

OSLO : IMKL

Business Workshop

Welcome!

Thursday 20 April 2023
VAC Ghent – Leo Baekeland

We start at 13:35



Goal



OSLO IMKL
introduction



OSLO
introduction



USE CASES
Brainstorming

Agenda

13u35 - 13u45	Introduction
13u45 - 13u50	Who is who?
13u50 - 14u00	Motivation and context
14u00 - 14u10	Introduction OSLO
14u20 - 14u35	Inspiration
14u35 - 14u50	Pause
14u50 - 16u00	Brainstorm session
16u00 - 16u15	Q&A and next steps

Who is who?



Vlaanderen
verbeelding werkt

Motivation and context



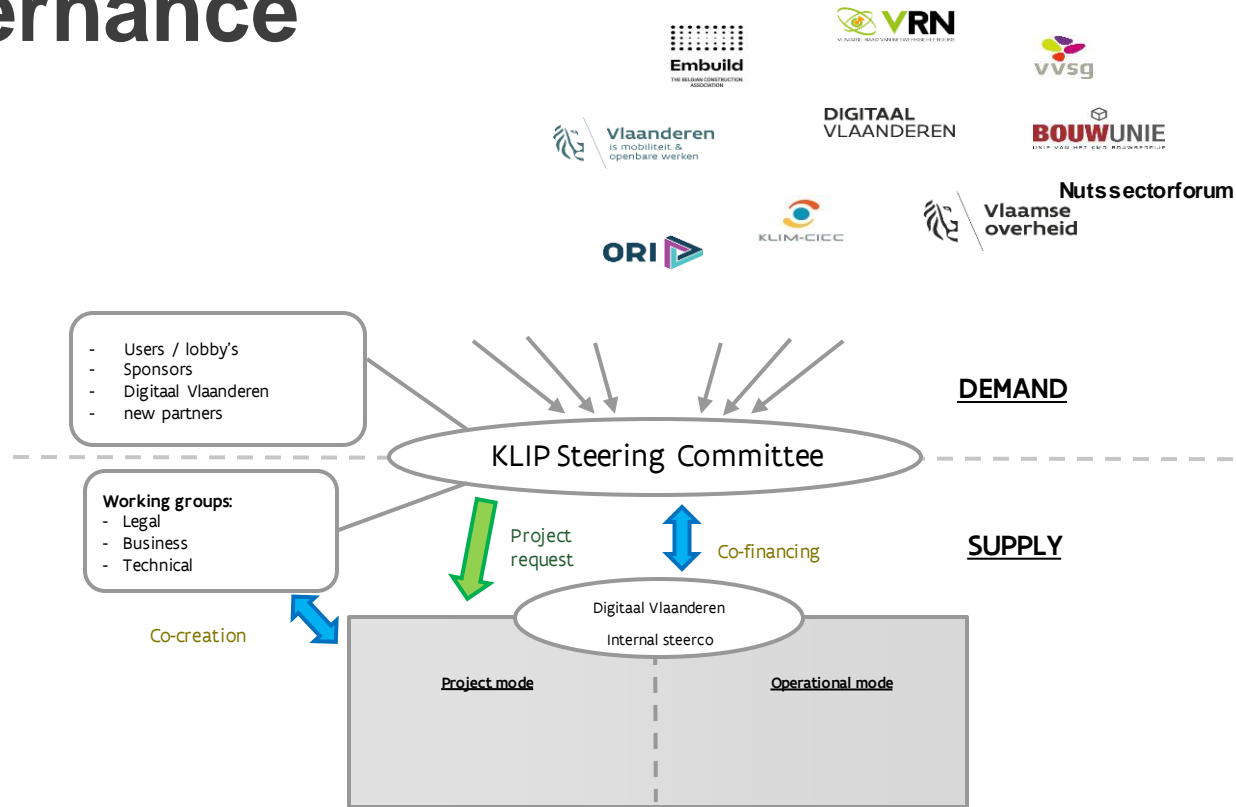
Vlaanderen
verbeelding werkt



“

It went terribly wrong
(Ghislenghien, 2004)

