



Sova3D® -
Pilot Case: Hyvinkää Architectural Competition

SOVA3D – Internet of Spaces®

SOVA3D offers Internet Based Services for Building Environment 3D Digitalisation.

- **3D-VIRTUALMODELS**

- City Model
- Geometry Models
- BIM modeling

- **3D-CONTENT**

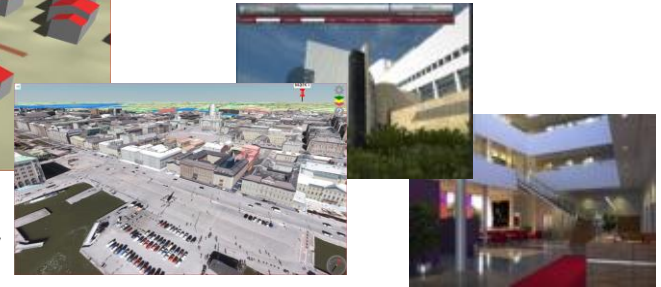
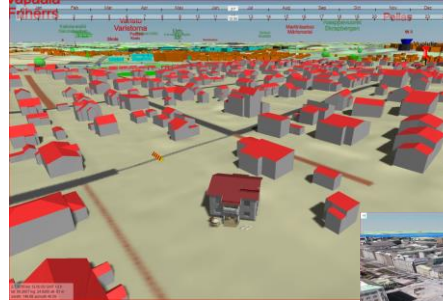
- Applied Game technology for Building Industry
- Gamified Services for Users of Spaces

- **SOFTWARE DEVELOPMENT**

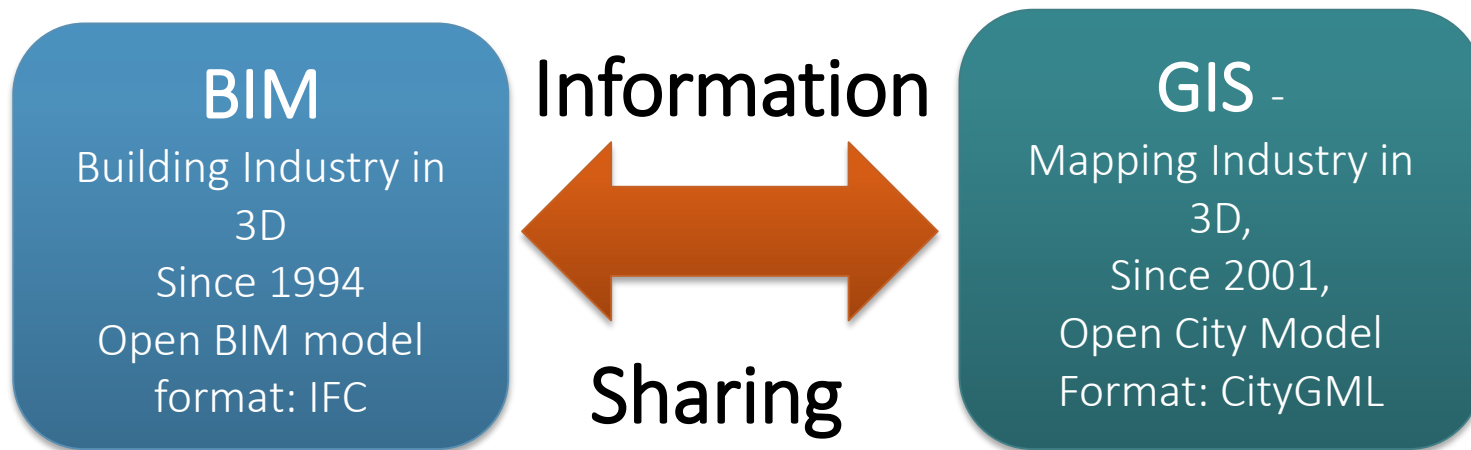
- BIM BASED BUILDING PERMISSION – Virva3D® -> Sova3D
- Sova3Dmaps – City Model in 3D Web Browser

- **EXTENDED SOFTWARE AND SERVICES with partners**

- Evolta Oy- Building Permission, Lupapiste.fi system.
- PointScene® - UAV scanning&data manipulation, Tripoint Oy
- Photo/Video Recognition- NVF.io (Nordic Venture Faamily)
- Laserdata analysing, editing, converting, Terrasolid Oy
- Simple BIM, IFC software development– DataCubist Oy



