



CityGML Energy ADE

V. Coors & A. Trakas
GeoSpatial World Forum, Lisbon, 25.5.2015

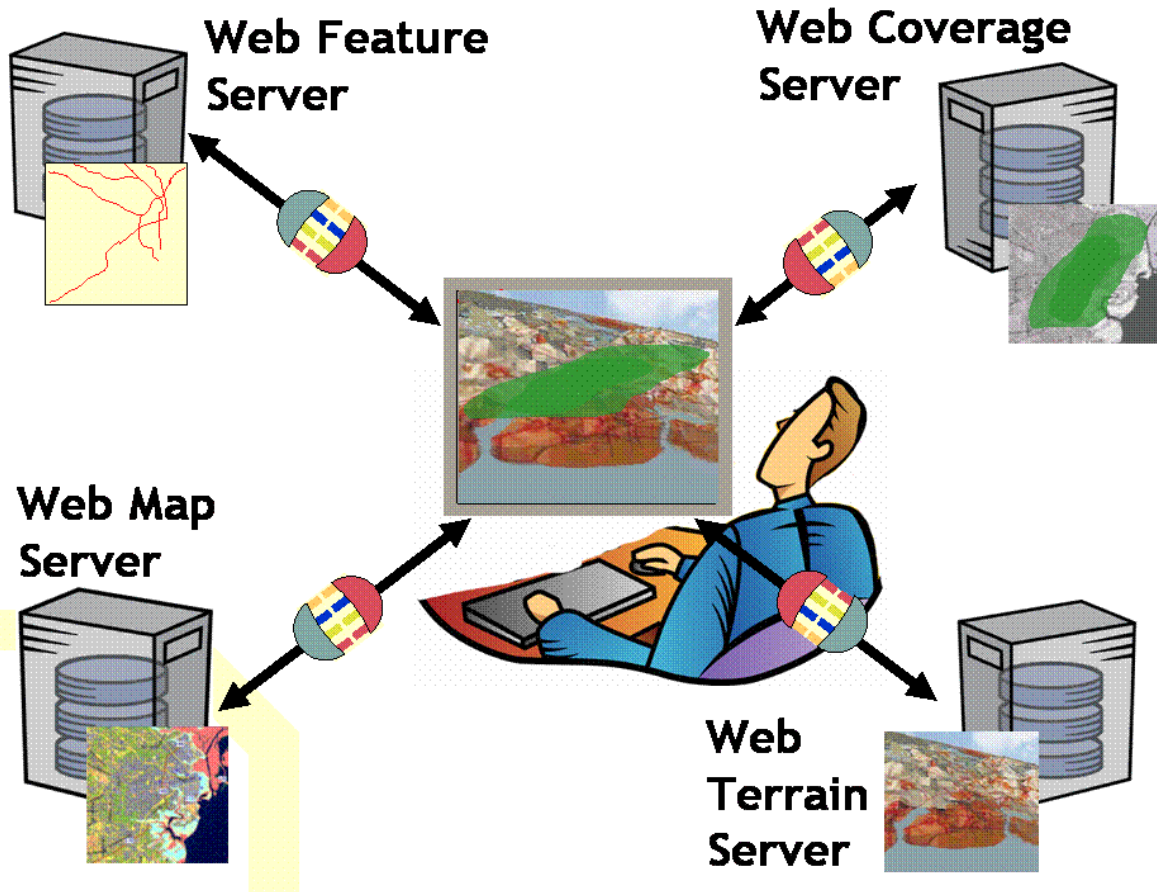
Some facts about the OGC



<http://www.youtube.com/ogcvideo>

→ more videos on OGC's Youtube Channel:
<http://www.youtube.com/user/ogcvideo/videos>

