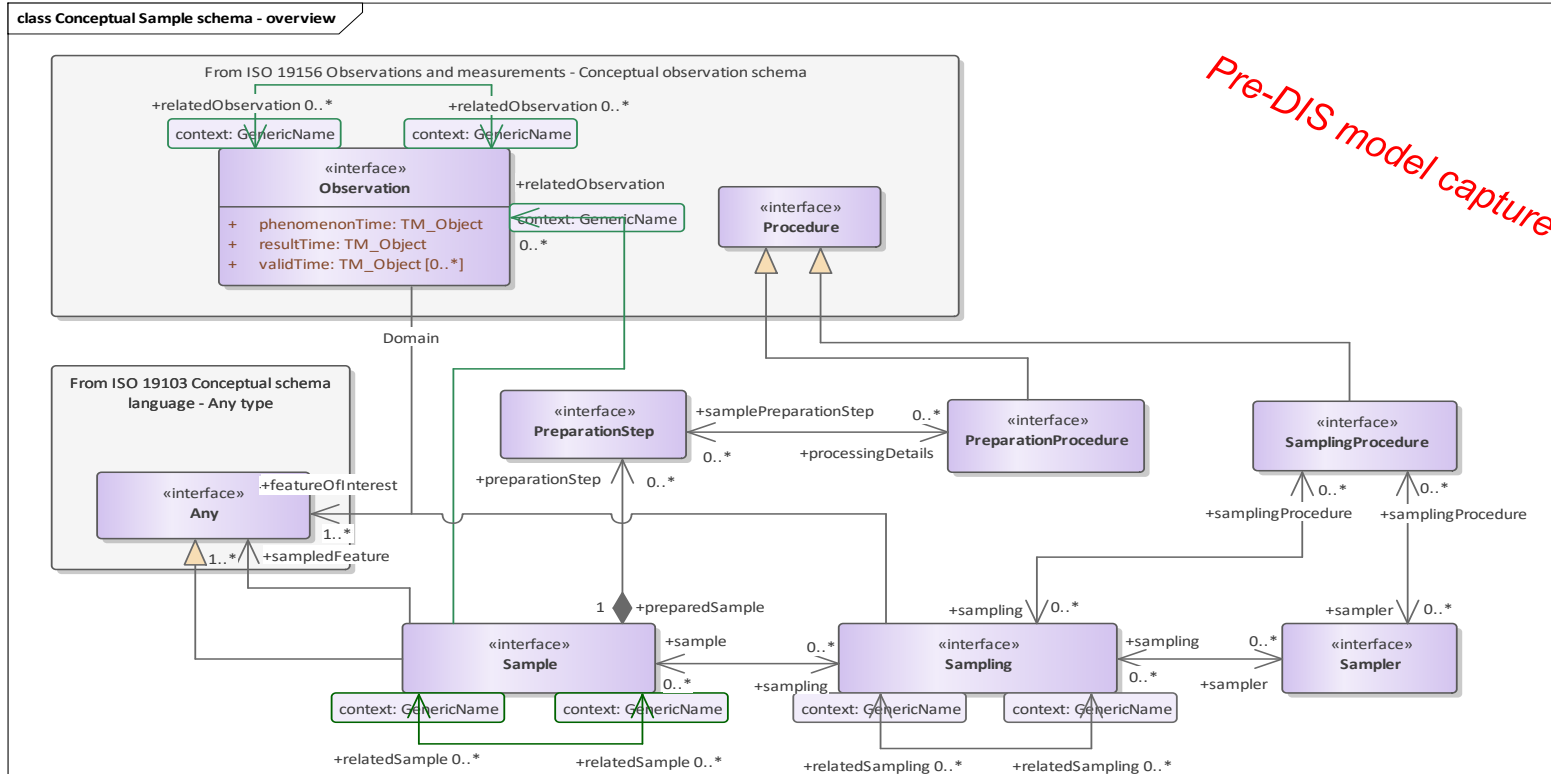
"Observations & Measurements" -> "Observations & Measurements & Samples" (current revision almost done -> DIS stage)

- EU INSPIRE and EU Air Quality directive reportings
- Surface Water
 - Quantity: WaterML2 (WMO, USGS, CUASHI ...)
 - Quality: Great Barrier Reef foundation
- Soil : ANZsoilML, INRAE, ISRIC/Global Soil Information System (GloSIS)
- Geology - Geological Surveys: GeoSciML
- Land Survey (LandInfra): InfraGML
- Oceanography: SeaDataNet
- Meteorology
 - WMO METCE (SamplingFeature)
 - Australia Bureau of Meteorology : National Environmental Information Infrastructure
- IGSN : International Geosample Number
- GroundWater Information Networks
 - OZCAR, GWML2 (NR-CAN – HydroGeology Logs, BRGM - water levels, ...)
- ...

