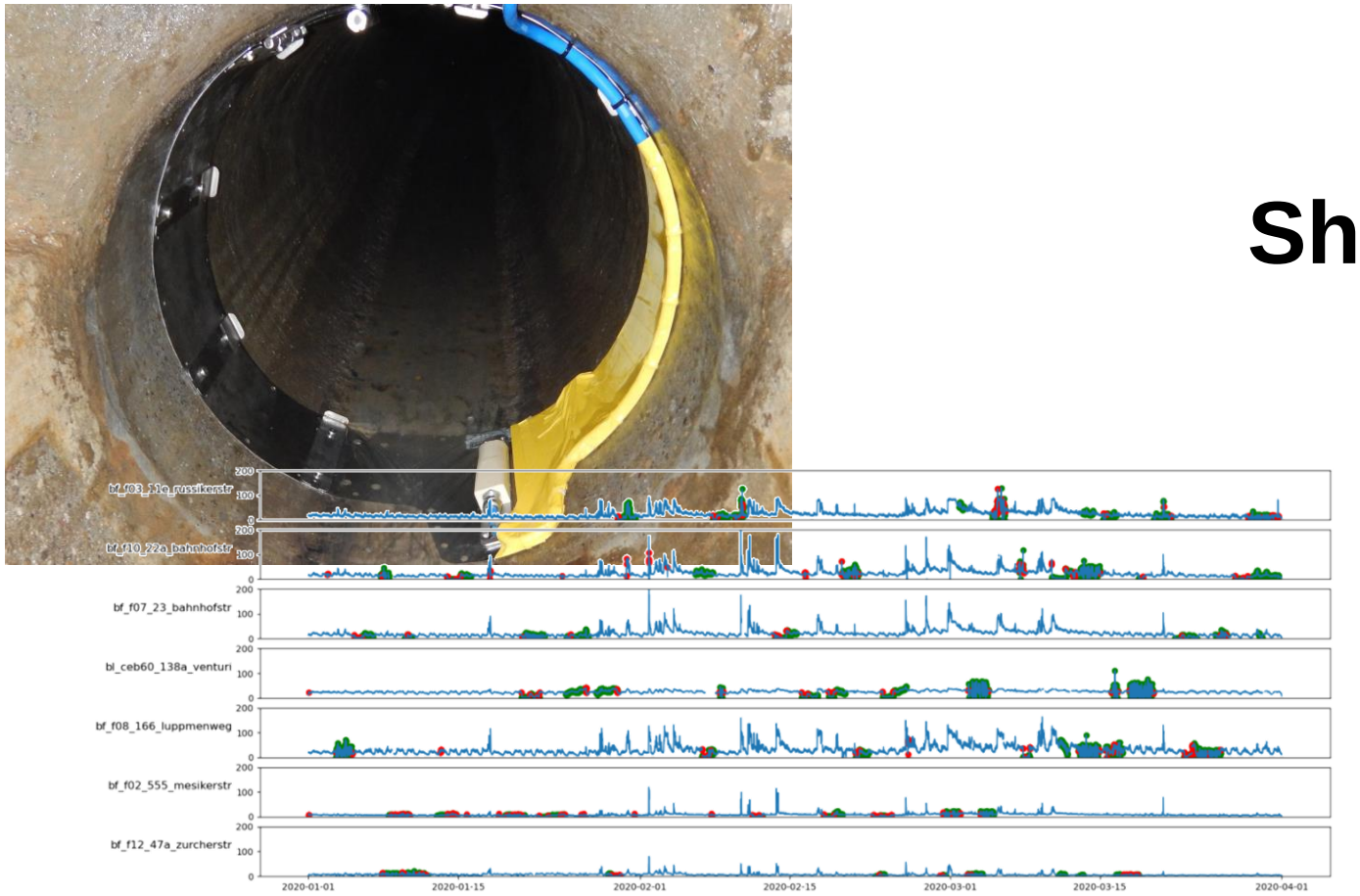
Co-UDlabs

Eawag
Swiss Federal Institute of Aquatic Science and Technology

eawag aquatic research



Workshop