The Geospatial Web

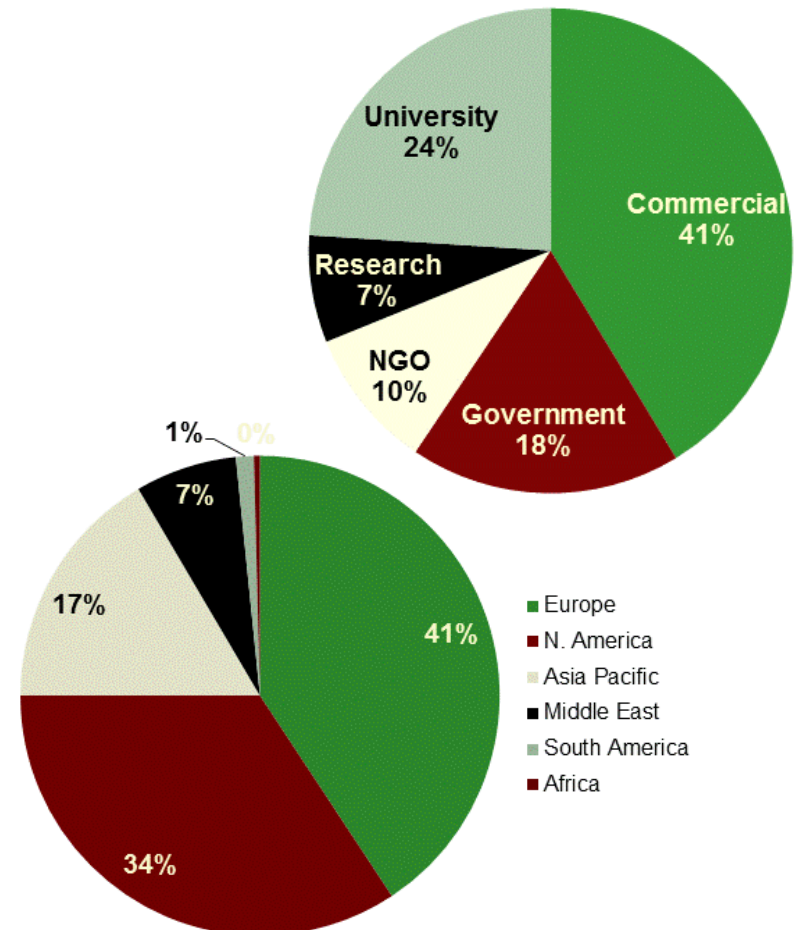


Just as `http://` is the dial tone of the World Wide Web, and `html / xml` are the standard encodings, the geospatial web is enabled by OGC standards.

The Open Geospatial Consortium

Vision: A world in which everyone benefits from the use of geospatial information and supporting technologies.

- International voluntary consensus standards organization leading development of geospatial standards and best practices
- 21st year
- 500+ member organizations
- 40+ standards
- Implemented in thousands of geospatial technologies worldwide
- Broad user community implementation worldwide
- Cooperation with other standards organisations and foundations, ISO/TC 211, OSGeo, W3C, OASIS and others



**3D and more:
Standards Work around Smart Cities at
the OGC**

The 3DIM DWG - History

Formed as **CAD/GIS**
Domain Working Group

Initiated **CityGML**
Standards Working Group

3D Portrayal
Interoperability
Experiment (3DPIE)

2005

2007

2009

2011



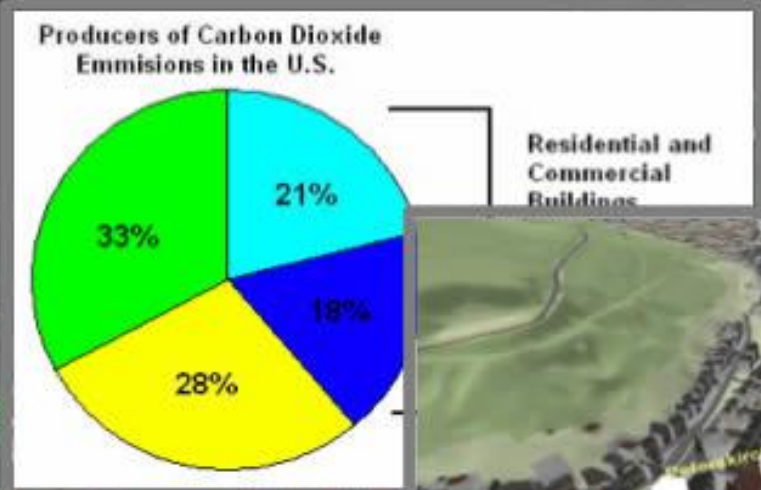
Initiated **Oblique Imagery**
Domain Working Group

today!