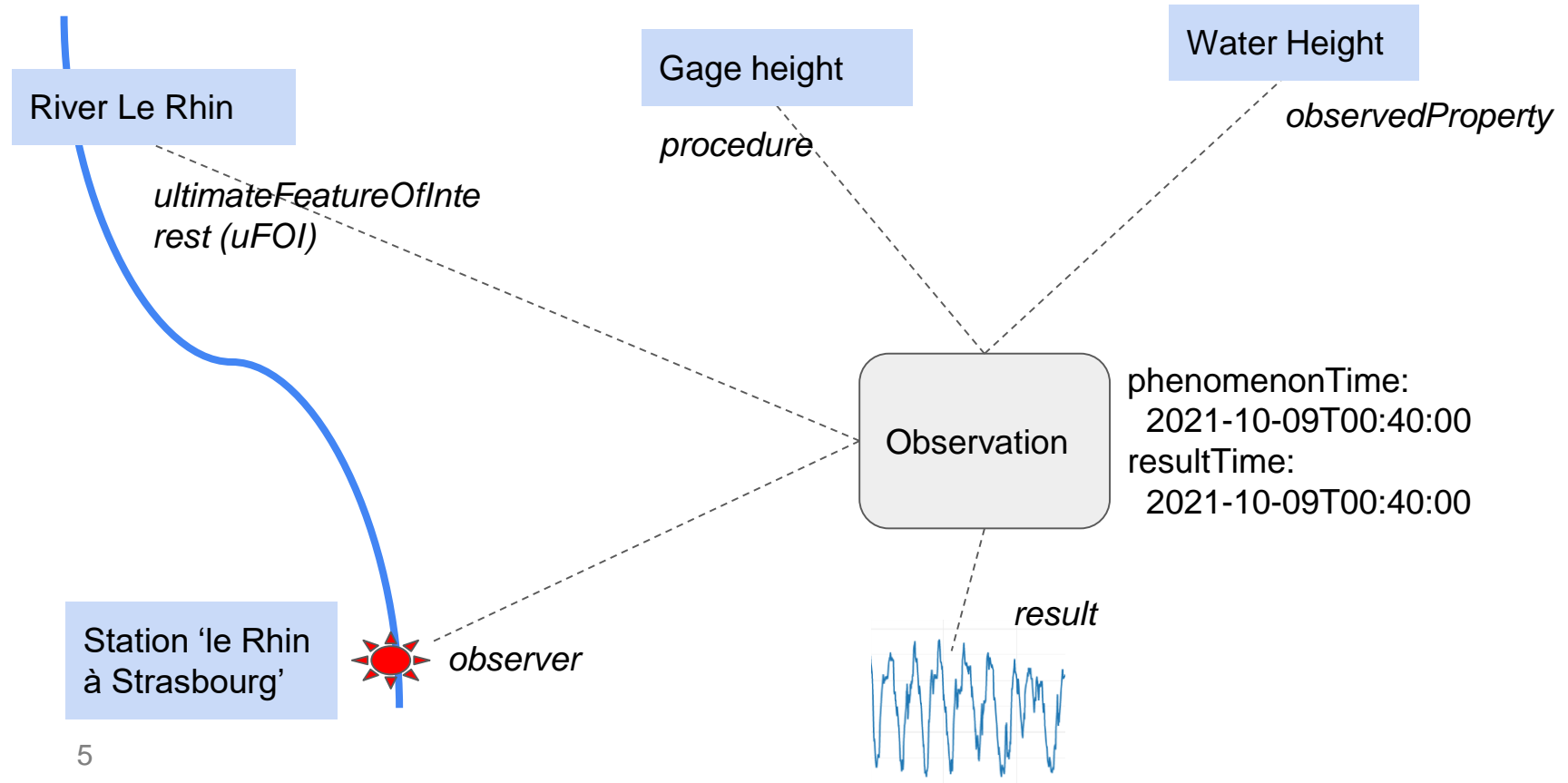
Note : quick list done in 10', there are many more

? Observations & Measurements & Samples (OMS) ?

