

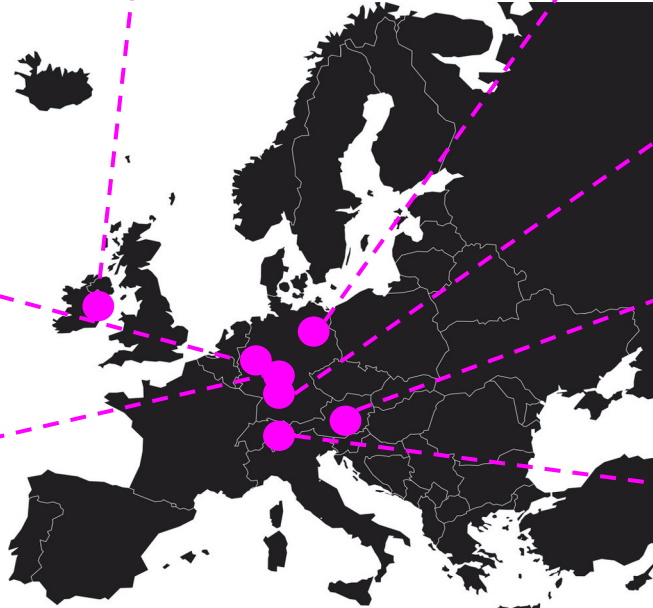
Work Package 2.1: City District Information Modeling



UdK Berlin



RWTH AACHEN
UNIVERSITY



May 7th 2021

Terms of reference for WP 2.1

Model inputs

- CityGML Levels of Detail and Energy ADE
- Flexible exchange requirement definitions to support geographically-specific energy modelling (neighbourhood, district, city, region, country)

