Urban Water Systems: ontology overview

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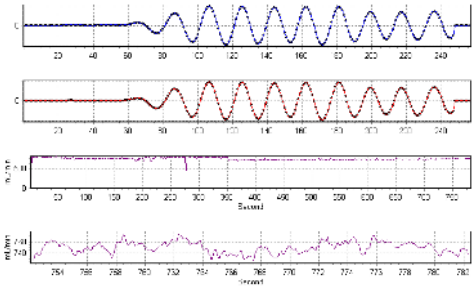
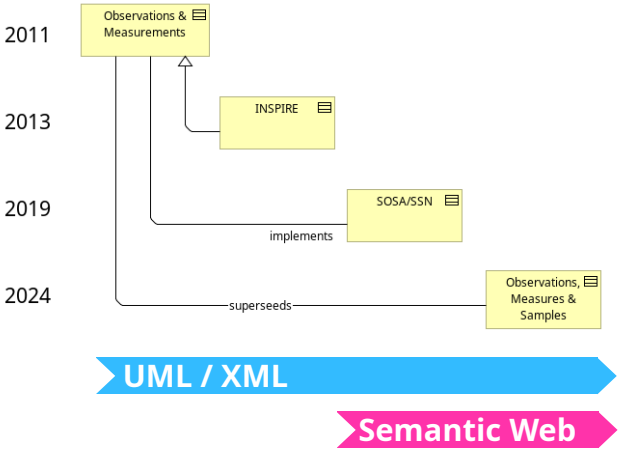
Collecting and sharing data on Urban Water

What

How

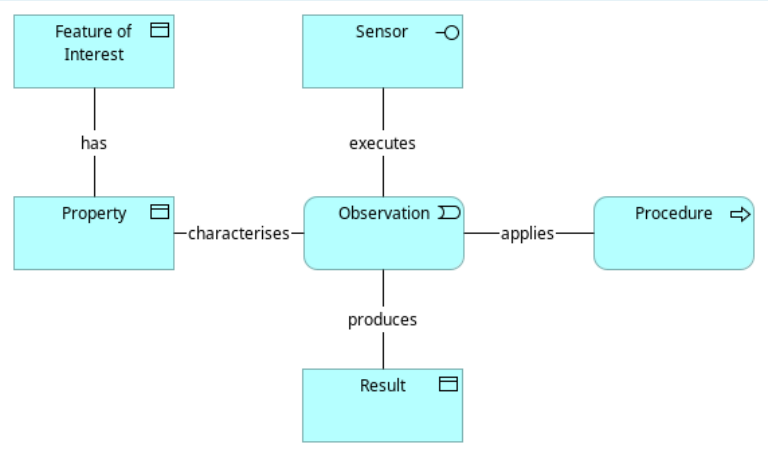


How: well known



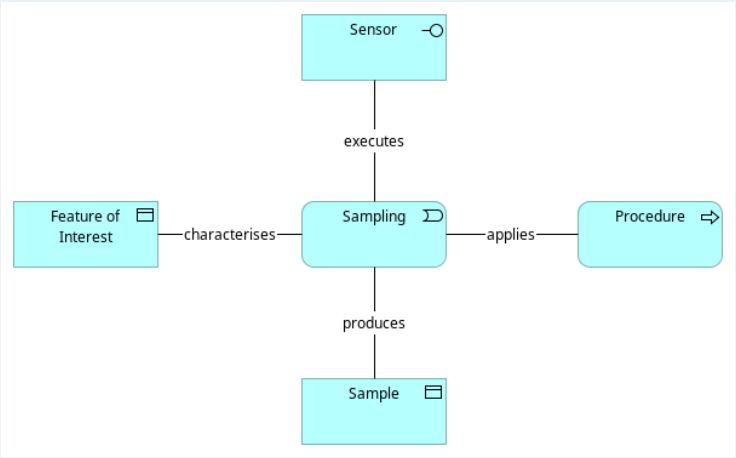
How: well known

Observation



How: well known

Sampling



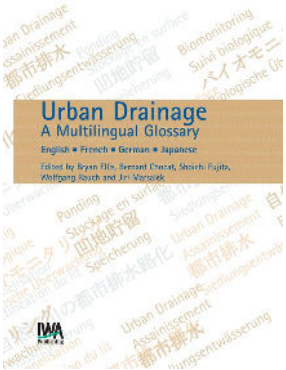
How: well known

Water Quality Interchange Experiment

```
:pH_ObsA rdf:type sosa:Observation ;
    sosa:observedProperty :pH ;
    sosa:usedProcedure :pH_determination ;
 sosa:memberOf :pH_ObsCollection ;
    sosa:ultimateFeatureOfInterest :Loire_River ;
    sosa:resultQuality "preliminary" ;
    sosa:resultTime "2020-04-17"^^xsd:date ;
    sosa:phenomenonTime "2020-04-17"^^xsd:date ;
    sosa:hasSimpleResult "8.1"^^xsd:float .
```