Governance



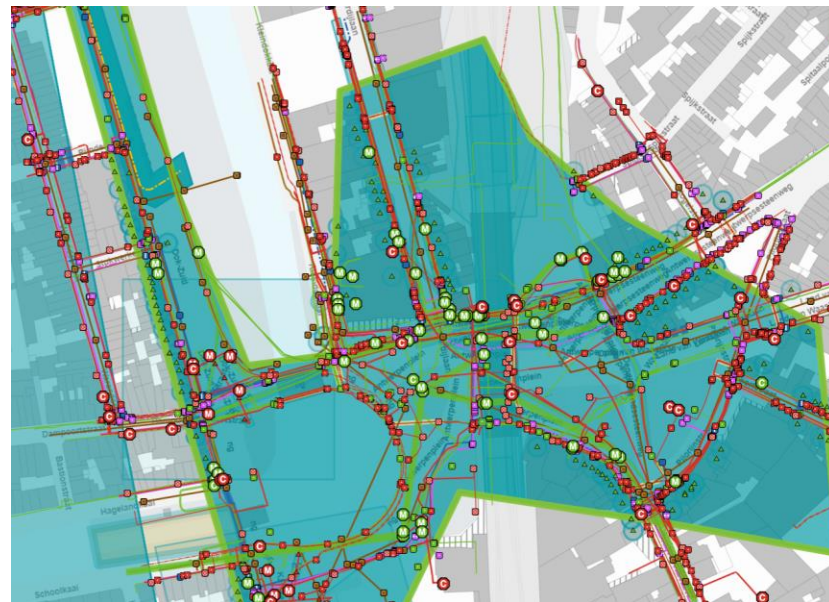
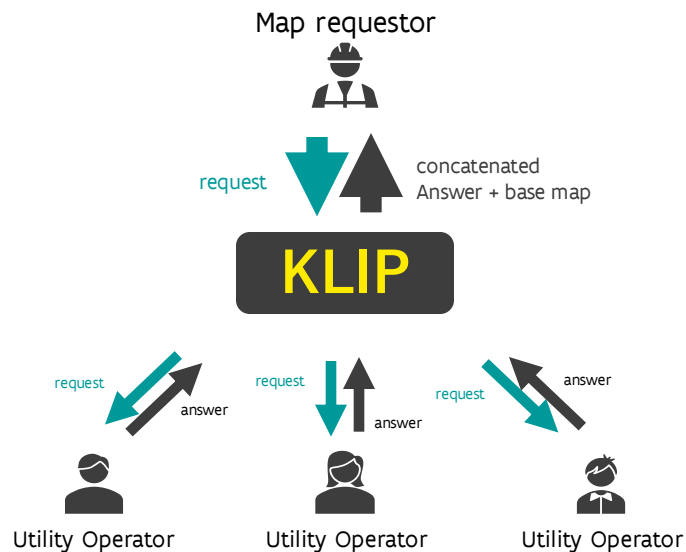
Use cases IMKL

- **Limit excavation damage** by exchanging data about underground cables and pipes
- Deliver piping data in a standardized form to be able to **display** this **info on 1 map**
- Collect piping data in a standardized form to process these data in **preliminary studies**
- Better **policy preparation** en better support to prevent issues with underground cables and pipes by improving **coordination between policy/big projects and pipe infrastructure**.

CONTEXT KLIP

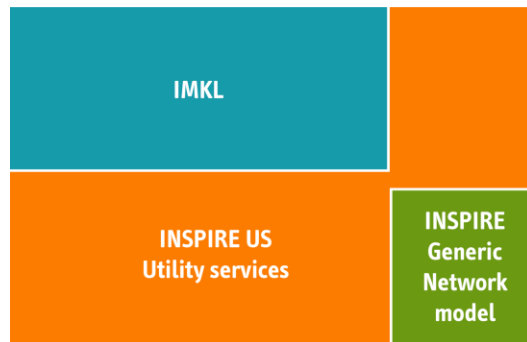
KLIP Digitaal

2016 - today



IMKL

- Informatiemodel Kabels- en Leidingen (Information Model Cables and Pipes)
- Developed for 'KLIP Digital' in 2016
- Datamodel based on European standard: Inspire Utility Theme (INSPIRE US 3.0)
 - Extra addition: classifications, attributes en relations



IMKL Model



IMKL

Depth

Protected Area

Extra topography

Extra map

Annotation

Connection

Extra information



Electricit
y

Telecom

Thermal

Oil, Gas,
Chemical

Water

Sewer

Cross
theme

Activity
Complex



INSPIR



Utility Services

Generic Network Model

Activity Complex

IMKL-update: why?

