

Zoning, scenario creation and renewable energy potential identification with Hotmaps - a practical exercise

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www.actionheat.eu



Content

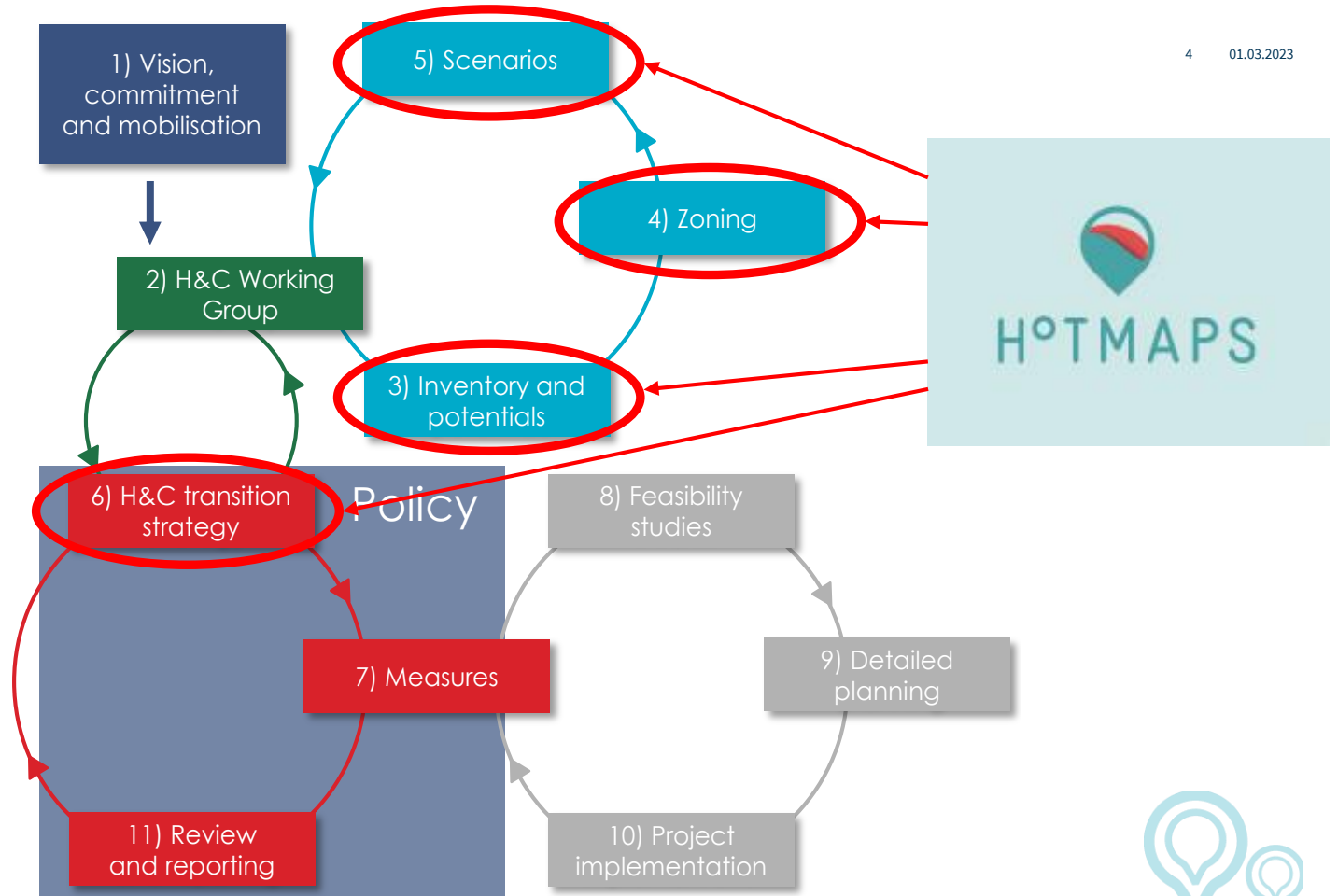
- Strategic heating and cooling planning and Hotmaps
- Hotmaps database and toolbox – an overview
- Hotmaps database and toolbox – live demonstration



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Hotmaps – what is it?

