2nd International Conference on Smart Energy Systems and 4th Generation District Heating
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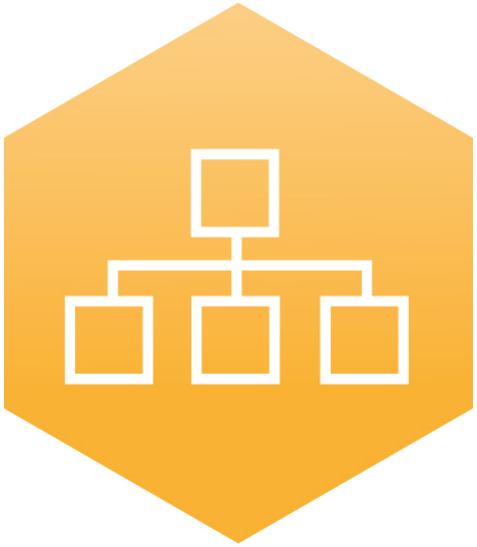
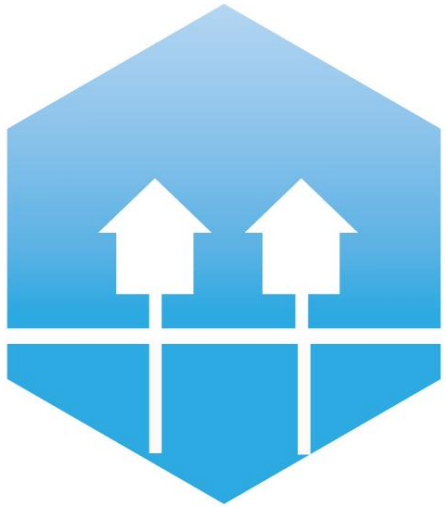
Comparison of heat mapping methodologies – an analysis of the top-down and bottom-up approaches

Lars Grundahl





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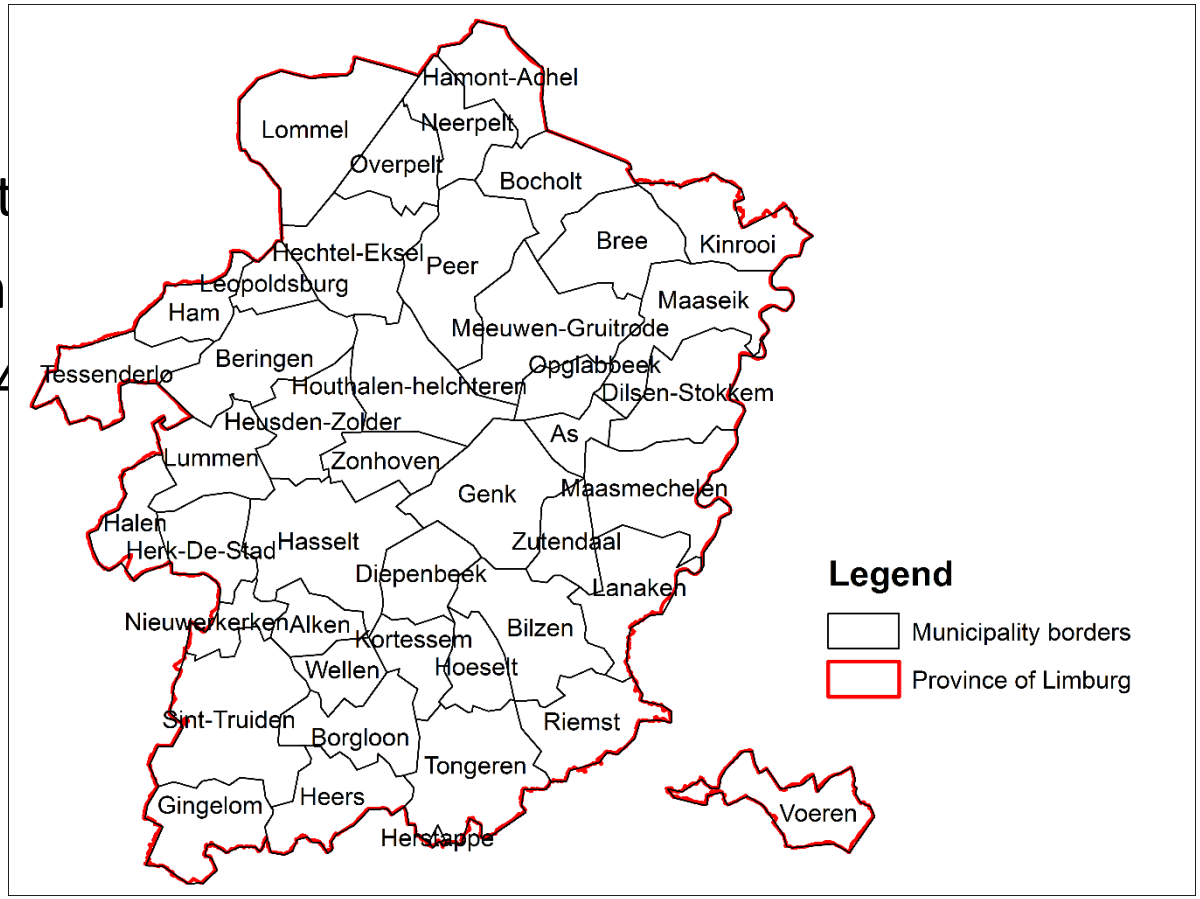
The study

