

The use of Hotmaps for strategic heat planning

TU Wien, e-think

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This project has received funding from the EU's Horizon 2020 programme under grant agreement no 101033706.



www.actionheat.eu



Agenda

Welcome

- I. Strategic heat planning in the vision of Act!onHeat**
Short recap of previous webinars and the ramp-up call
- II. The Hotmaps Platform**
Overview of the project (development, platform, dataset, wiki)
- III. Live demonstration of the Hotmaps Toolbox**
Presentation of the functionalities (features, layers, calculation modules, account)
- IV. Individual exercise**
- V. Further training material**



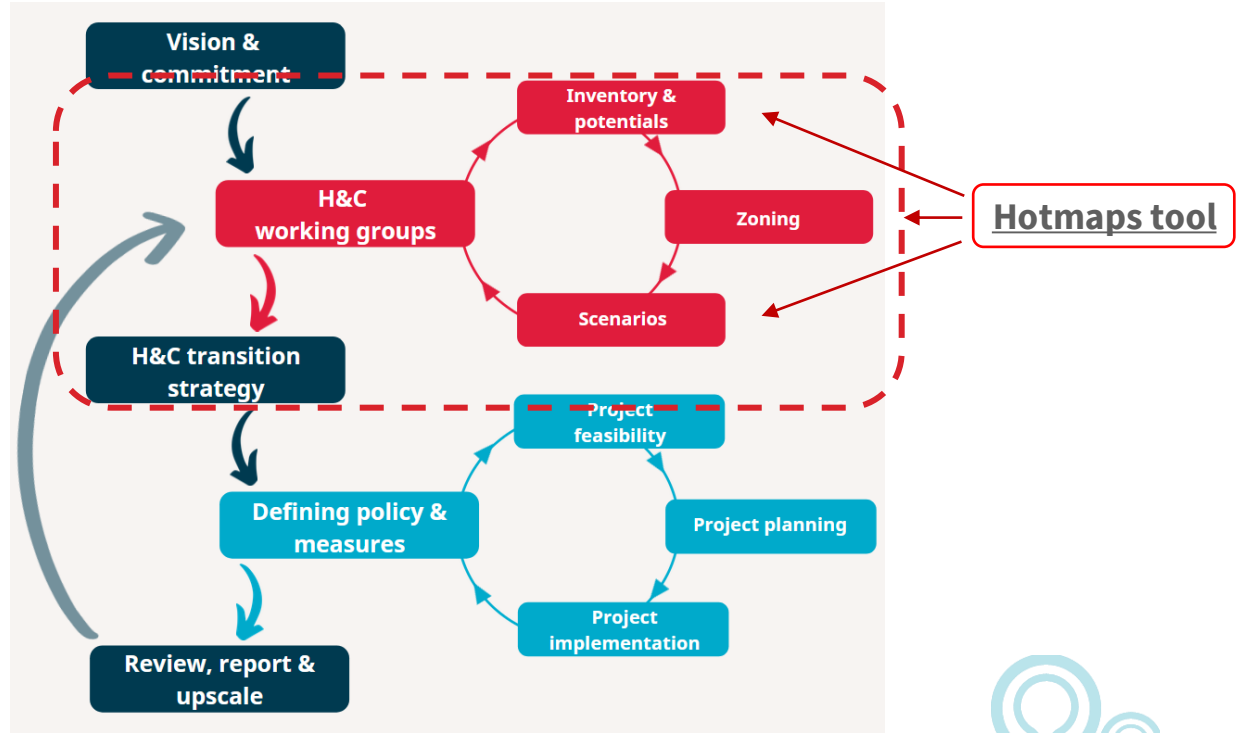
PART I

Strategic heat planning in the vision of Act!onHeat



H&C Workflow in the vision of Act!onHeat

[Link to description online](#)



PART II

The Hotmaps Platform



Background

- Climate change
- Low CO₂ economy and energy system is necessary
- Heating and cooling is highly relevant
- Heating and cooling needs long term planning
- Aim of Hotmaps: assist long term planning in heating and cooling



Hotmaps – What for?

*Hotmaps develops, demonstrates and disseminates **a toolbox to support public authorities, energy agencies and planners in strategic heating and cooling planning** at local, regional and national levels, and in line with EU policies.*



Hotmaps – The 3 pillars

- **User-driven**: developed in close collaboration with 7 European pilot areas
- **Open source**: *the developed tool and all related modules will run without requiring any other commercial tool or software. Use of and access to Source Code is subject to Open Source License*
- **EU-28 compatible and adaptable**: *the tool is applicable for cities in all 28 EU Member States by default and users can upload their own data*



Technology Readiness Levels

Achieved during the Hotmaps project duration

TRL 7 – System prototype demonstration in operational environment

Follow-up project started under the ERA-Net MICall20 to get there (OpenGIS4ET)