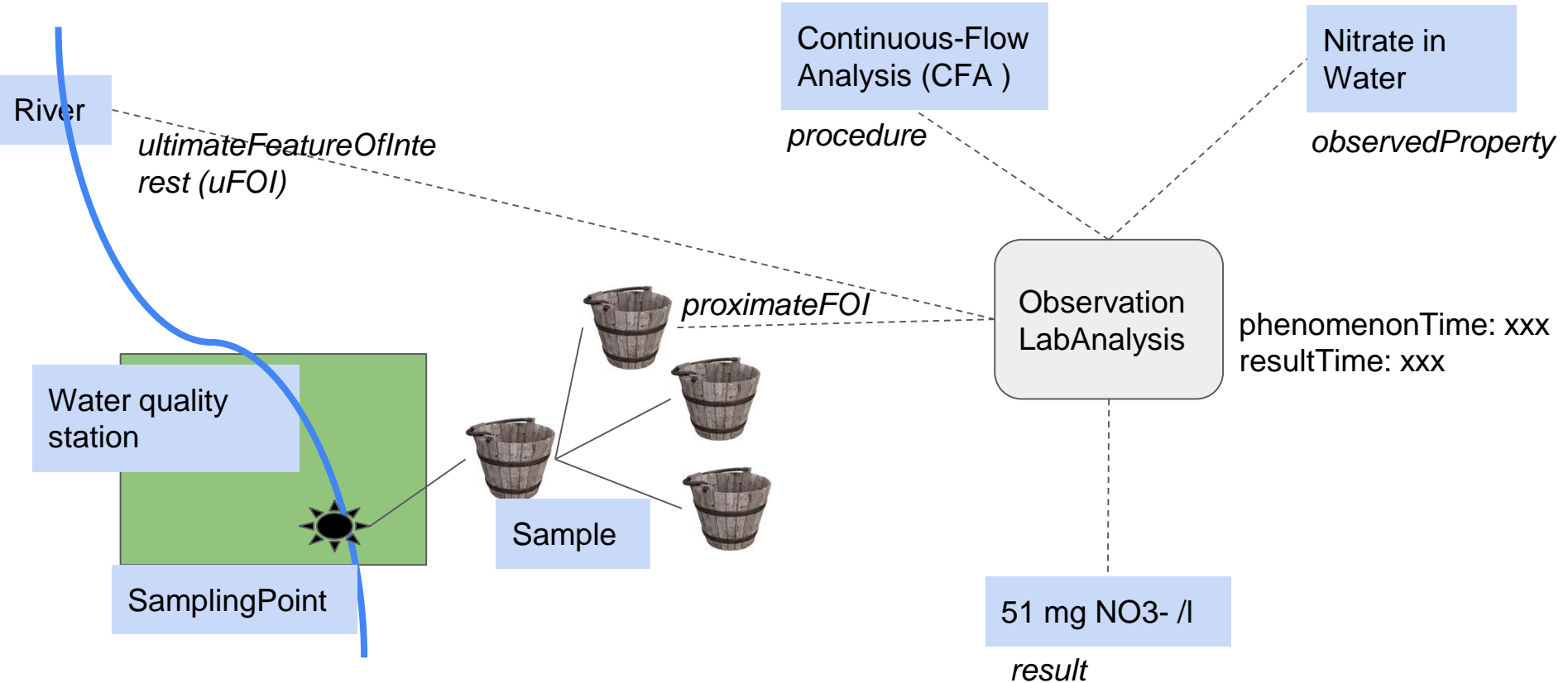
Observation can involve Samples, Sampling, Sampler and their related procedures/steps