- Comparing the Pan-European Thermal Atlas (Peta) to the Flemish Heat Map (FHM)

- Methods:
  - FHM: Local metered data, estimates for buildings without metering.
  - PETA: NUTS 3 per capita heat demand, statistic distributed using data on population, land cover and soil sealing.

Province of Limburg

- Locat
- 44 m
- 87-74



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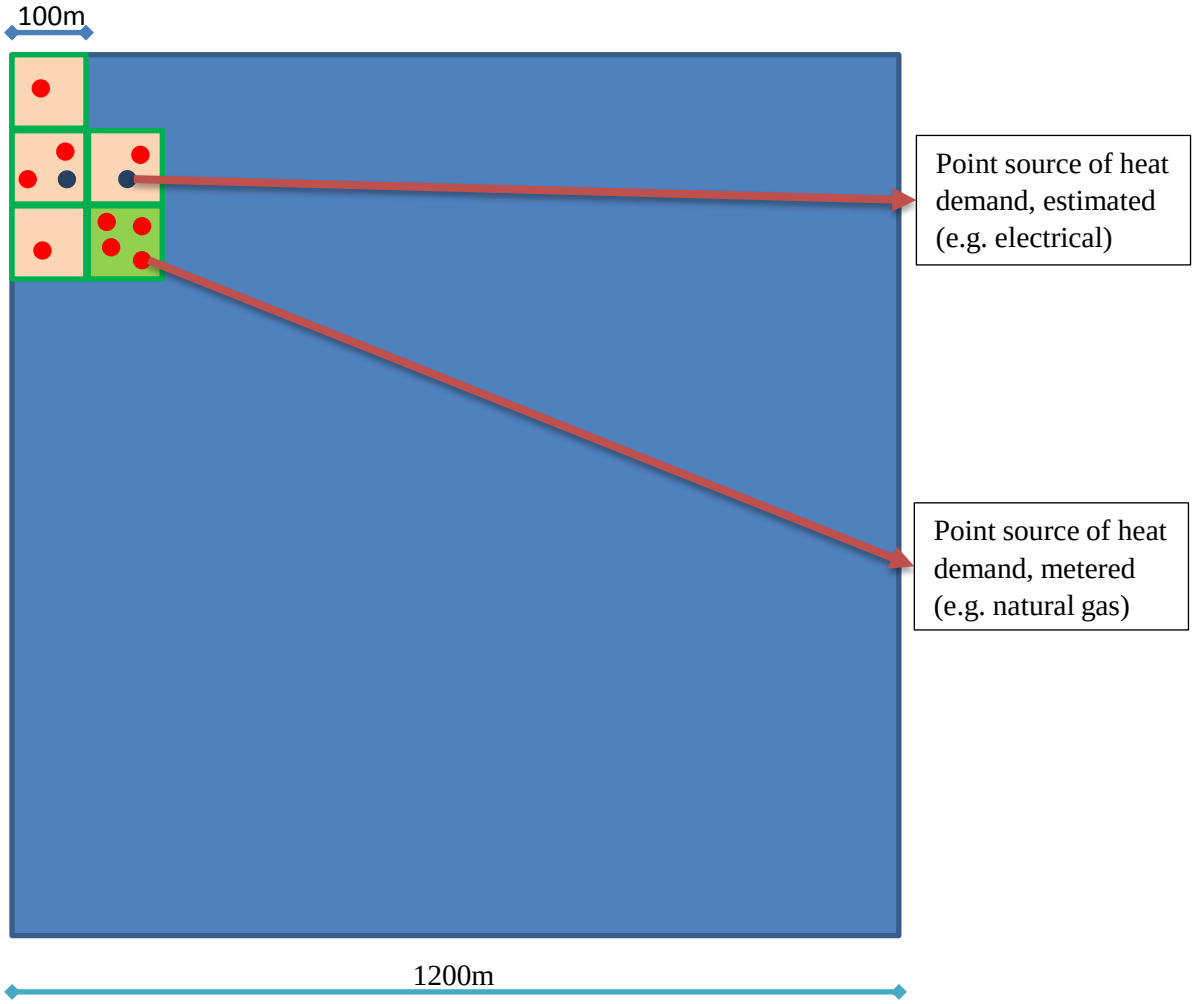
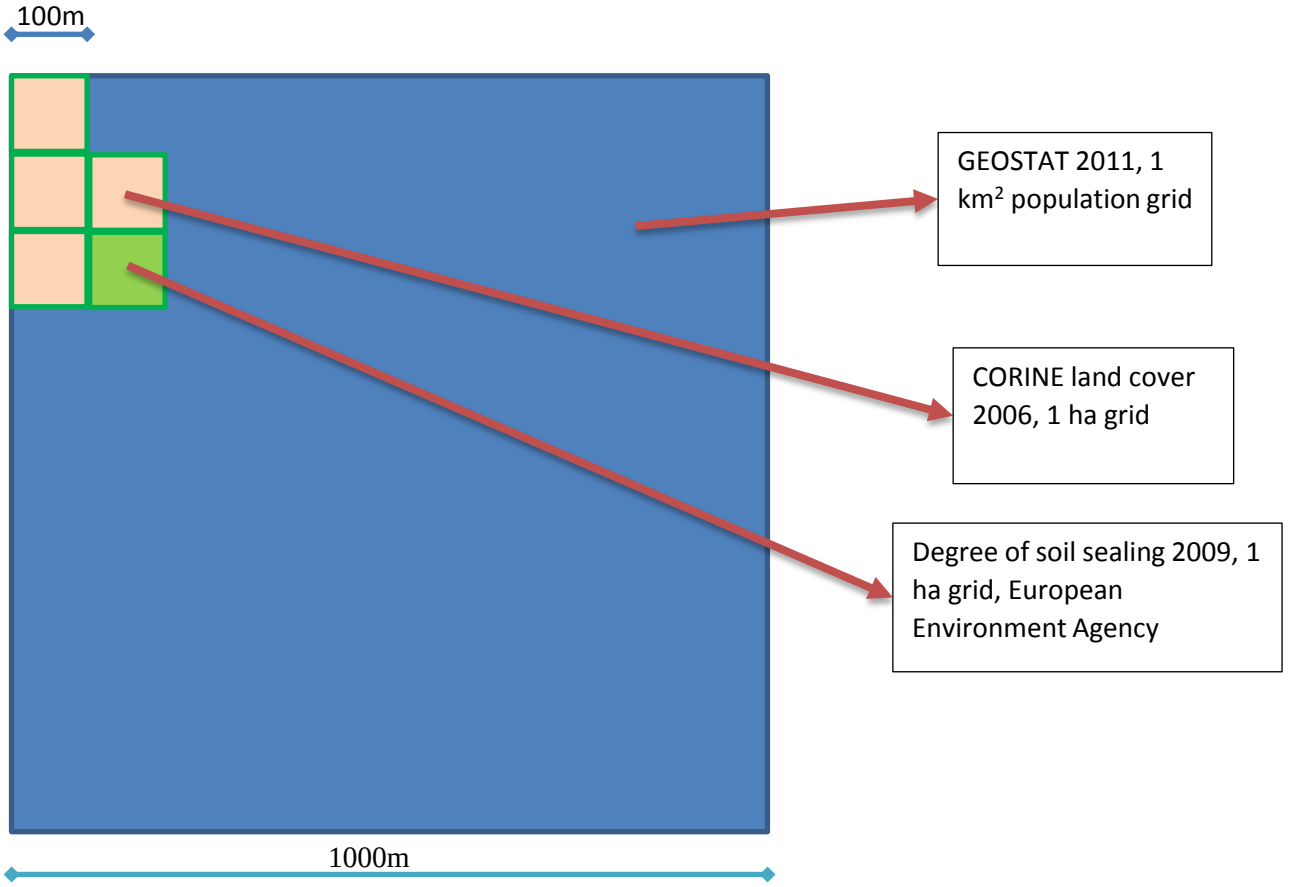
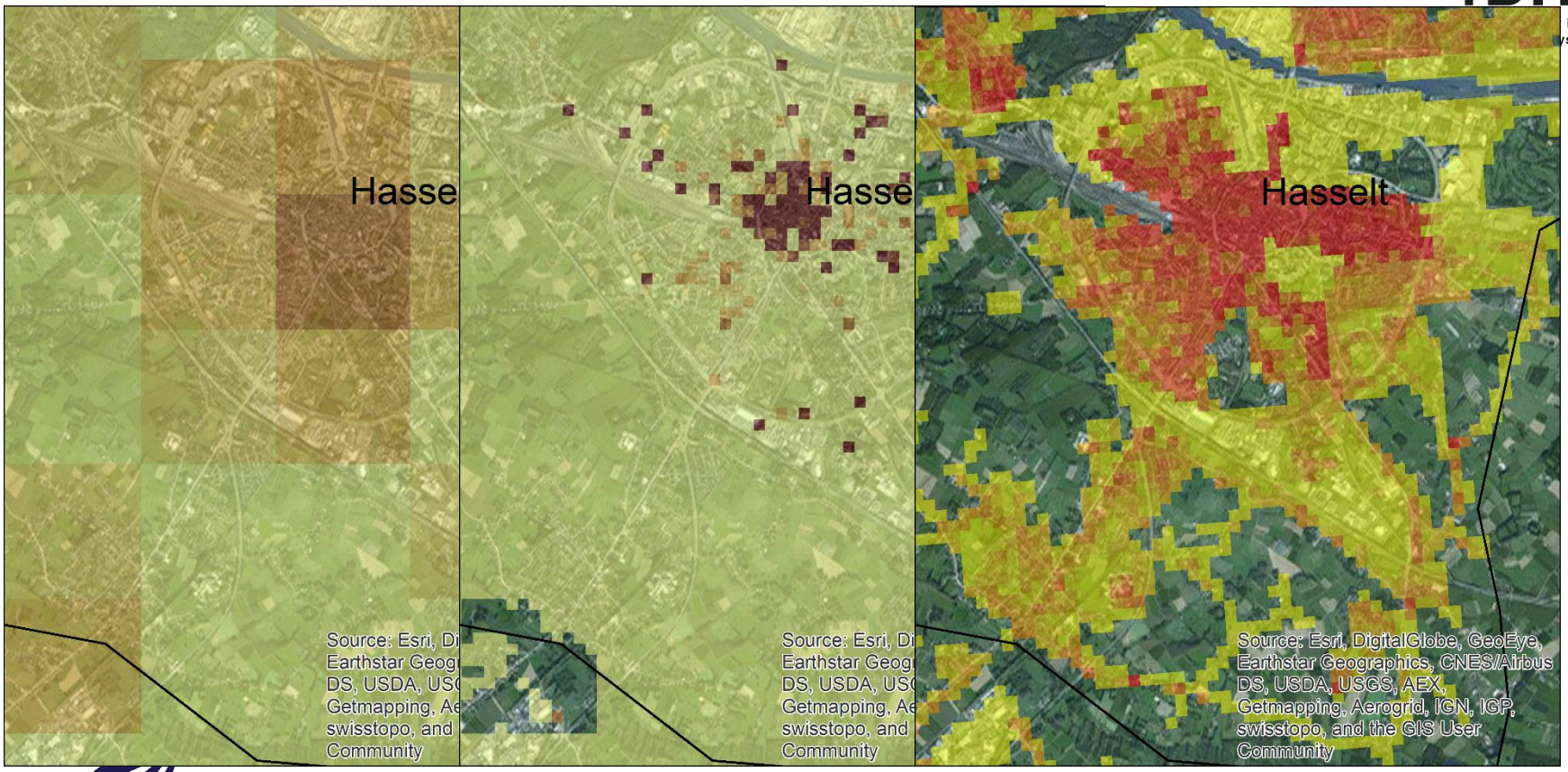
The FHM method (bottom-up)



