

OSLO : IMKL

Thematic Workshop 2

Welcome!

Thursday 29 June 2023

Microsoft Teams

We start at 13:35



Practical arrangements

Sound of audience is
muted by default



Use the **hand** icon if you want to say something. Collaboration is greatly appreciated!



Questions, comments and suggestions can be shared via the chat function. Interaction is encouraged!



Yes/no questions can be answered with:

Agree = +1
Dissagree = - 1
Indifferent = 0

Recording?



Today's Goal

Presentation of the entire modified model.



**Summary of the business
workgroup**



**Presentation and
discussion about the
improved model**



**Capturing input through
interactive exercise**

Agenda

13u35 - 13u45	Welcome and agenda
13u45 - 14u00	Summary of previous workgroup
14u00 - 14u10	UML recap
14u20 - 15u00	New model
15u00 - 15u10	Pause
15u10 - 15u20	Open questions
15u20 - 15u35	Q&A and next steps

Thematic workgroup 1: Summary

What did we do in the previous workgroup?



OSLO & UML Introduction

- Introduction of OSLO Method
- Start from use cases
- Focus on interoperability
- UML basics to understand the model

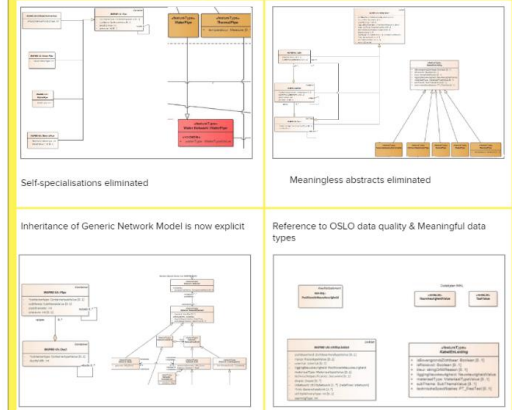


Feedback captation & first reworked model

- What data concepts can we capture from these use cases?
- What existing standards or information models already exist that we can build on?
- First version of the reworked model

In Scope	Out Scope	Feature/implementation
Cables & Pipes	CAD implementation	Colour codes
Infrastructural elements		Feedback
Z-coordinates		
Overhead pipes		
Steered drilling		
Restricted Zones		

Exercise 1: Building the new model



Scope of the project

Develop a semantic framework for IMKL mapping and data sharing

*Develop a sustainable **application profile** and **vocabulary** for IMKL.*

We follow the OSLO Methodology, which means:



We start from use cases



We define items ourselves where necessary



We align as much as possible with existing standards

Starting from use cases

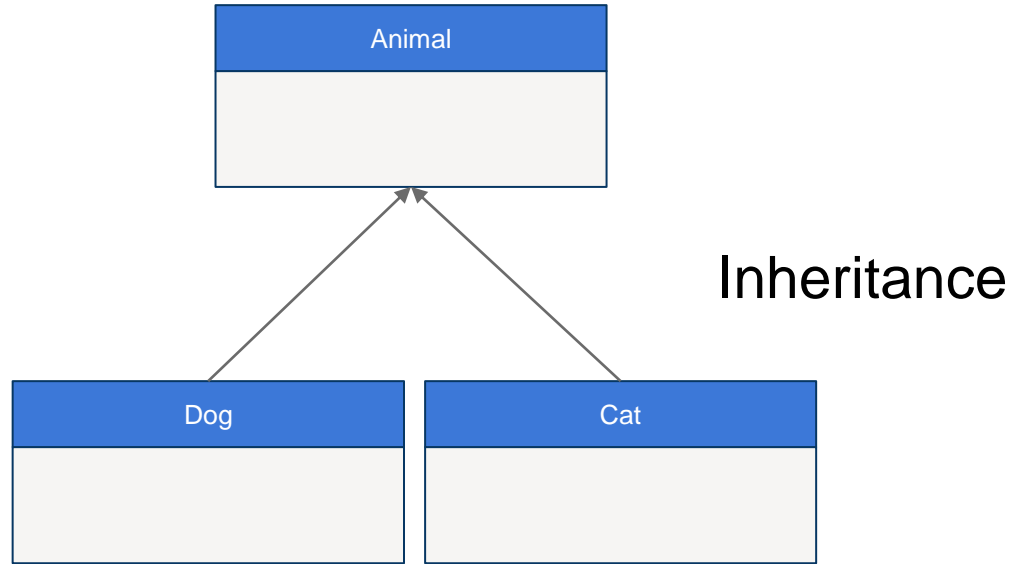
- Breakdown of use *cases/concepts* into different categories