- Current version (IMKL 2.3) in production since 24/08/2017
- Since 2017
 - Not yet implemented breaking changes in INSPIRE Data Specifications for Utility Services
 - Flemish Government commits to Open Standards for Linking Organisations (OSLO)
 - A.o. for infrastructure (for example the OTL specifications of the Agency Roads and Traffic)
 - OGC-standard in development: "Model for Underground Data Definition and Integration (MUDDI)"
- New use cases detected
 - Policy preparation
 - Large infrastructure projects
- The current data model
 - Only XY-coordinates allowed (2D)
 - Only Lambert1972-coordinate system allowed
 - Mix of Dutch and English terminology
 - Maybe too complex

IMKL-update

2023

- Analysis datamodel



30/09/23



Working together with OSLO-team
(Digitaal Vlaanderen)

2024

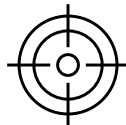
Implementation new
validationrules



30/06/24

Renewed IMKL becomes a
Flemish OSLO-data standard

IMKL goes National



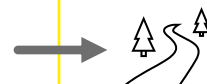
Goal: to make the Flemish data standard a national data standard

Fase 1

Include national stakeholders with the update of the current **datamodel** (Flemish OSLO-datastandard)

Fase 2

Make a national standard based on the Flemish OSLO-datastandard



Working together via ICEG
Announce: 8/3/2023 ✓

NATIONAL CONTEXT

History

2015

Open Standards for Linking Organisations (OSLO)



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A group of business professionals in a meeting room are gathered around a wooden table, holding large, colorful interlocking puzzle pieces. The pieces are yellow, red, green, and blue, and they fit together to form a larger shape. The scene is dimly lit, with the focus on the puzzle pieces and the hands of the participants.

INTEROPERABILITY

=

The possibility of different autonomous organizations and systems to communicate and work together



Bottom-up



Semantic
Standard

Feedback sessions

Existing standards

Use Cases

data.vlaanderen.be

<https://data.vlaanderen.be/ns/persoon>

International
Standards



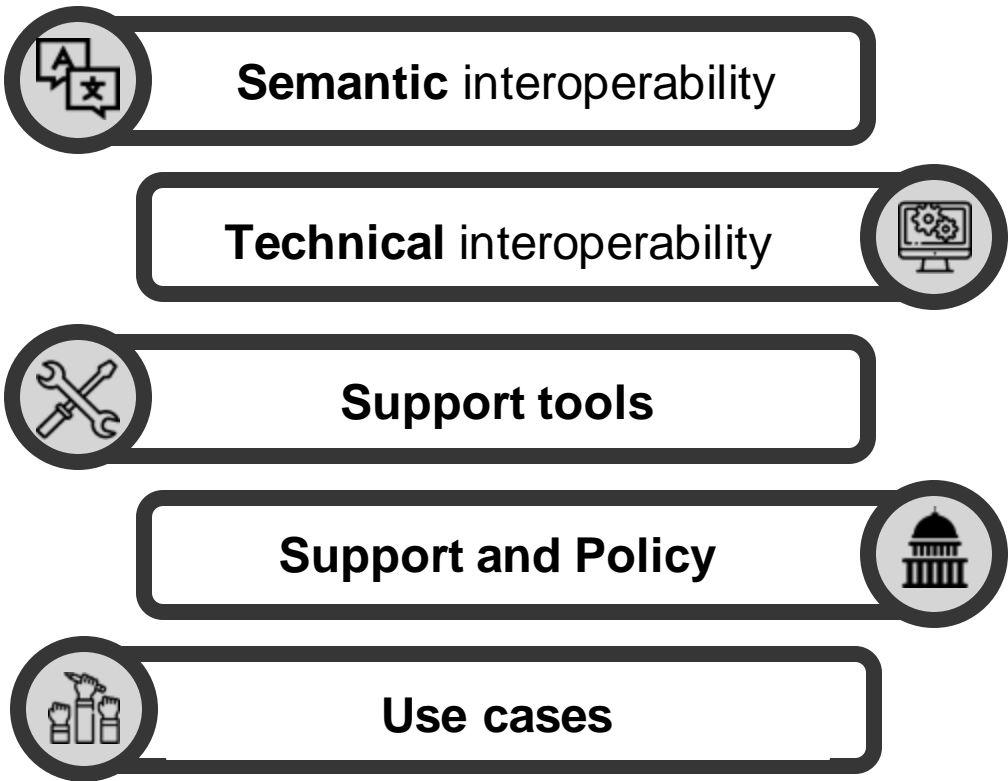
e.g. INSPIRE

EU ISA CORE
Vocabularies

OSLO
Extension

EU - ISA'
Federal Government
Regional Government
Local Government
Industry
Academia