Big Picture – Trends on the Market:



Open Standards to be Used

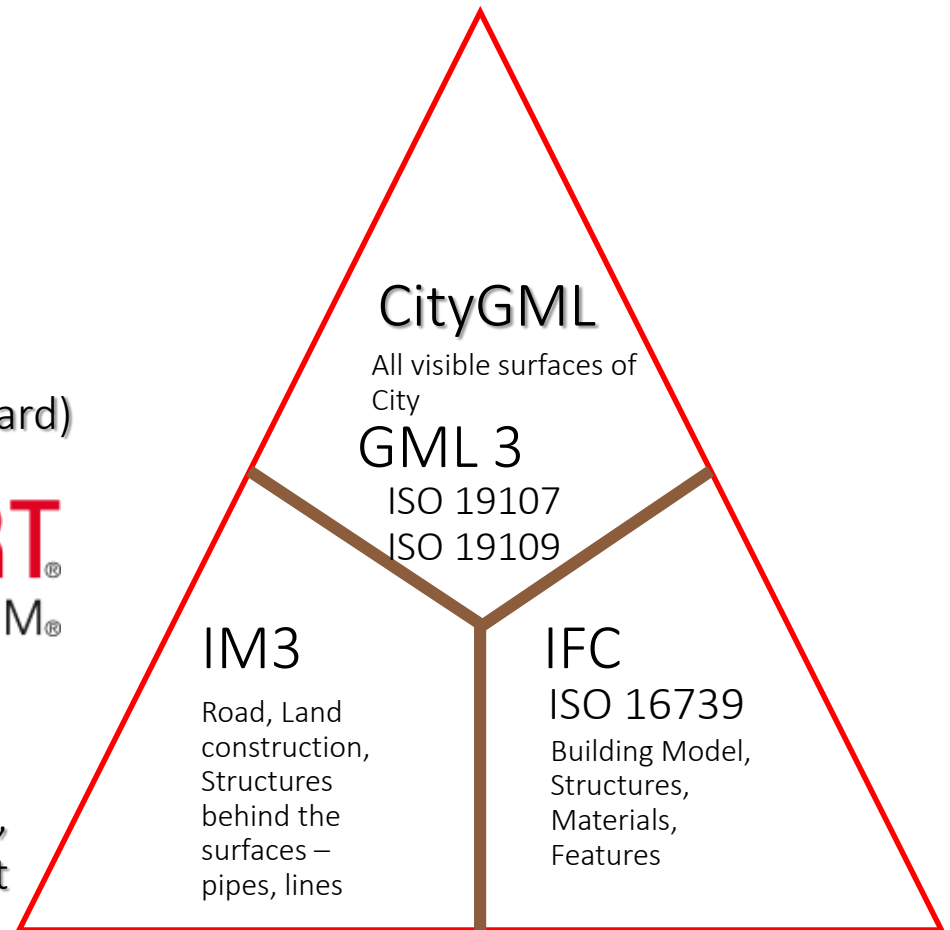


CityGML = OGC (Open Geospatial Standard)

