



ICEG Building: Thematic Workshop #3

Welcome!

Wednesday September 28th 2022
Virtual working group – Google Meet



Practicalities

Audience sound is muted by default.



Use the hand in Google Meet if you want to say something.

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



A yes/no question can be answered simply and quickly via the chat:

Agree = +1
Do not agree = - 1
Indifferent = 0

Agenda

#1 Welcome

#2 Process, input and timeline

#3 Booster on the legal framework *by Benoit F.*

#4 Presentation and discussion of the latest version of the model

#5 Kick-off of the public review period

#6 Next steps

Goal for today

Discussion on the updated version of the model and current open issues.



**Summary of the second
thematic workshop &
discussions on GitHub**



**Presentation of the changes
to the model**



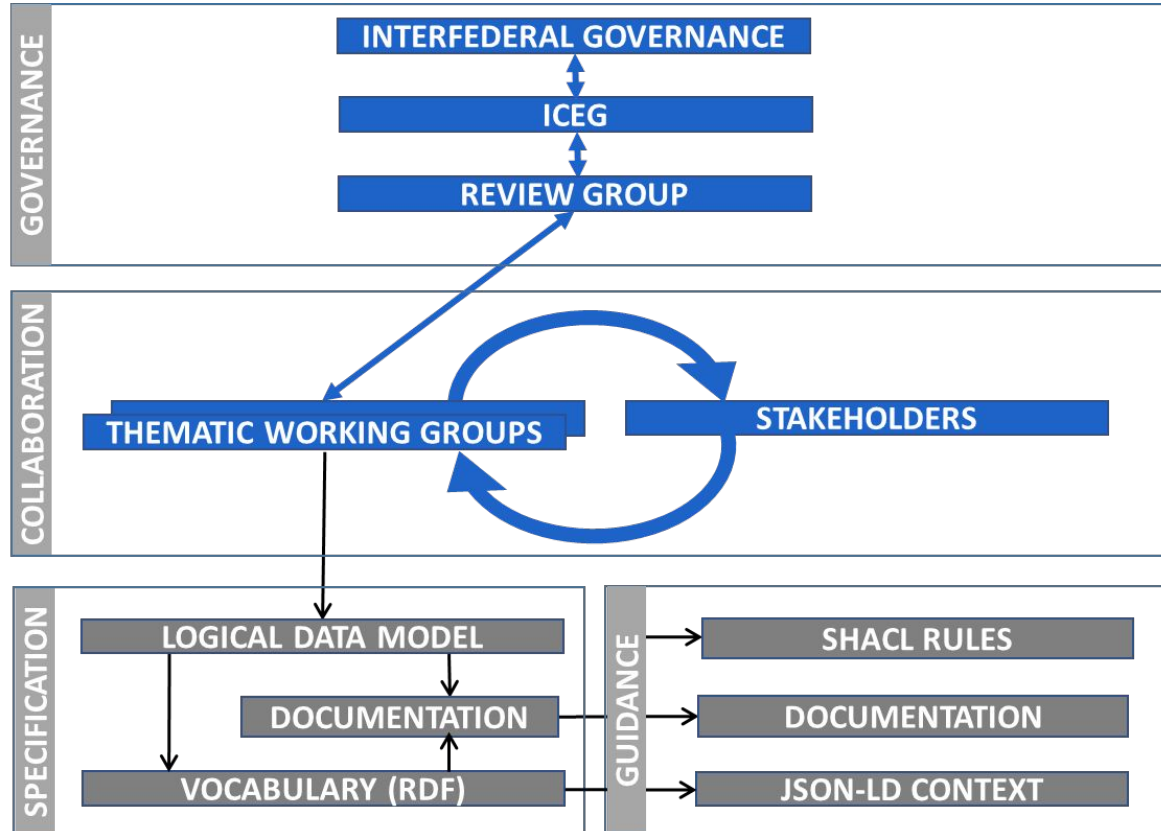
Solving current open issues



Process, input & timeline

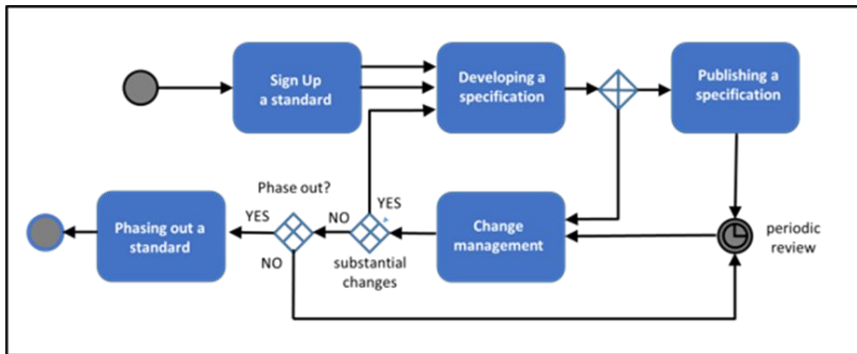


Governance



Governance: ICEG process and method

Scalable process for registering, developing, changing and phasing out data standards.



