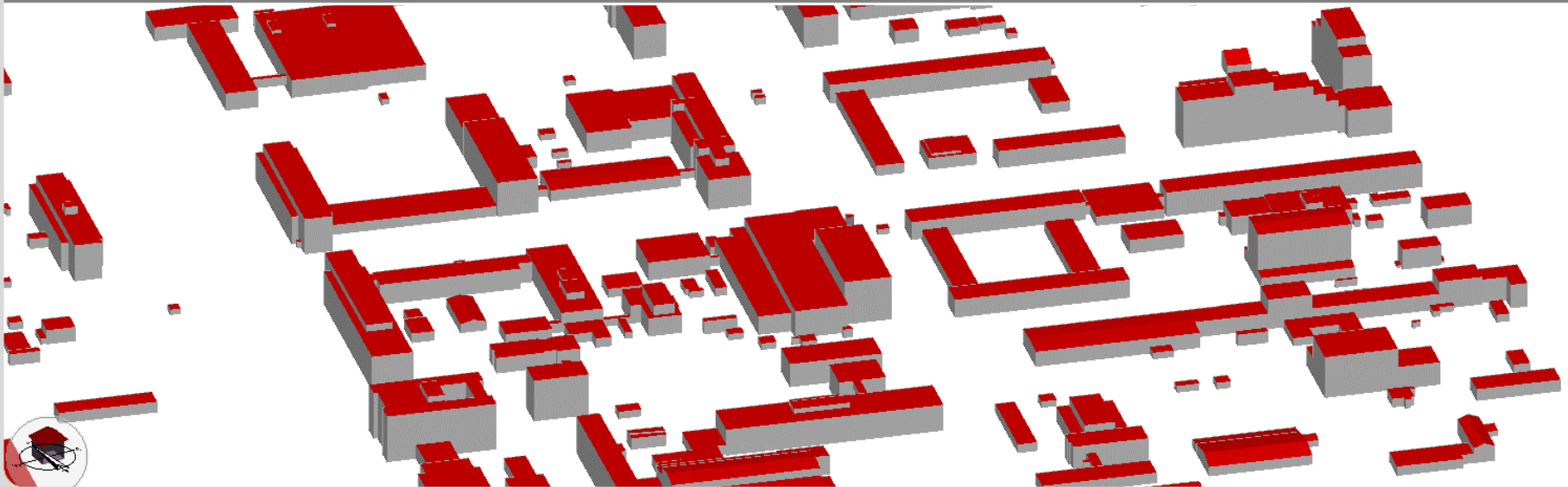


# 10<sup>th</sup> Energy ADE Workshop, 5<sup>th</sup> – 7<sup>th</sup> December 2018, TU Delft, Netherlands

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INSTITUT FÜR AUTOMATION UND ANGEWANDTE INFORMATIK



# Workshop goals

- Bring together and foster interdisciplinary cooperation among CityGML users, data producers, software vendors, ..., and scientists
- Listen to reports of the module coordinators over the past 6 months, discuss bugs, propose new ideas to improve or extend the (Energy ADE) data model, show test case and preliminary results, ...

# Agenda

Date	Topic
5.12.2018	Crash course CityGML and Energy ADE (19 participants)
6.12.2018	Organizational meeting
6.12.2018	Knowledge exchange event on “Energy & the digital built environment” (41 participants)
7.12.2018	Technical meeting – Presentations
7.12.2018	Technical meeting – Next steps

# Organizational meeting - Results

- New GitLab platform for the Energy ADE development, supported by RWTH Aachen
- The COST action SUMERA (Standardized Urban data Models for Energy Related Applications) has been revised
- The results of a questionnaire action, aiming to explore the usage of CityGML / CityGML Energy ADE for building energy simulations, were presented
  - CityGML building models are widely known and used in the building simulation community;
  - There is general interest in the CityGML Energy ADE, but still only few implementations;
  - Implementations of the "Energy Systems" module are completely missing.

# Knowledge exchange event

Topic	Presenter
Welcome, introduction and a (brief) overview of the Energy ADE	G. Agugiaro (TU Delft)
Building thermal energy simulations supported by the CityGML Energy ADE	J. Benner (KIT)
INSPIRE and CityGML Energy ADE: an example from the CitiEnGov project	P. Cipriano (DedaGroup)
Bringing together (2D, 3D) GIS, BIM and utility networks: some thoughts on current challenges	J. van Gelder (GEONOVUM/ Alliander)
Modeling coupled urban systems: Data and computing challenges	T. Hong (LBNL)
Minimizing uncertainty in modelling urban building energy using 3D city models and Bayesian inference	C.-K. Wang (TU Delft)
Co-simulation of multi-commodity energy systems	A. van der Meer (AMS/TU Delft)

# Technical meeting: Results, next steps

- There is an ongoing implementation of the EnergyADE at HFT Stuttgart, to support the new version 2.0 of SimStadt
  - Personal contact with the developer Parag Wate
  - HFT actually uses the same Energy ADE profile as KIT,
  - SimStadt 2.0 will not support "realistic" HVAC systems.
- Some interest in comparing / harmonizing Energy ADE with other standards, esp. with gbXML
- Some interest in Energy ADE models for "Tabula-like" 3D building prototypes
  - Collaboration with IWU Darmstadt
- Ongoing lack of test models and implementations, in particular of the Energy Systems Module
- Next Energy ADE workshop will take place at HFT Stuttgart, in autumn 2019.