

# Analysis of heat/cold demands and renewable potentials with the free online tool Hotmaps

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17<sup>th</sup> March 2022 – Act!onHeat training session



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



[www.actionheat.eu](http://www.actionheat.eu)



## Content

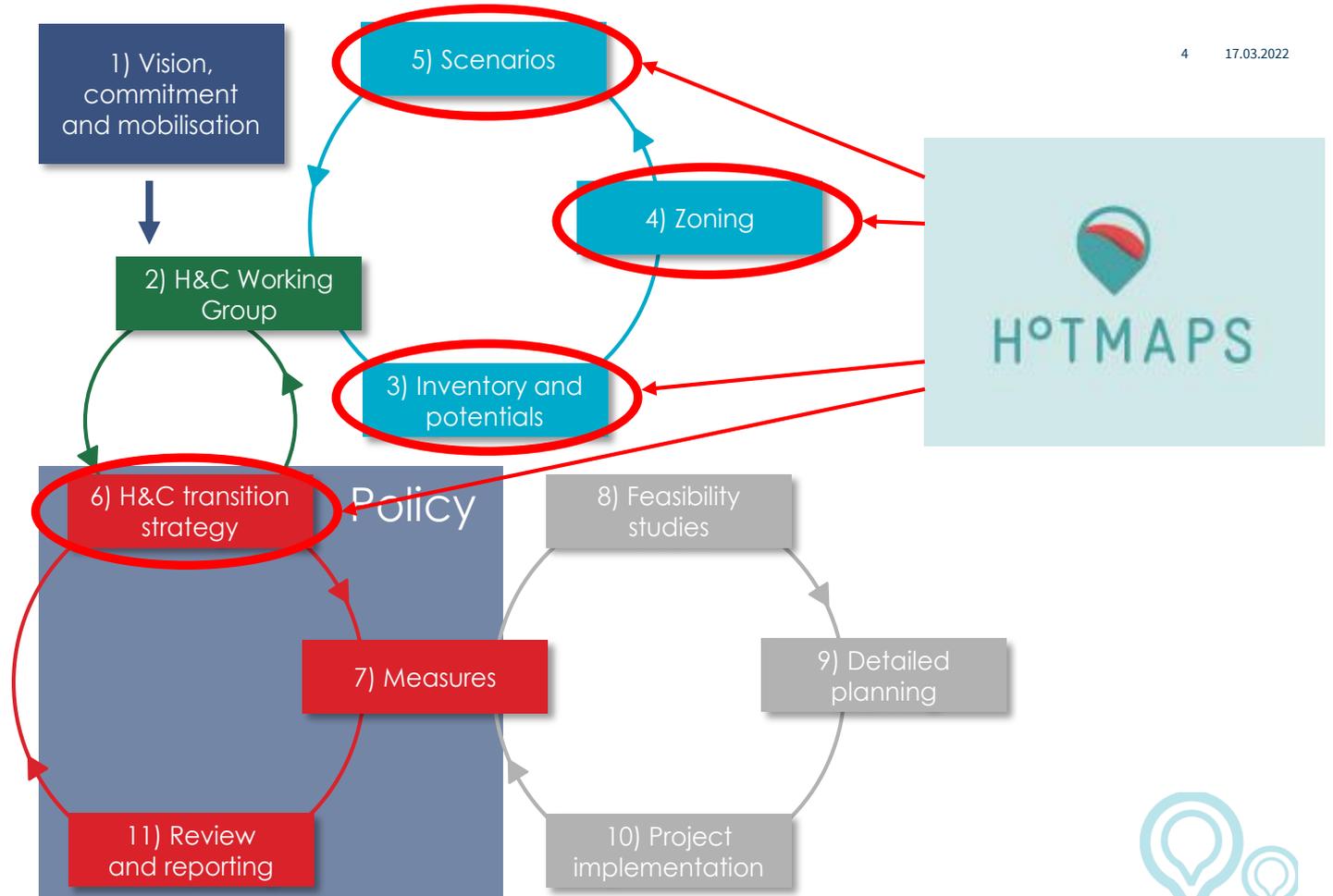
- Strategic heating and cooling planning and Hotmaps
- Hotmaps database and toolbox – an overview
- Hotmaps database and toolbox – live demonstration
- Introduction to the exercise for the Act!onHeat training session



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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



