



EU funding for renewables and waste heat integration in district heating:

Resources and opportunities from Horizon 2020 and LIFE Clean Energy Transition

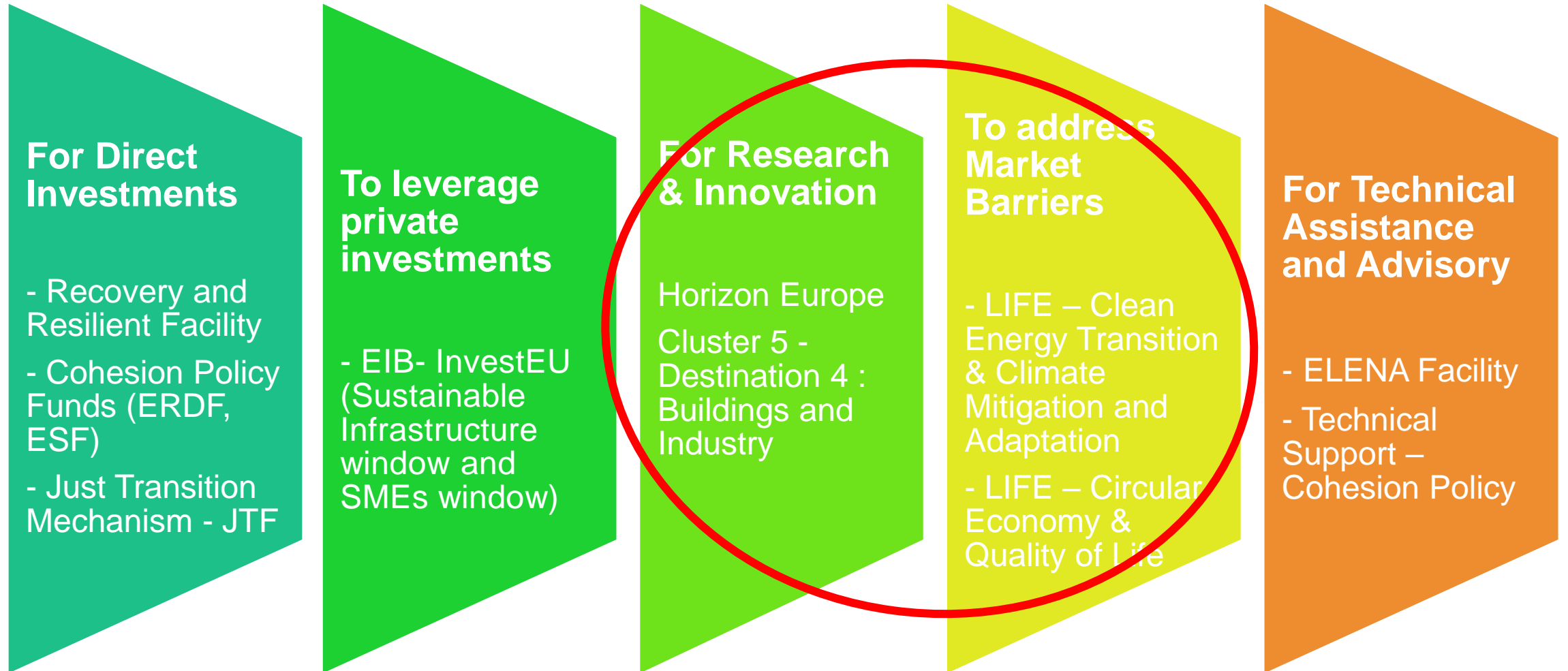
19 April 2023

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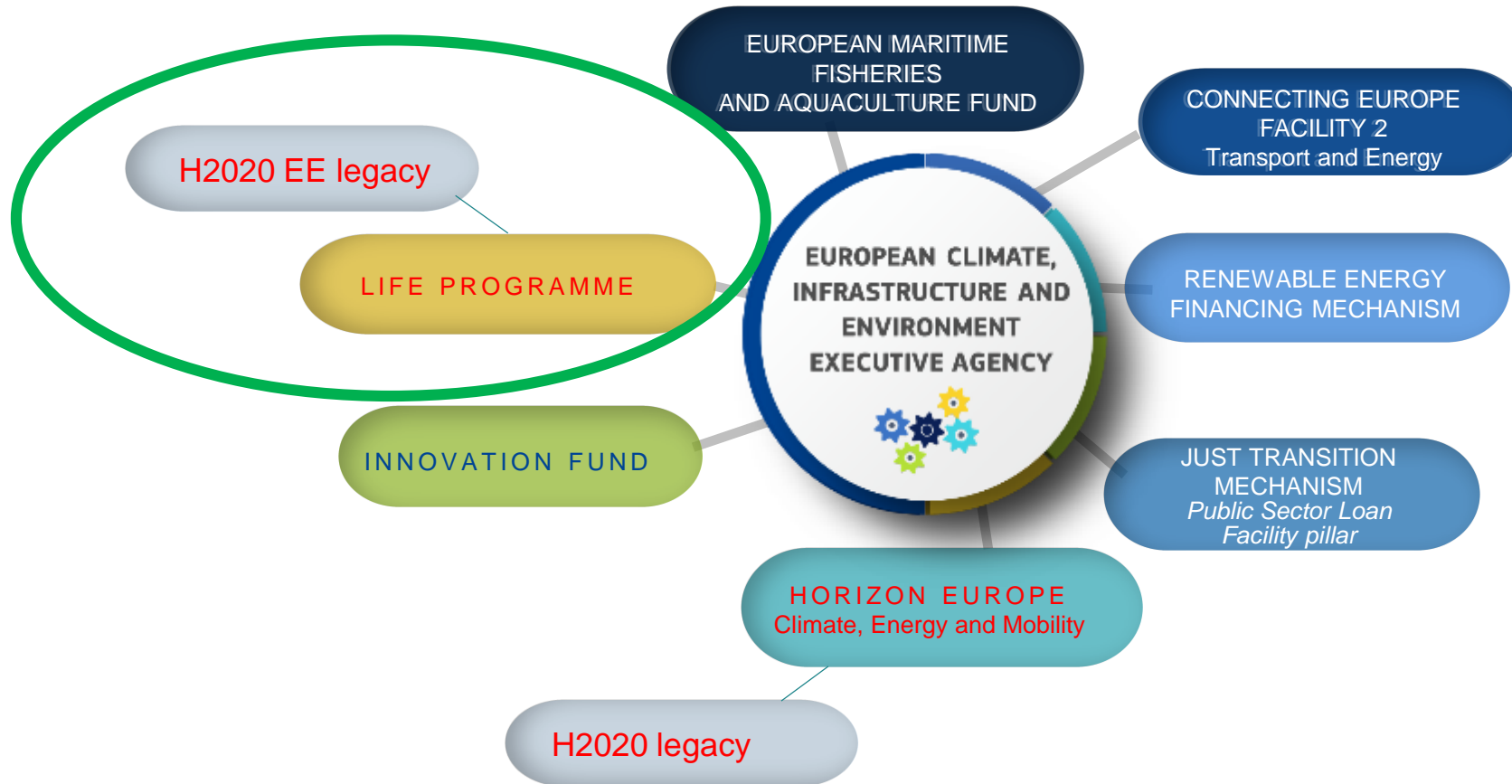


EU funding landscape to support clean energy



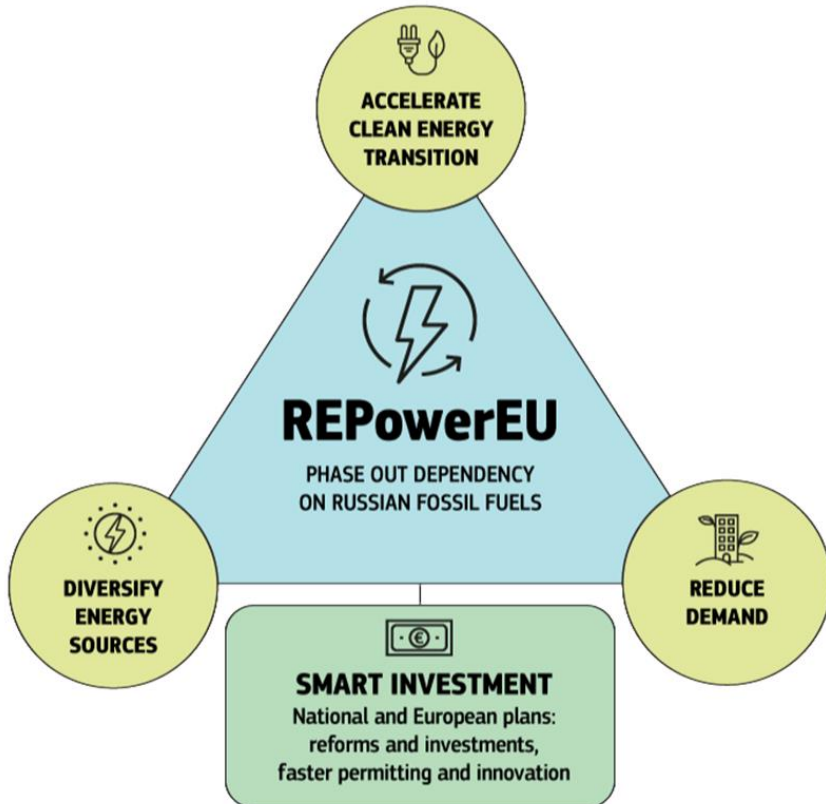
European Climate, Infrastructure and Environment Executive Agency (CINEA)

Managed programmes



Heating and Cooling

Policy relevance



Some funding priorities under H2020/LIFE CET

- Develop or upgrade models and tools for heating and cooling mapping and planning and support the creation of a pipeline of projects, e.g. Project Development Assistance;
- Improve the performance of inefficient district heating and cooling systems and facilitate fuel switch to renewable energy and waste heat sources;
- Develop a new generation of heating and cooling solutions based on low-grade sources;
- Support the development of financial plans to comply with the “efficient district heating and cooling” criterion under the EED;
- Accelerate deployment of affordable heat pumps and boosting supply and demand of skilled professionals.