TRL 8 – System complete and qualified

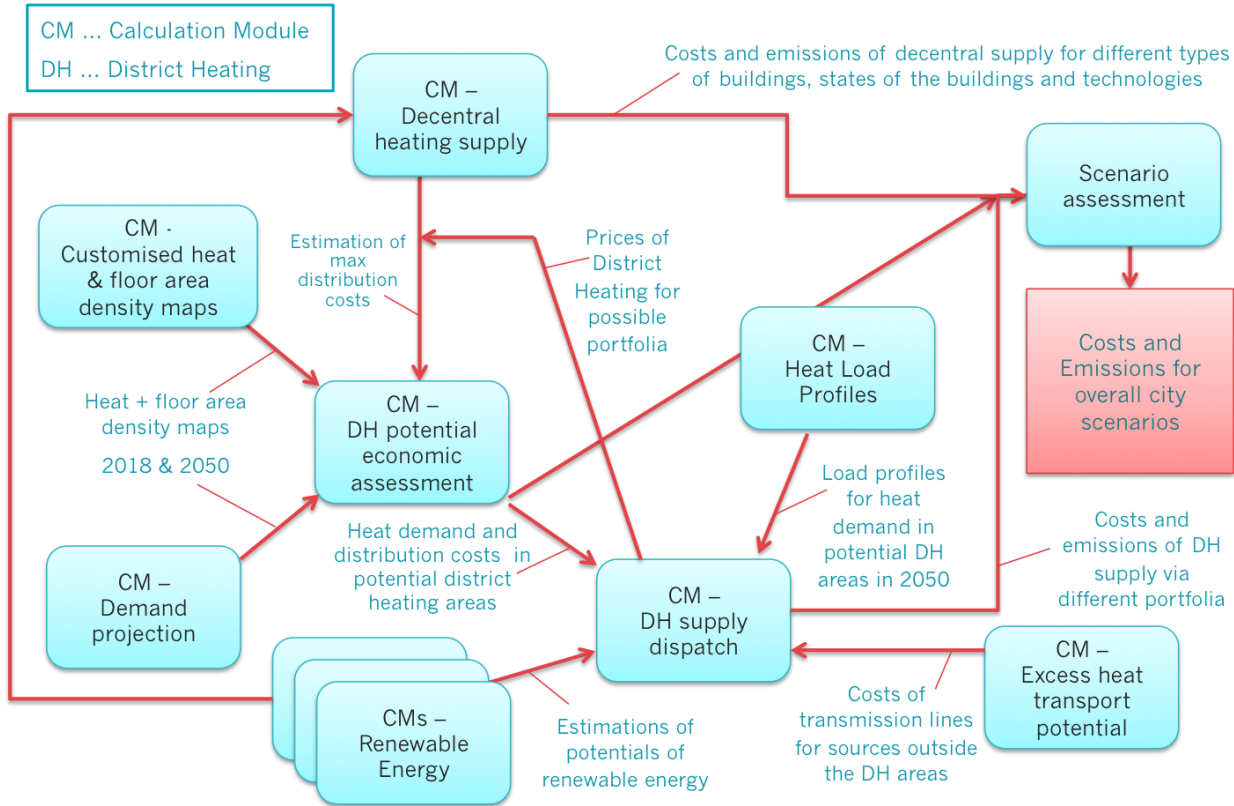
TRL 9 – Actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)



Status of the database and toolbox

- Database:
 - For many data necessary for heating and cooling analysis default data are in the database; however, not all data contained, and data not necessarily correct
 - Follow-up project providing further data → H2020 EnerMaps – finished in July 2022
- Toolbox:
 - Numerous automated and manual tests have been performed on stability and usability for all release versions
 - In this release it's the first time that all CMs relevant for the toolchain are included
 - Still we cannot be sure that no errors occur
- Wiki:
 - Comprehensive with tutorials and training materials
 - Handbooks, strategic energy planning reports available





Further developments in the OpenGIS4ET project

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PART III

Live demonstration of the Hotmaps Toolbox

www.hotmaps.eu



PART IV

Individual exercise



Individual exercise

1. Open the toolbox in your browser (firefox or chrome preferred) -> www.hotmaps.eu
2. Enter the name of the region you are interested in in the search field
3. Select the level of detail (NUTS 0 - NUTS3, LAU2, Hectar)
4. Activate the layer „HEAT DENSITY RESIDENTIAL“ and „GROSS FLOOR AREA RESIDENTIAL“
5. Select the region of interest in your desired level of detail by clicking on the shape
6. Click on the button “LOAD RESULTS” to receive the results-> write down the results
7. Click on the tab “CALCULATION MODULES”
8. Select the CM “CM - District heating potential areas: user-defined thresholds”
9. Define a threshold for min. heat demand in hectare
10. Click “RUN CM” to receive the potential share of district heating from total demand in selected zone



Further training material

- Extensive training materials in the [hotmaps wiki](#) (training videos, guidelines, exercises, etc.)
- Experts from the Act!onHeat - consortium offer live training sessions for local authorities, energie planners, stakeholders, etc.



Thank you.



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