Abstract: French, Dutch

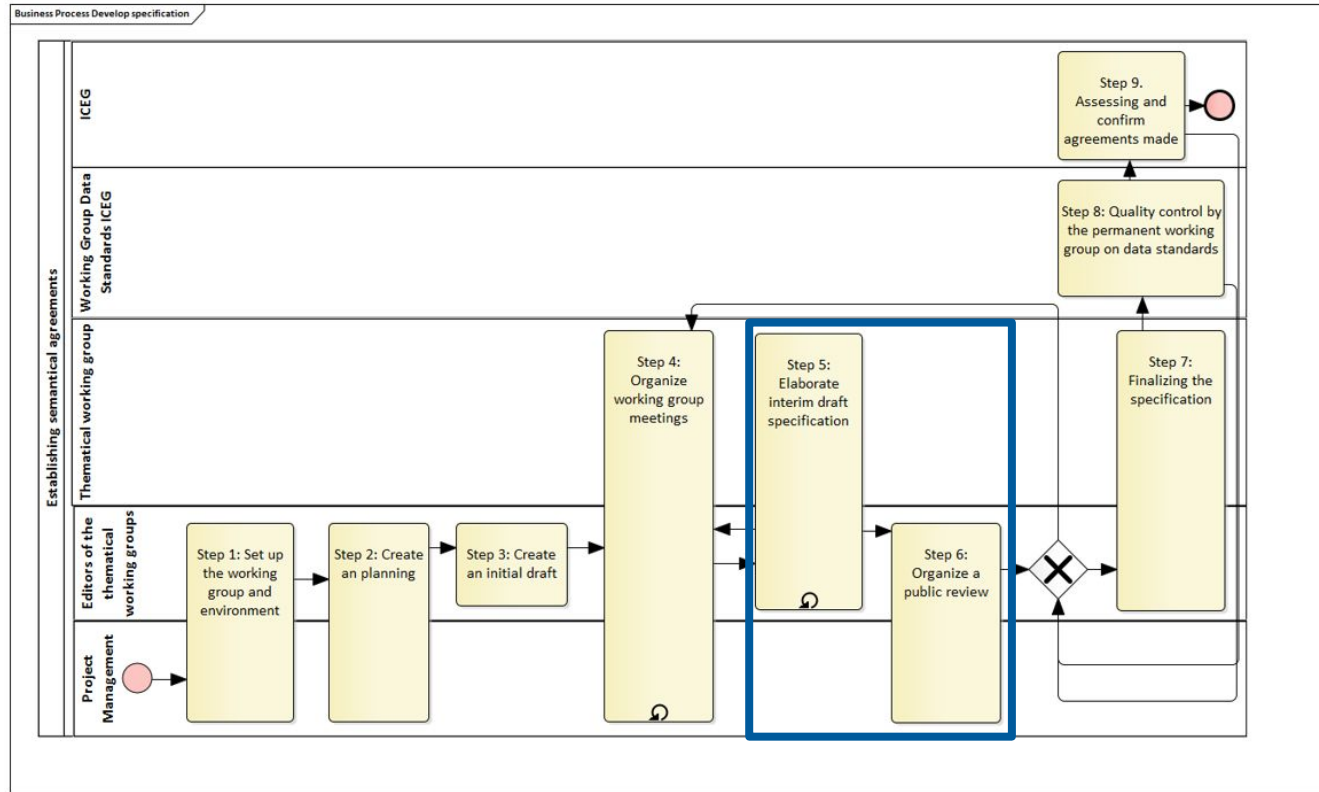
Full paper: English

W3C, IEEE, IETF, IAB en ISA, Open Stand, OSLO



How do we achieve this

Process and methodology defined by ICEG