The Peta method (top-down)



FHM and Peta in Hasselt



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Comparing results

- Municipality level sorted by population

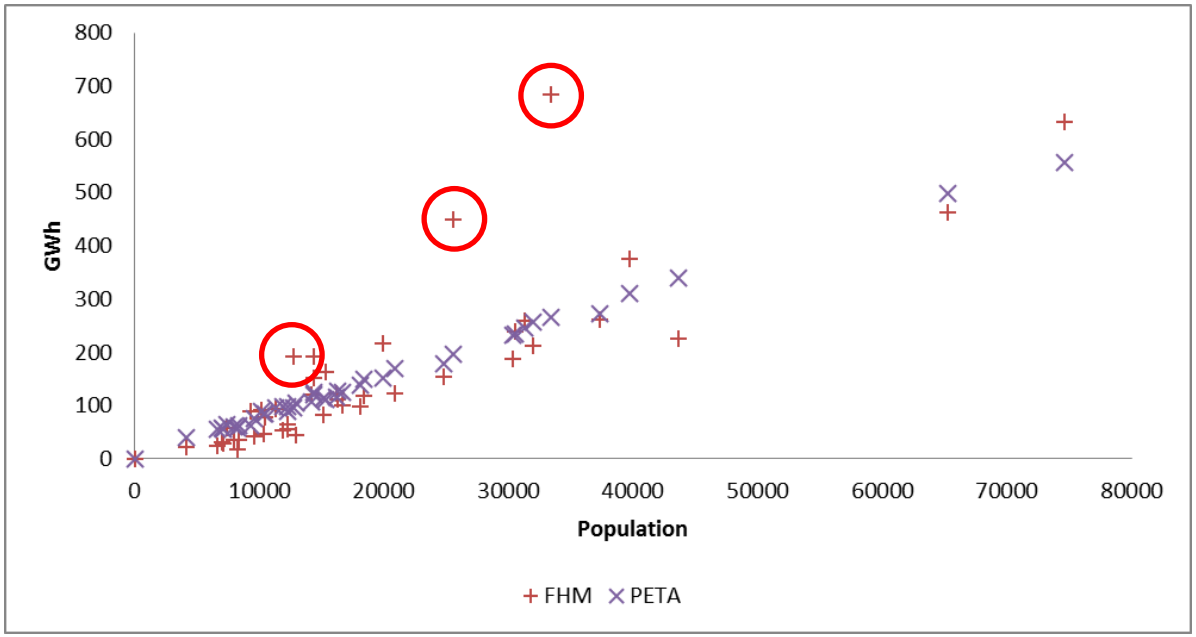

Figure 3: Heat demand in the municipalities sorted by the population.

Findings

- Differences due to difference in methodology
- Location of heat demand easier identified in the Peta
- Methodology of the PETA for distribution of heat demand could be applied to the FHM – keeping the high accuracy within a 1200 x 1200m grid, but making the location of the heat demand more visible. BUT the accuracy will not exist on a 100 x 100m scale!

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Questions?

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