Changed name to
3D Information Management
Domain Working Group in 2007 to better
reflect the diversity of work in the group

ARML and
IndoorGML
Standards Working
Groups

The OGC 3D Information Management DWG



CityGML Standards Family

- CityGML Standard

- Version 2.0 – current adopted version

- Version 3.0 Standards Working Group underway

- INSPIRE Data Specification on Buildings

- Buildings Theme as in Annex III of the EU INSPIRE Directive

- 3D representations of buildings using CityGML

- Basis of visualization of noise mapping

- National 3D standard in The Netherlands

- OGC Best Practice: CityGML ADE - Dutch 3D Standard

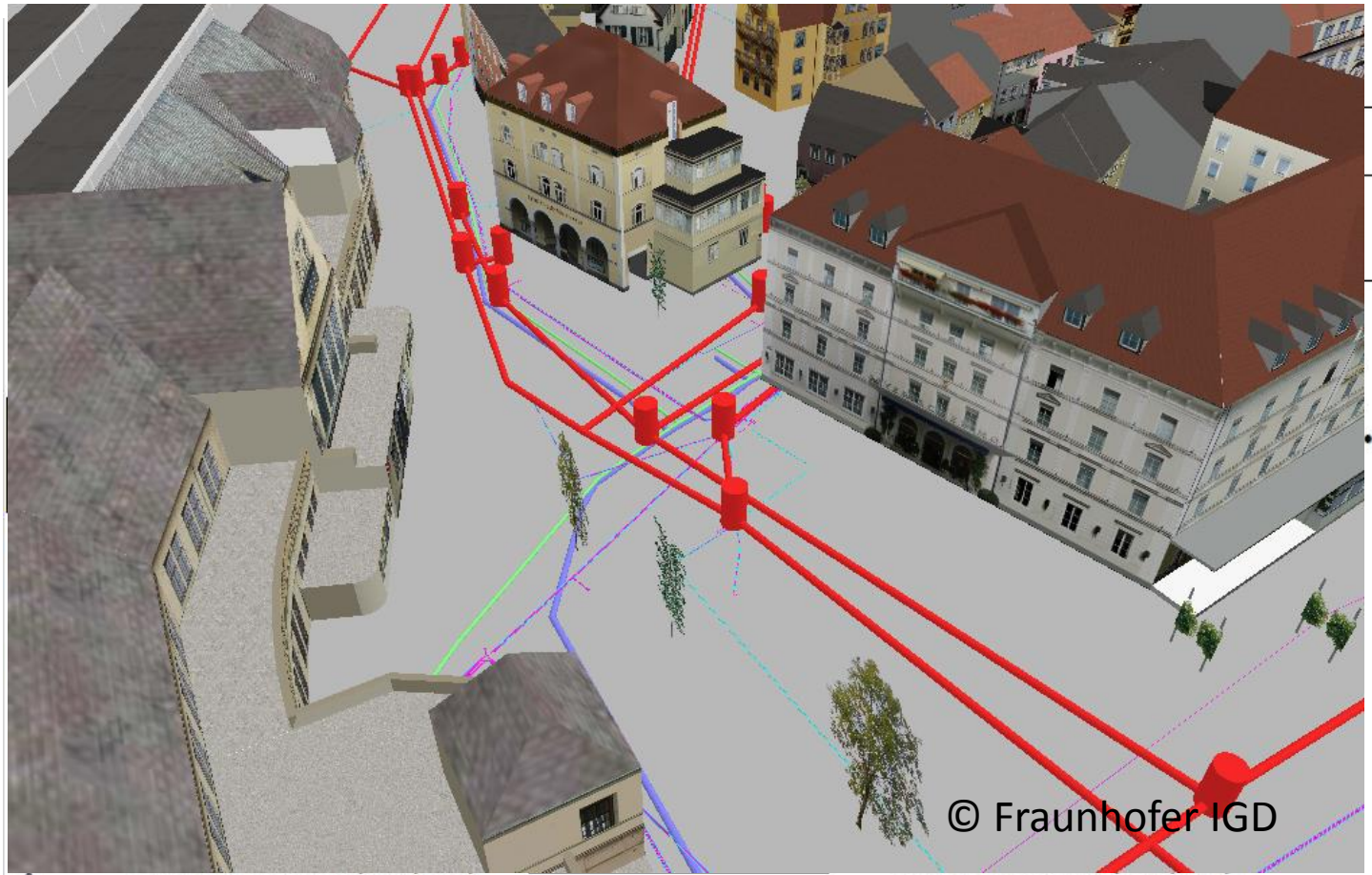
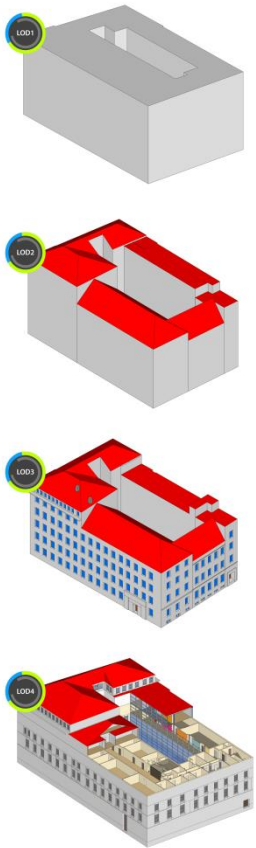
- Additional profiles are underway

