ICEG Building - Meeting Report

Business Webinar #1

Date: April 27, 2022 (9:00 - 12:00)
Attendees:

Attendee Name	Affiliation
Bart Boute	WVI
Brecht Vandewalle	AAPD - FOD Financiën
Bruno De Lat	GIM (Belmap)
Christophe Van Loo	Digitaal Vlaanderen
Catherine Wagneur	Ensemble Simplifions
Claude Hannecart	CIRB/CIBG/BRIC
Daniel Reuviaux	SPW
Fabien Krzewinski	CIRB/CIBG/BRIC
François Du Mortier	CIRB/CIBG/BRIC
Gael Kruwialis	Nationaal Geografisch Instituut (NGI)
Geert Thijs	Digitaal Vlaanderen
Grégoire Verhulst	Belgian Buildings Agency
Hugues Bruynseels	Nationaal Geografisch Instituut (NGI)
Hugues Lorent	Nationaal Geografisch Instituut (NGI)
Jan Laporte	Digitaal Vlaanderen
Jean-Claude Jasselette	SPW
Johan Boogaerts	Fednot
Jordan Ikalulu	Nationaal Geografisch Instituut (NGI)
Karin Mertens	Nationaal Geografisch Instituut (NGI)
Kay Warrie	Stad Antwerpen
Leticia Garcia-Patrón	MFWB
Liesbet D'Hondt	FOD BOSA
Luc Leclercq	GAPD
Marie-Ange Wauters	Regie der Gebouwen
Martin Erpicum	CFWB
Maxime Vandamme	CFWB

Michael Sibiet	Stad Leuven
Mieke Ryckoort	Stad Kortrijk
Nico Smets	Regie der Gebouwen
Ralph Boswell	perspective.brussels
Raphaël Lebrun	Proximus
Roberto Impedovo	CFWB
Thomas Ruhl	CIRB/CIBG/BRIC
Yahsmeen Coulon	Fednot
Florian Barthelemy	PwC
Christophe Bahim	PwC
Yaron Dassonneville	PwC

Agenda

Welcome and introduction to ICEG	9:00 to 9:30
Context and key concepts	9:30 to 10:00
Use cases	10:00 to 11:00
Break	11:00 to 11:10
Defining key concepts	11:10 to 11:50
Next steps	11:50 to 12:00

Meeting Minutes

Welcome and introduction to ICEG

Within this section, more information was provided about ICEG and the process for developing a building specification as well as the importance of harmonization in the European context.
For more information, we would like to refer to slides 4 to 12.

Context and key concepts

Within this section, we provided an overview of existing data models at OSLO level, BeST and some on INSPIRE level.. OSLO is already aligned both with INSPIRE and BeST. These three existing data models will be the starting point for our work.
For more information, we would like to refer to slides 13 to 34.

Question: What is the difference between a cadastral plan parcel and a cadastral patrimonium parcel.
Answer: A domain expert explained the difference as follows: A cadastral patrimonium parcel (= no geometry) is linked to a cadastral plan parcel (= geometry).

