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**IMKL as standard
for information
exchange on
sewage data**

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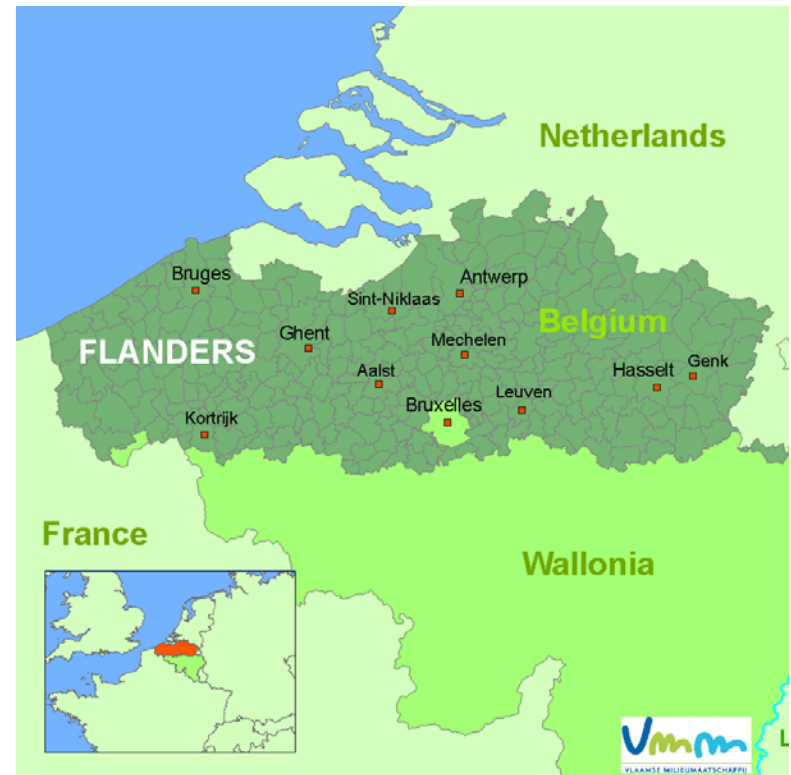
Interreg 
North-West Europe
BE-GOOD
European Regional Development Fund

Content

- ▶ **VMM in a nutshell**
- ▶ **Data Model for the utilities-sewage**
- ▶ **Agreement with stakeholders**
- ▶ **Template tender**
- ▶ **Model in practice**
- ▶ **European project**

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 detailed Flemish
sewage database

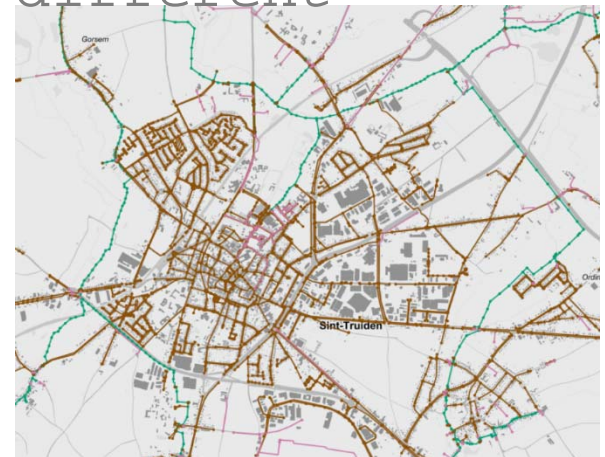
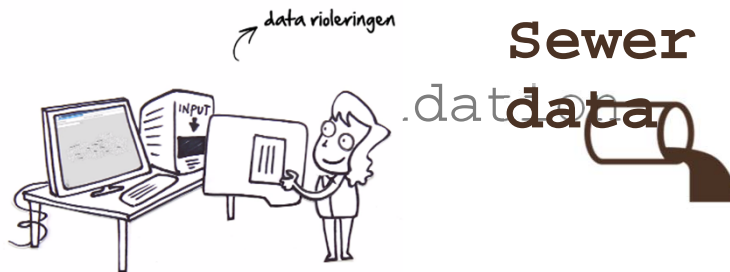
Sewage database: input data

- ▶ Ownership = Sewer managers and local authorities
- ▶ Management = Sewer managers and local authorities
- ▶ Web application ~ Flanders Environment Agency