- 3D National Data Model for Kingdom of Bahrain

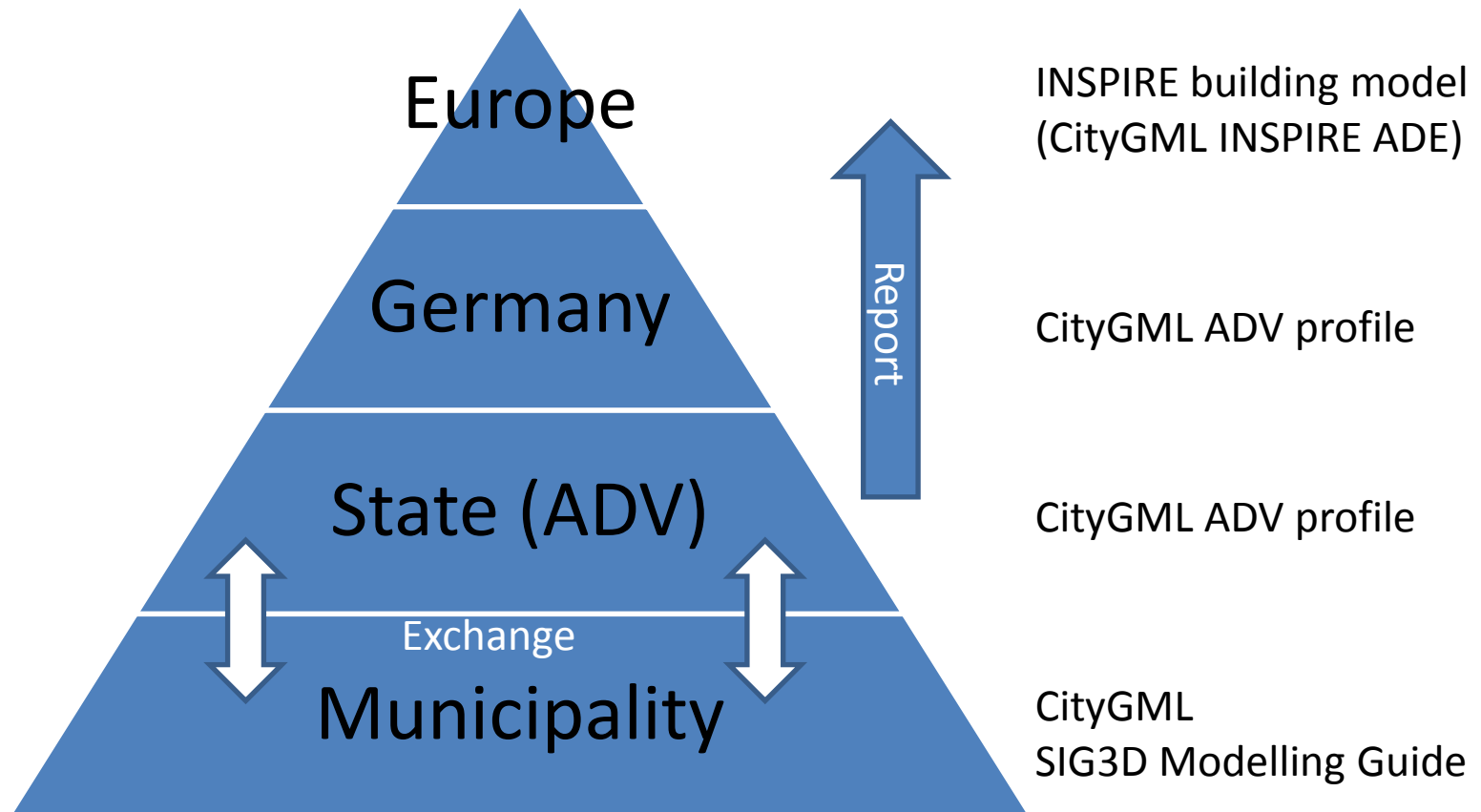
More and more complex and heterogenous Geodata are needed for Land and Urban Management to face challenges such as demography and urban growth, climate change, energy efficiency, ...