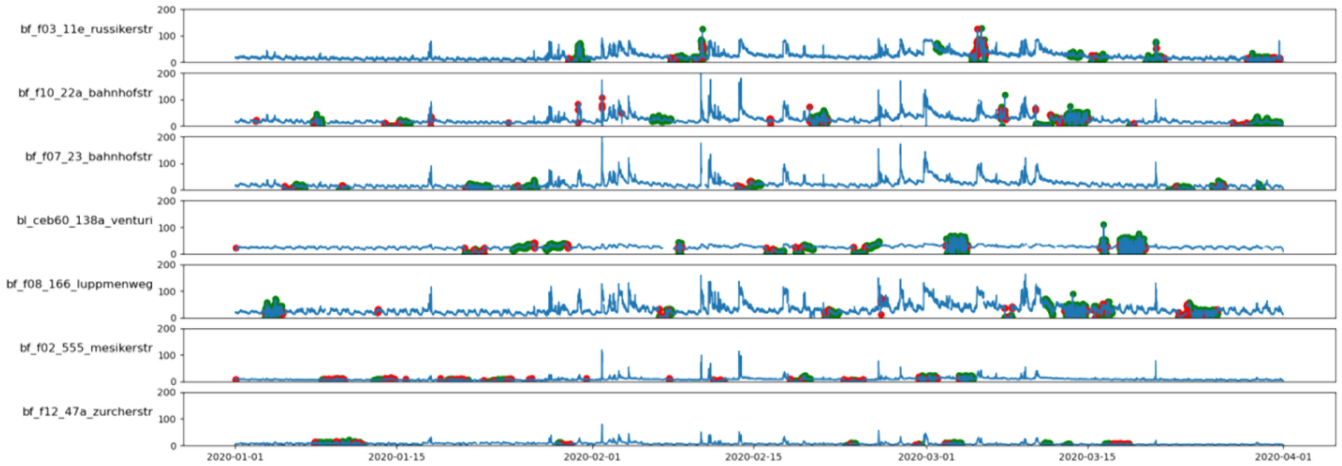
Sharing Flow and water level data

Jörg Rieckermann *(Eawag)*

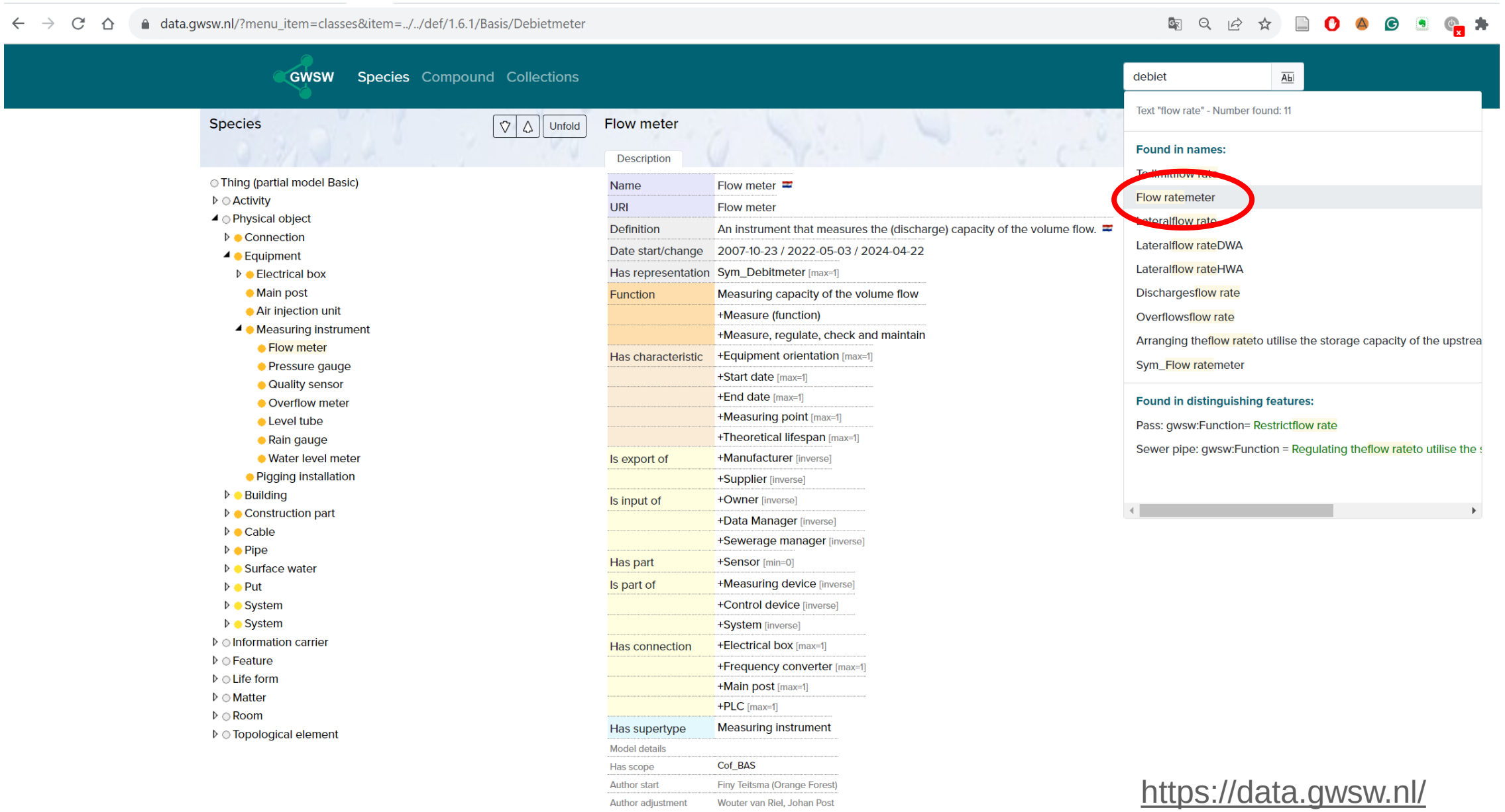
Science that matters

Why?

- Re-use data
- Use case: Machine learning
  - Anomaly detection
  - Data-driven rainfall-runoff modeling?
    - Catchment attributes
    - Rainfall
    - …