In Scope	Out Scope	Feature/implementation
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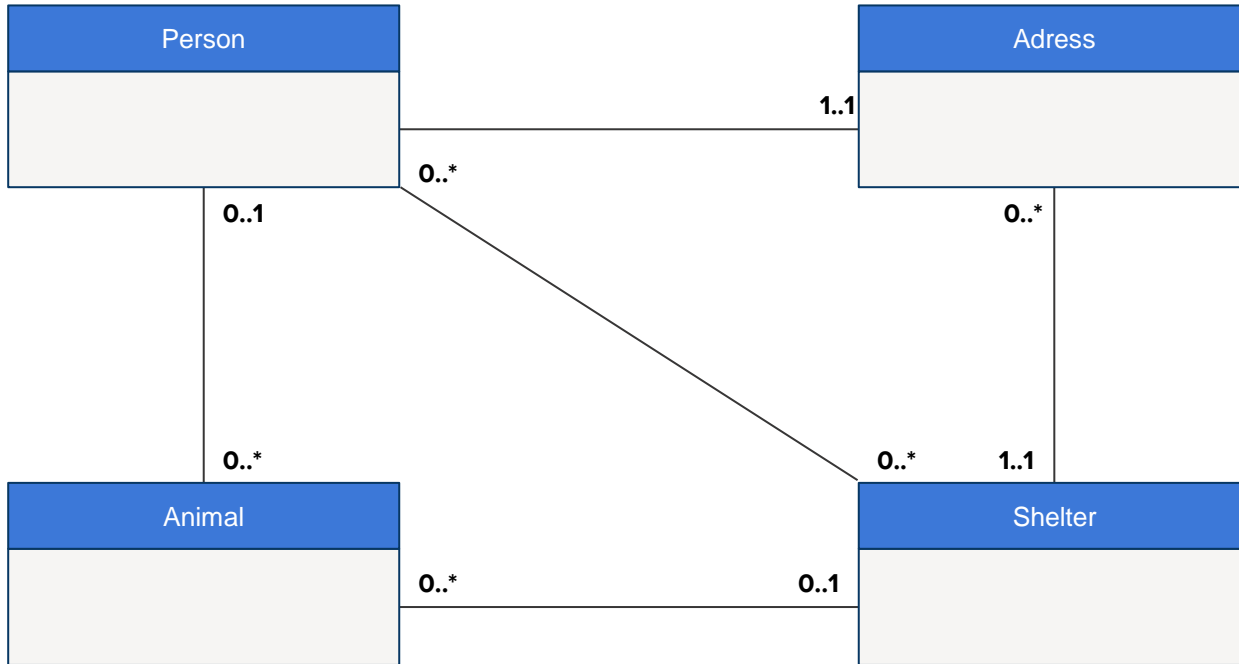
UML