Enrichment e.g. Archetype definitions

Workflows

- Workflow to support multi-scale building energy performance simulations

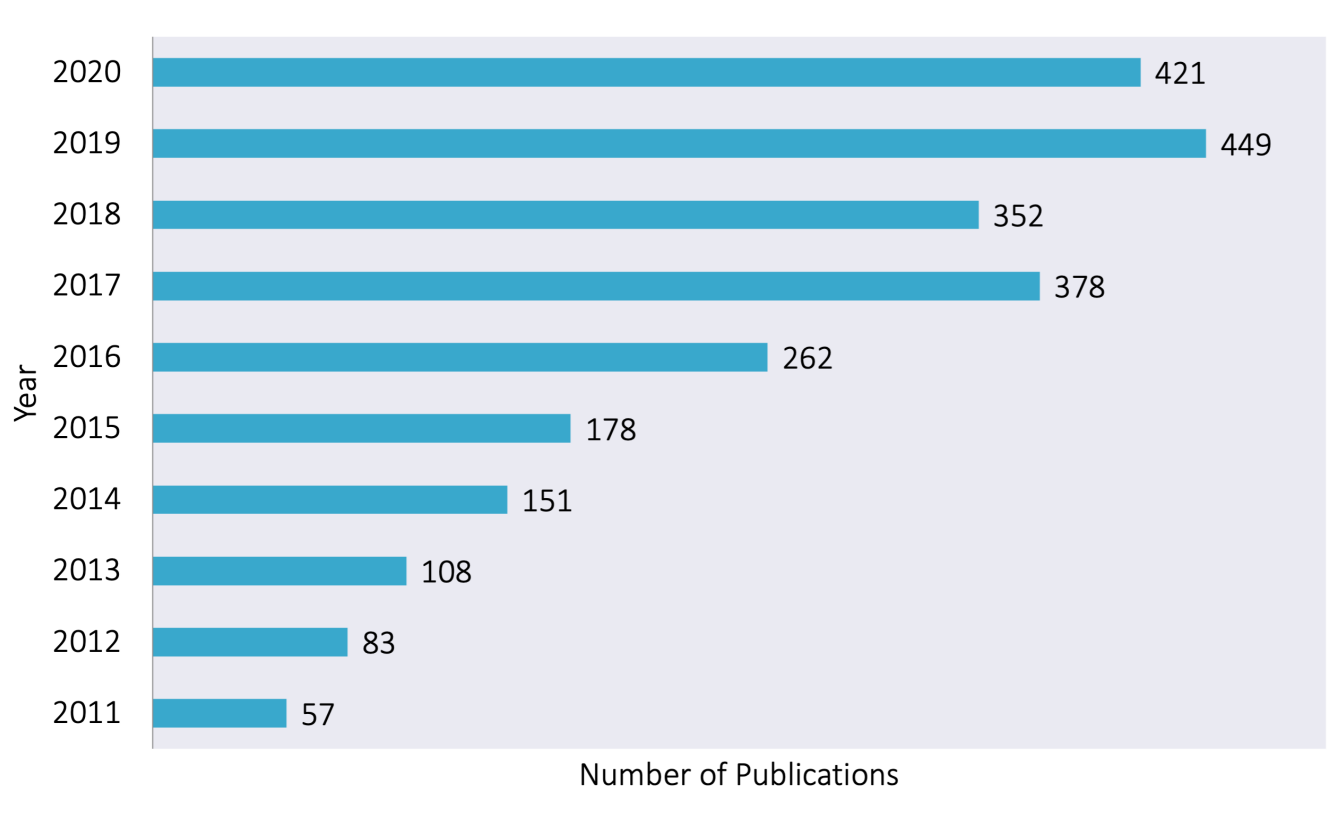
Current activity 1

Journal Paper

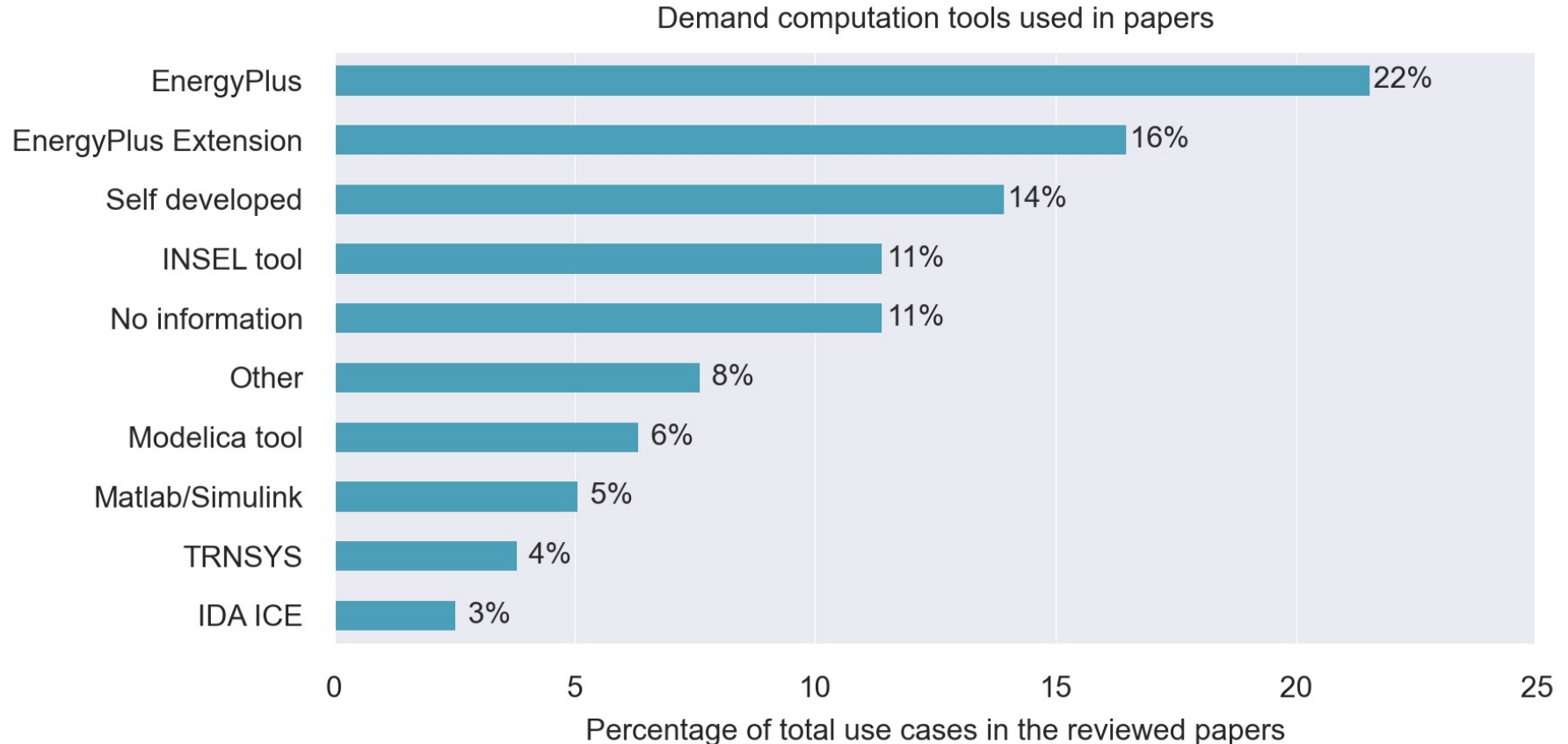
*City Quarter Information Modelling for Urban Building Energy Simulation
- A Taxonomic Review*