INFORMATIE
VLAANDEREN

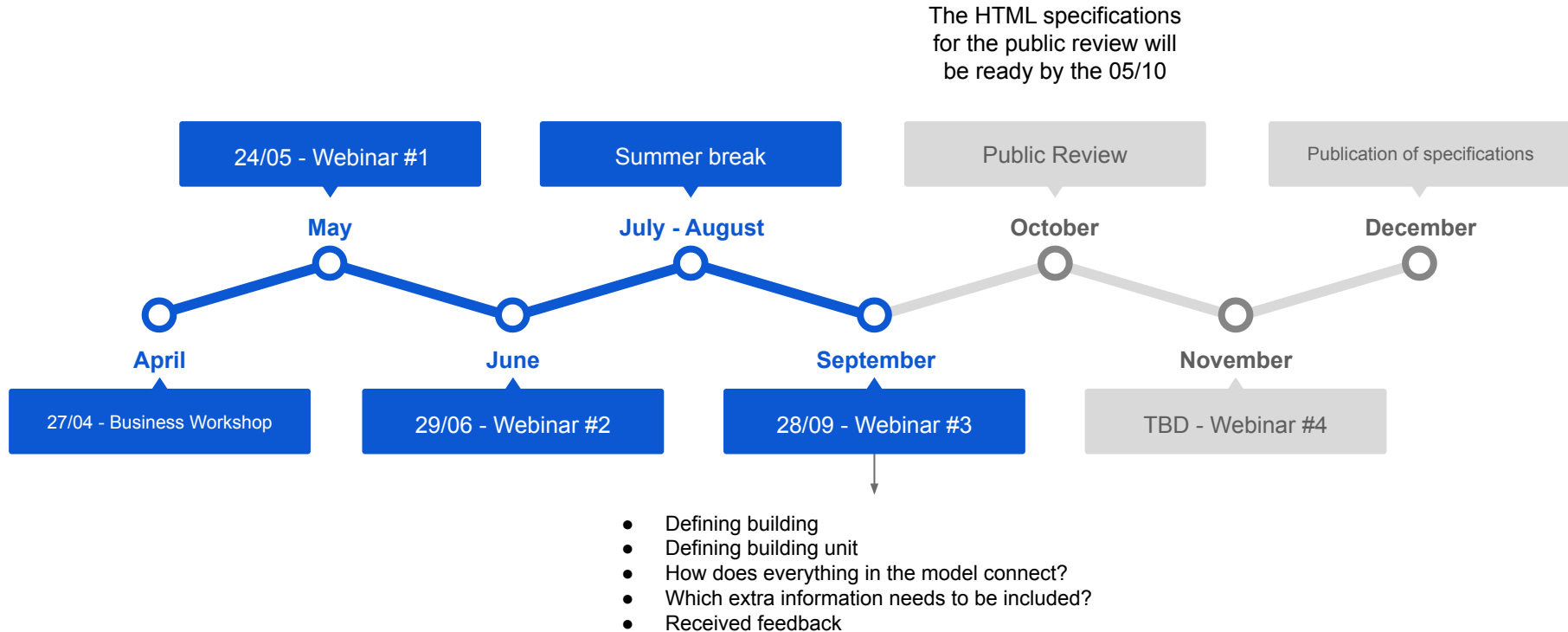


BO
SO
IG: Digitale Transformatie
IG: Based on Onderzoek
IG: Transformatie Agents
IG: Strategie en Appoi

