ICEG Hydrants – Meeting Report

Second Thematic Workshop

Date: June 22, 2023 (9:30 - 12:00)

Attendees:

Attendee Name	Affiliation
Nicolas Soenens	HVZ Zone 1
Rink W. Kruk	NGI – IGN
Yves Loos	HVZ Taxandria
Ariel Baele	ZS 4 Vesdre Hoëgne et Plateau
Carole Nahon	Province De Liège
Laura Verhulst	HVZ Antwerpen
Miguel Santamaria Sebastian	VIVAQUA
Abdel Hakim Ghoula	AWV
Philip Stichelbaut	HVZ Fluvia
Marc Bruyland	FOD BOSA
Ludwin Poppe	Farys
Kim De Latthauwer	De Watergroep
Carl De Moor	Water-link
Valentin Pierson	SWDE (Société wallonne des distributions d'eau)
Thierry Wauthier	INBW (Intercommunale Brabant-Wallon)
Christophe Bahim	PwC
Florian Barthelemy	PwC
Vincent Feremans	PwC

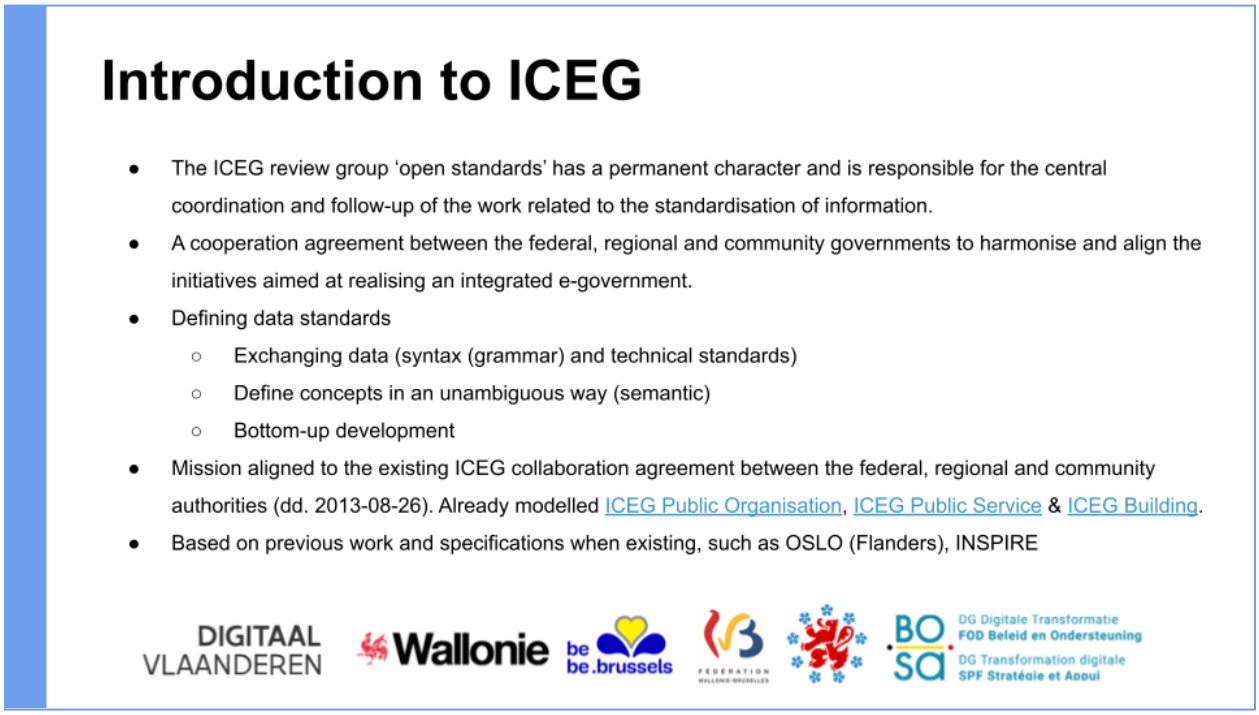
Agenda

Welcome	9:30 to 09:45
Process, input and timeline	09:45 to 10:00
Reminder of identified use cases and requirements	10:00 to 10:15
Presentation of the first draft of the data model	10:15 to 11:50
Kick-off of the public review period and next steps	11:50 to 12:00

Meeting Minutes

Welcome and recap of the business workshop

The second thematic workshop of ICEG Hydrants was kicked off with a recap of what ICEG is, the importance of harmonizing data concerning extinguishing water sources in the Belgian context, what the goal of this trajectory is and how this is endeavored to be done; and finally an overview was given with what was achieved in the last workshop. More information can be found in the slides.