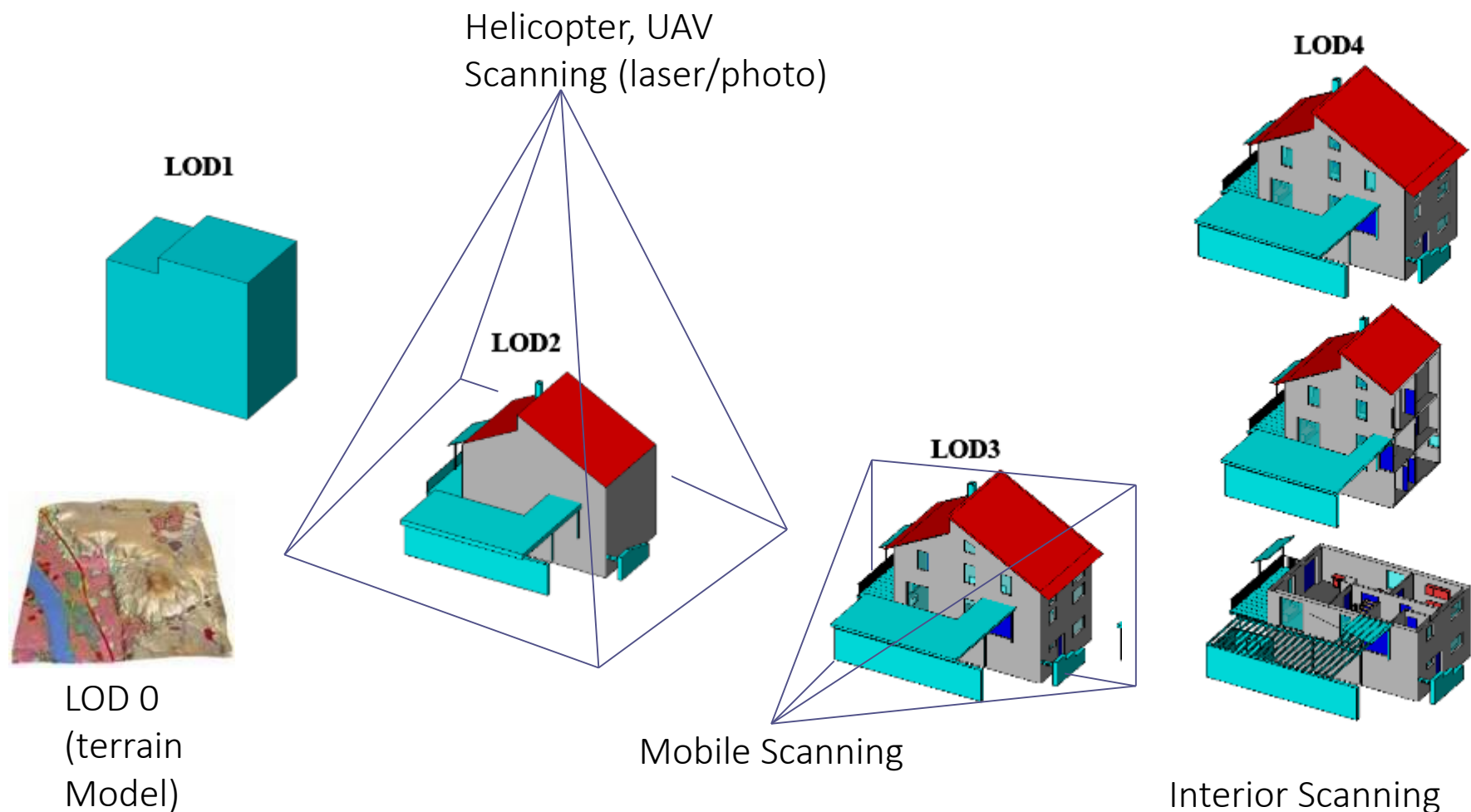


IFC = BuildingSmart standard

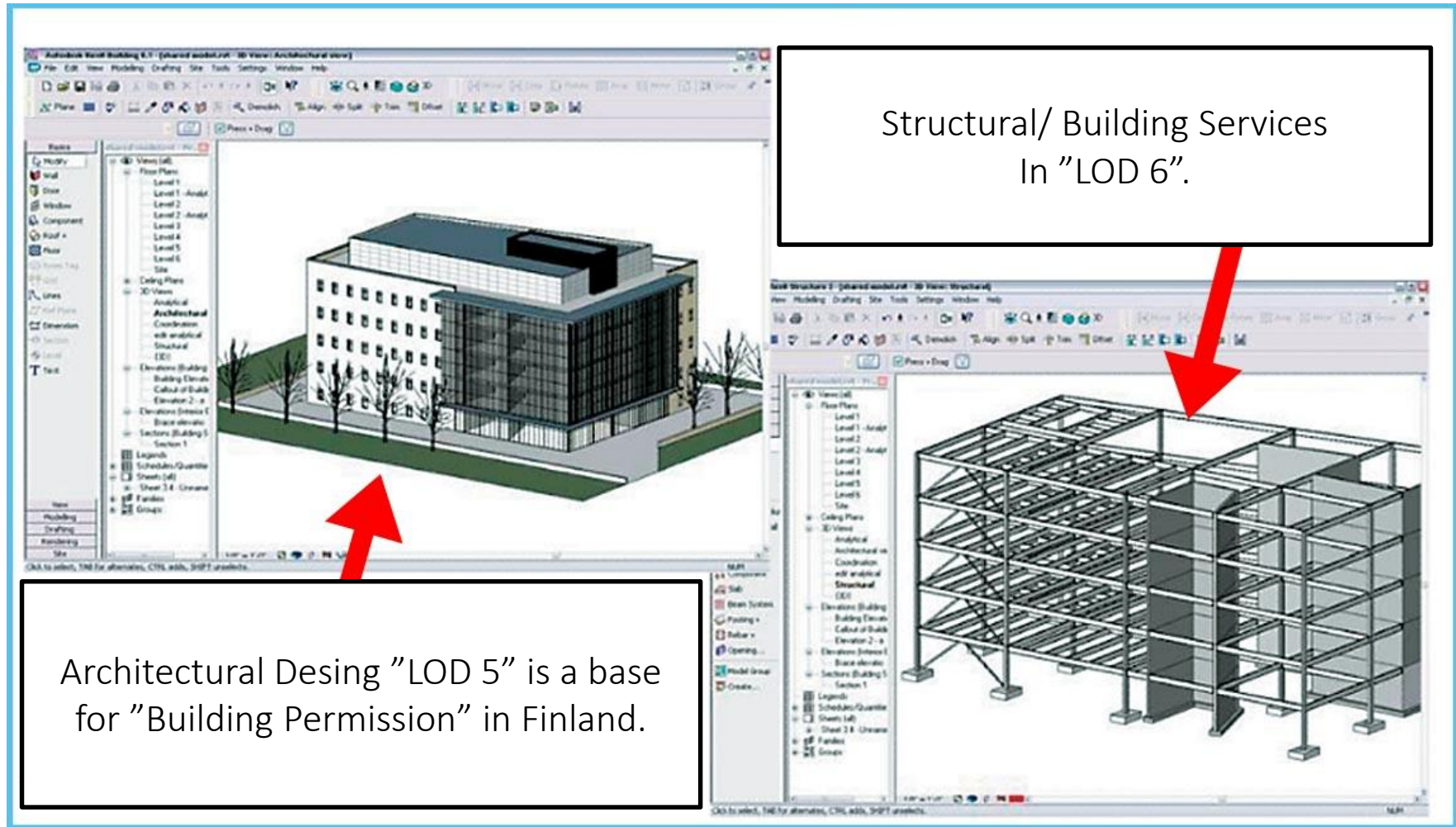
IM3 (InfraModel3) = based on LandXML,