Unified Modeling Language

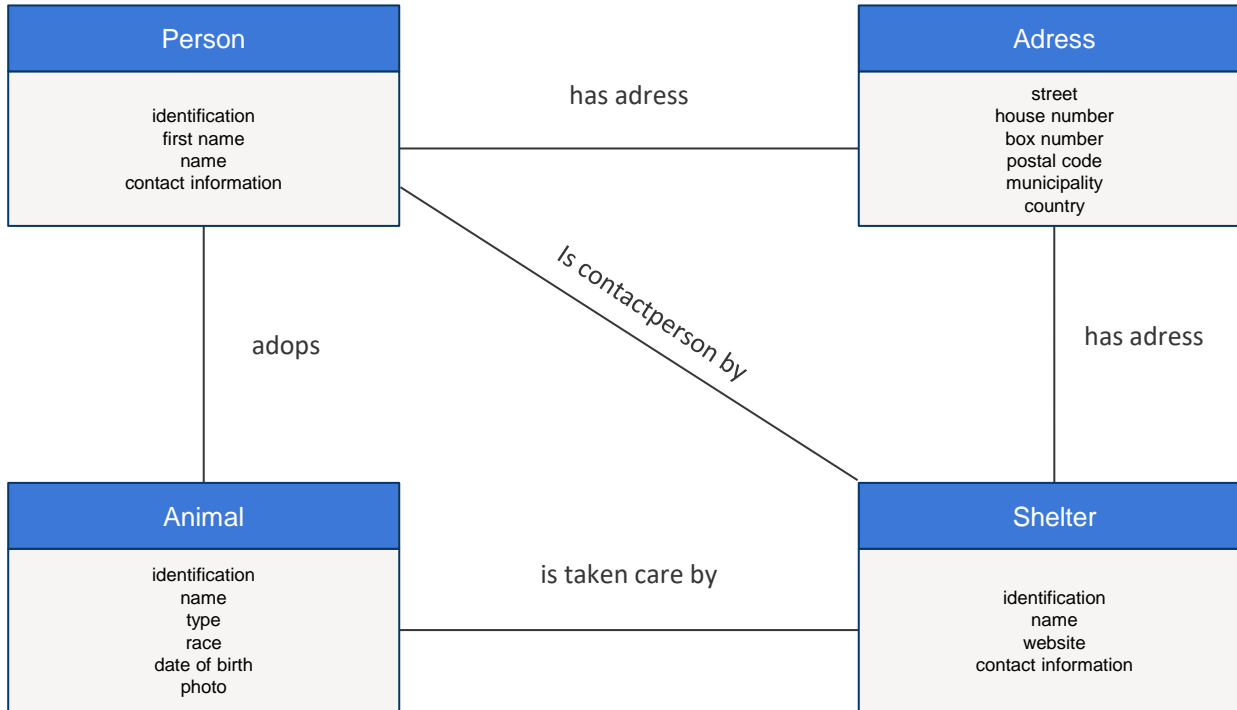
Generalisation



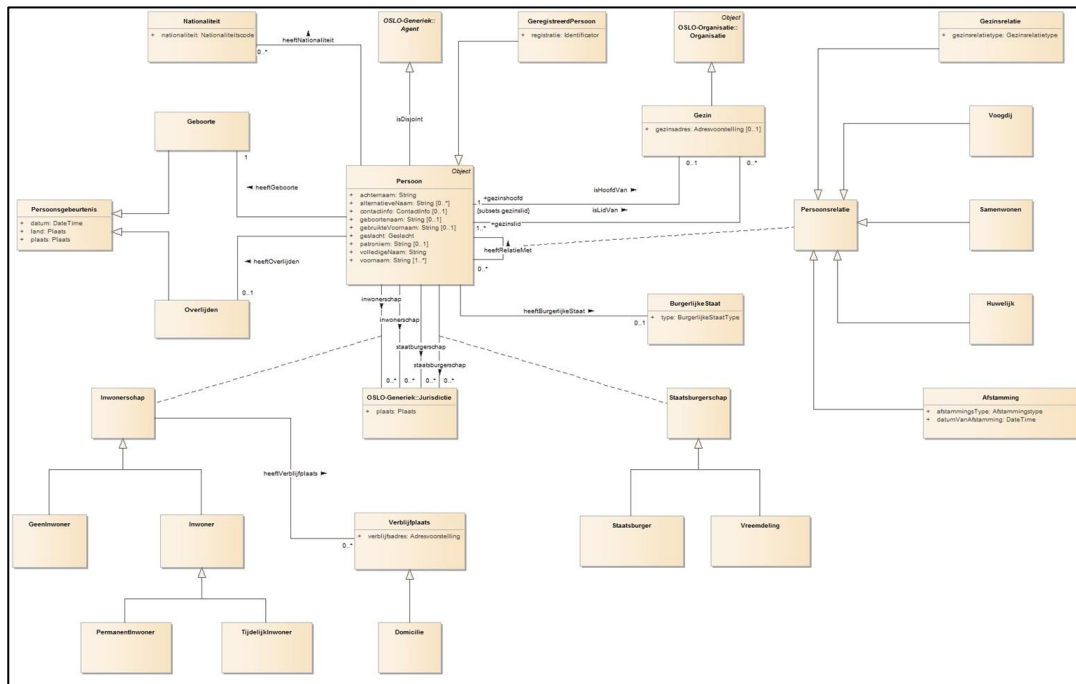
Multiplicity



Attributes



UML & HTML



Persoon

Beschrijving

Natuurlijk persoon.

Gebruik

In de rechtspraak betreft het een persoon (in de wettelijke betekenis, tzt met eigen rechtspersoonlijkheid) van de menselijke soort, tzt een fysiek persoon. Tegenhanger is de rechtspersoon, een juridische constructie die een private of publieke organisatie dezelfde rechtspersoonlijkheid geeft als een natuurlijk persoon (kan bv ook schulden hebben, contracten afsluiten, aangeklaagd worden etc).