Identified use cases and identified requirements

1	**Extinguishing water sources** are essential for emergency response services during a fire or other emergency situations.	There are **objects with a location** that can be identified through a set of **geographic coordinates**. These sources are typically owned by water distribution companies or enterprises with a high-risk profile. Clear **ownership information** is essential to enable linking with relevant authorities, such as the Enhanced Crossroad Bank for Enterprises
2		**To make these sources useful, standardized attributes** are required, such as unique-id, type, capacity, source, hose connection type, availability, accessibility, and contact point to inform the owner about the use of the source so that appropriate action can be taken
3		Some owners, emergency services, municipalities and provinces have a system and process to register the **status of the extinguishing water sources** (broken, checked-and-working, last-check-date). It must be possible to establish a link with the water source and its management status/follow-up.
4	It is important to use **standardized symbols** in the context of hydrants, therefore a link should be created between the attributes and a standardized symbol to be **shown in cartographic interfaces**.	

During the business workshop (webinar #1), the ICEG Hydrants team received several insights on the original use cases due to which several enrichments to these use cases were proposed and it was decided to split the use cases into five instead of four. More information ons this can be found in the meeting report of the business workshop.

Data model: Latest draft

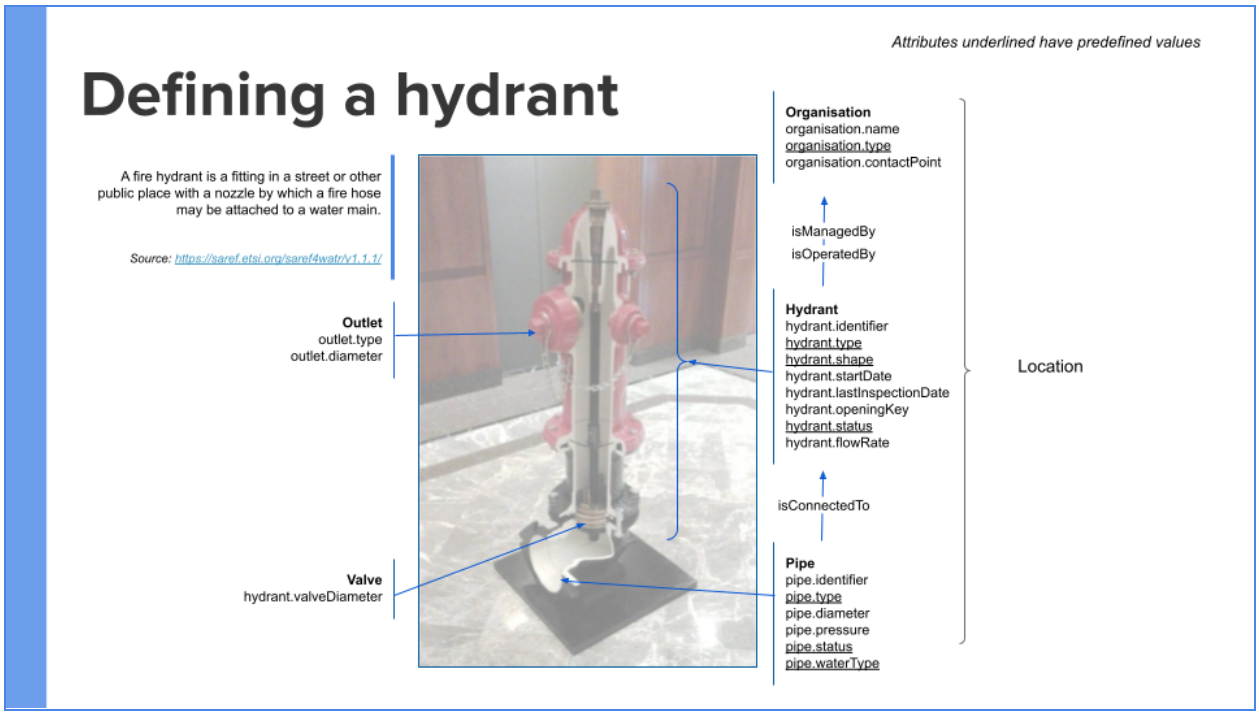
What did we do in the previous workshop?

