

## **The national CityGML standard in The Netherlands: explanation, experiences and requests for stronger harmonisation with 2D models**

*CityGML Workshop, 20-21 June 2013 – Thread: Stronger Harmonisation with 2D Cadastre and Models*

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In the Netherlands, the CityGML activities are organized in the 3D SIG NL. With help of this 3D community, a national 3D standard was established as application domain extension (ADE) of CityGML in 2012.

This presentation will shortly explain the 3D SIG NL and specifically the national CityGML ADE as well as the toolkit that was delivered to the wide public by the end of 2012, consisting of technical implementation specifications, a 3D validator, example 3D CityGML ADE data, an FME workbench to automatically generate 3D CityGML data and the results of a CityGML challenge executed by four companies. Specific attention will be paid to how 2D and 3D data are harmonized in the national CityGML ADE.

In addition, in the process of defining the national ADE that integrates 2D and 3D data, we met several issues regarding the CityGML specification that we submitted as change requests, which will be explained in the presentation. These requests are relevant for the development of CityGML 3.0. and have the status: “to be voted on for v3.x” or “pending”.

- 11-102: LOD0 footprints for all CityGML classes are required in order to integrate the full range of possible geometries of semantic objects in one model, i.e. 2D, 2.5D and volumetric geometries. This enables to use 2D topographic data with a DTM and to upgrade 2D data to 3D.
- 13-025 Allow non-horizontal LOD0 footprints that will be determined by the connection of the terrain and the building
- 13-028 Enforce LOD1 and LOD2 buildings to be Solid, because a solid is the only way a building can be represented as a volume.