PROCESS AND METHOD FOR THE DEVELOPMENT OF DATA STANDARDS

Version /// 1.0
Publication date /// 24 may 2019

Timeline





Legal framework



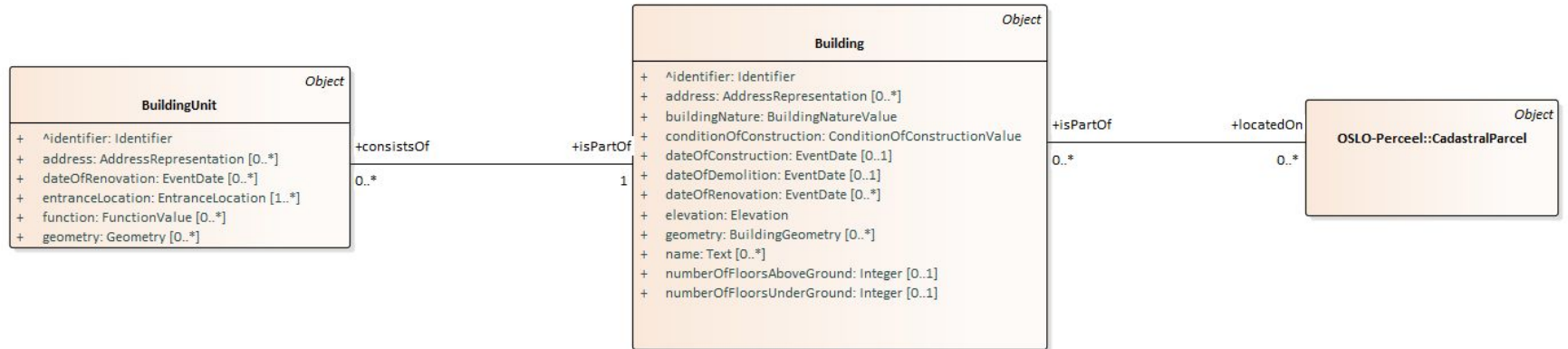


Presentation and discussion of the latest version of the model



Overview

class ICEG-Building_AP



Use cases in scope of ICEG building

Existing use cases from the Charter

Building units are addressable objects



Create a link between the following registers; parcels, buildings, building units and addresses



Create a link between a building and his quality criteria



Create a link between a building and urban development control and land use statistics



Create a link between a building and territorial resources allocation as transportation, roads, heating, sewer, electricity..



Create a link between a building and its value and taxation



Additional use cases from the business workshop

Building (units) have a unique identifier and a link with both the population register and the cadaster



A building / building unit has an entrance location and some indoor navigation instructions



Every building (unit) has a specific function (f.e. Police station, fire station, school, ...)



Buildings and building units consists of 2D and 3D information



Every building (unit) has a lifecycle



A building is linked with the official registration of buildings (building register)



Initial scope

Mandatory attributes imposed by INSPIRE

beginLifespanVersion	externalReference	numberOfBuildingUnits	■ Already proposed
endLifespanVersion	heightAboveGround	numberOfFloorsAboveGround	■ Will be proposed to be added to comply with the regulation
conditionOfConstruction	name	buildingPart	■ TBC
dateOfConstruction	buildingNature	inspireID	
dateOfRenovation	currentUse	geometry2D	
elevation	numberOfDwellings	geometry3D	

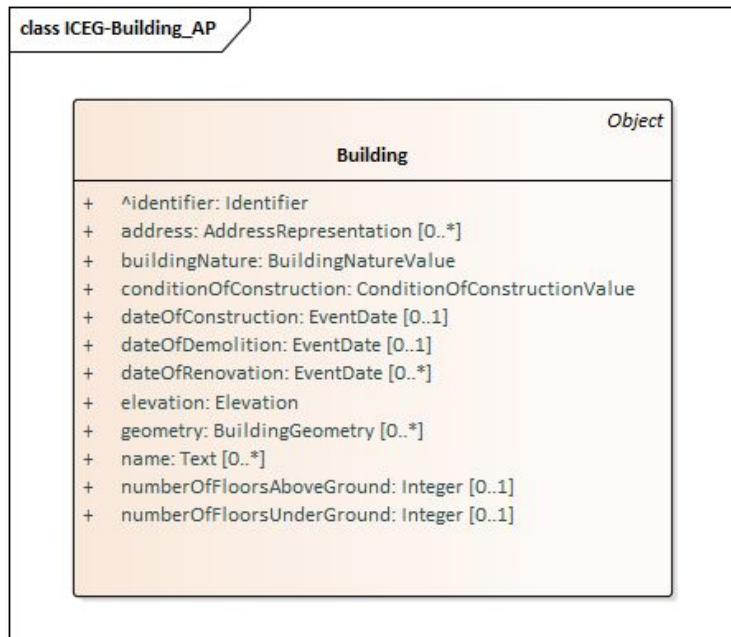
Optional attributes suggested by INSPIRE

connectionToElectricity	heatingSource	numberOfFloorsBelowGround
connectionToGas	heatingSystem	floorDistribution
connectionToSewage	address	floorDescription
connectionToWater	officialArea	roofType
document	officialValue	materialOfFacade
energyPerformance	cadastralParcel	materialOfRoof
materialOfStructure		