CityGML



3D City Models based on CityGML in Germany

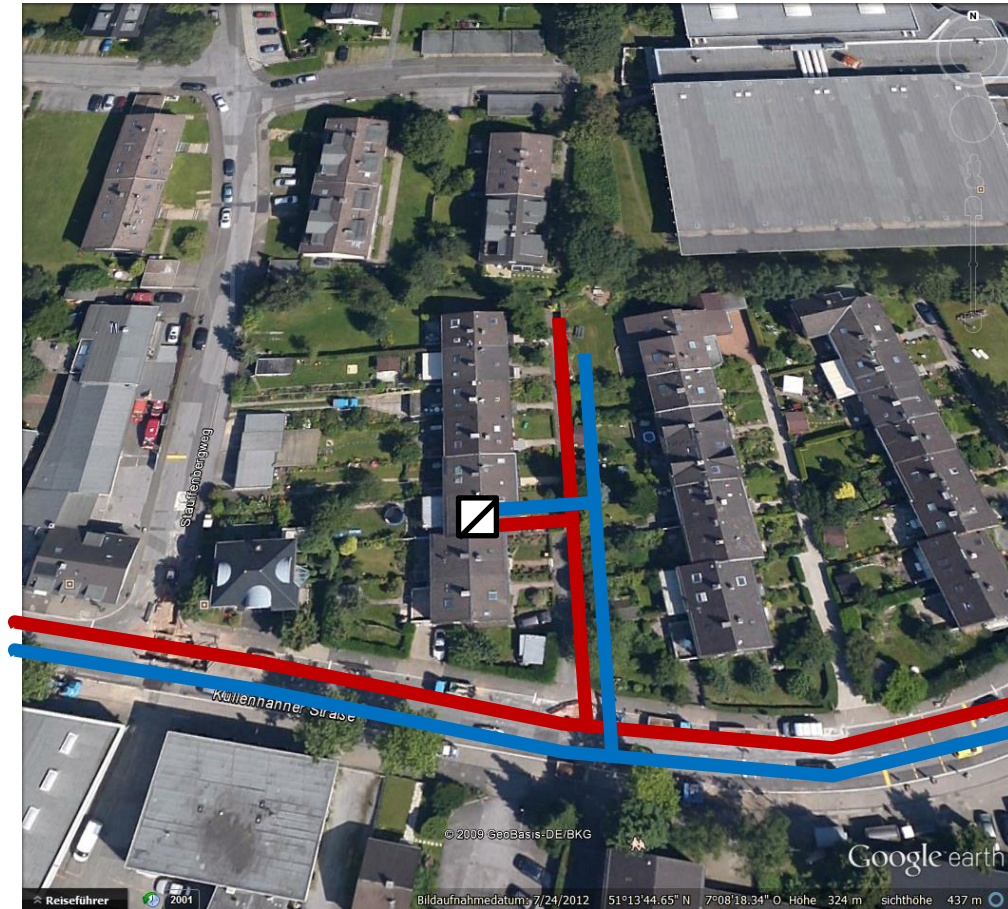
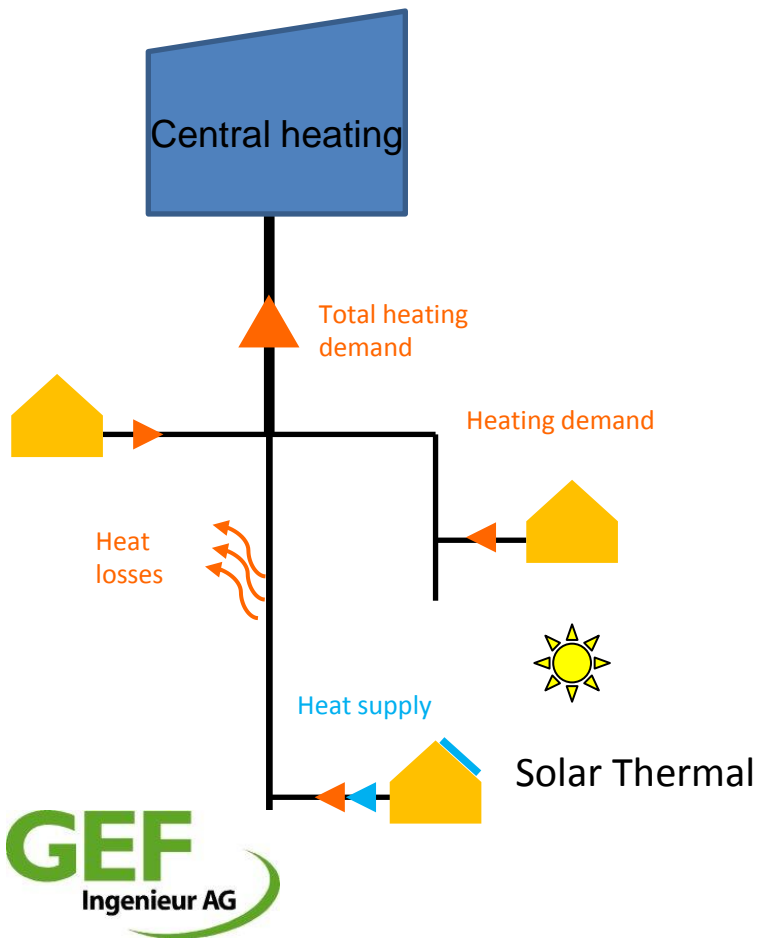