Avichal Malhotra, Julian Bischof, Alexandru Nichersu, Karl-Heinz Häfele, Johannes Exenberger, Divyanshu Sood, James Allan, Jérôme Frisch, Christoph van Treeck, James O'Donnell, Gerald Schweiger

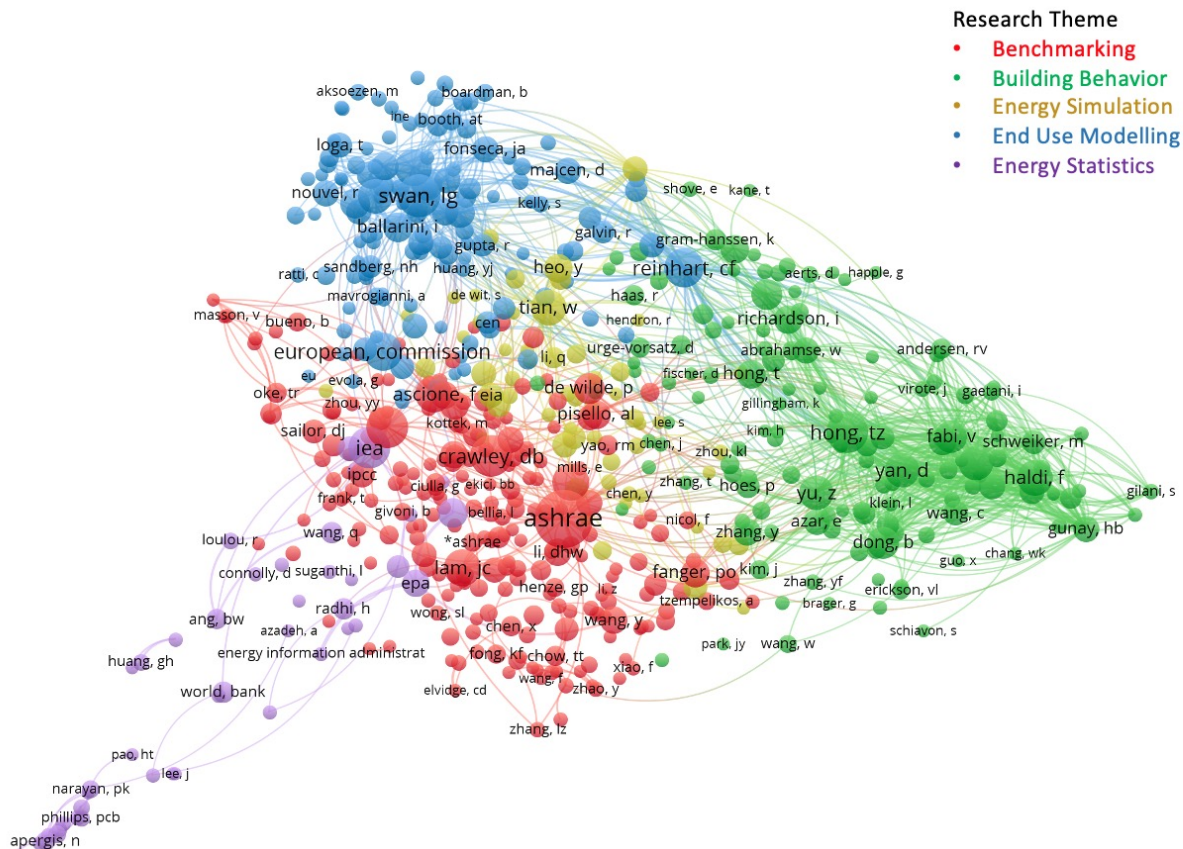
Publication trend in the field of UBEM between 2011-2020



