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INSPIRE Data specs for US as standard for information exchange.

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VMM in a nutshell

- ▶ an agency of the Flemish government for a better environment in Flanders
- ▶ contribute to the realisation of the environmental policy objectives



Population: 6.350.765 in the Flanders Region
Surface: 13.522 km²

VMM in a nutshell

▶ Active in water, air and the environment

i.a.

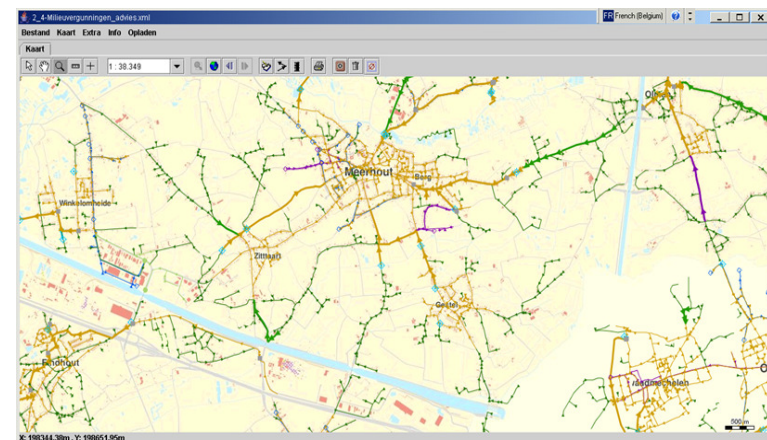
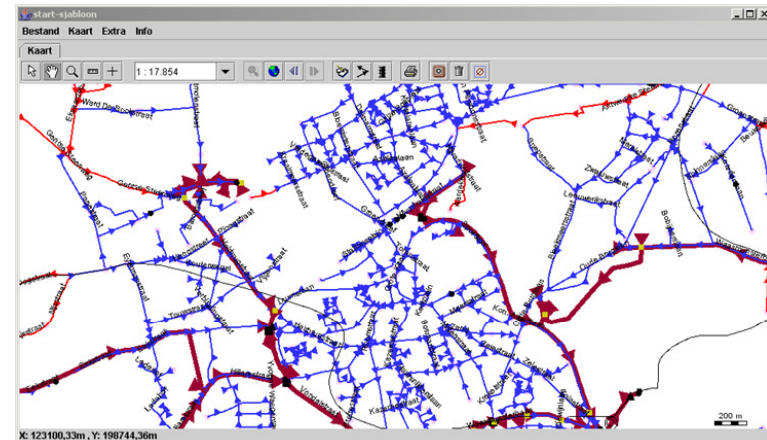
→ responsible for the policy regarding the development of sewage systems

→ administrator of the mid-scale Flemish sewage database

Roadmap – Why change?

mid-scale Flemish sewage database

- ▶ **contains all information on**
 - sewer networks and
 - wastewater treatment infrastructure in Flanders.
- Built up by VMM
- Based on different sources:
 - Paper plans
 - Digital data
 - from different stakeholders
 - ...
- No standard is used



Roadmap – Why change?



- ➔ Data for sewage policy
- Schematic data
 - sometimes Out-dated data
 - + area-wide for Flanders