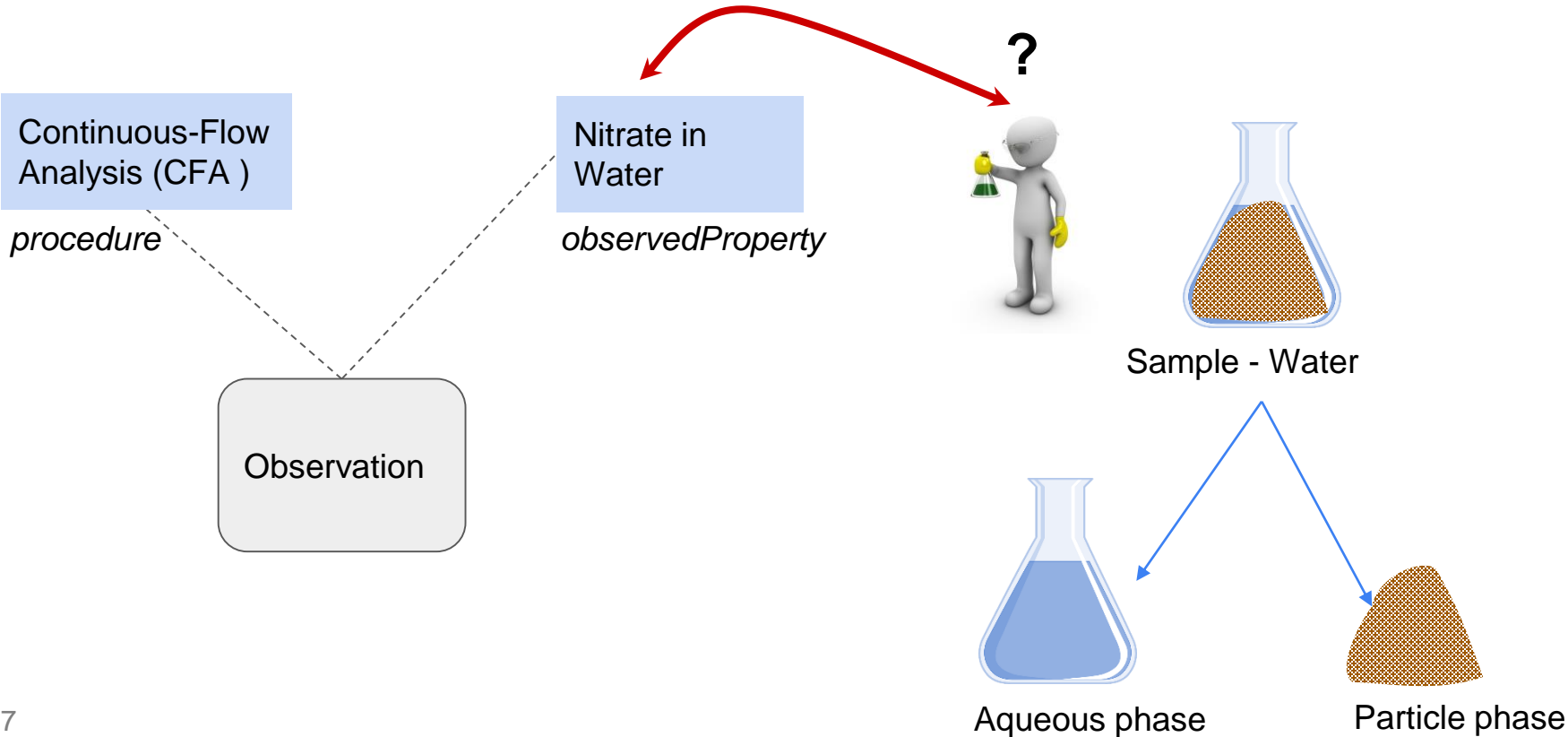
OMS level 1 example : surface water quantity (height gage)



OMS level 2 example : surface water quality (samples)