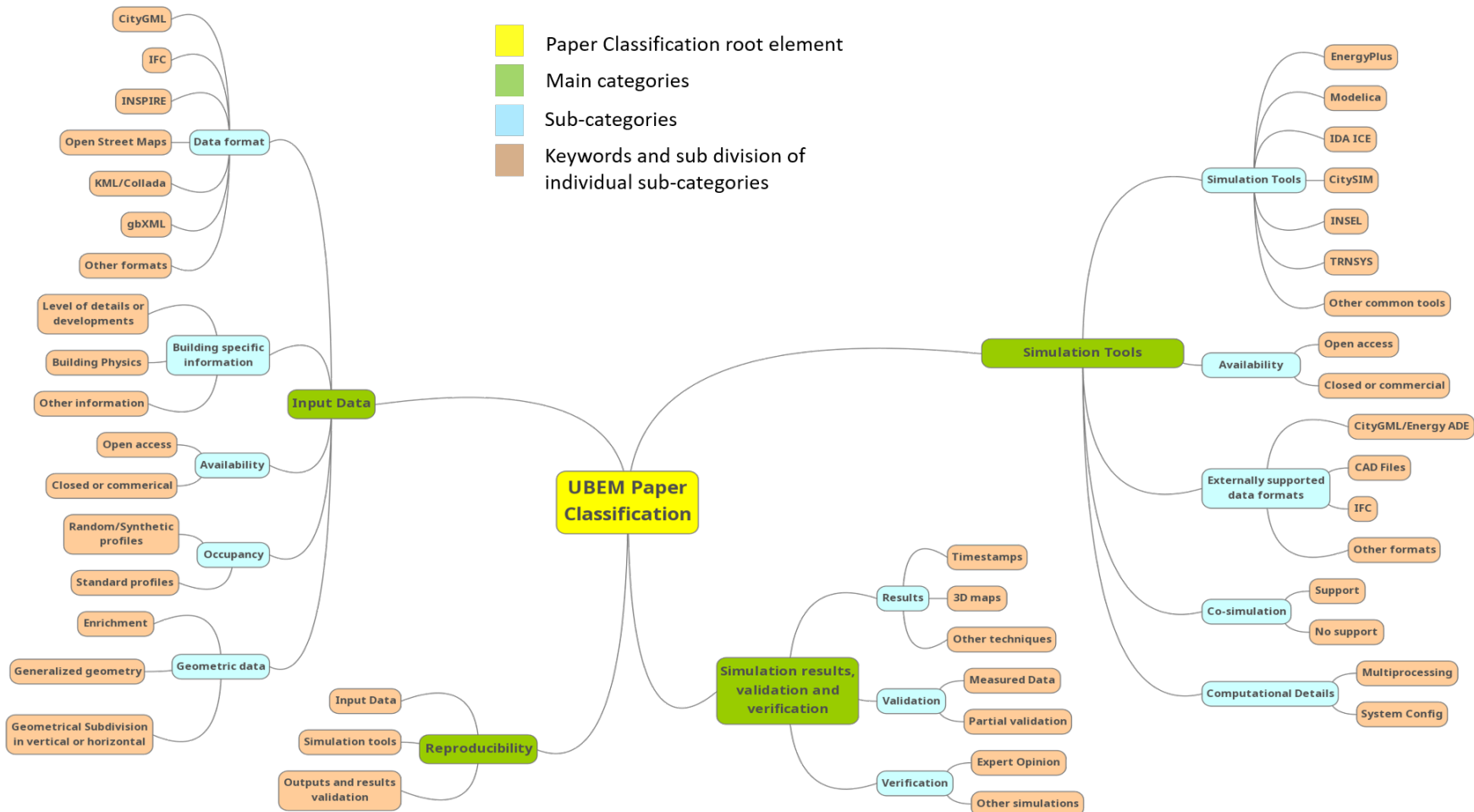
Simulation tools used in the reviewed UBEM papers