https://github.com/opengeospatial/WaterQualityIE/tree/master/SSN_SOSA

What: getting there



Ellis, J. B., Chocat, B., Fujita, S., Marsalek, J., & Rauch, W. (Eds.). (2004). Urban Drainage. IWA publishing.

What: getting there

INSPIRE Infrastructure for Spatial Information in Europe

D2.8.III.6 Data Specification on *Utility and Government Services* – Technical Guidelines

Title	D2.8.III.6 Data Specification on Utility and Government Services – Technical Guidelines
Creator	Temporary MIWP 2021-2024 sub-group 2.3.4
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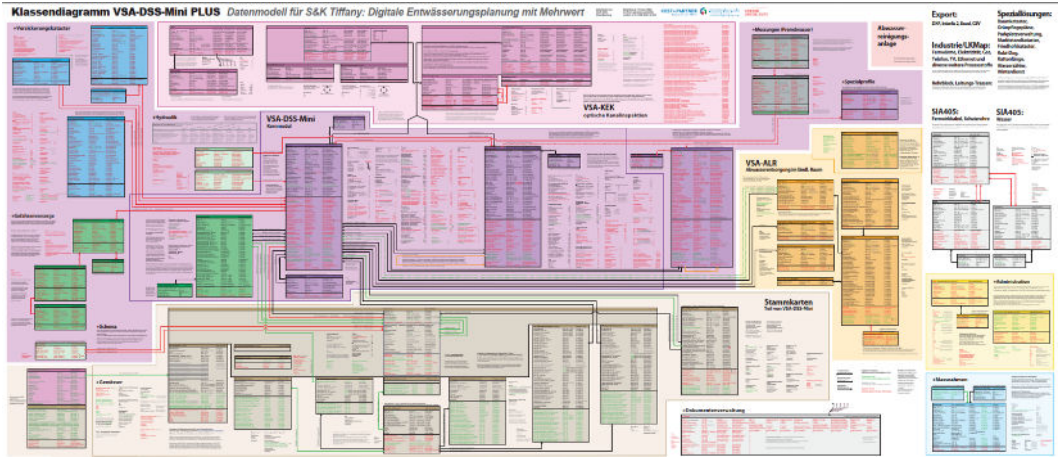
Changelog	https://github.com/INSPIRE-MIF/technical-guidelines/commits/v3.1.0-rc1
Language	en
Relation	Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)

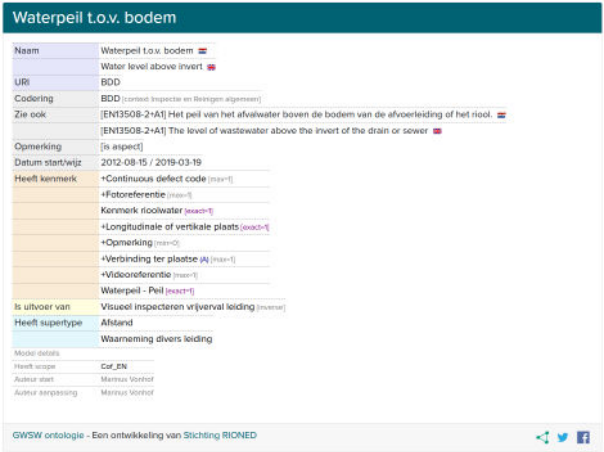
https://github.com/INSPIRE-MIF/technical-guidelines/tree/main/data/us

What: getting there



https://vsa.ch/glossar/vsa-dss/

What: getting there



https://data.gwsw.nl

Summary

- **Network monitoring**
  - Well established concepts and standards:
    - OMS
    - SOSA/SSN
    - OGC SensorThings API
  - Yet to be applied to Urban Water.

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  - Well established concepts and standards:
    - OMS
    - SOSA/SSN
    - OGC SensorThings API
  - Yet to be applied to Urban Water.
- **Infrastructure**
  - Domain well understood.
  - Various initiatives and resources systematising knowledge.
  - Modern data sharing/provision mechanism yet to be explored.
  - Yet another standard?

Thank you!

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