1. Discussion on a first 'data model' based on a review of material shared by the different water companies, municipalities, and firefighting zones.
2. Agreement of a first set of attributes to be captured by the model

Slides and meeting report can be consulted here: https://github.com/belgif/thematic/tree/master/hydrants

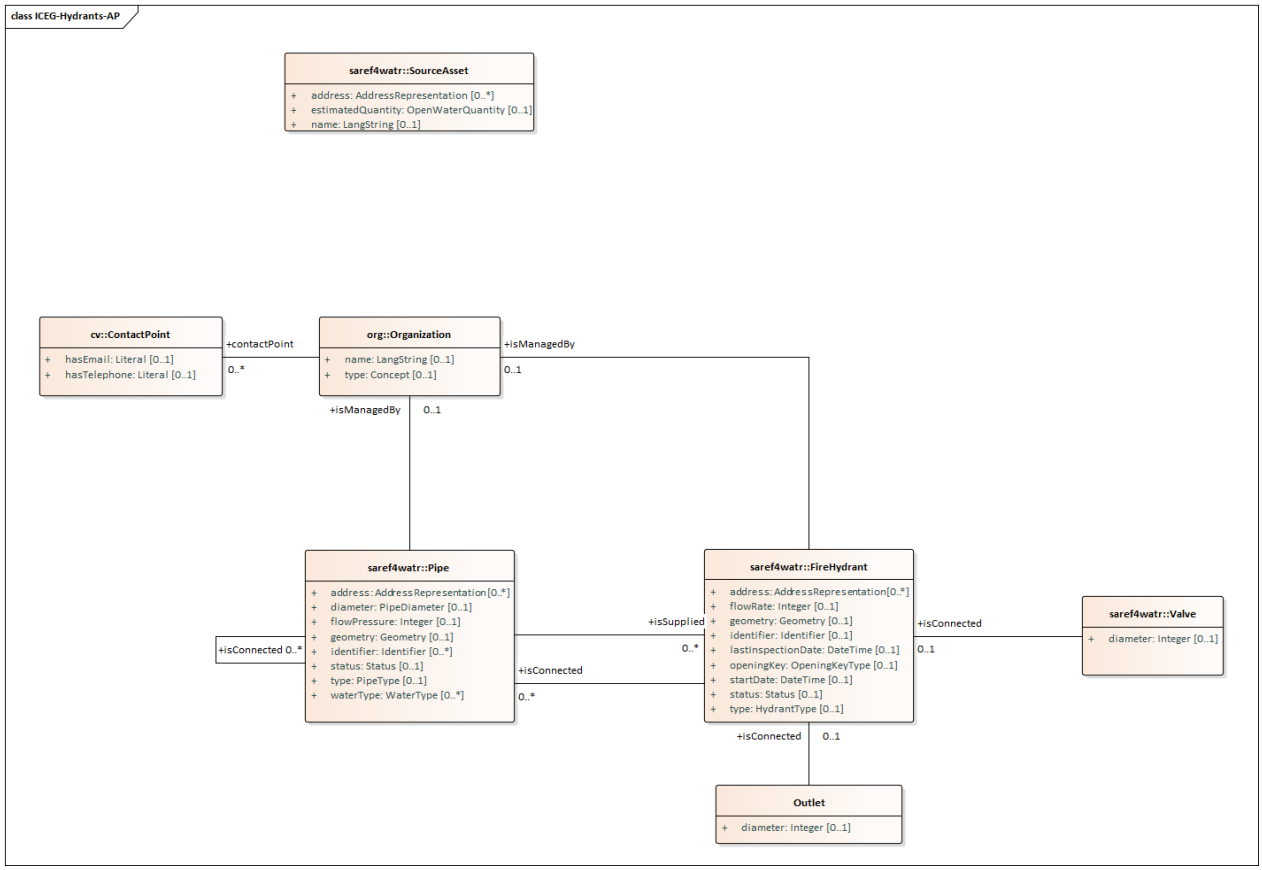
During the previous thematic workshop, a discussion was held on a first data model, designed following UML standards, which was based on a conducted review of all material shared by the different water companies, municipalities, and firefighting zones. As a result, an agreement was made for a first set of attributes to be captured by the model.

To make sure our understanding of all the elements of a fire hydrant which should be captured was correct, an overview was given.



Finally, the ICEG Hydrants data model was introduced to the working group. At the heart of the model lies our three primary elements: *Organization*, *Pipe*, and *FireHydrant*, all intricately linked. Regarding the *Organization* element, it was linked to *ContactPoint*, encompassing all contact details of the organization. For *FireHydrant*, two additional distinct connections were established with "*Outlet*" and "*Valve*," due to the importance of their specifications for firefighters, notably the outlet diameter to which a hose must be attached.