Use cases

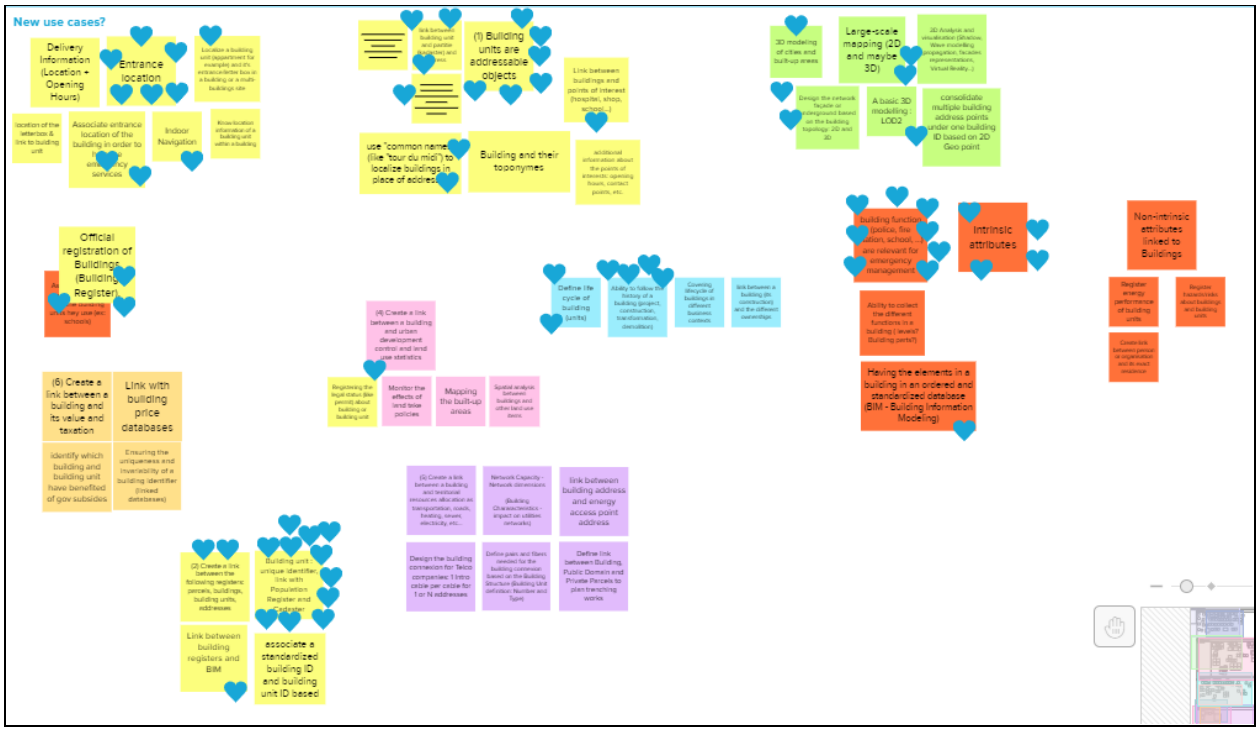
In this section, we briefly presented the different use cases. Based on these examples we had a conversation on what we need and came up with different possible use cases and prioritized them.

For more information, we would like to refer to slides 13 to 34.
For additional information, we refer to the Mural.

The existing use cases are the following:

#1	Building units are addressable objects
#2	Create a link between the following registers: parcels, buildings, building units, addresses
#3	Create a link between a building and his quality criteria
#4	Create a link between a building and urban development control and land use statistics
#5	Create a link between a building and territorial resources allocation as transportation, roads, heating, sewer, electricity, etc…
#6	Create a link between a building and its value and taxation

Discussion about the new use cases:



Overview of the Mural exercise.

Comment: We should make a distinction between what is essential to identify and what is nice to know, but doesn't have to be a part of how you define a building.

Based on the existing use cases, the working group came up with additional use cases. In the following table we provide an overview of these (additional) use cases.

#	(additional) use cases
#1	Building units are addressable objects ***Suggested use cases linked to use case #1*** - Covering the right in rem and the other contexts of managing parcels and buildings - Link building unit and *partitie* (kadaster) and address - Identification of the function of a building - Identification of building and/or building unit to allow exchanging information between registries - Link between buildings and points of interest (hospital, shop, school) - Use "common names" (like "tour du midi") to localize buildings in place of address - Building and their toponymes - Additional information about the points of interests: opening hours, contact points, etc. - Entrance location of the building
#2	Create a link between the following registers: parcels, buildings, building units, addresses
#3	Create a link between a building and his quality criteria