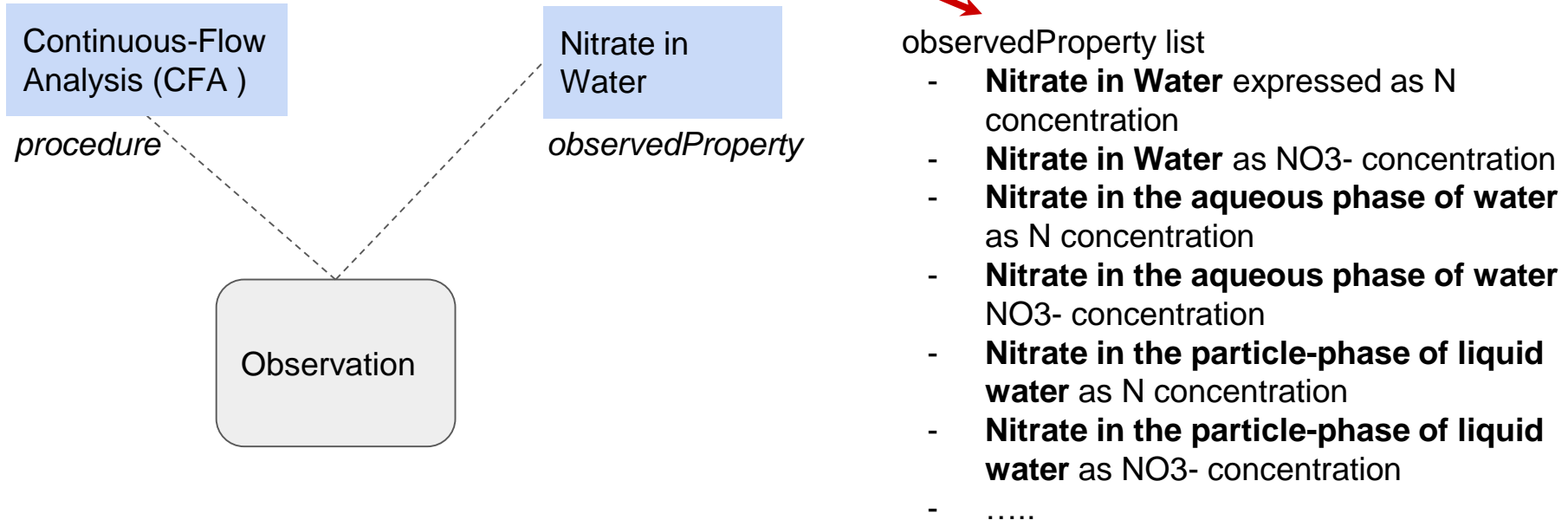


Limits of Observable properties in OMS

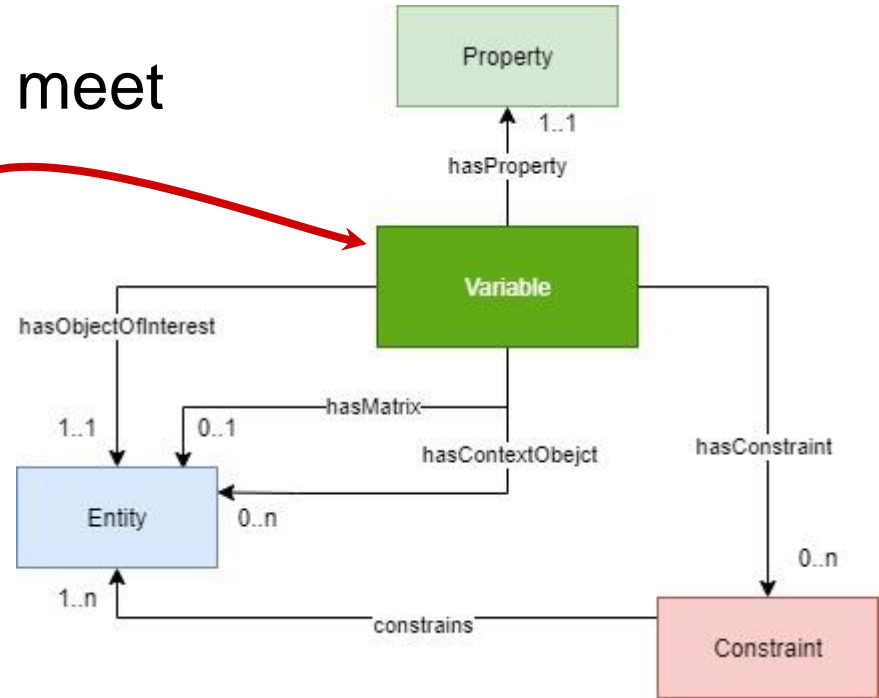
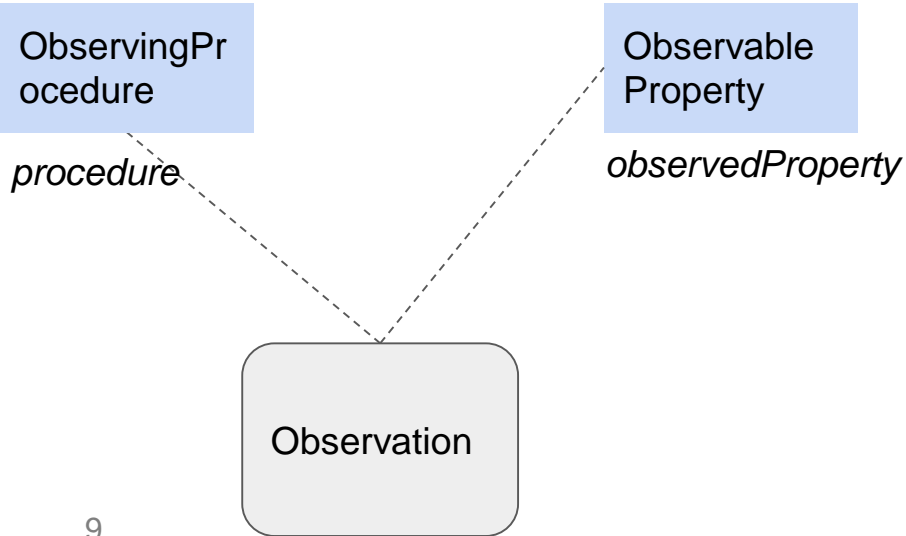