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Stakeholders



308 municipalities

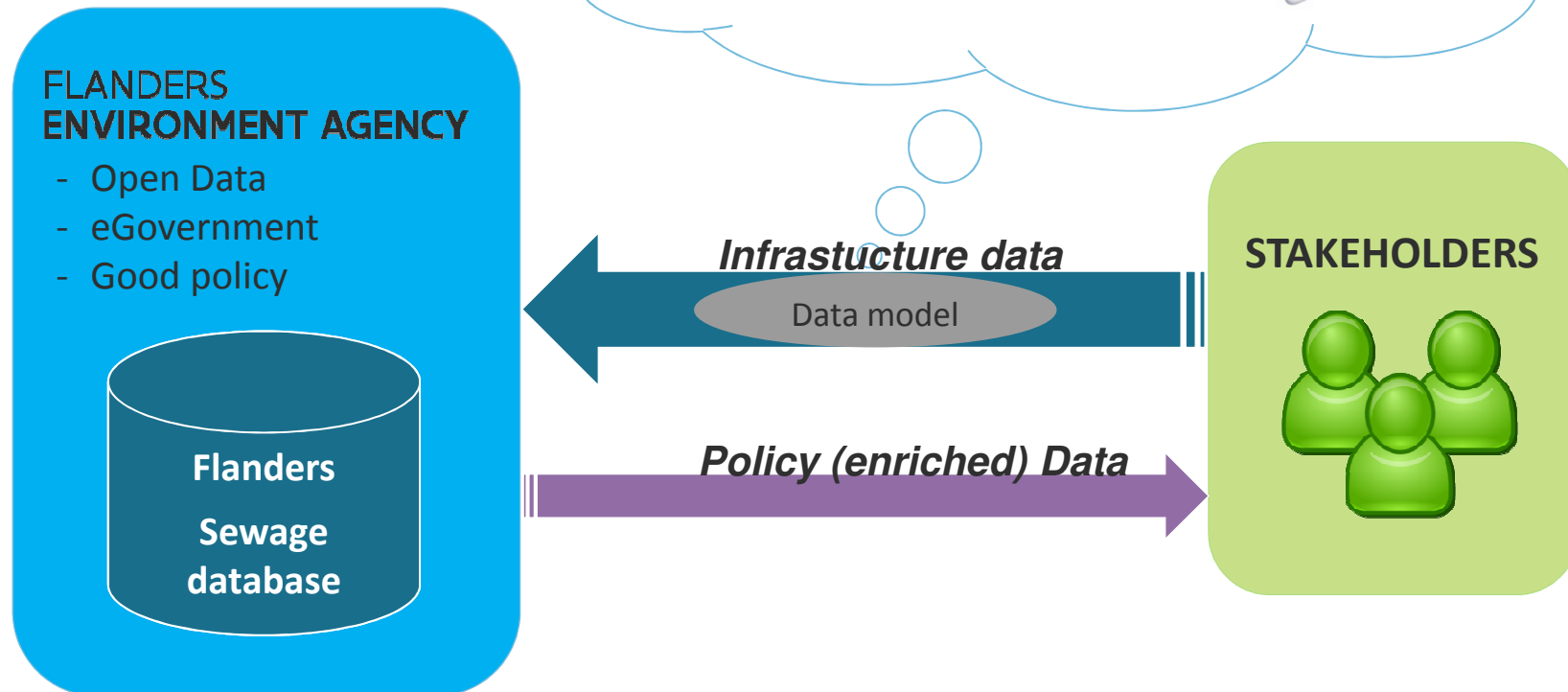
- ± 80 own management
- ± 228 management outsourced to a few (commercial) partners

- ➔ Operational sewage data
- + More detailed location
 - + Recent data
 - only for area of responsibility

Roadmap – Why change?

Future view

- + Standardisation
- + More detailed location
- + Recent data
- + area-wide for Flanders



Supporting policy?

- ▶ **VMM supports the idea of**

- open data
- eGovernment
- freedom of information

- ▶ **INSPIRE and other regulation are anchored in different Flemish decree's**

Supporting policy?

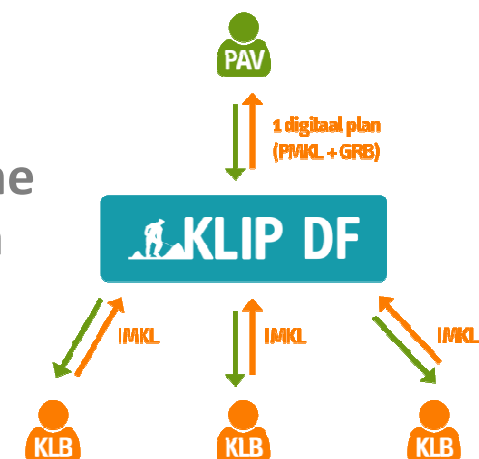
► Flemish Information Site regarding Cables and Conduits (KLIP)

<https://www.agiv.be/international/en/products/klip-en>

- Founded after severe gas explosion in 2004
- **Exchange platform for plans about location of utility infrastructure**
- Managed by the Flemish Geographic Information Agency – AGIV (becoming Flemish Information Agency)
- Since 2009 mandatory to apply for plans before excavation works

→ **2016 start of digital exchange (vector data)**

→ Anchored in **Flemish decree** and therefore **obligatory** for all managers of cables and conduits from **different utilities + everyone doing excavation works on public domain**



Sewage Data Model

- ▶ INSPIRE Data specs on Utility and Government Services – Technical guidelines (Annex III)

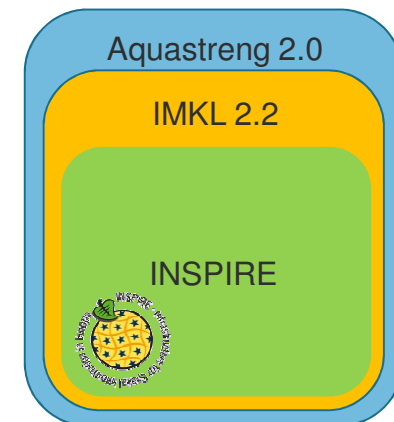
→ *limited information*



- ▶ Flemish information model on Cables and Conduits from AGIV
→ *Added information with regard to excavation and safety*