	Suggested use cases linked to use case #3 - Building unit: unique identifier linked with population register and cadaster - Link between building registers and BIM - Associate a standardized building ID and building unit ID based
#4	Create a link between a building and urban development control and land use statistics ***Suggested use cases linked to use case #3*** - Registering the legal status (like permit) about building or building unit - Monitor the effects of land take policies - Mapping the built-up areas - Spatial analysis between buildings and other land use items
#5	Create a link between a building and territorial resources allocation as transportation, roads, heating, sewer, electricity, etc… ***Suggested use cases linked to use case #5*** - Link between building address and energy access point address - Network capacity and network dimensions - Design the building connection for telco companies - Define pairs and fibers needed for the building connection bases on the building structure - Define link between building, public domain and private parcels to plan trenching works
#6	Create a link between a building and its value and taxation ***Suggested use cases linked to use case #6*** - Link with building price databases - Identify which building and building unit have benefited of governmental subsidies
#7	Create a life cycle for a building (unit) ***Suggested use cases linked to use case #7*** - Ability to follow the history of a building (project, construction, transformation and demolition) - Covering lifecycle of buildings in different business contexts - Link between a building (and construction) and the different ownerships
#8	Get 2D and 3D information from a building (unit)

Question: Aren't there too many domains for the number of workshops? Maybe we can just stick to buildings and just reference the other objects, as there were already a lot of topics covered in other trajectories.

Answer: We will align as much as possible to the existing standards. We will try to adopt existing definitions and results of previous efforts. The real purpose is to start from what exists. Furthermore, the

scope is about building and building units, elements such as location will be reused from existing specifications but won't be discussed as part of this working group.

Comment: Not all connections need to be explicit. A house for example is most of the time next to a road. Whether we want an explicit or an implicit connection based on geographical information will have to be looked into.

Comment: Additional information about the points of interests: This is about deeper information such as the name of the shop, opening hours etc. In fact, a lot of attributes are already covered in BeST and INSPIRE. In 'Organisations' you already have opening hours. And a lot of these attributes are already covered in schema.org. One thing that isn't covered is indoor navigation.

Comment: We need to be aware of the lifecycle of a building (unit). What if it's partially rebuilt? What will we need to change when modeling? There is also a difference between the life cycle how it is constructed and the lifecycle of the owners of a building. You have different life cycles with different sources you can use. We need to define concepts in a good way so the lifecycle discussions can be more clear.

Based on the prioritizing exercise, the use cases were ranked as follows:

11 votes	Building unit: unique identifier, link with population register and cadaster
9 votes	Entrance location / Associate entrance location of the building in order to help the emergency services
8 votes	Building function (police, fire station, school, …) are relevant for emergency management
7 votes	Building units are addressable objects
6 votes	2D and 3D information
4 votes	Ability to follow the history of a building (project, construction, transformation and demolition)
3 votes	Official registration of buildings (building register)
2 votes	Link between building unit and partitie (kadaster) and address
2 votes	Use "common names" (like "tour du midi") to localize buildings in place of address
2 votes	Define life cycle of building (unit)
2 votes	Create a link between registers (parcels, buildings, building units, addresses)
1 vote	Link between buildings and points of interest (hospital, shop, school)
1 vote	Create a link between a building and urban development control and land use statistics
1 vote	Indoor navigation

Defining key concepts

Based on this exercise we identified the essential information that we need for modeling *buildings*. We came up with different topics with different attributes that the members of the working group want to see in the model. For example address, parcel, building, building unit together with their attributes.
For more information, we would like to refer to slides 44 to 47.

Comment: Building parts (morphological) are not to be mixed up with building units (functional). There is a difference/distinction between them.

Comment: Normal way of working is to synchronize your own database (e.g., with Buildings) with the sources that are referenced (e.g., Addresses). Important to know is that every object has a unique identifier and then to subscribe to the external databases for updates. OSLO works with the LDES protocol for this (Linked Data Event Streams).

Other useful sources

For additional information, we refer to the Mural.

- Urbis data
- AAPD
- The BUNI agreement (equivalent to BeST Address)
- Bpost webservice for postal address validation
- EPC application which already uses the Building Unit ID

Next steps

For more information, we would like to refer to slides 48 to 55.

- The next webinar is planned on the 24th of May at 9:00
- Further research and prepare the first thematic workshop
- Extra input and feedback can be provided via GitHub by creating a new issue but can also be provided by email:
    - christophe.bahim@pwc.com
    - yaron.dassonneville@pwc.com