Eigenschappen

Voor deze entiteit zijn de volgende eigenschappen gedefinieerd: [achternaam](#), [alternatieve naam](#), [contactinfo](#), [geboortenaam](#), [gebruikte voornaam](#), [geslacht](#), [heeft burgerlijke staat](#), [heeft geboorte](#), [heeft inwonerschap](#), [heeft nationaliteit](#), [heeft overlijden](#), [heeft staatsburgerschap](#), [heeft Persoonsrelatie](#), [inwonerschap](#), [is hoofd van](#), [is lid van](#), [patroni](#), [staatsburgerschap](#), [volledige naam](#), [voornaam](#).

Eigenschap	Verwacht Type	Kardinaliteit	Beschrijving	Gebruik	Code lijst
achternaam	String	1	Gedeelte van de volledige naam vd persoon ontvangen van de vorige generatie.	Ook wel familienaam genoemd omdat de achternaam een familiale verwantschap aanduidt.	
alternatieve naam	String	0..*	Alternatief voor de volledige naam vd persoon.	Bv pseudoniem, titel etc.	
contactinfo	ContactInfo	0..1	Informatie zoals email, telefoon die toelaat de Persoon te contacteren.		
geboortenaam	String	0..1	Volledige naam vd persoon bij geboorte.	De namen van een persoon kunnen id loop vd tijd wijzigen, bv kan de achternaam wijzigen door huwelijk. De oorspronkelijke naam wordt echter dikwijls ook nog gebruikt.	

The renewed model



Vlaanderen
verbeelding werkt

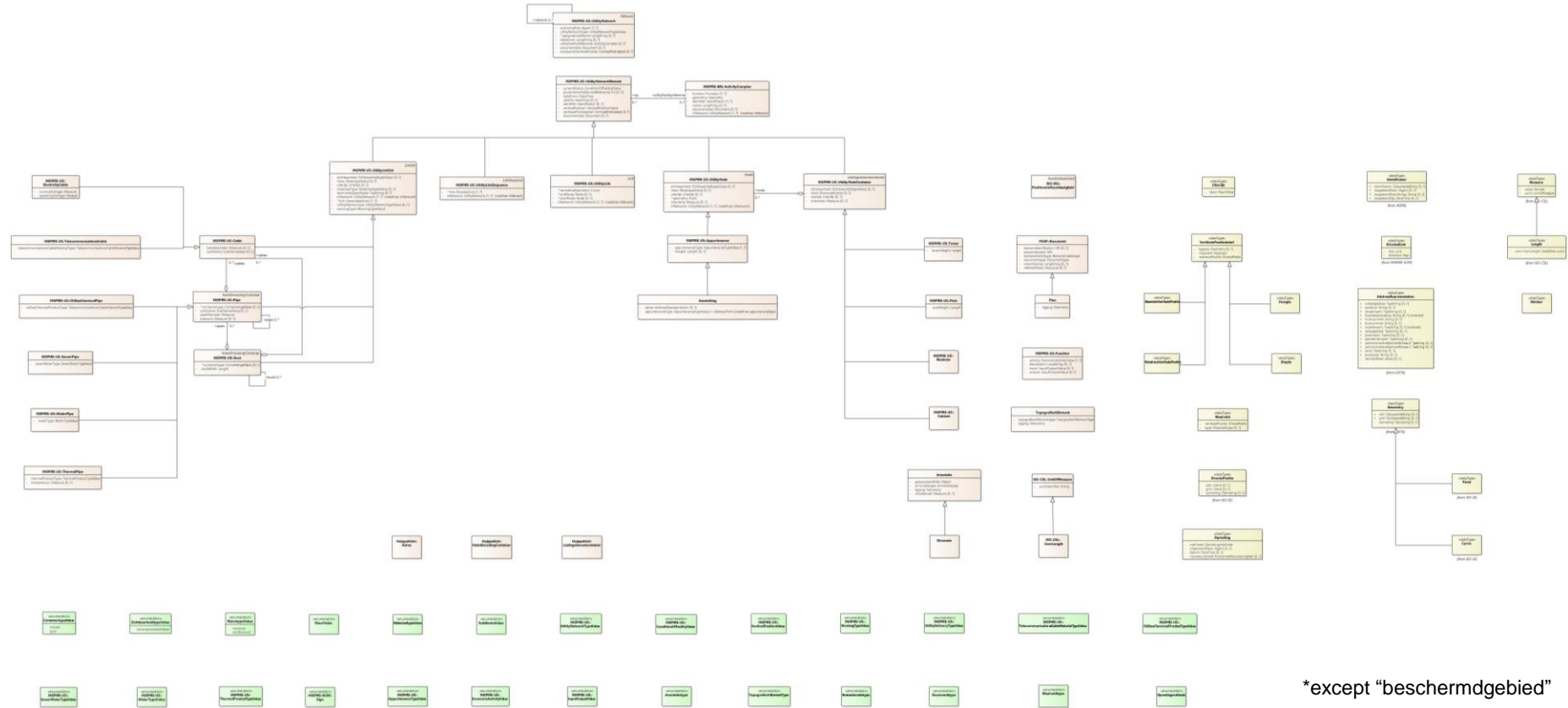
Goal

Updating the 'old' IMKL 2.3 model, while keeping **existing models** and **European obligations** in mind.