- Hotmaps is ...
 - ... 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
 - ... developed in the Horizon 2020 project Hotmaps (Oct 2016 – Sep 2020)
 - ... fully open source
 - ... developed together with the target group (pilot areas across Europe)
 - ... compatible and adaptable for entire EU27 (default data available and possibly adapted to own data)
 - ... under constant development within follow-up activities



Hotmaps – what can it be used for?

- **Visualisation and analysis of data:**
 - Presentation of geographically explicit data in a map
 - Calculation of indicators for the GIS data for selected / defined regions
 - Comparison of default data with own / local data
- **Analyse single parts of the heating & cooling system:**
 - **Different calculation modules** are available to analyse different aspects in the H&C system (development of demand, expansion of district heating, load profile development, heat supply, estimation of potentials, ...)
 - **Very quick first analyses** of single parts of the H&C systems based on default data
 - **More detailed analyses** based on local data and variation of further input data
- **Development of strategies:**
 - Development of scenarios for selected areas via **coupling of different CMs in a toolchain**
 - **Very quick first analyses** of potential CO2 saving options for H&C based on default data
 - **Comparison of different variants** of demand and supply development options for generating decarbonisation strategies
- **Analysis at different geographical levels:**
 - national, regional und local is possible



Hotmaps – a database, toolbox and a wiki

- Database:
 - For many data necessary for heating and cooling analysis default data are in the database; however, not all data is contained, and data is not necessarily correct
 - Follow-up projects for further elaboration: H2020 EnerMaps ongoing, 2 projects handed-in
- Toolbox:
 - Numerous CMs are included; further CMs will be developed and integrated (Era-Net project OpenGIS4ET just started; more projects handed-in)
 - Numerous automated and manual tests have been performed on stability and usability for all release versions; still, we cannot be sure that no errors occur
- Wiki:
 - Contains tutorials and training materials
 - Contains handbooks and strategic energy planning reports
 - Is available in all EU27 languages



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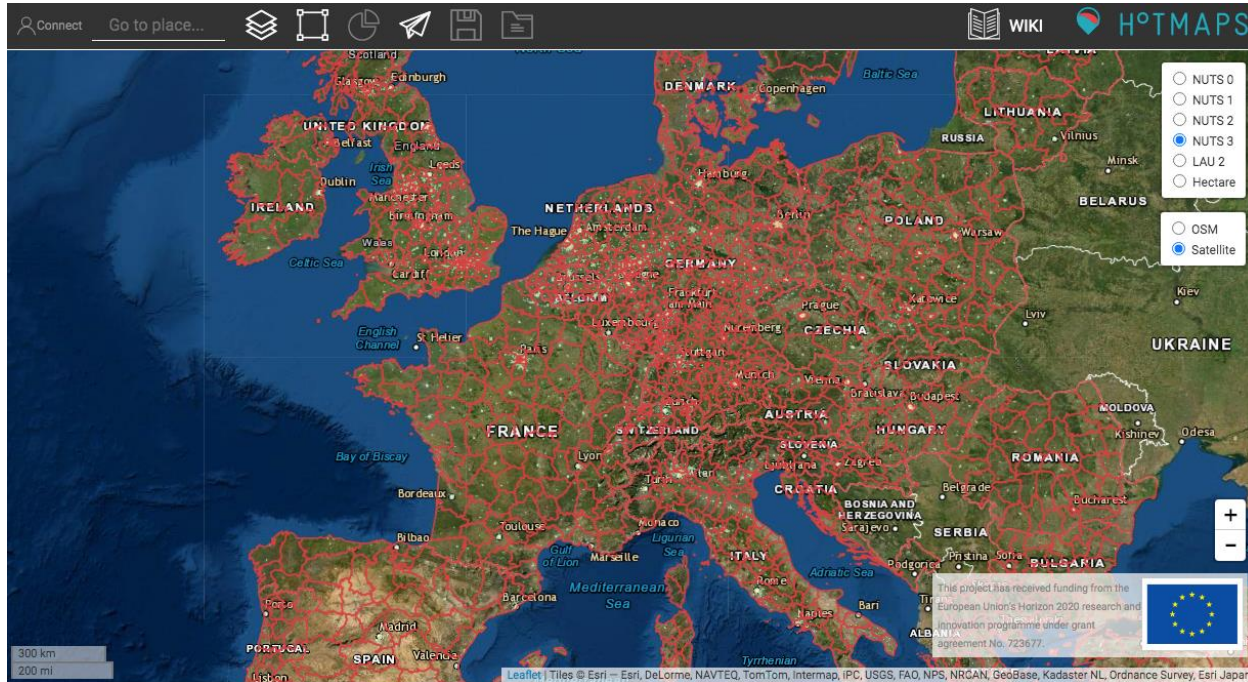
Zoning Calculation Modules