Now part of BuildingSmart development



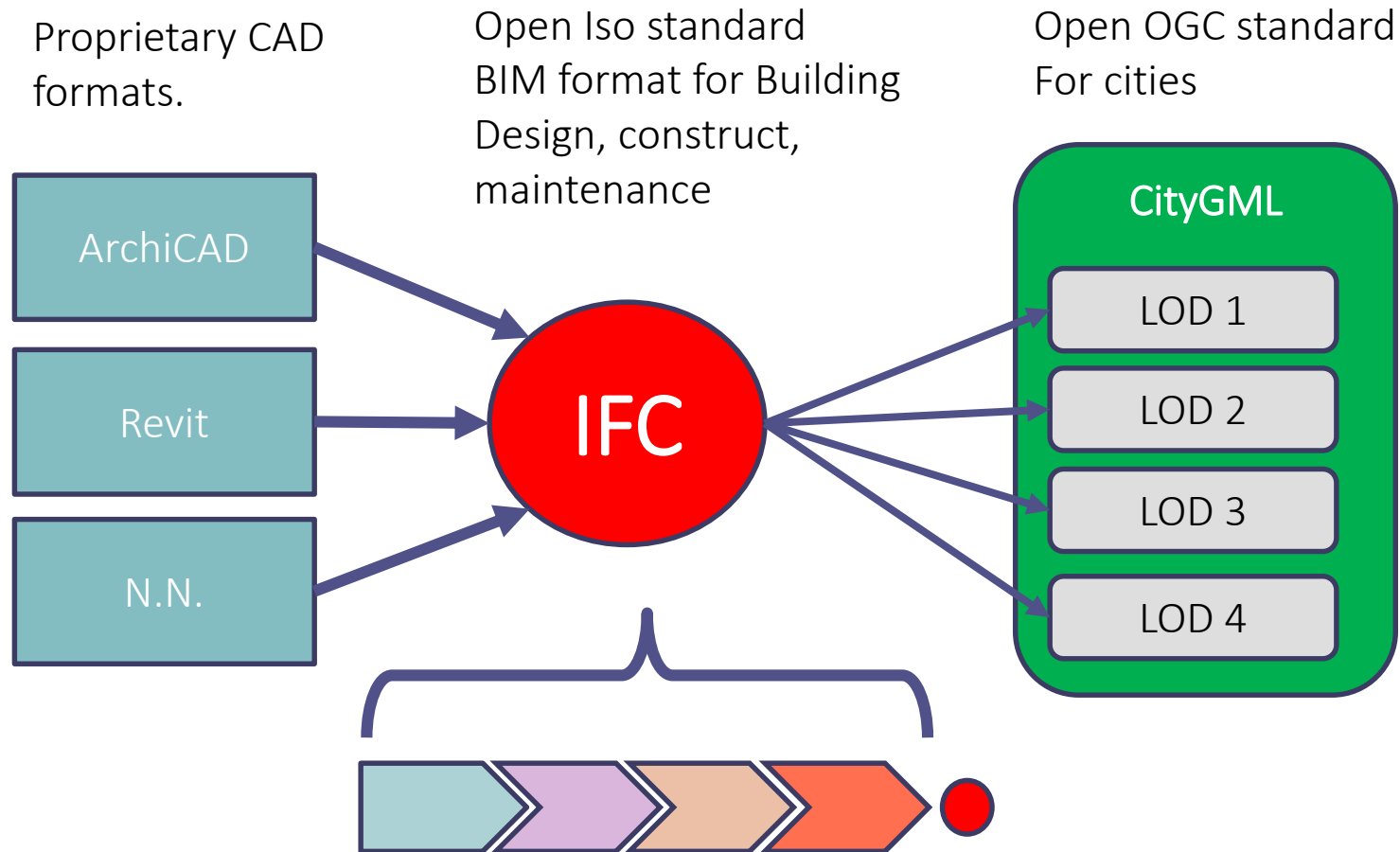
CityGML LOD's, OGC standard for CityModels