■ Already proposed

■ Can be added provided that the information exists in the respective Belgian entities

Building



Updated

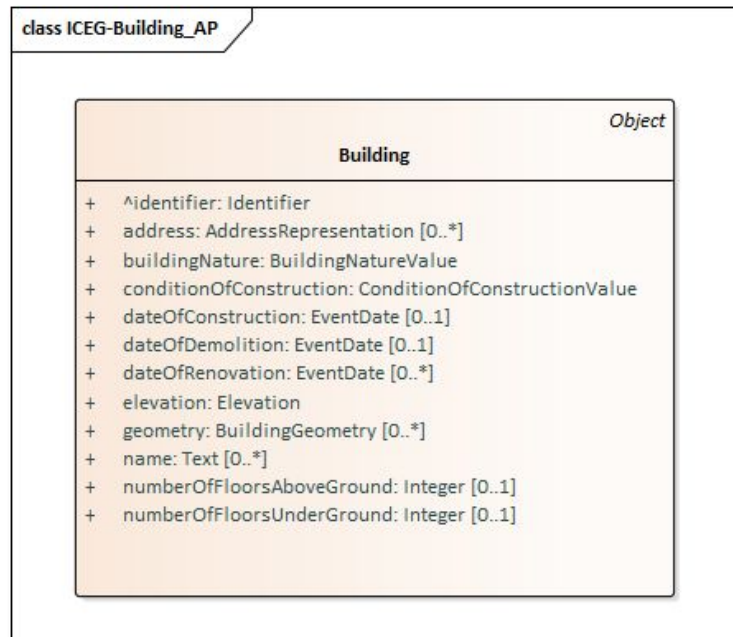
- No consensus has been reached yet on how **entranceLocation** should be modeled, however the attribute is suggested to be dropped at Building level and added at Building Unit (see [issue #92](#))

Open issues

- [Issue #88](#) | Proposed a definition for quality criteria and question to the WG whether additional ones should be added (previous slide - INSPIRE optional), discussion on fit-for-purpose vs characteristics.
- [Issue #86](#) | **function** should be captured only at building unit level.
- [Issue #87](#) | “Construction” could be seen as an abstract class to “**Building**” and “**Building unit**”
- [Issue #89](#) | Modeling 2D & 3D (Level 1 & 2) geometry



Building



Issue #88 | Quality criteria

- **What is meant with quality criteria?** Characteristics that determine whether a building is fit for purpose.

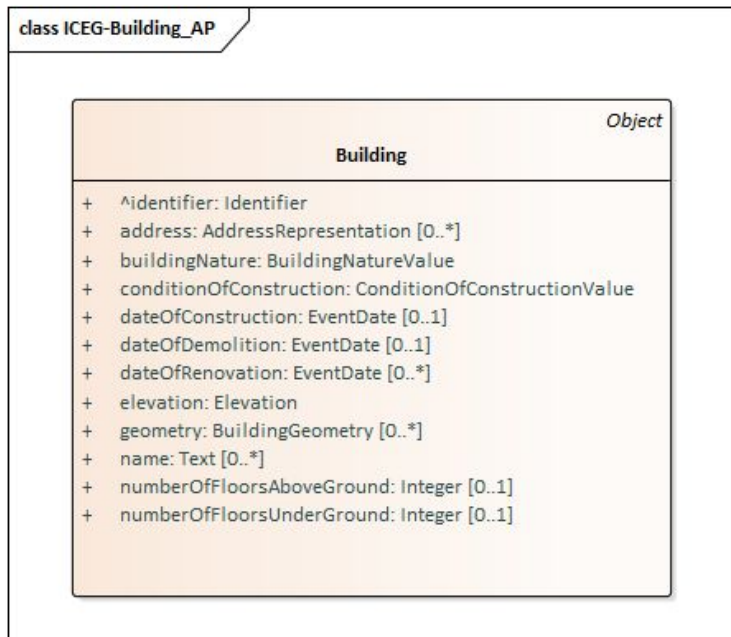
Merriam-Webster → “peculiar and essential character”, “an inherent feature, property”

Cambridge English Dictionary → “Quality” is defined as “a characteristic or feature of someone or something”.

