

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 km<sup>2</sup>



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#### VMM in a nutshell

- Active in <u>water</u>, air and the environment i.a.
  - responsible for the **policy** regarding the development of **sewage systems**
  - → administrator of the mid-scale Flemish sewage database

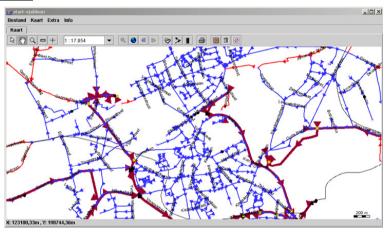


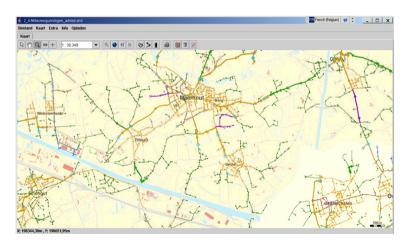
## Roadmap – Why change?

#### 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









#### 308 municipalities



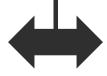
- ± 80 own management
- ± 228 management out sourced to a few (commercial) partners







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



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Roadmap - Why change?

#### **Future view**

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



#### FLANDERS ENVIRONMENT AGENCY

- Open Data
- eGovernment
- Good policy

Flanders Sewage database

VLAAMSE MILIEUMAATSCHAPPIJ Infrastucture data

Data model

Policy (enriched) Data

**STAKEHOLDERS** 



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## **Supporting policy?**

- ► VMM supports the idea of
  - → open data
  - → eGovernment
  - → freedom of information
- ► INSPIRE and other regulation are anchored in different Flemish decree's

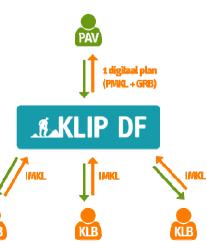




## **Supporting policy?**

## ► Flemish Information Site regarding Cables and Conduits (KLIP) <a href="https://www.agiv.be/international/en/products/klip-en">https://www.agiv.be/international/en/products/klip-en</a>

- → 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 therefor 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)

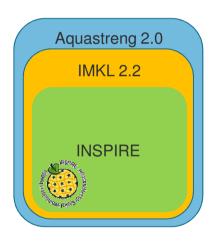
→ limited information

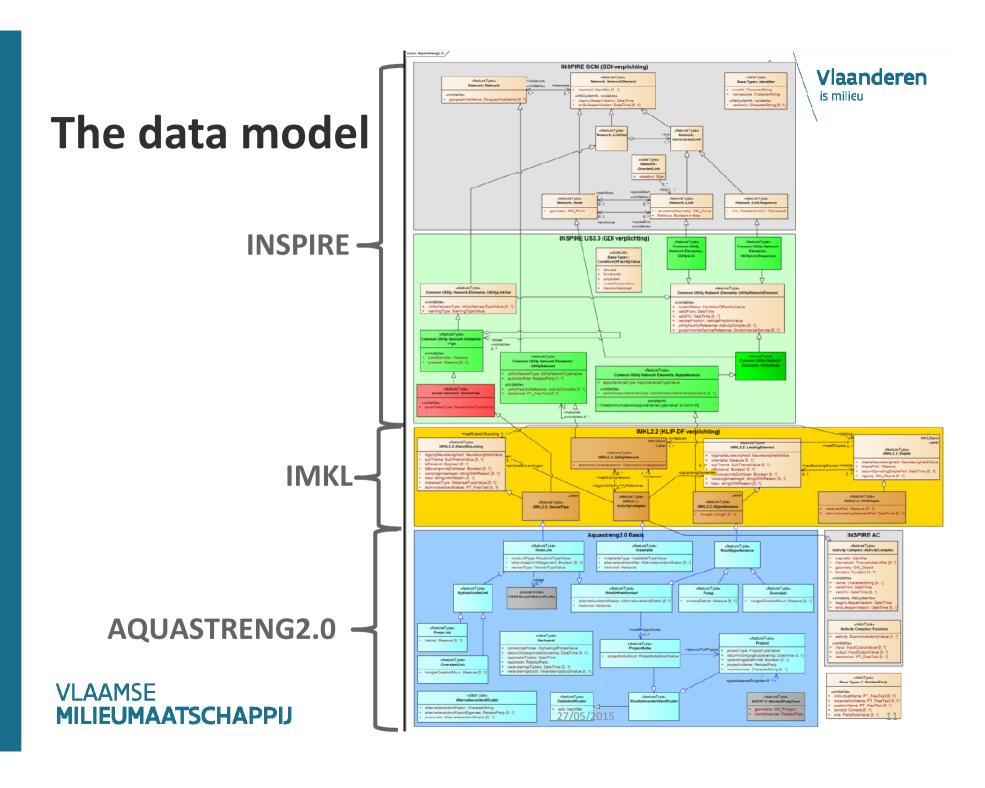


- ► Flemish information model on Cables and Conduits from AGIV
  - → Added information with regard to excavation and safety



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

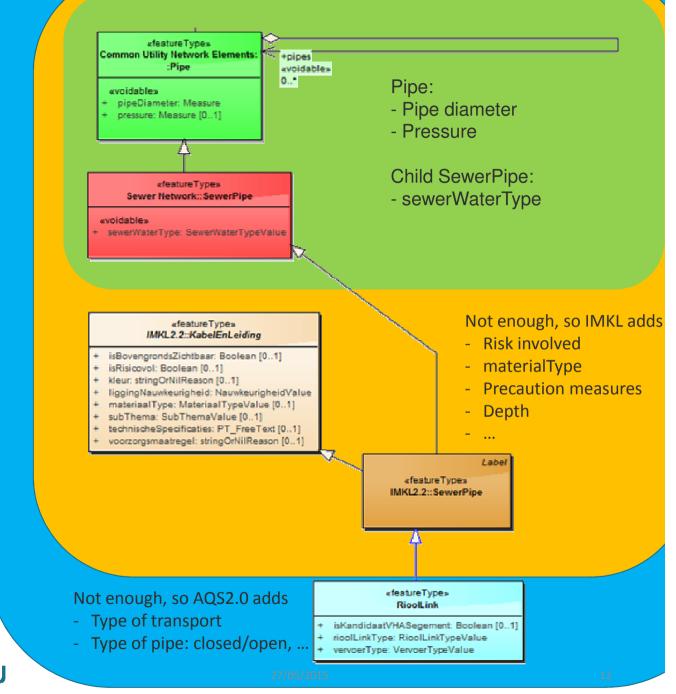




Zoomed in on one example

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

## ▶ |叶付GeoSmartCity

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



- → http://wwww.eenvplus.eu/
- → Workshop Friday 29<sup>th</sup> 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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