Limits of Observable properties in OMS

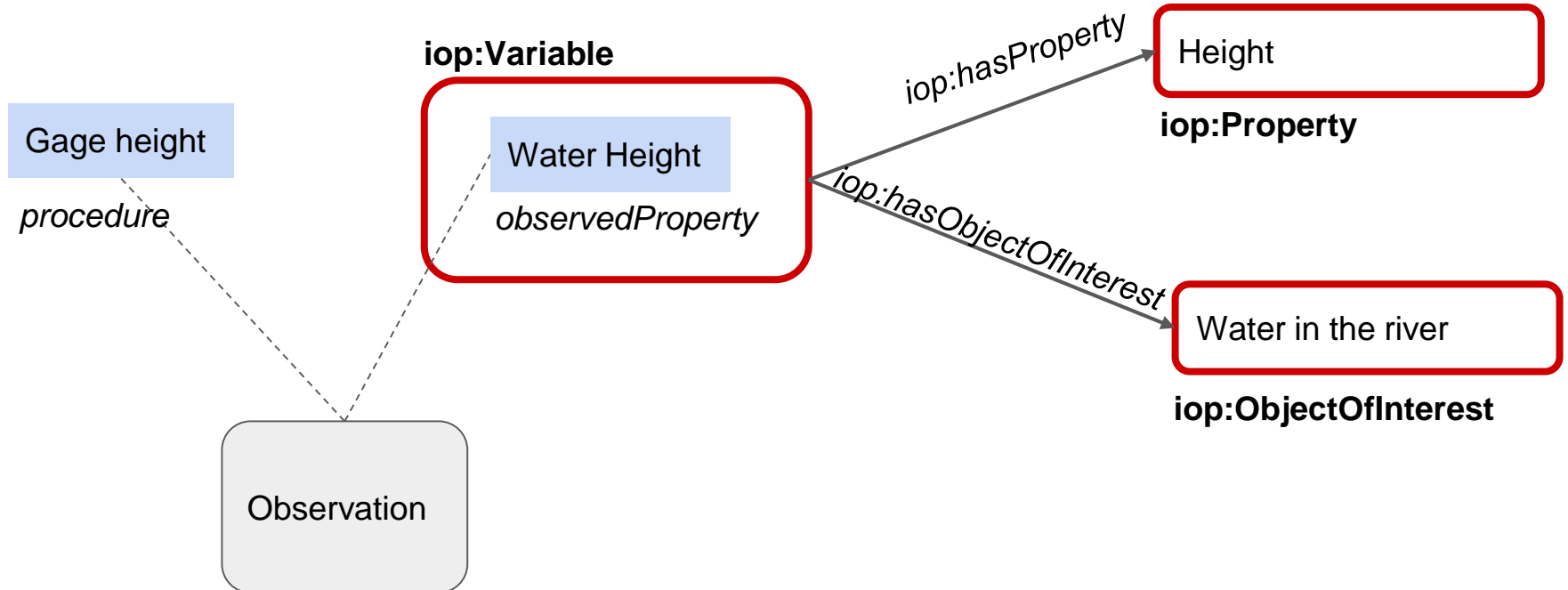
We are limited to a 'flat list'