Main guidelines for the transformation

- Self specialisation eliminated
- Meaningless abstracts eliminated
- Too specific attributes generalised
- Inheritance of GNM is now explicit
- Referencing to existing OSLO standards
- Existing data was used to validate model, feedbackloop of improvements

Complete model*

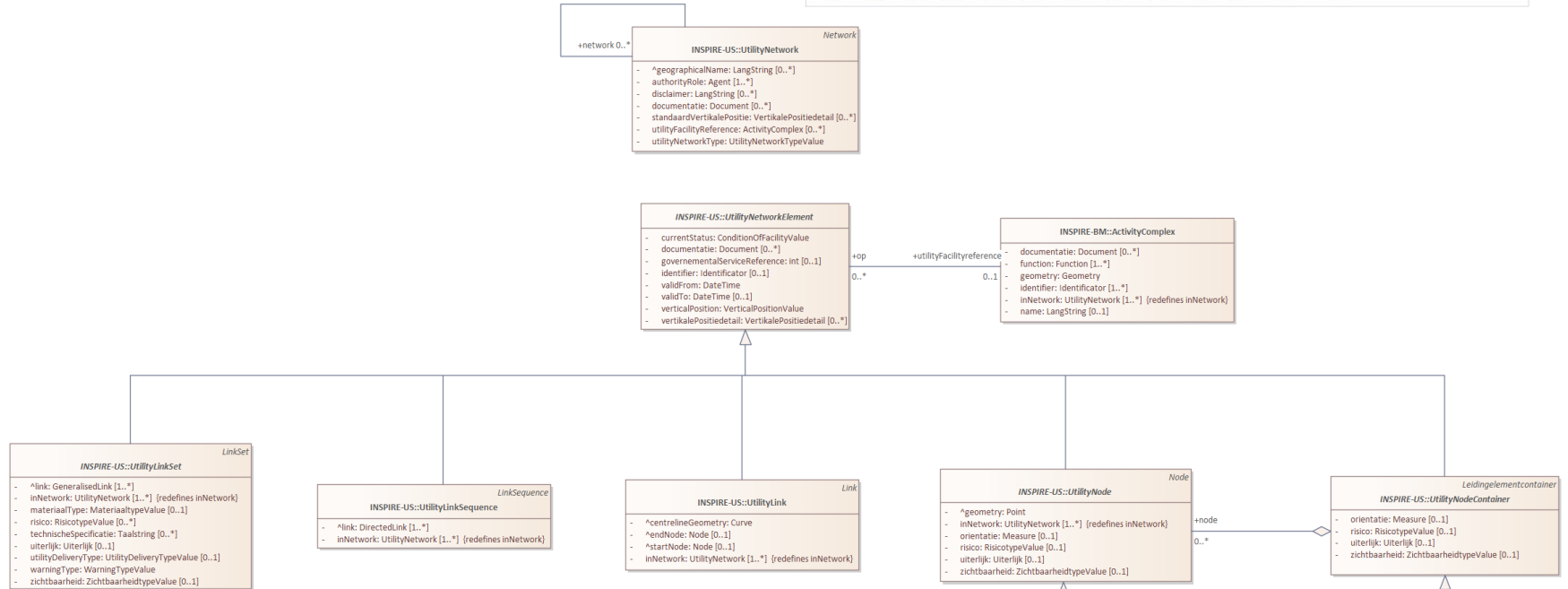
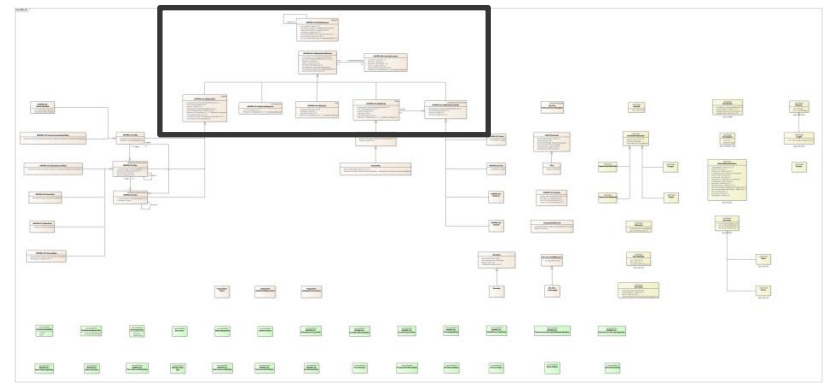