→ Upload data

→ **1 CENTRAL DATABASE**

→ Combination of data from different



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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 AIV
→ *Added information with regard to excavation and safety*

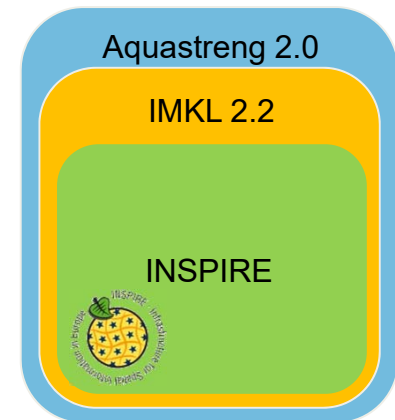


- ▶ Aquastreng2.0 exchange model from VMM
→ *Added information with regard to*



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The data model

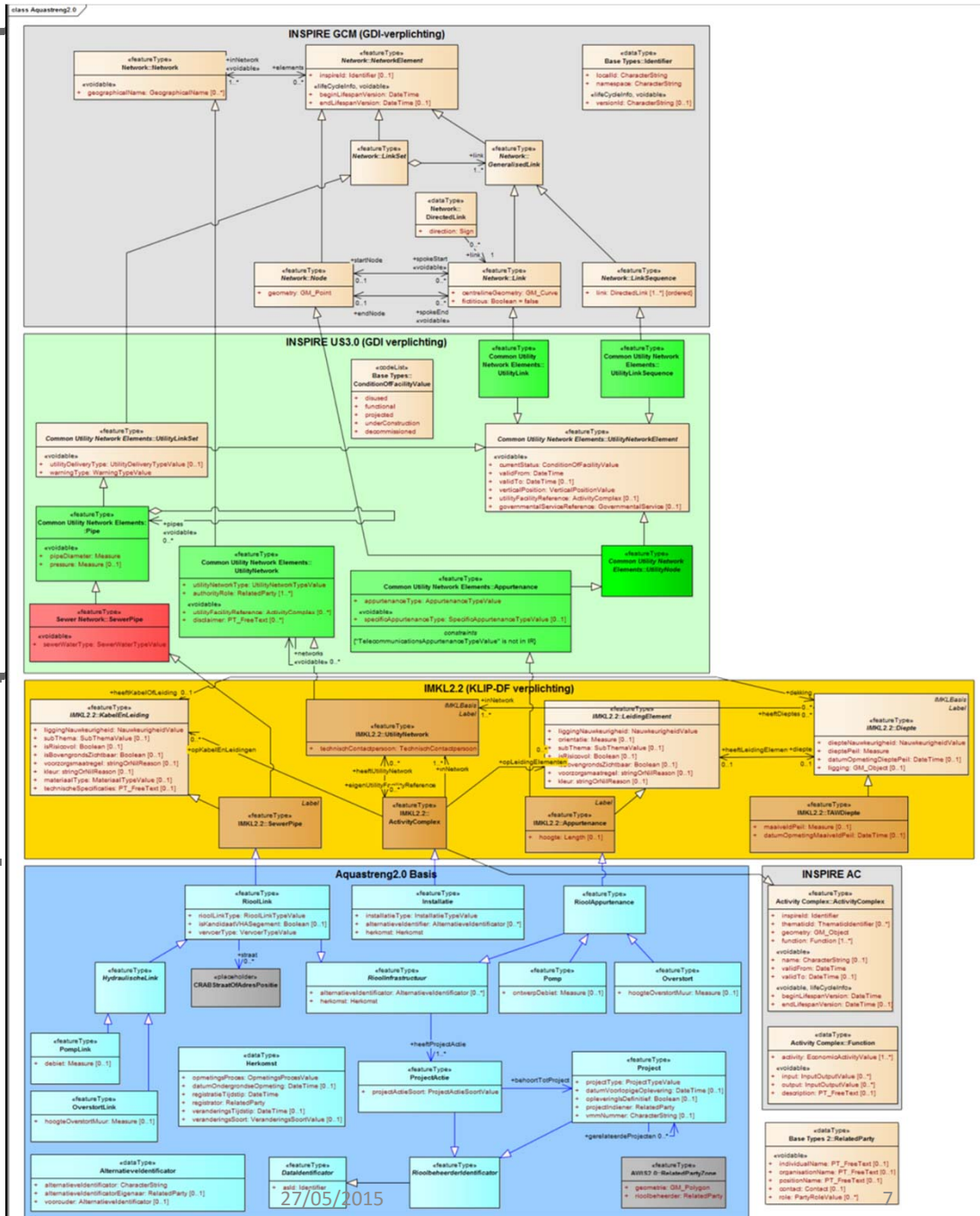
INSPIRE

IMKL

AQUASTRENG2.0



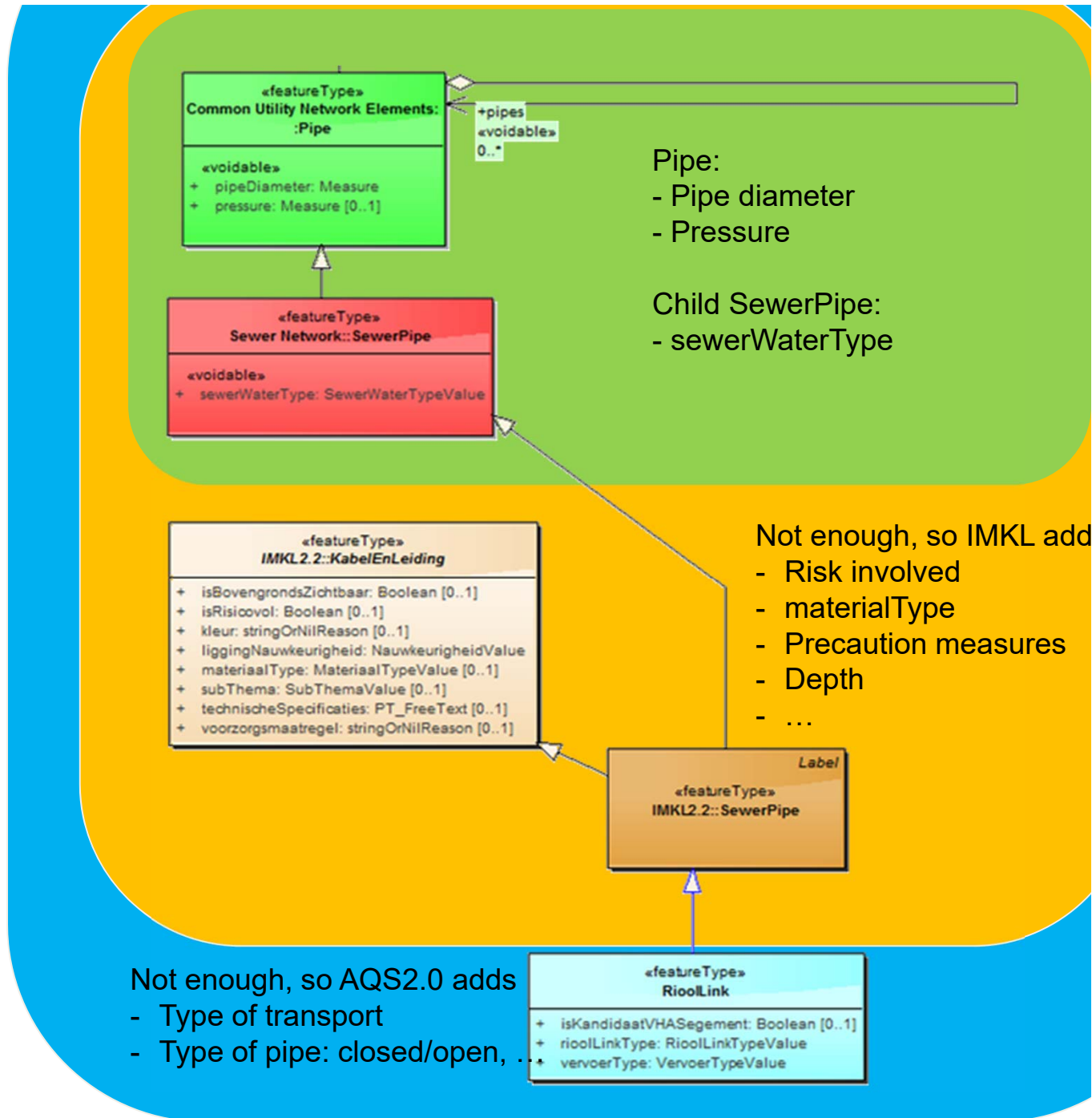
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Zoomed in on one example