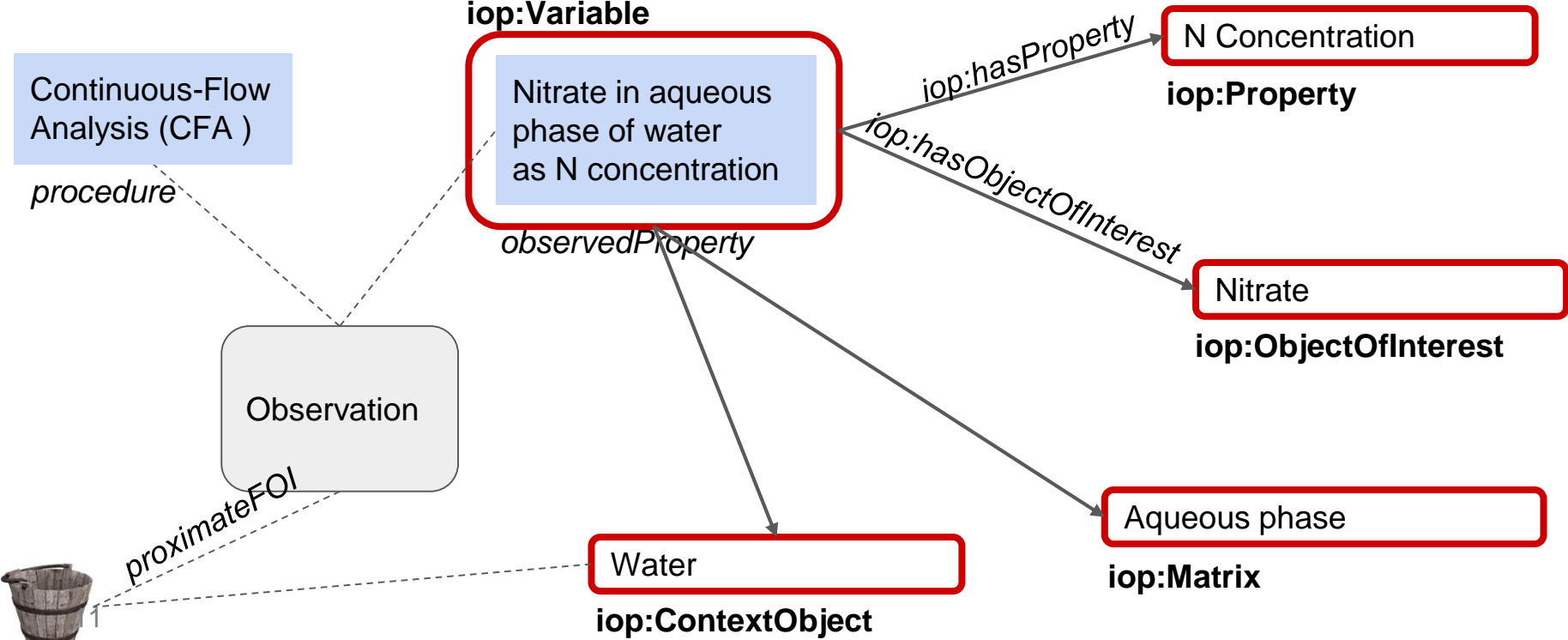
Let's have OMS and i-ADOPT meet



OMS + i-ADOPT level 1 example



OMS + i-ADOPT level 2 example



Conclusions

Thank you for having covered what we had as an issue when starting OMS revision 2 years ago