- CM Solar thermal and PV potential
- CM District heating potential areas user-defined thresholds
- CM District heating potential economic assessment

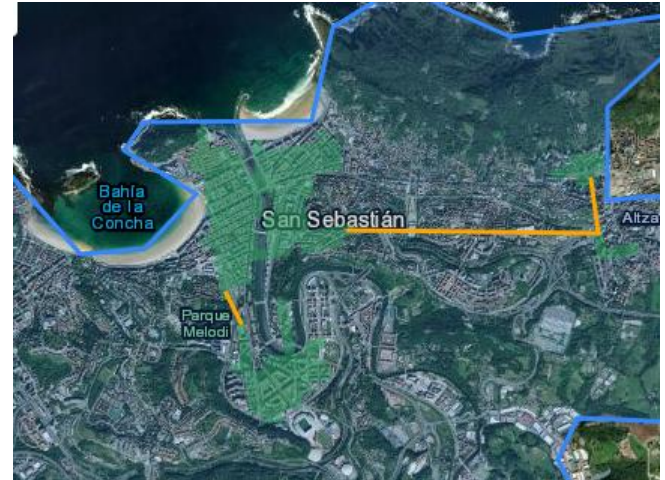
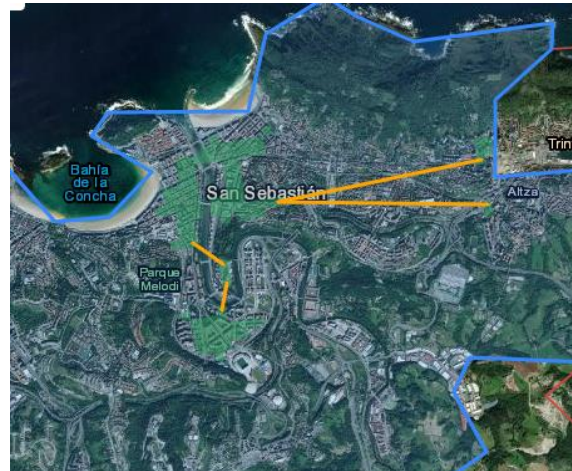
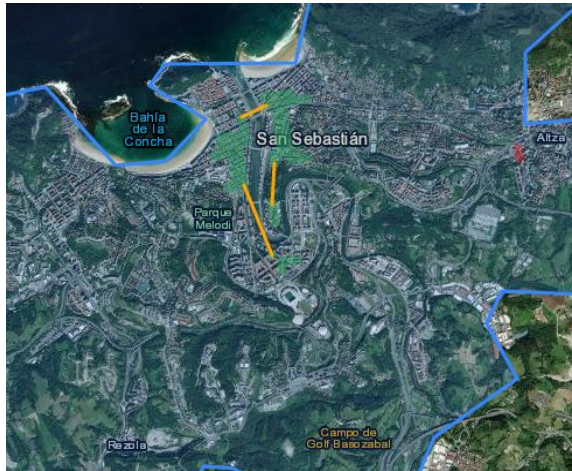