OSLO



Process and methodology

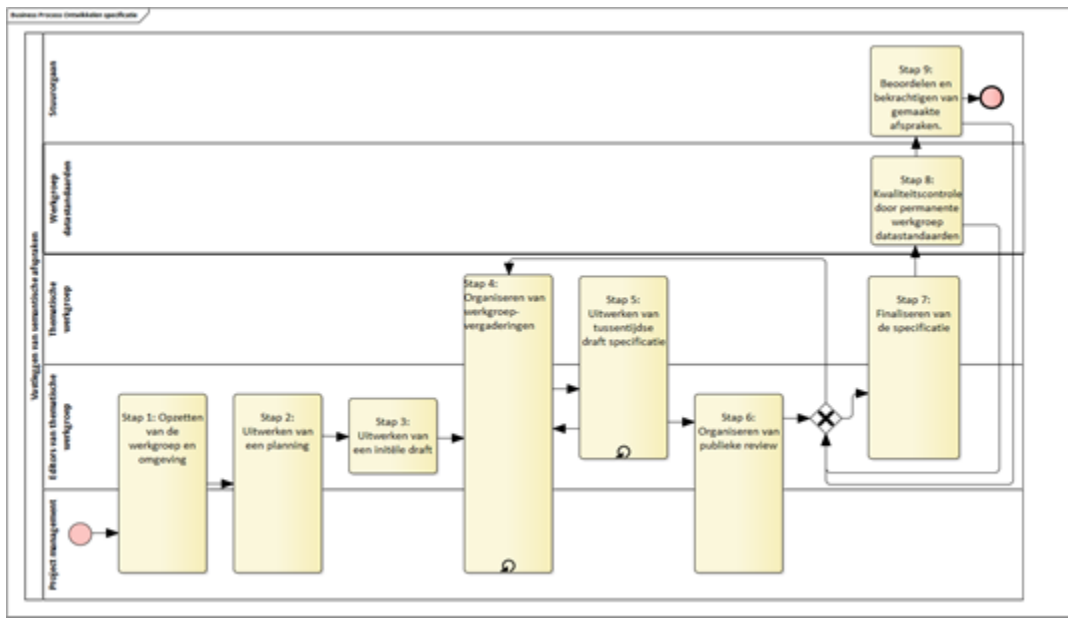
Scalable process for joining, developing, changing and phasing out data standards. [Discover the document with Process and Methods here.](#)



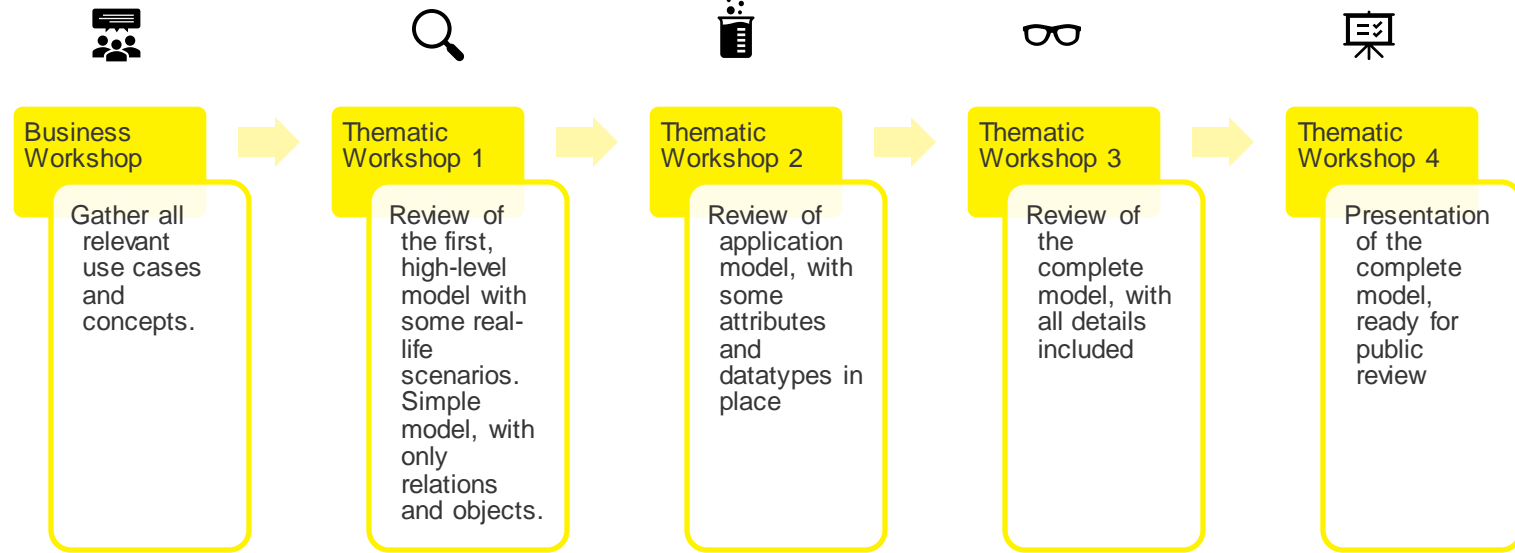
Context of the workshops

Workshops should be put into the context of a broader process

- Goal: Consensus around the data standard by several stakeholders
- Process and methodology for developing a data standard
- Obtaining content-related data



Iteration of workshops



OSLO STANDAARDENREGISTER

Dit standaardenregister geeft een overzicht van alle lopende en afgewerkte trajecten die deel uitmaken van het initiatief Open Standaarden voor Linkende Organisaties (OSLO) van de Vlaamse overheid.