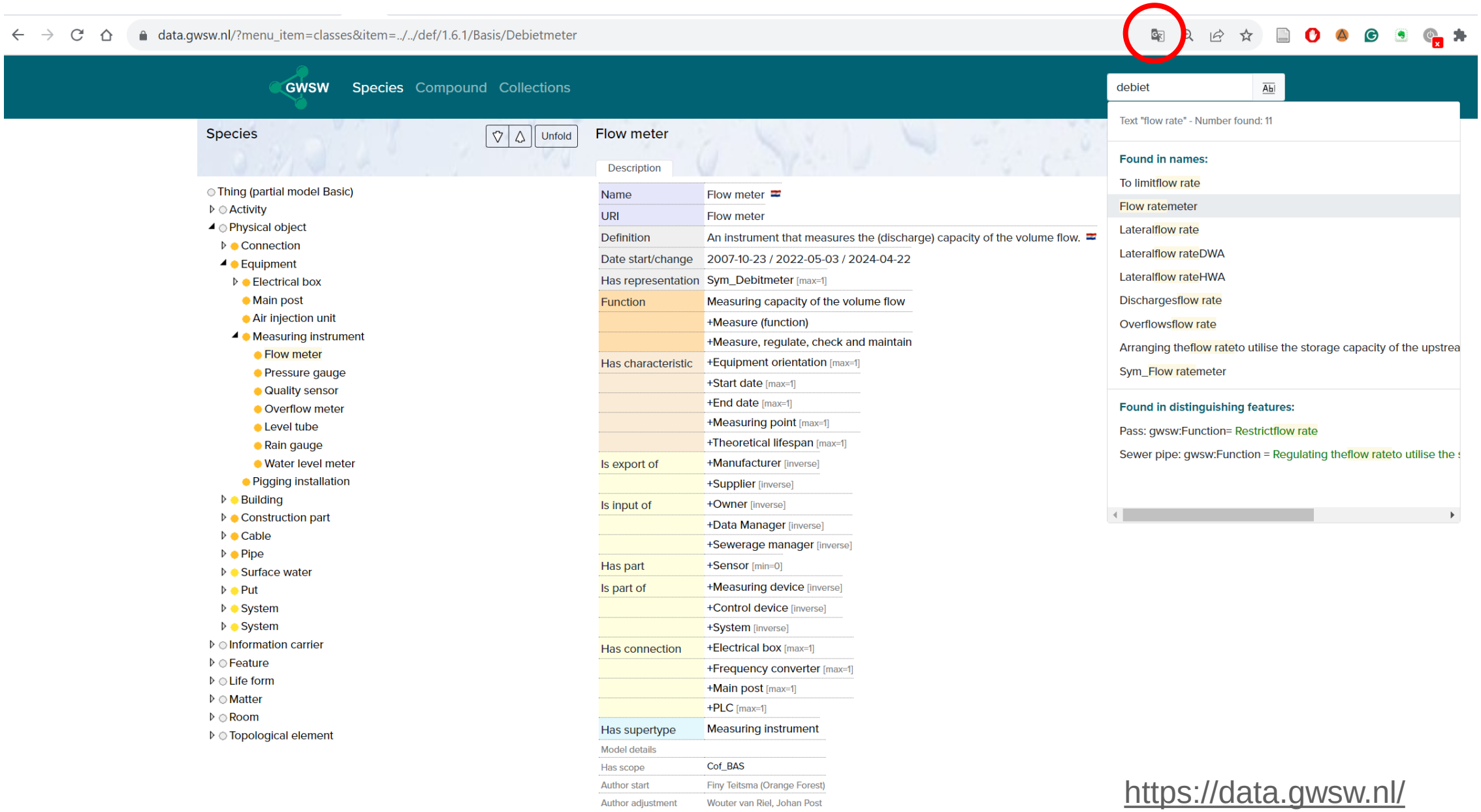


GWSW (The Urban Water Data Dictionary, NL)