Furthermore, the class of *SourceAsset* was presented and deliberated upon, driven by the utilization of Open Water sources for fire combat.


class ICEG-Hydrants-AP
saref4watr::SourceAsset
+ address: AddressRepresentation [0..*]
+ estimatedQuantity: OpenWaterQuantity [0..1]
+ name: LangString [0..1]
cv::ContactPoint
+ hasEmail: Literal [0..1]
+ hasTelephone: Literal [0..1]
+contactPoint
0..*
org::Organization
+ name: LangString [0..1]
+ type: Concept [0..1]
+isManagedBy
0..1
+isManagedBy
0..1
saref4watr::Pipe
+ address: AddressRepresentation [0..*]
+ diameter: PipeDiameter [0..1]
+ flowPressure: Integer [0..1]
+ geometry: Geometry [0..1]
+ identifier: Identifier [0..*]
+ status: Status [0..1]
+ type: PipeType [0..1]
+ waterType: WaterType [0..*]
+isConnected 0..*
+isSupplied
0..*
+isConnected
0..*
saref4watr::FireHydrant
+ address: AddressRepresentation [0..*]
+ flowRate: Integer [0..1]
+ geometry: Geometry [0..1]
+ identifier: Identifier [0..1]
+ lastInspectionDate: DateTime [0..1]
+ openingKey: OpeningKeyType [0..1]
+ startDate: DateTime [0..1]
+ status: Status [0..1]
+ type: HydrantType [0..1]
+isConnected
0..1
saref4watr::Valve
+ diameter: Integer [0..1]
+isConnected
0..1
Outlet
+ diameter: Integer [0..1]

Overview of the main discussion points and their outcomes:

- Source Asset / Open Water:
    - As this entity is not directly linked to either a water company or a hydrant, it was decided to highlight this as ‘out-of-scope’ and remove it from the model.
- Geometry:
    - The working group prefers to only use Lambert2008 and push organisation towards a uniform coordination system.
- Status attribute:
    - The “scheduled for maintenance” option should be removed and a remark field should be added instead.
- Pipe.diameter, outlet.diameter and valve.diameter:
    - The working group pointed out to not use codelists for attributes which require a measurement as some companies do not work with standard pipes.
    - It has thus been decided to opt for an open field.
- FireHydrant.flowRate:
    - The nominal flow rate should be captured.
    - It has been decided to opt for an open field.
- Pipe.waterType:
    - The decision was made to keep this attribute within the Pipe entity but to remove the proposed codelist.
    - A potential option would be to implement the list provided by IMKL while also still providing an open field for data owners to specify further.
- Signage:
    - This topic is being tackled within another trajectory and will not be tackled further within ICEG Hydrants.
    - The only symbols which should be identified in the ICEG Hydrants model are “B” and “H”, which refer to the type of fire hydrant.

Next Steps

We are pleased to announce that following our last workshop, and as per our promise **we have made the ICEG hydrant specification available for public review**.

Duration	The official start date for the review is today, and it will continue for a **duration of three months**, concluding on the 3rd of October. To wrap up this process, we propose a closing webinar on October 17th. Please note that the meeting invitation for this webinar is yet to be sent to you.
Considerations	**Please note that the model is frozen at this stage**. We will not make any changes until the end of the public review period, changes will be made provided that we reach a consensus. The final step will be the closing webinar, during which we will present the ultimate version of the model, incorporating any requested changes expressed during the public review period, if applicable. Afterward, the model will be ratified by the ICEG committee. We intend to regularly check in with you to inquire about your feedback, comments, or concerns. If you have no further input to provide, **please inform us that you have reviewed the model and are satisfied with it as it stands, which will help us save time**.
Feedback	**You can access the specification at the following address: LINK**. As always, we encourage you to use GitHub for providing your feedback, as it enables others to contribute to the discussion and facilitates collaborative work towards reaching a consensus. Alternatively, you can also send us an email with your input or confirmation of the model.

Review	**We would like to draw your attention to the recommended approach for reviewing the model**. It is good practice to compare it with your own data model or database, determining what can be mapped to the latter and what information you can provide. Specifically, we kindly request that you focus on the entities and attributes. Ensure that we have captured all the necessary ones and identify any missing elements. Additionally, consider the expected range, which represents the attribute type (e.g., value or string), the cardinality (whether it is optional or mandatory), the description (providing a definition for an attribute or entity), and the values (located at the bottom of the page).