131

Erkende
standaarden

33

Kandidaat
standaarden

26

Standaarden in
ontwikkeling

472

mensen hielpen
mee

210

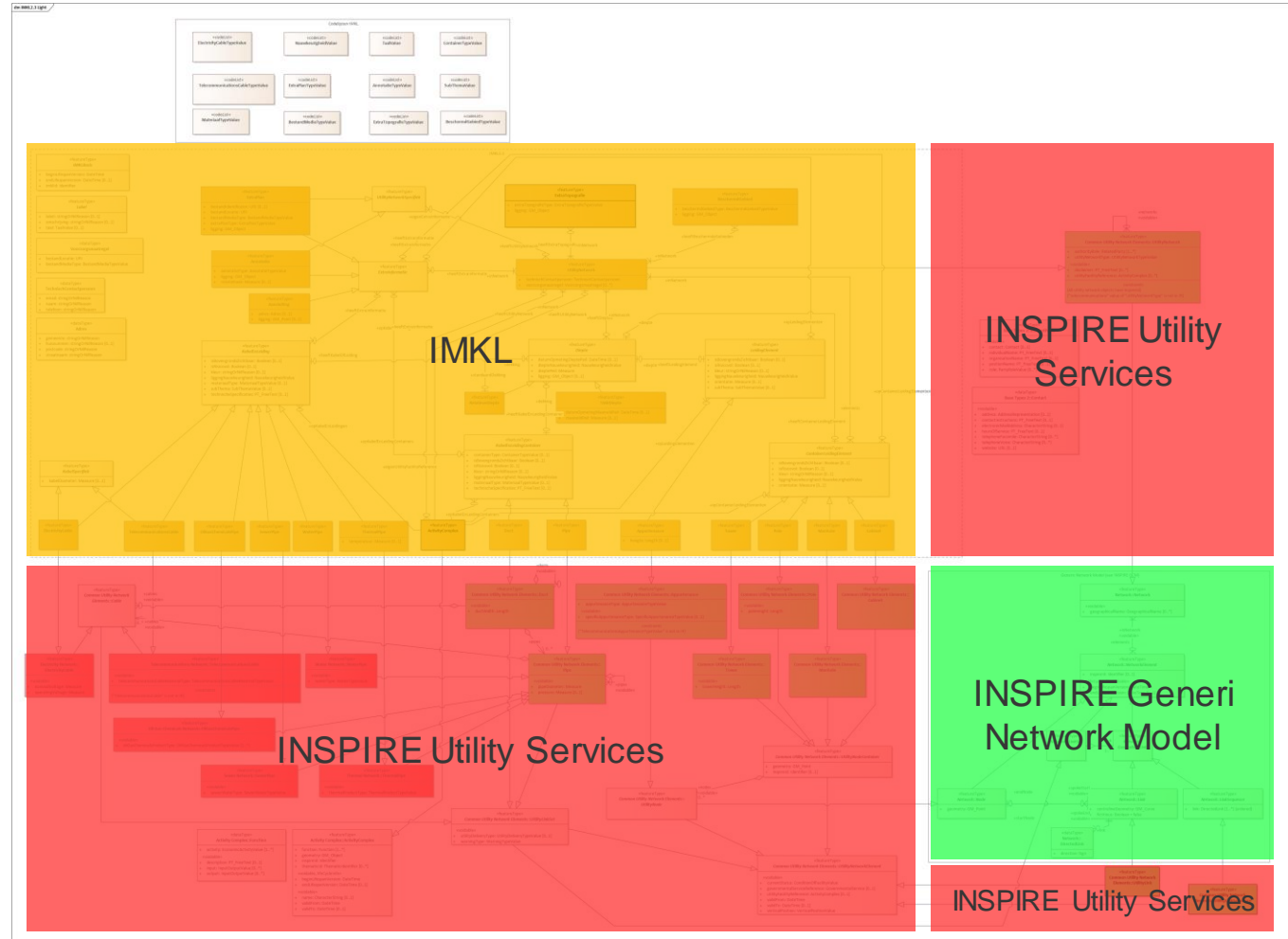
organisaties waren
vertegenwoordigd