BIM (IFC) Level of Details 5,6 (un-official)



From BIM (IFC) to CityModel (CityGML)



VIRVA3D® - Virtual Building Inspection

Source Materials, Interaction and city model up-date in same environment

SOURCE MATERIALS

Surrounding City
and a plot as a
starting point for
designer

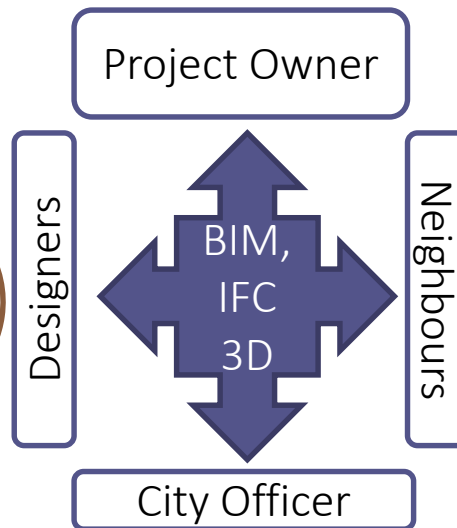
DESIGN STAGE INTERACTION ON THE INTERNET

Interaction
during the Design Process

Archiving of IFC design
model and as-built
model (PointCloud/IFC)
-Delivery to CityModel
in LOD 2 (1,3,4) in
CityGML format

BUILDING PERMISSION AND HEARING OF THE NEIGHBOURS

EXTENDED USE AS CITY MODEL AND ARCHIVING OF ORIGINALS



DYNAMIC 3D-CITYMODEL – “ECOSYSTEM”

SOFTWARE DEVELOPMENT ON CITYPLATFORM



APPLICATIONS

- For specified used, Sova3D
- Licenced Use
- Services, Points-of-Interest

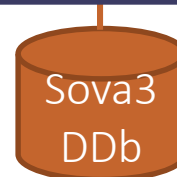
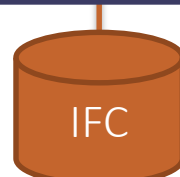
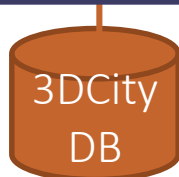
PLATFORM

- Basic features open for all
- VirtualCity
- Several simultaenous users
- Interaction (chat, VOIP)
- Map service, traffic



RESOURCES

- Register data (open/licensed)
- Point Clouds
- BIM /
- City Data
- Maps and GIS



Terve metsä,
terve vuori !