<https://github.com/opengeospatial/om-swg/issues/21>

Observing Procedure

procedure

Observation

Observable Property

observedProperty

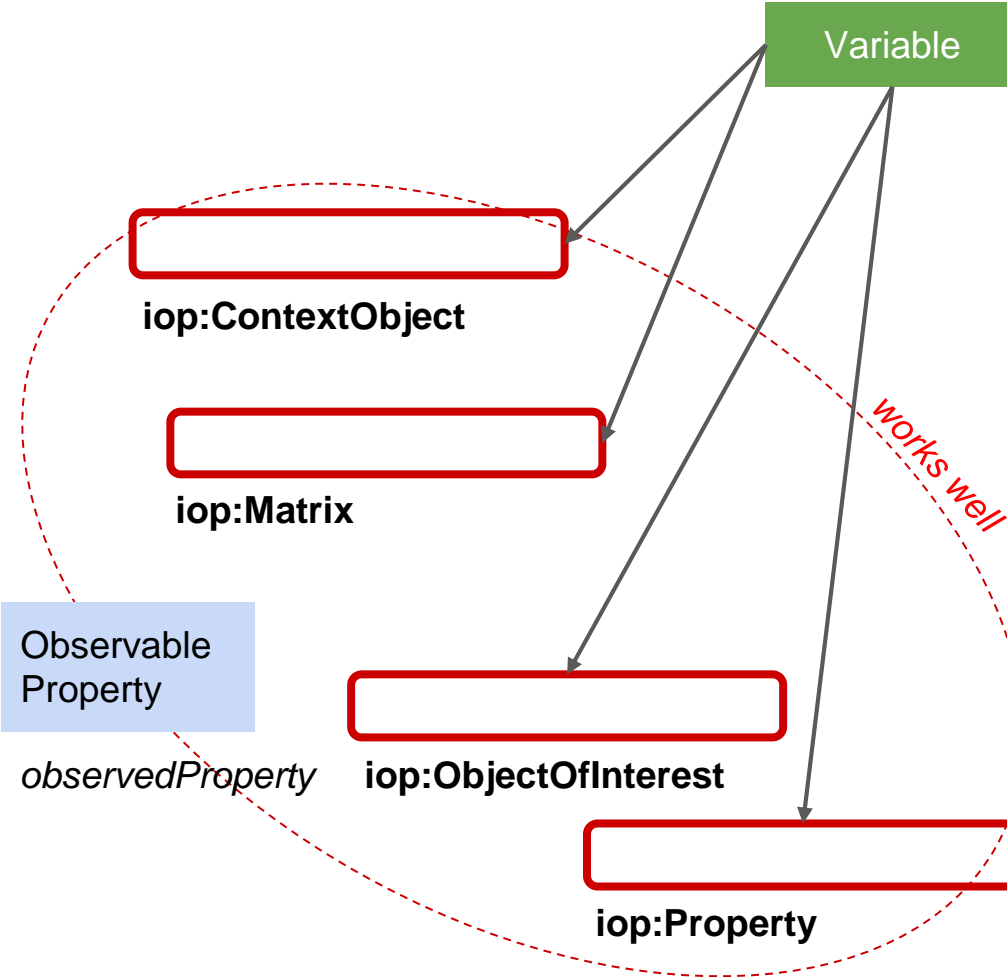
iop:ContextObject

iop:Matrix

iop:ObjectOfInterest

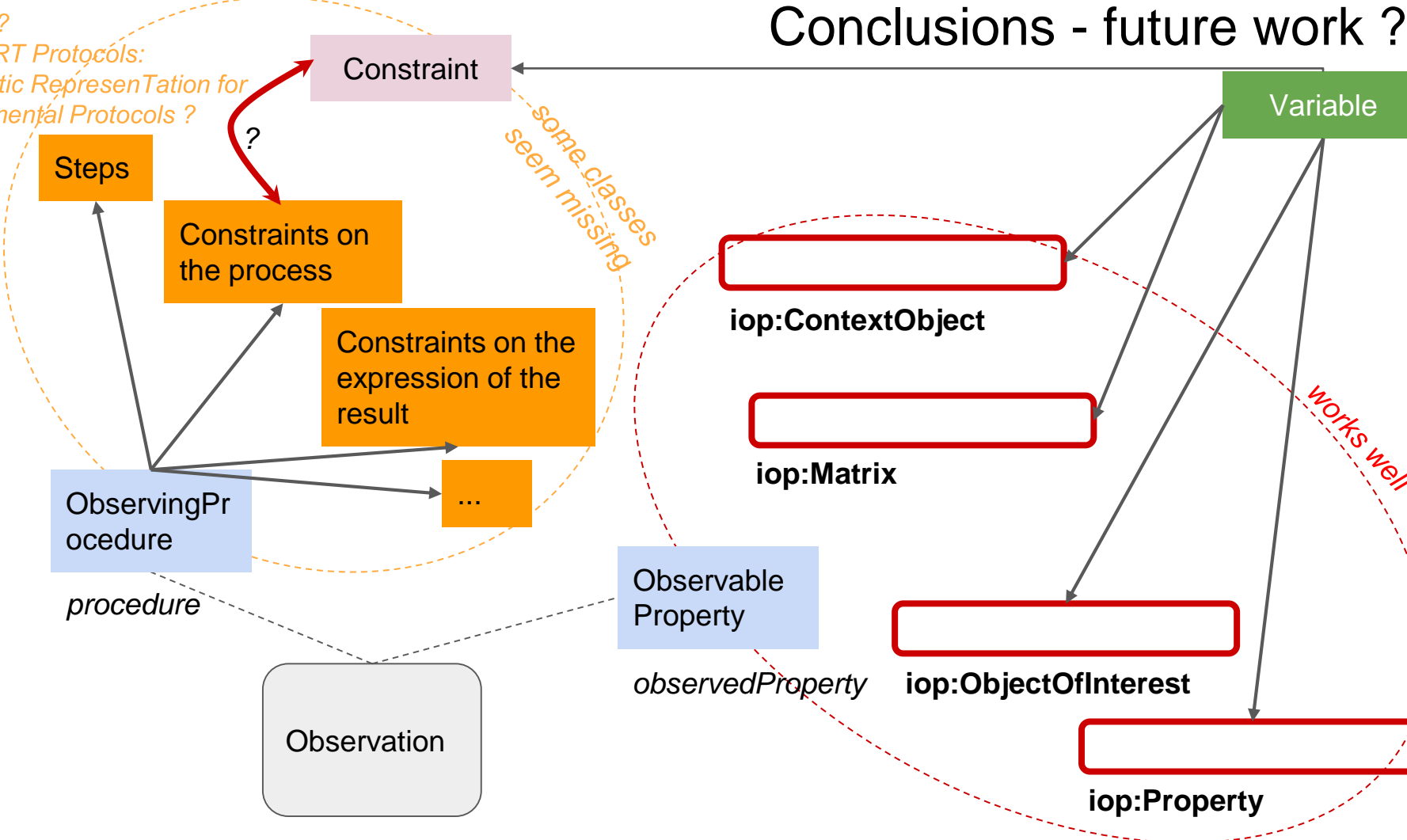
iop:Property

Variable



Conclusions - future work ?

? Prov ?
? SMART Protocols:
SeMANTic RepresenTation for
Experimental Protocols ?



Conclusions - OMS & i-ADOPT groups joint work

Example suggestions to i-ADOPT ontology

- *hasMatrix*
 - *Possibility to have Matrix / sub-Matrix (thus more than 1 Matrix)*
- *hasContextObject*
 - *current definition: A Variable has an Entity that provides additional background information regarding the ObjectOfInterest.*
 - *Additional notes proposed*
 - *NOTE 1: the component of the environment addressed by the variable to be finally observed, usually through a sampling process. The result provided for the context object observed pertaining to the variable will be indicative for the matrix.*
 - *NOTE 2: The context object shall be coherent with element pertaining to OMS FeatureOfInterest chain, in most cases, the context object will be the class of which one of the Fols is an instance*

THANK YOU

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