Inspiration



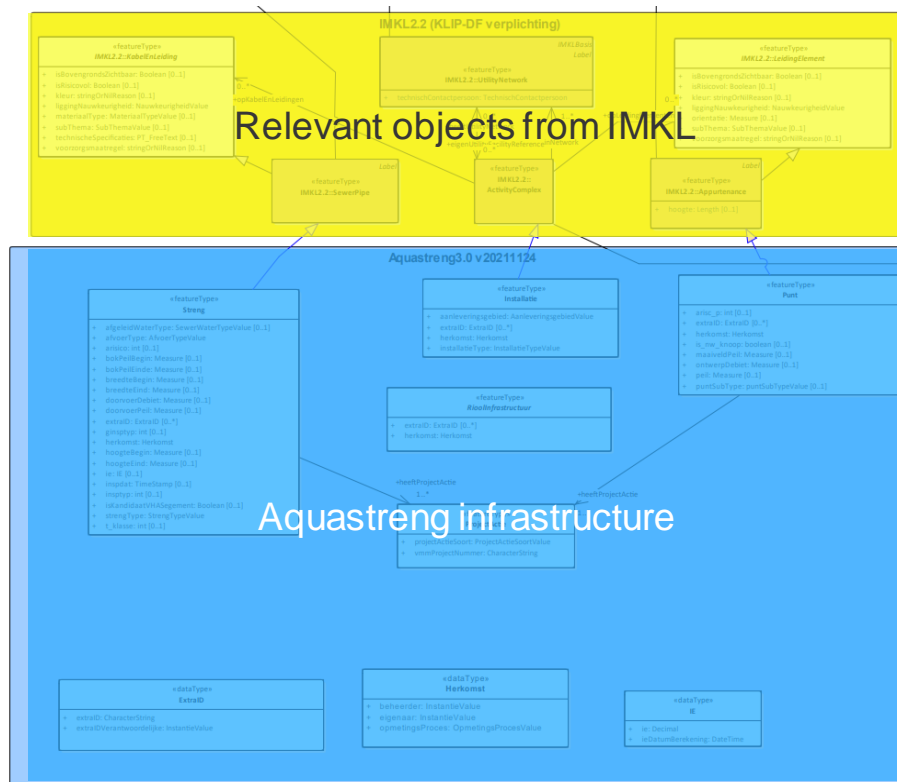
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IMKL 2.3

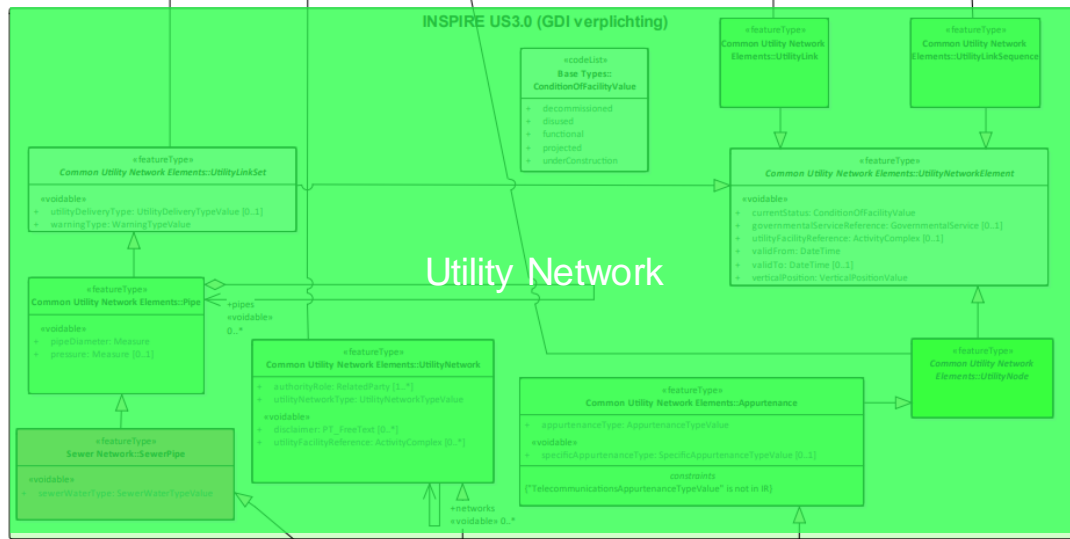
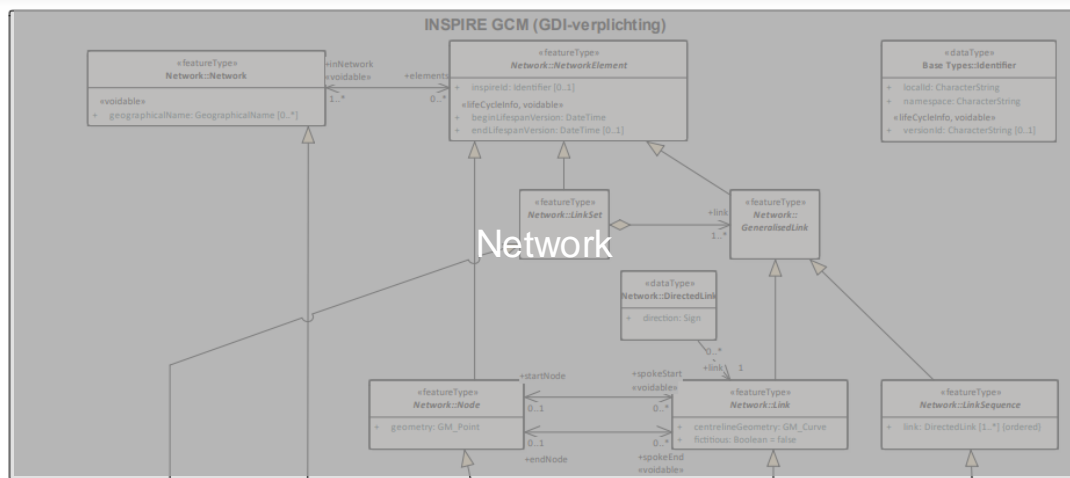