- ▶ Aquastreng2.0 exchange model from VMM
→ *Added information with regard to sewage policy*



The data model

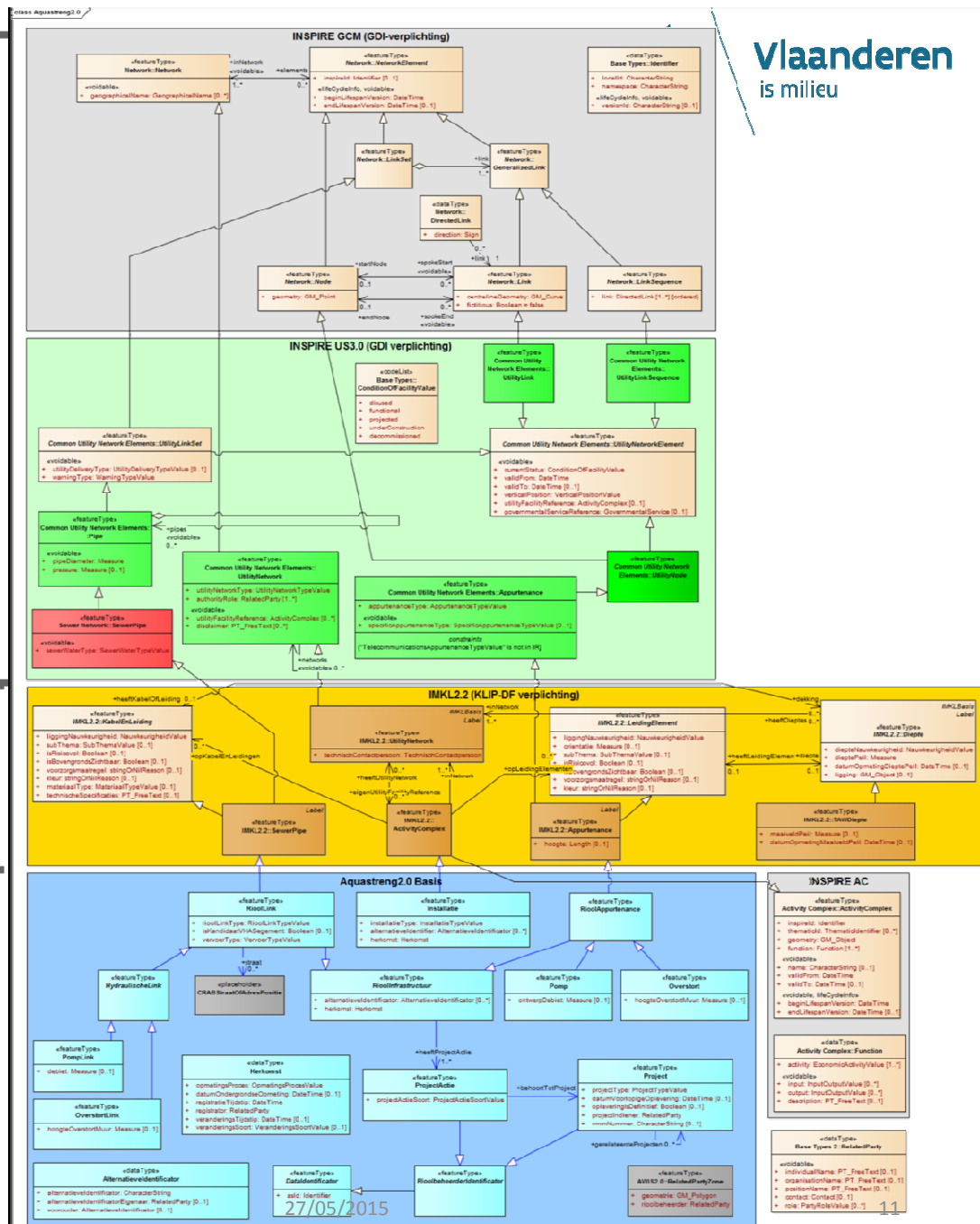
INSPIRE

IMKL

AQUASTRENG2.0

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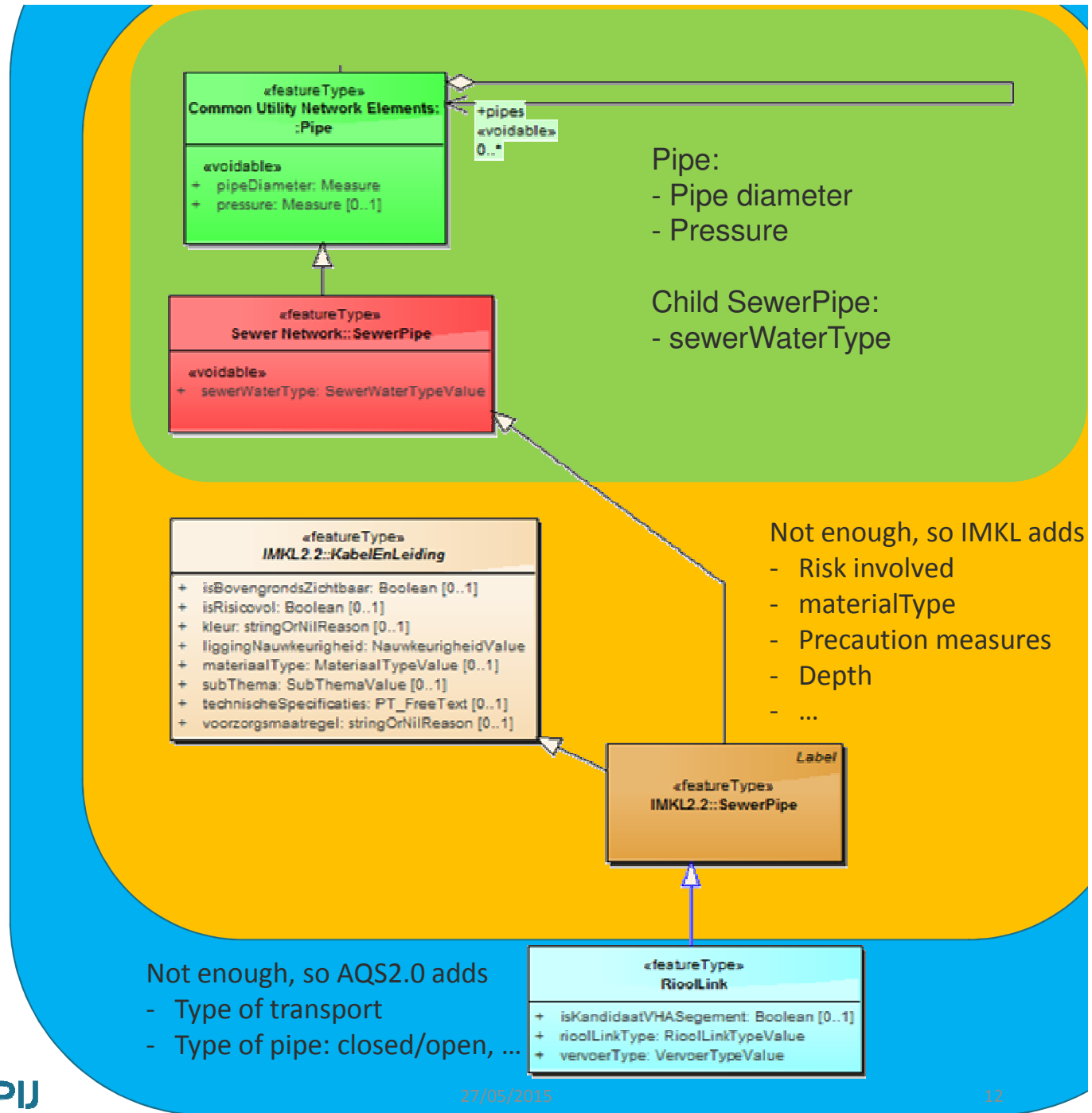
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Zoomed in on one example

Extending INSPIRE using inheritance

B → A
 B is a child of A
 Or
 B inherits from A



Agreement with stakeholders

- ▶ **IMKL (and INSPIRE) is known to all sewage managers in Flanders so by adding extra layers we keep the familiar core in tact.**
- ▶ **Several workshops to make a compromise between internal and external stakeholders**
- ▶ **Supported by Flemish policy**

Model in practice

- ▶ Very important that data is available
 - ▶ Equally important that data is accessible
- A sewage water information system where data about sewage infrastructure and policy are brought together (available and accessible)

European projects

Two European projects to create data access as a start for the bigger plan

▶  **GeoSmartCity**

- <http://www.geosmartcity.eu/>
- Some GeoSmartCity information at the eENVplus booth (n.26) in the exhibition
- (Monday 25th 15:00-17:30 – Inside Exhibition Hall (Hall 3): GeoSmartCity Hub: a data platform for supporting the Covenant of Mayors initiative)

▶  **eENVplus**

- <http://www.eenvplus.eu/>
- **Workshop Friday 29th May at 11:00-12:30 – Pavilion 3C : “eGovernment and web services: the eENVplus approach opening new operational solutions”**
- **eENVplus booth (n.26)** in the exhibition



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**Thank you for
your attention!**

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