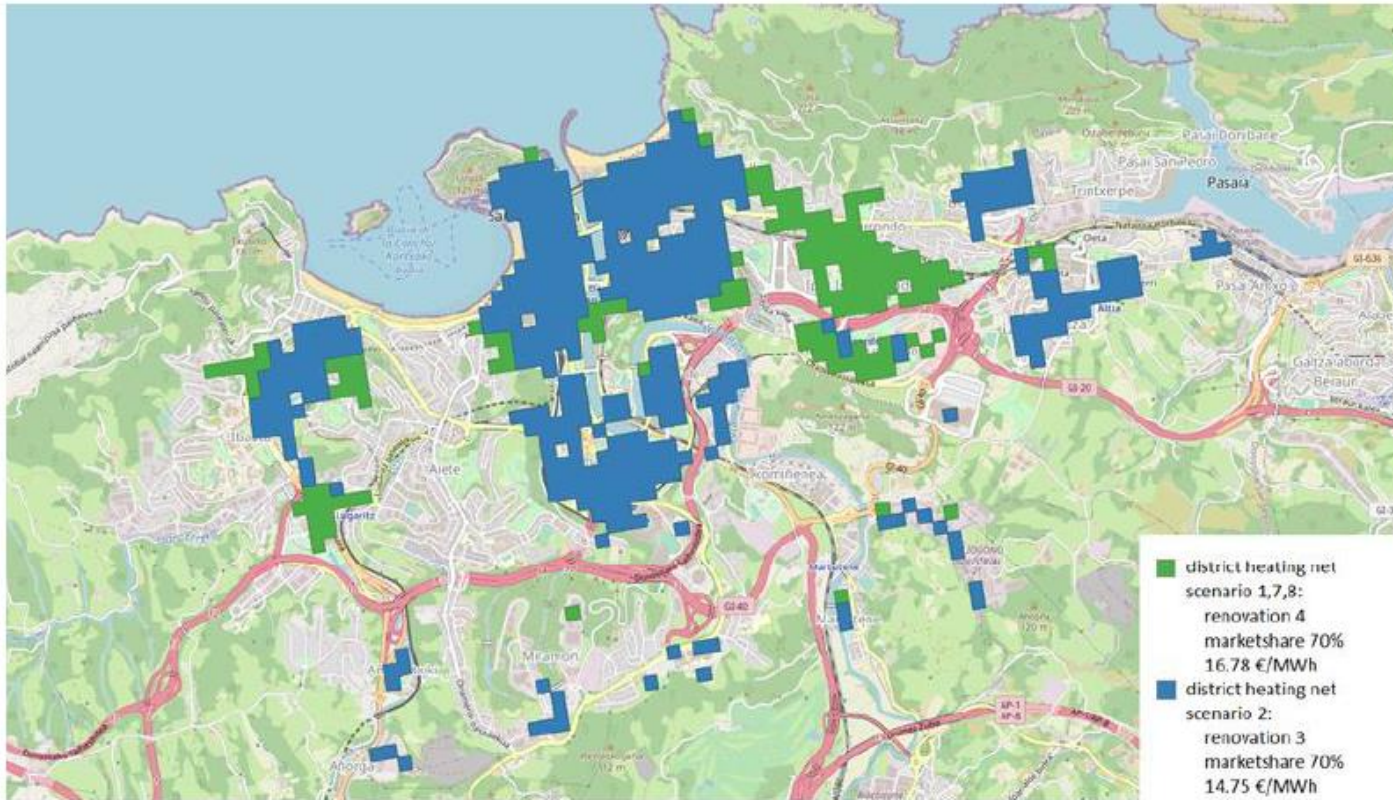
Toolbox web address

www.hotmaps.eu



Test Examples







More Hotmaps links

- [Toolbox](#)
 - [Project Website](#)
 - [Wiki Hotmaps](#)
 - [Handbooks](#)
 - [Open-Source Data/Modules for download](#)
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Interested in a more extensive training?

- More extensive training sessions are prepared
- Materials are online and training can be started whenever wanted:
<https://wiki.hotmaps.eu/en/training-material>
- Please get in contact with Marcus Hummel (hummel@e-think.ac.at) in case you want to ...
 - receive individual support sessions
 - receive a certificate
 - organise an online training for a group of people
 - organise an on-site training



Thank You



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