- **Fitness for purpose is an abstract concept.** It supposes that we capture clearly the purpose as well as agree on the characteristics supporting the various purposes. We propose to focus on fundamental characteristics.
- Are there **fundamental characteristics** that could be added to our model? See INSPIRE optional elements for inspiration.



Building



Issue #86 | Defining and capturing **function**

- **function** should be captured only at building unit level.

Function for which the building unit is used in reality (as determined on site).

- **nature** of the Building.

Characteristic of the building that makes it generally of interest for mappings applications. The characteristic may be related to the physical aspect and/or to the function of the building.

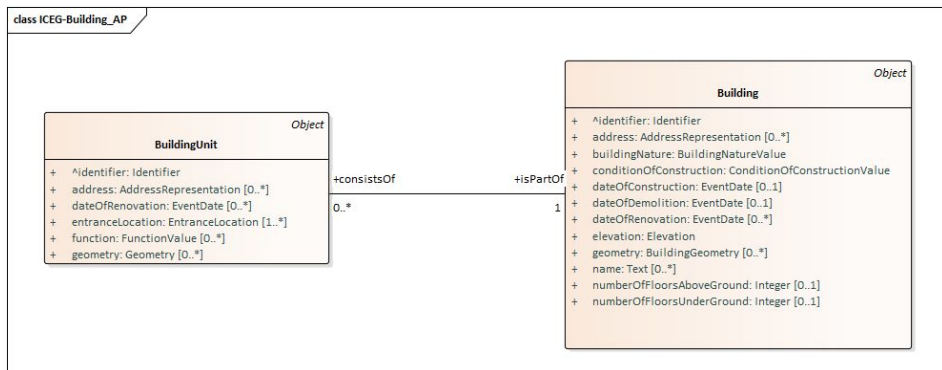
- **Code lists** Should we stick to INSPIRE or look into the [AAPD/AGDP code list](#) or other code lists?
 - Proposition to point or recommend certain code lists
 - Include a limited code list

Nature (from GitHub) | Limited code list:

- school
- airport
- port
- train station
- prison
- post office
- fire station
- police station
- community house
- hospital
- telecommunication tower
- Place of worship
- Other



Building Unit



Updated

- Addition of **dateOfRenovation** to Building Unit
- Addition of **entranceLocation** to Building Unit

Open issues

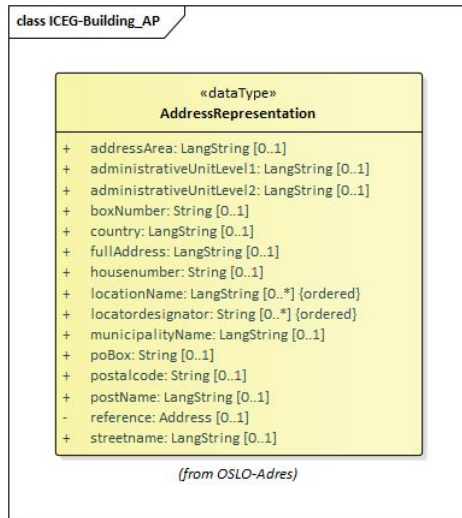
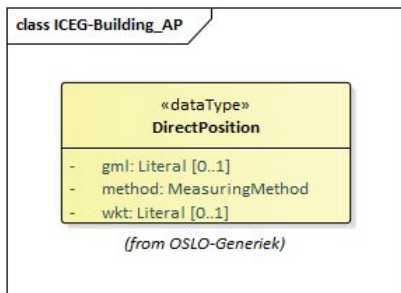
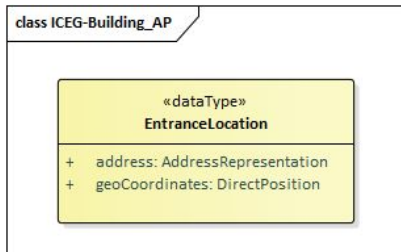
- [Issue #86](#) | **function** should be captured only at building unit level.
- [Issue #87](#) | “Construction” could be seen as an abstract class to “**Building**” and “**Building unit**”

Questions

- Should Building unit be linked to CadastralParcel?