*except "beschermde gebied"

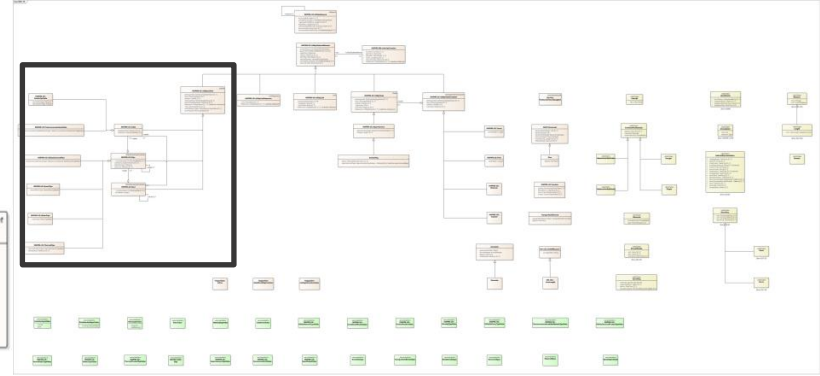
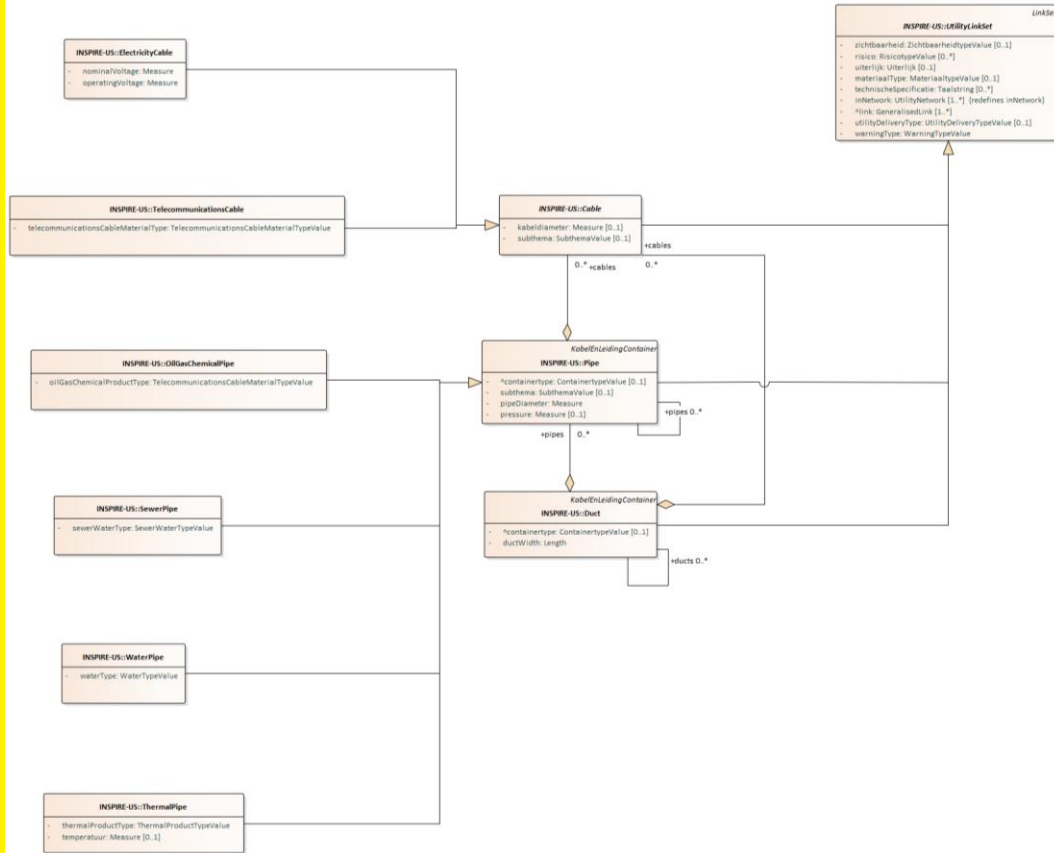
Benefits from transformation