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AWIS-model of the Flemish Environmental Department



INSPIRE: US



Other inspiring models

- OGC Model for Underground Data Definition and Integration
- [OSLO Openbaar domein](#)
- [OSLO Wegen en Verkeer](#)

Pause



Brainstorm



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What is the subject of the IMKL project?

The goal is to create a data model for cables and pipes on the federal level:

- Start off with the original Flemish IMKL model
- Discuss it in multiple thematic workgroups with various stakeholders
- Improve and update the model
- Adapt it to a federal standard
- Replace the original IMKL model



What is expected?



Information needs and collect use cases



Identify high-level concepts



Existing standards or data models

1. Which use cases can we come up with?

What do you want to be able to achieve as a stakeholder?

1.2 Example use case

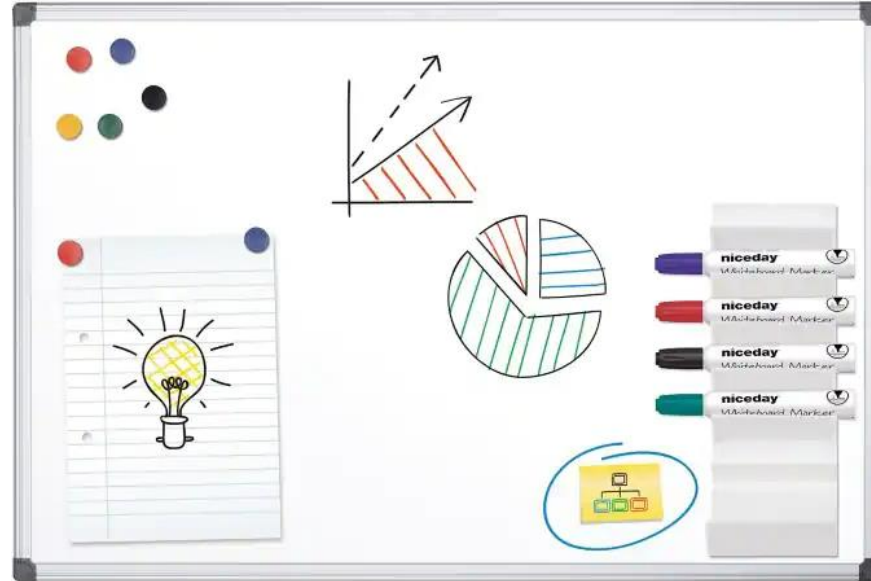
As a user, I want the pipe data delivered in a standardized form to be able to display this information on a map.

As a researcher, I want to be able to get pipeline data in a standardized form for processing in studies (e.g., BIM models, impact studies, environmental studies, etc.) and site plans.

As a building company, I want more support to prevent problems with underground cables and pipes through better coordination between major projects and the pipe infrastructure in place.

As a government agent, I want to limit excavation damage by exchanging information about underground cables and pipes

Use case exercise



2. What concepts are required?

**What main elements make up the use cases
and can accomplish them?**

2.1 Example concept

As a **user**, I want the **pipeline data** delivered in a standardized form to be able to display this information on a **map**.