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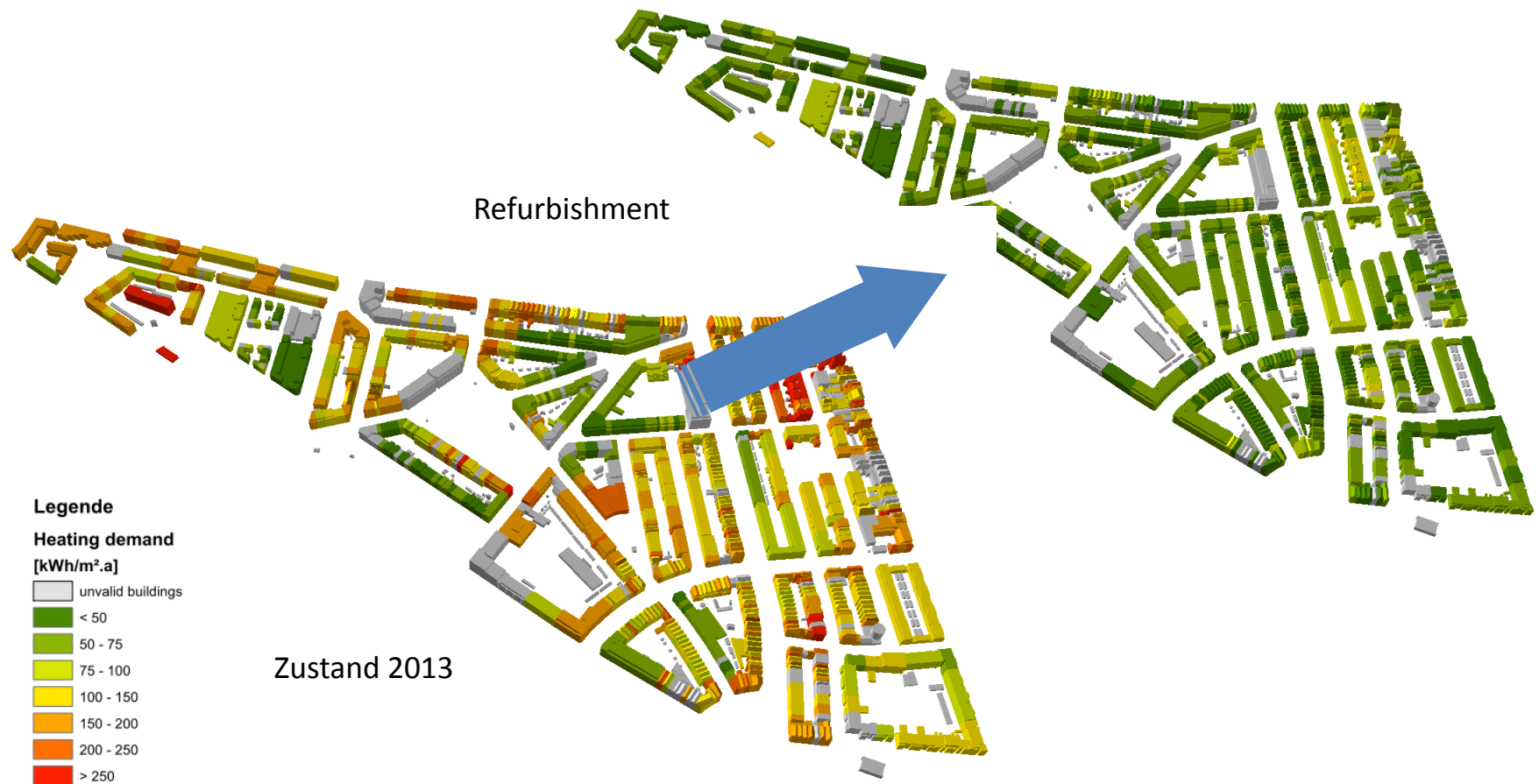
Extending CityGML for energy simulations on district and urban scale