Co-citation network diagram based on energy related research studies selected based on selected keywords



Adopted taxonomy for UBE paper classification & review



Current activity 2

Conference Paper

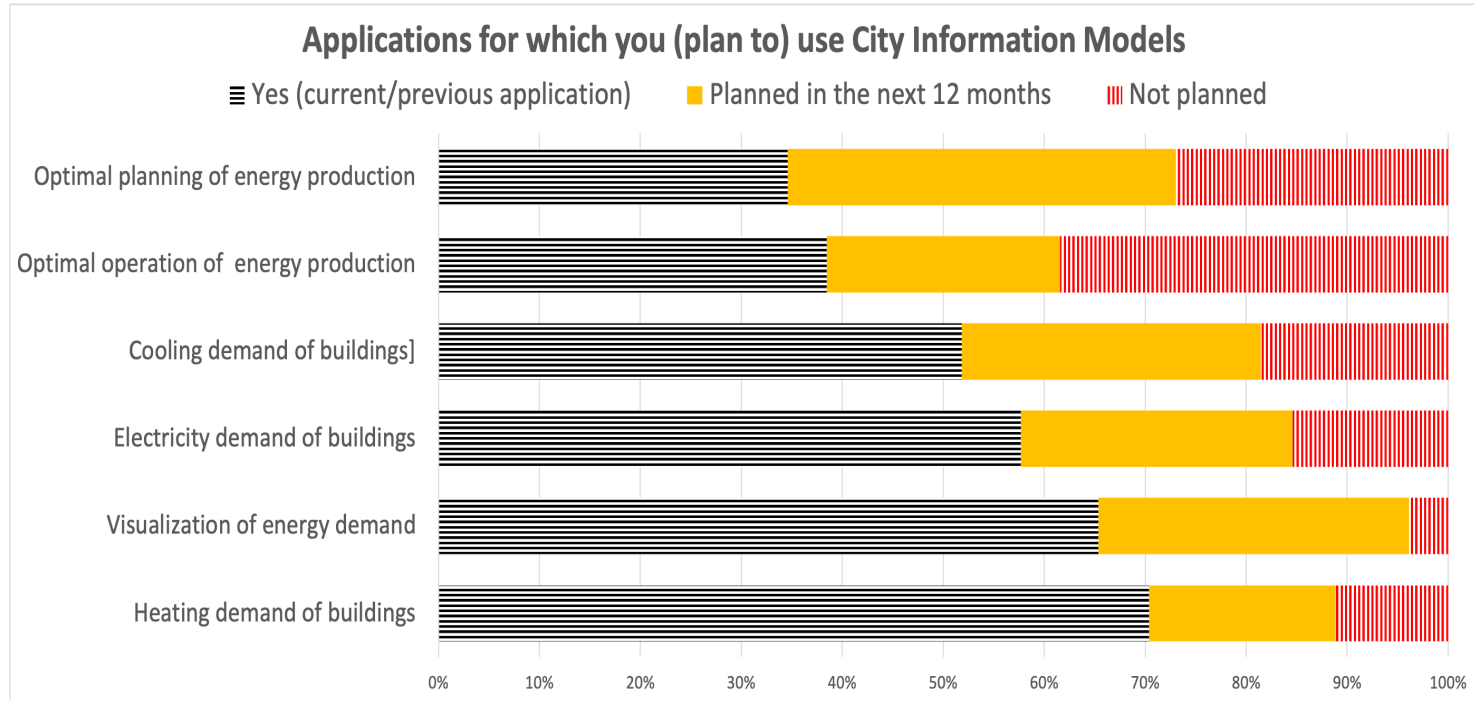
Data shortage? An empirical survey on data availability and enrichment methods using machine learning for urban energy simulations

Accepted at 15:21 CEST today

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Field of applications for city information models



Estimation of ML potential in the domain of city information modelling