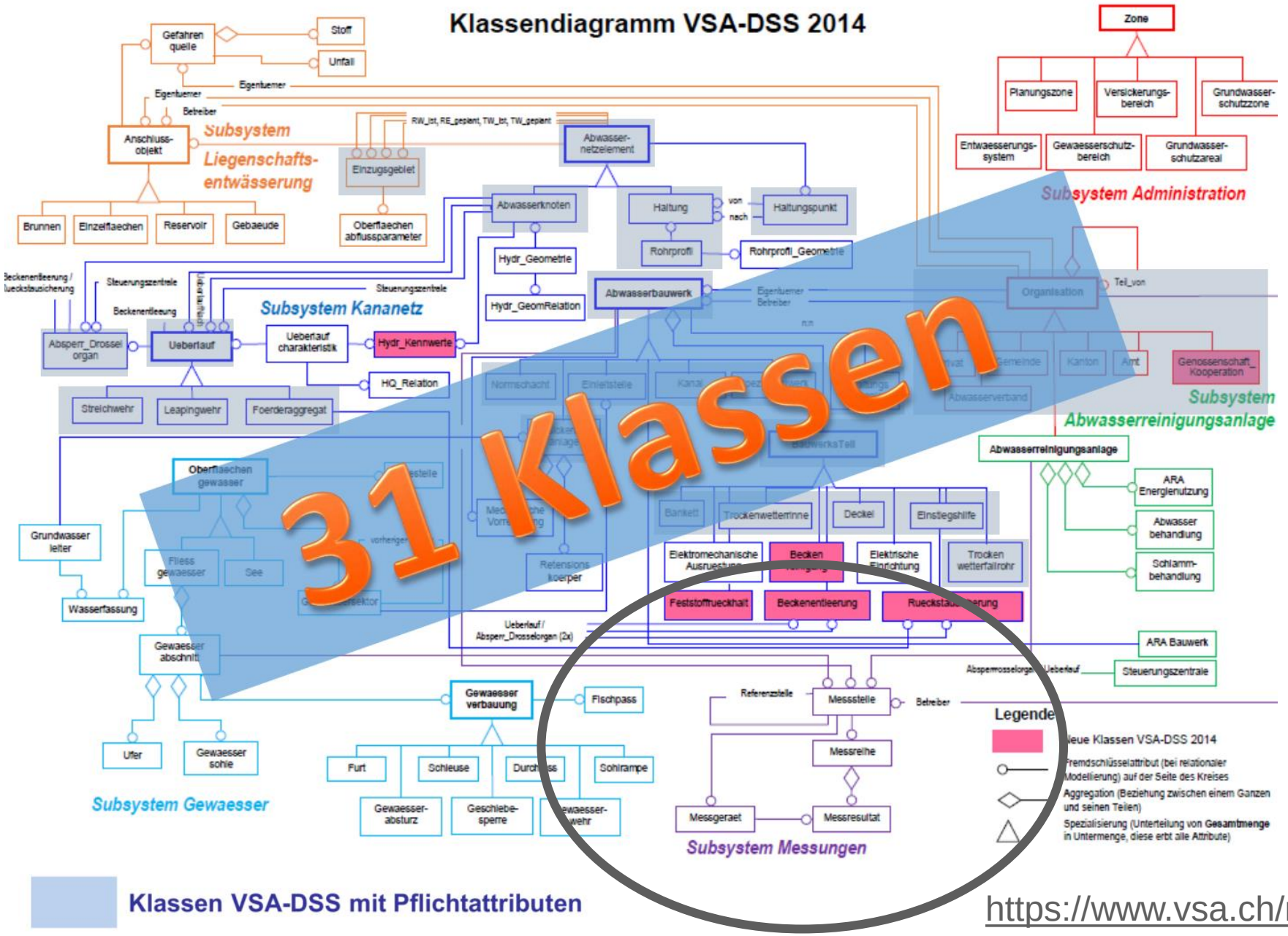
https://data.gwsw.nl/

GWSW (The Urban Water Data Dictionary, NL)



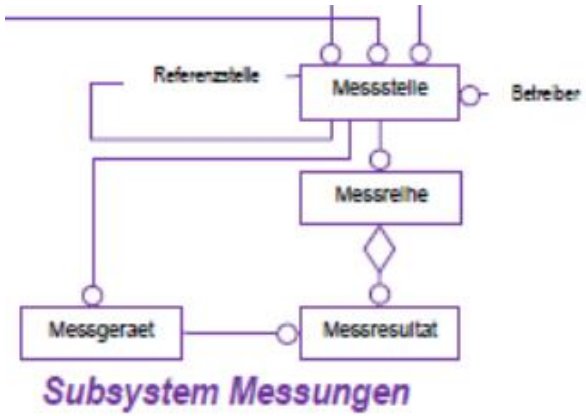
https://data.gwsw.nl/

VSA-DSS (data structure Urban drainage, CH)



https://www.vsa.ch/models/?dir=2020_1

VSA-DSS (data structure Urban drainage, CH)