- Depth and position are broadened with the help of 2.5D
- Lambert 2008, or any other coordinate system, is now available
- Uniform way to define underground and above ground positions
- Making specific issues generic to be future-proof
- Complete English model for use across language barriers (=todo)
- Simplified representation of model = more convenient for implementation and general operation of IMKL

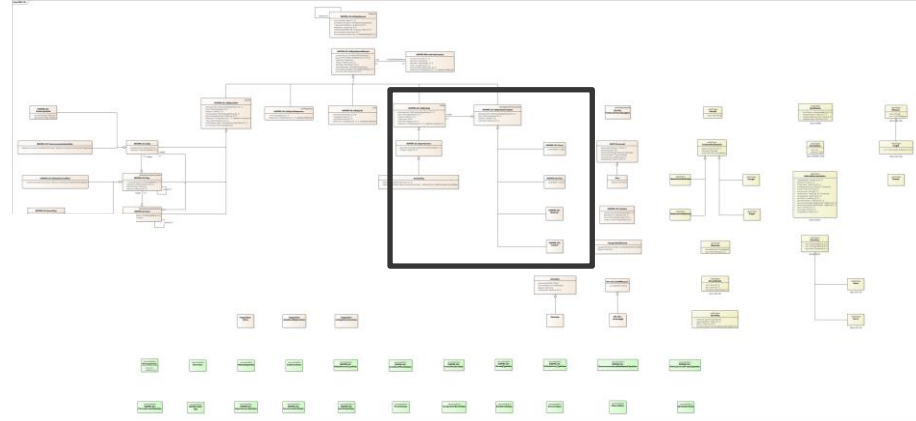
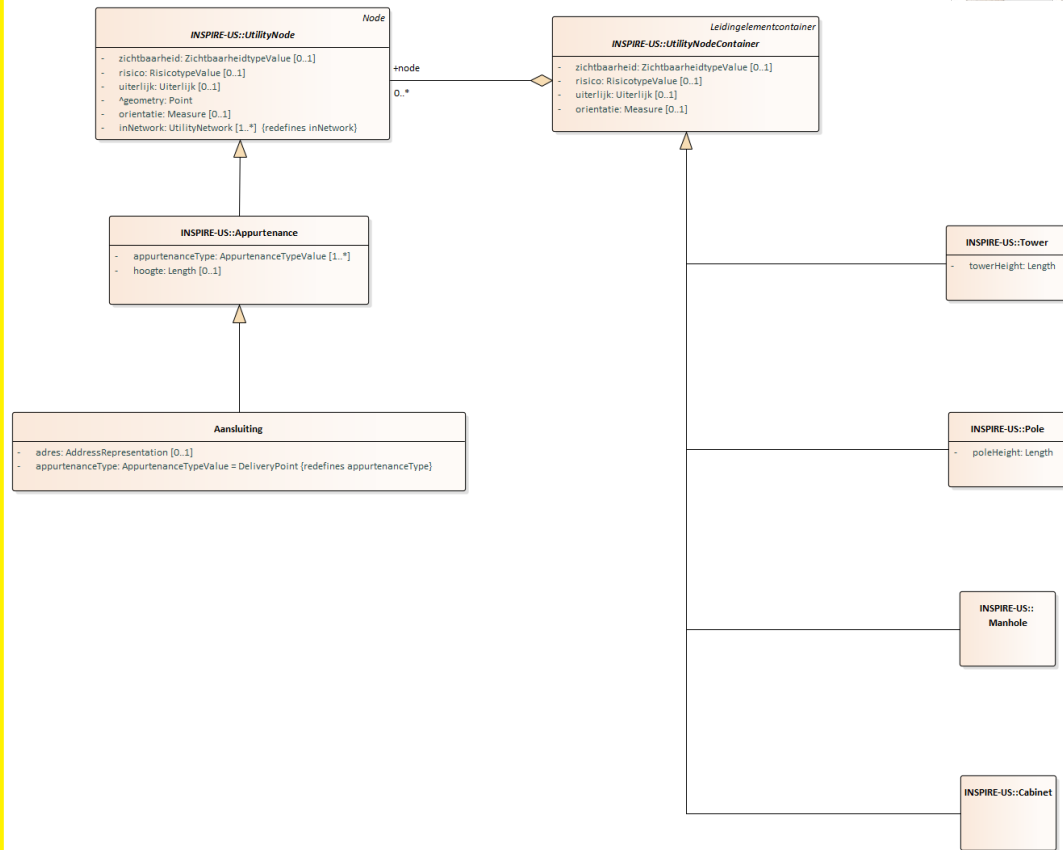
Main structure



Focus cables/pipes



Focus container



Open questions

Based on the model, we have some questions about use cases of...