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

Template tender

▶ To be used by sewer managers and local authorities when preparing a call for tender to survey sewers

▶ Lower cost for municipalities

▶ Clear requirements for surveyors

▶ Standardizations of the delivered data
Data Vectors
Market

▶ Delivered data ready for inclusion in
IMKI/INSPIRE conform databases

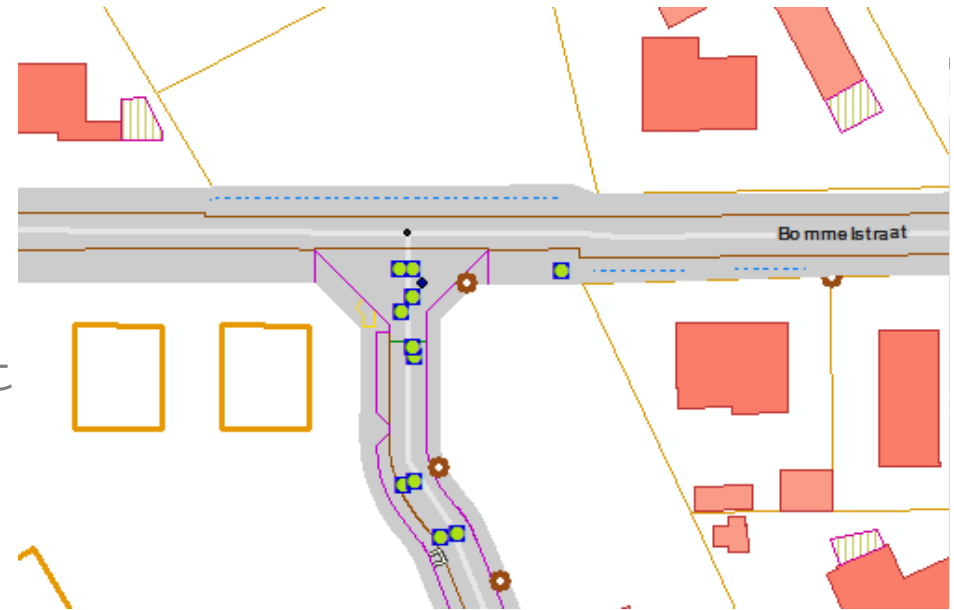


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Template tender

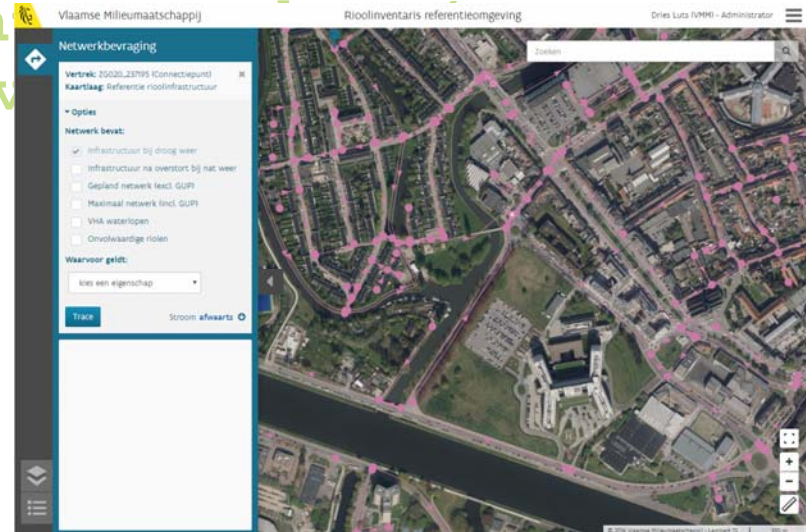
- ▶ Object catalogue
 - Object
 - Definition
 - Measurement crit
 - Conditions
 - Quality
 - Geometry
 - Graphical characteristics



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 into



European project: BEGOOD

An Interreg North-West Europe project aimed at stimulating the generation of value from public open data.

- 10 pilots implementing public open data commercially
- Demand driven approach based on public service challenges
- Development of open data and software

Related presentations:

- Waste Water Information System (Koen De Witte, Okapi 3, 15h00, 20/09)
- Tracing wastewater through sewage system and surface water in Flanders and in The Netherlands (Katia Berings, Okapi 3, 15h15, 20/09)



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Thank you for
your
attention!

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