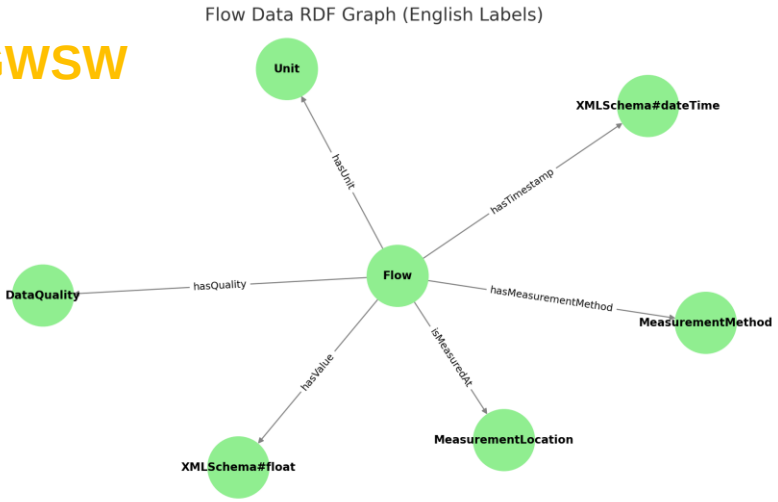
- `Messreihe` = the time series container.
- `Messart = Durchfluss` = defines what is being measured.
- `Messgeraet_Durchfluss` = the physical instrument generating the data.
- `Messstelle` = the spatial context (where).
- `Messresultat` = the individual value entries in the series.

https://www.vsa.ch/models/2020_1/VSA_DSS_2020_1_2_d_LV95-20231018.ili

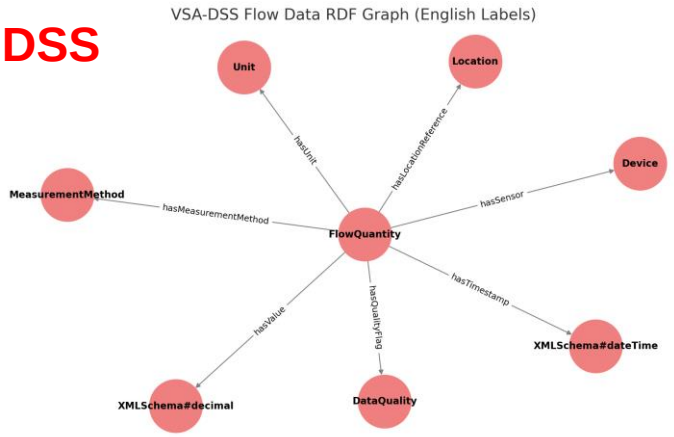
German, French, Italian

Current status: common attributes

GWSW



VSA DSS



Concept	GWSW	VSA-DSS
Measurement Value	debiet	Wert (in Messresultat)
Unit of Measurement	debietEenheid	Dimension (in Messreihe) / Einheit (implicit in Wert)
Timestamp	(in Meetgegevens)	Zeit (in Messresultat)
Measuring Point	meetpunt	Messstelle
Measurement Type	debietType	Messart (Durchfluss)
Equipment Orientation	equipmentOrientation	Art (in Messgeraet) + orientation inferred
Start Date	startdatum	-
End Date	einddatum	-
Theoretical Lifespan	theoretischeLevensduur	-
Device Type	(Debietmeter class)	Art (in Messgeraet)
Manufacturer	(not in Debietmeter)	Fabrikat (in Messgeraet)
Serial Number	(not in Debietmeter)	Seriennummer (in Messgeraet)
Measurement Series	-	Messreihe with Art + Dimension
Location Coordinates	(in Meetpunt)	Lage (in Messstelle)
Purpose of Measurement	(not specified)	Zweck (in Messstelle)
Hydraulic Structure	(not specified)	Staukoerper (in Messstelle)
Diameter	implicit	implicit
Slope	implicit	implicit
Hydr. Roughness	implicit	implicit