Topography

- Is it required to still use Topography?
- Does it need to be connected to a network?

Break



Implementation



Vlaanderen
verbeelding werkt

How can we implement this?

In an implementation model the following aspects should be defined:

- Versioning
- Strict data types
- Non-semantic cardinality
- Codelists
- Technical attributes
- Specialisations
- Elements from different application profiles
- Extra context
- Inherited attributes should be added

This is additional workload for implementation

Why not in OSLO model?

OSLO data models are more generic and allow for more flexibility than IMKL needs.

(Parts of) this model can be reused for other purposes, this is the base of the OSLO school of thought.

Next workshop



Vlaanderen
verbeelding werkt

What do we plan next?

- General example based on real data
- Detailed example with the new way to indicate depth/height
- Translate to English
- Add “beschermdgebied”
- Setup application profile website

Q&A en Next Steps



Vlaanderen
verbeelding werkt

Next steps



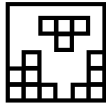
Processing all inputs from this thematic workgroup.



Send out a report of this working group. Feedback is certainly welcome.



Capturing feedback via GitHub.



Publishing first version of a semantic model on GitHub. Feedback is certainly welcome here too.

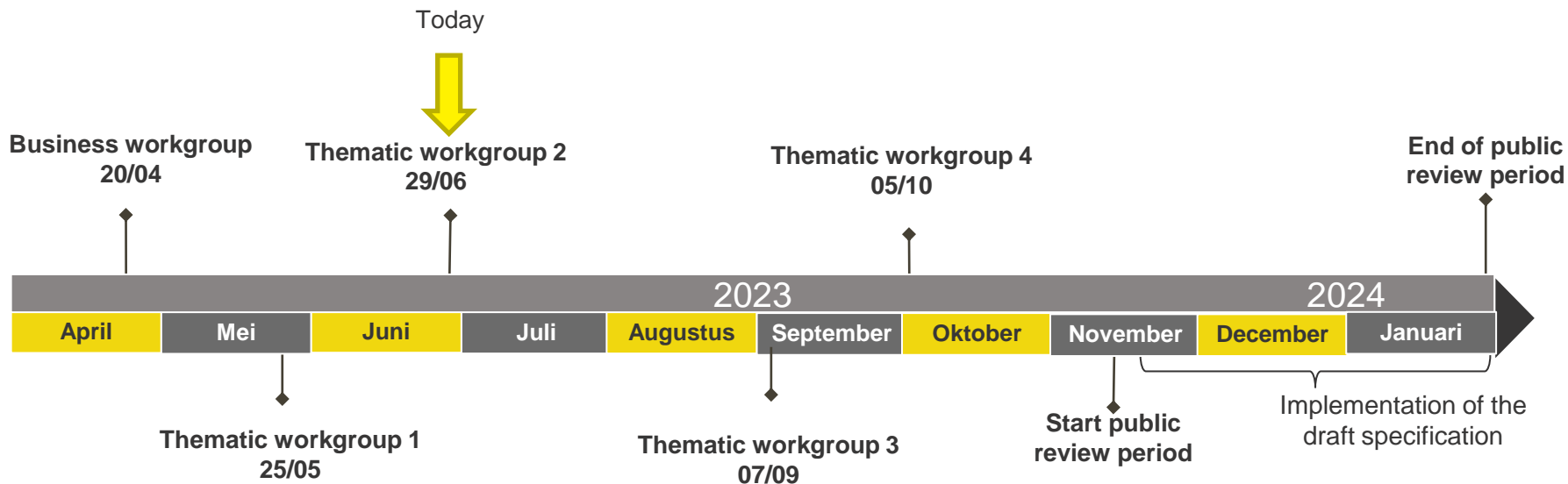


Further develop the UML model

OSLO timeline

Thematic workgroup 3 on **7th of September: 13u30 - 16u30**

Register via the following link: [3rd thematic workgroup](#)



Feedback & Cooperation OSLO



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

- digitaal.vlaanderen@vlaanderen.be
- jef.liekens@vlaanderen.be
- laurens.vercauteren@vlaanderen.be



Feedback/input can be given via GitHub:

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

Through the creation of **issues**

Why do we...?

Shouldn't we add ...?

Can't we ...?



What is ...?

Thank you for your effort!



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