Kameranäkymät

Aloituspäätelmä

Näkymä tornin kattoerroksesta

Näytä

- ☒ Hyvinkää rakennukset
- ☒ Hotelli, tarkka malli
- ☒ Ympäristö
- ☐ Härkävehmaan koulu

Case: Hyvinkää Sveitsi Architectural Competition



Background:

Orderer:

City of Hyvinkää, Finland (Town Planning)

Support from "KIRAdigi"- government funding (40 %)

Consultant: Sova3D Oy (S3D-Map-system)

Pilot case: Hyvinkää Sveitsi Architectural Competition:

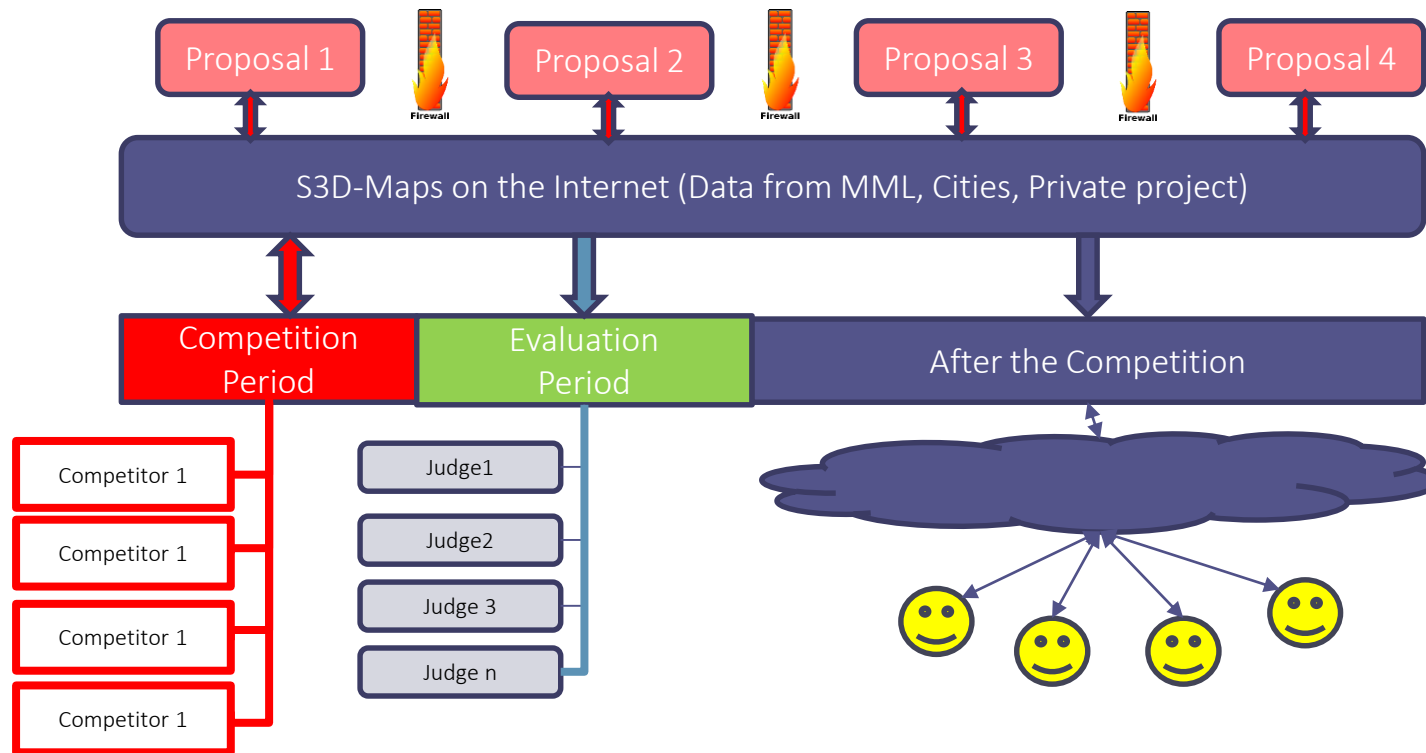
Video: <https://youtu.be/AhunUn53R6k>



Basic Needs of the Project:

1. Architects want to have a realistic 3d model of the Surrounding Environment
2. Judges want to have a simple way to see the proposals superimposed on the cityModel
3. City Authorities want to get citizens comments about the proposals and report that to the judges (!)
4. Comments of the proposals need to be shown (after moderation) to the other citizens, who can "thumb" those comments up or down.

Solution Diagram:



After the competition, citizens can freely visit the proposals, other comments until the end of 2017.

More information:

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www.sova3d.fi

And 3D Map:

<https://S3dmaps.appspot.com>