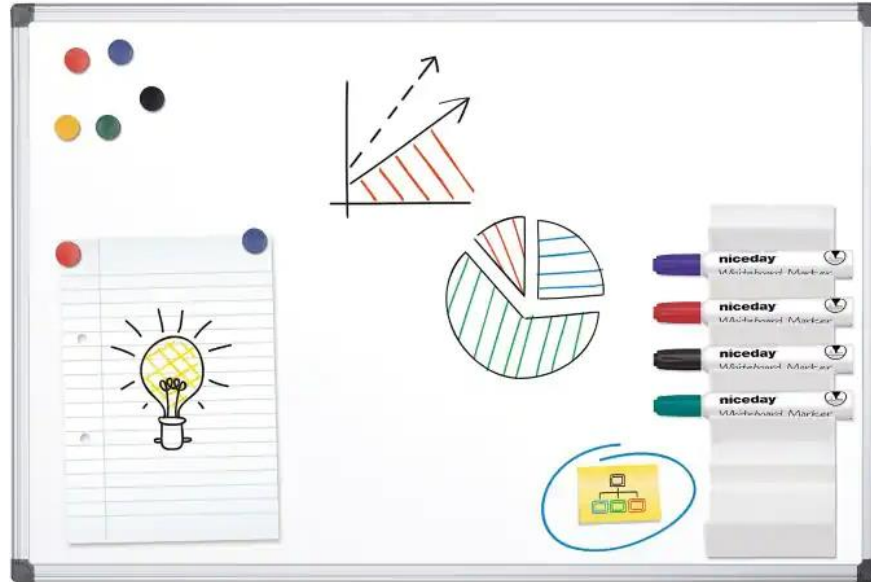


User

Pipeline data

Map

Concept exercise



Q&A and Next Steps

Why do we...?

Shouldn't we add ...?

Can't we ...?



What is ...?

Next steps



Process the input from the brainstorming exercise.



Circulate a report from this working group. Feedback is certainly welcome!



Further research and preparation of the first thematic working group.

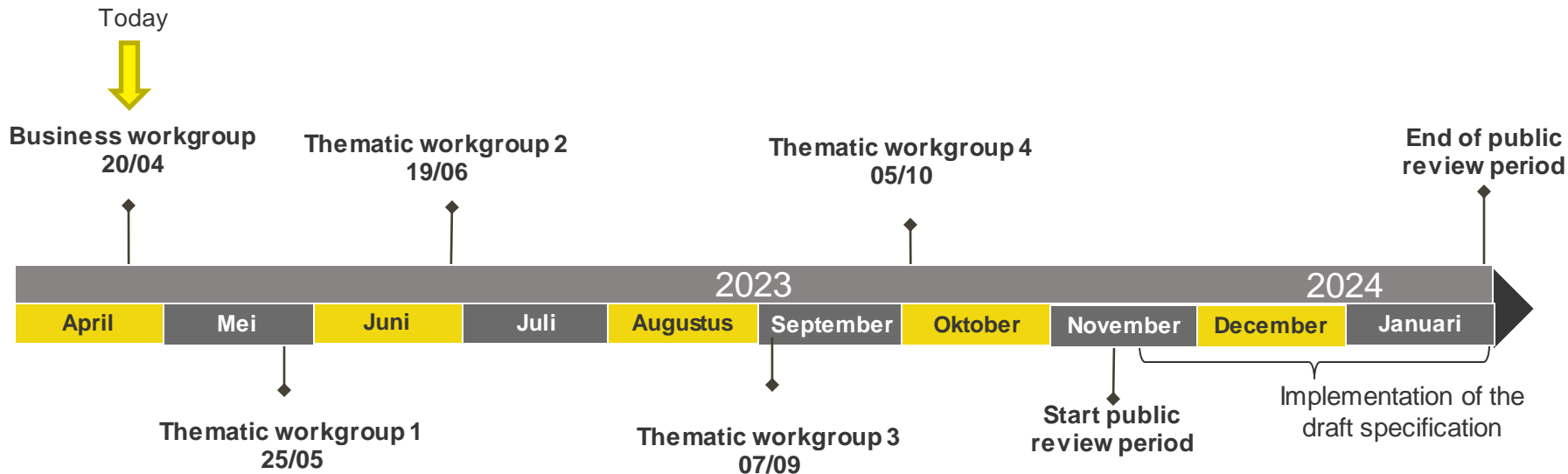


Gathering information through GitHub!

OSLO timeline

Thematic workgroup 1 on **Thursday 25th May: 13u30 - 16u30**

Register via the following link: [1st thematic workgroup](#)



Feedback & Cooperation OSLO



Feedback can be given by e-mail to the following people:

- digitaal.vlaanderen@vlaanderen.be
- Pieter.desmijter@vlaanderen.be
- Laurens.vercauteren@vlaanderen.be



Feedback/input can be given via GitHub:

<https://github.com/Informatievlaanderen/OSLOthema-imkl>

Through the creation of **issues**

Thank you!



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