# Technology Readiness Levels

**Achieved during the Hotmaps  
project duration**

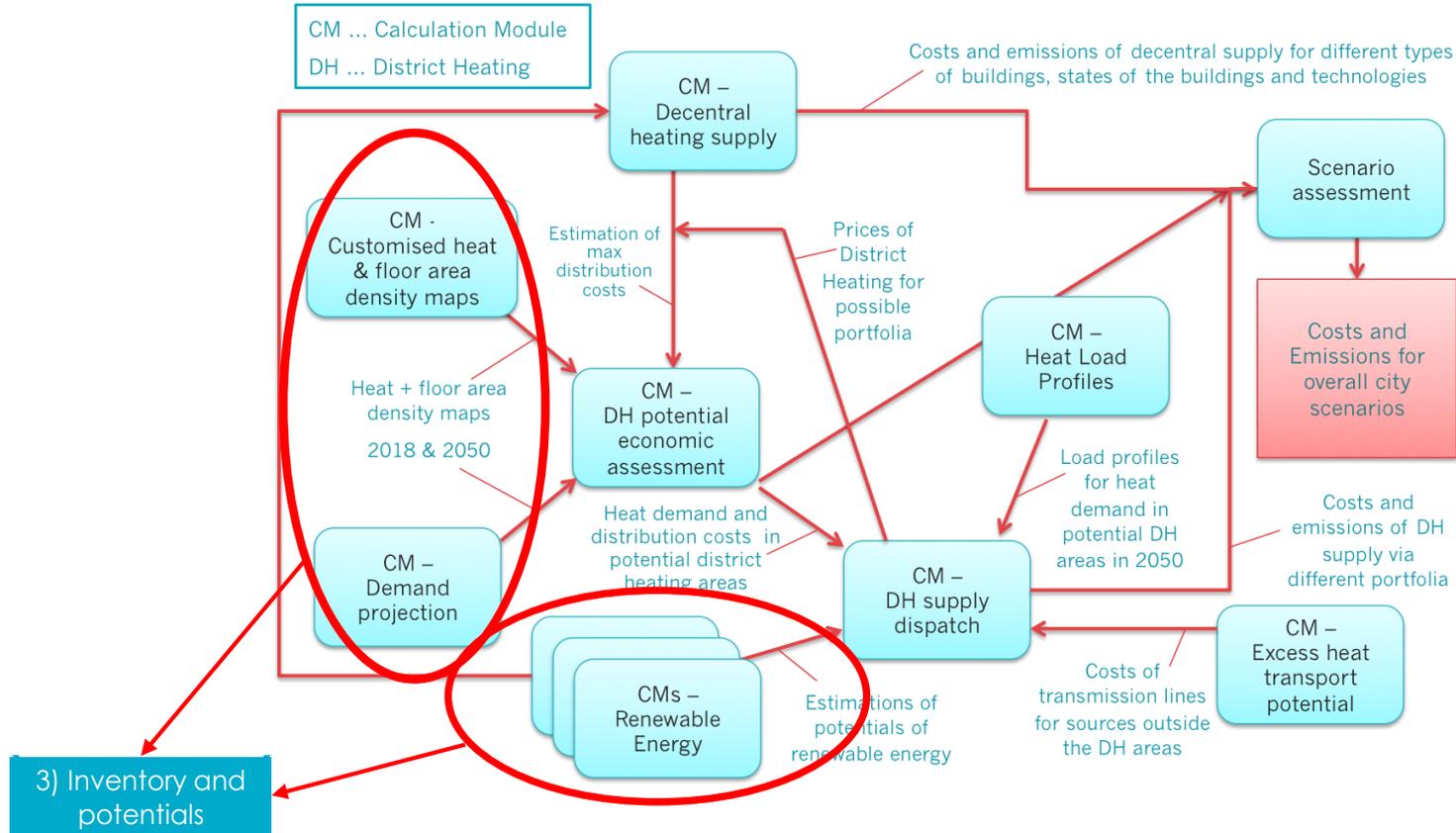
**TRL 7** – System prototype demonstration in operational environment

**ERA-Net project OpenGIS4ET just  
started**

**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)

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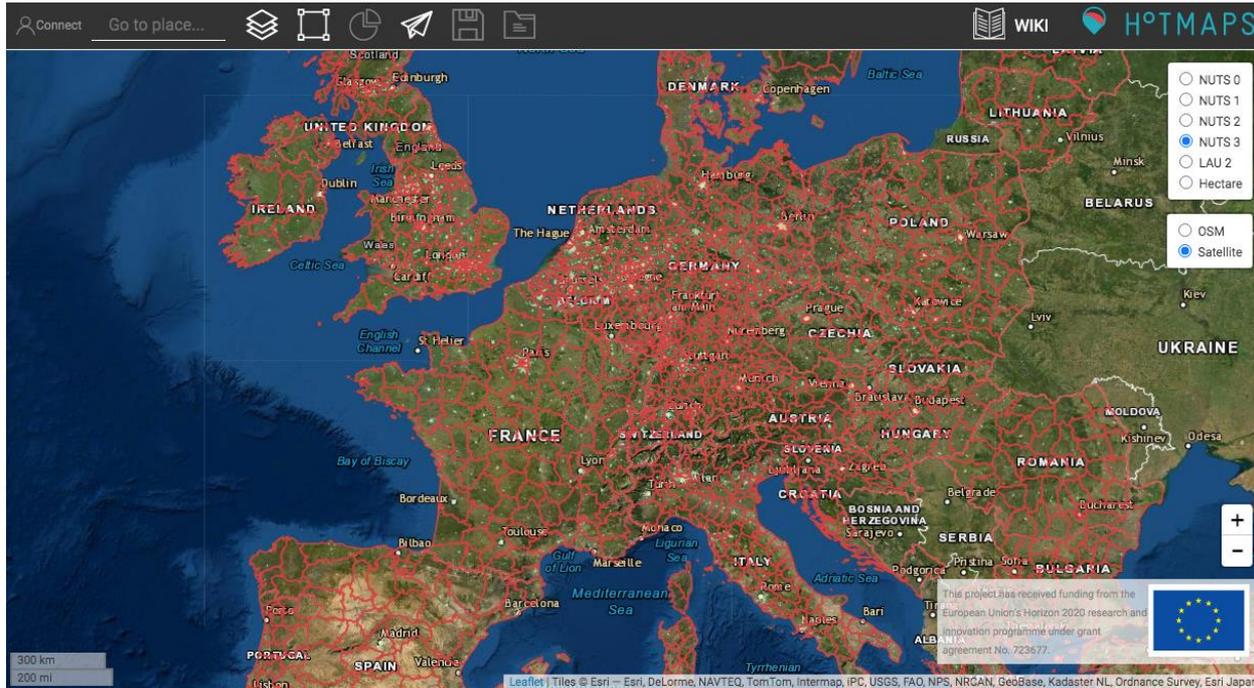
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# Toolbox web address

[www.hotmaps.eu](http://www.hotmaps.eu)



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## Handing in the exercise

Please send the filled out document(s) ...

... to [info@actionheat.eu](mailto:info@actionheat.eu)

... until 30<sup>th</sup> March 2022





## 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](mailto: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





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