District Heating Networks

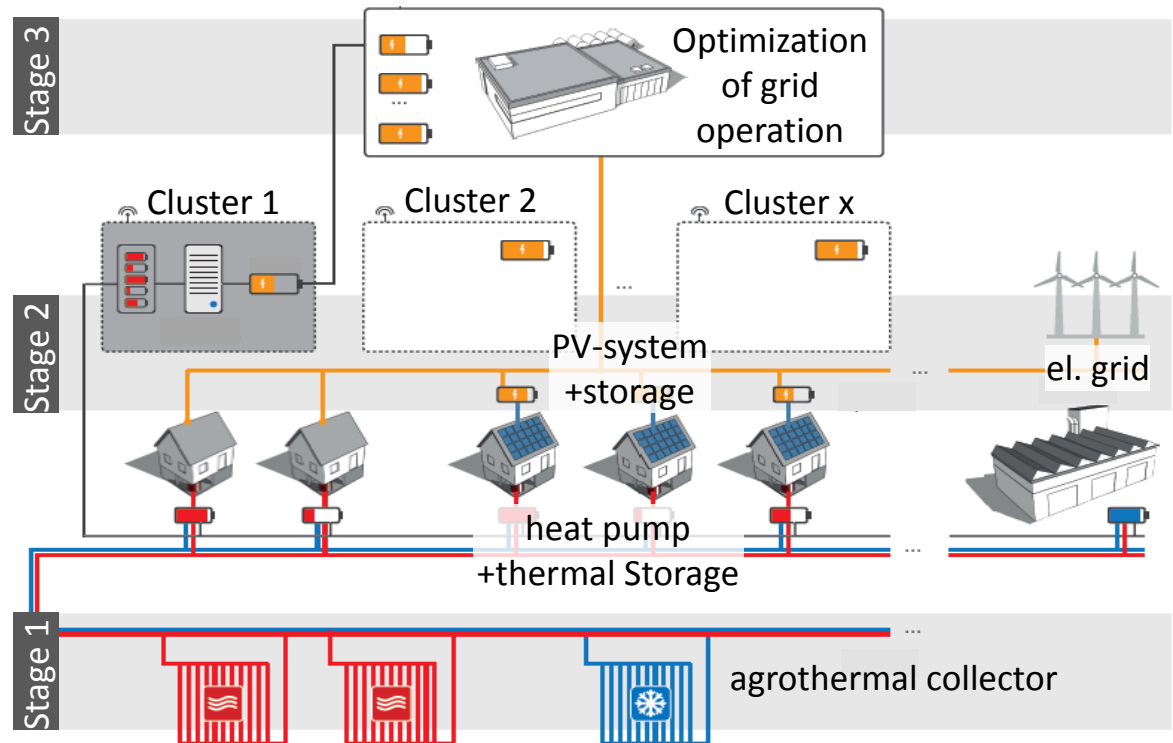
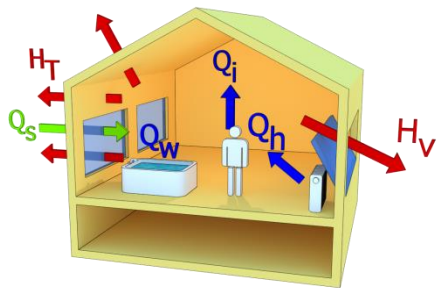


Refurbishment Scenarii



Plus Energy Districts

Precise demand and supply forecast on hourly bases



Project EnViSaGe, Quelle: Doppelacker GmbH

**Have a great
workshop!**



Athina Trakas

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