Building (unit) address

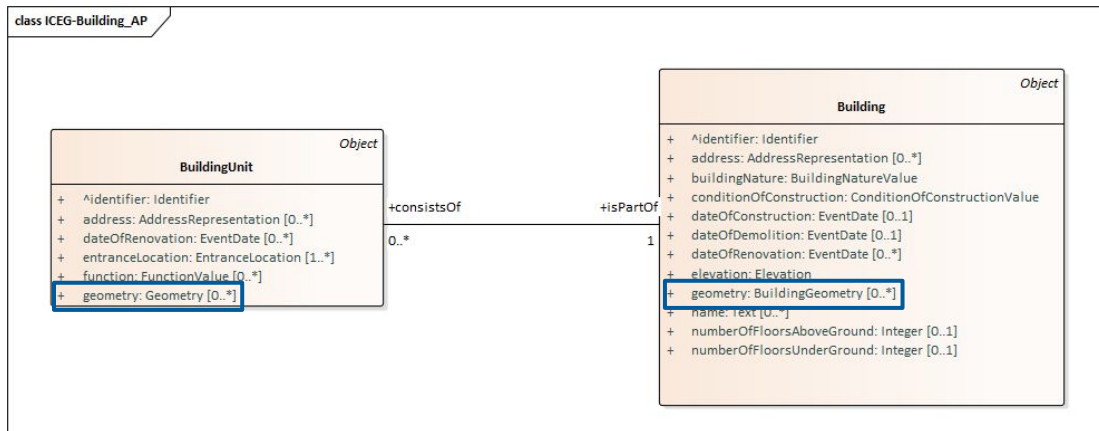


Updated

- Renaming Langstring to LangString
- Renaming of GetypeerdeString to Literal

Geometry

Google wants to find and use 2D and 3D information to update their maps.



3D geometric representation at different levels of detail.

Level of detail 1

Consisting of the generalized representation of the outer boundary by vertical lateral surfaces and horizontal base polygons.

Level of detail 2

Consisting of the generalized representation of the outer boundary by vertical lateral surfaces and a prototypical roof shape or cover (from a defined list of roof shapes)

Level of detail 3 & 4

Consisting of the detailed representation of the outer boundary (including protrusions, facade elements and window recesses) as well as the roof shape (including dormers, chimneys)

Updated

- **HorizontalGeometryEstimatedAccuracy** and **VerticalGeometryEstimatedAccuracy** repositioned in the parent class



Next steps



Public review period

1

Start of the **public review period** next Week – a stable version of the model will be published by then

2

Members of the WG are invited to **review the specifications** and share it further with colleagues, domain experts, etc.

3

Members of the WG are invited to **share their feedback**, if any on GitHub – **minor comments**, such as editorial issues, fixes, will be addressed directly, and **major comments** will be subject for discussion and consensus on GitHub only!

4

Volunteers may **test the model against real-life data** to ensure its soundness. Volunteers may come forward now or via email and a template will be provided.

5

Feedback will be addressed by the editorial team and the **final specification** will be published online and presented during the **next and last webinar**, in late November

Feedback & collaboration




Feedback can be provided by email to the following people:

- christophe.bahim@pwc.com
- yaron.dassonneville@pwc.com



Feedback/input can be provided through [GitHub](#):

<https://github.com/belgif/thematic/issues>

Use the label  in your new issues.

Don't hesitate to watch the activities!



Thanks!



Enumerations

class ICEG-Building_AP

«enumeration» ConditionOfConstructionValue
declined demolished functional projected ruin under construction

«enumeration» BuildingNatureValue
arch bunker canopy castle cave building chapel church dam greenhouse lighthouse mosque shed silo stadium storage tank tower synagogue windmill temple wind turbine

«enumeration» FunctionValue
individualResidence collectiveResidence twoDwellings moreThanTwoDwellings reisdenceForCommunities agriculture industrial office trade publicServices ancillary

«enumeration» ElevationReferenceValue
above ground envelope bottom of construction entrance point general eave general ground general roof general roof edge highest eave highest ground point highest point highest roof edge lowest eave lowest floor above ground lowest ground point lowest roof edge top of construction

«enumeration» HorizontalGeometryReferenceValue
above ground envelope combined entrance point envelope footprint lower floor above ground point inside building point inside cadastral parcel roof edge

«enumeration» Boolean
true false

Geometry Levels of detail