Hotmaps

Open Source Tool for Mapping and Planning of Energy Systems

Software Toolbox to support authorities, energy agencies and other planners in the strategic planning of heating and cooling infrastructure.

Allows users to:

- Identify the location of H&C demand, supply, renewable energy potential and waste heat potential
- Estimate the potential for district heating and compare to the costs of individual heating
- Develop scenarios for decarbonisation pathways of H&C

<https://cordis.europa.eu/project/id/723757>



The toolbox is :

User-driven: Developed, demonstrated and validated in close collaboration with 7 European pilot areas.

Open source: The tool and all related modules run without requiring any other commercial tool or software.

The tool can be used in all 27 EU Member States thanks to a default open data set.

Could also be **tailored for other regions worldwide**

THERMOS

Thermal Energy Resource Modelling and Optimisation System

A **web-based software tool** based on real building and area characteristics

Allows users to identify and assess:

- Optimal solutions for the expansion of a DH network
- Local heat demand and network paths to match a known energy source
- Optimal network solutions to match available energy sources and demand

<https://cordis.europa.eu/project/id/723636/results>

THERMOS



Open source

Developed by a team of planning experts & practitioners from universities, local authorities, energy agencies, and specialist consultancies

Eight cities involved in the development and testing of the THERMOS

Further information [here](#).

Act!onHeat support facility



From heating and cooling strategies to action: how public authorities can strategically plan the decarbonisation of the heating and cooling sector and initiate impactful projects

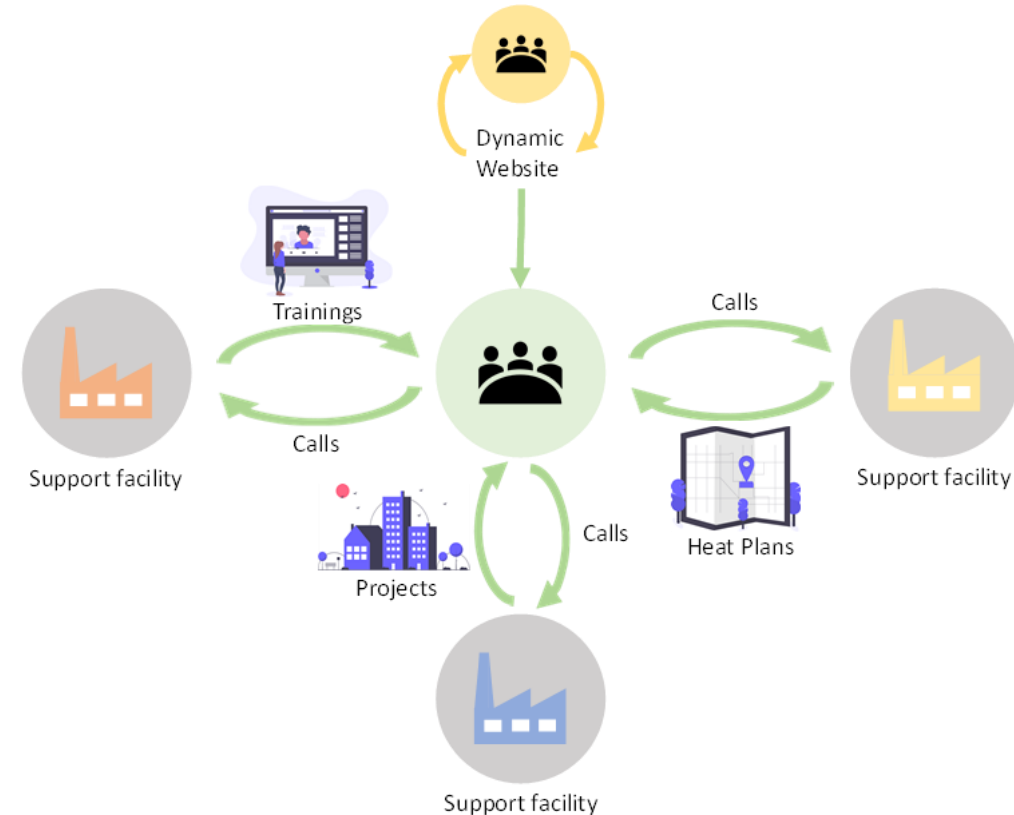
Building on **two existing open source tools**, i.e. Hotmaps and THERMOS

Identifying success factors of effective energy plans, turning them into **practical workflows**

Developing individual and group support in applying these workflows

- **Support 120 municipalities** that start, continue or improve strategic heating and cooling plans
- **Support 30 pre-feasibility studies** for individual projects
- Identify financing options for **15 projects**

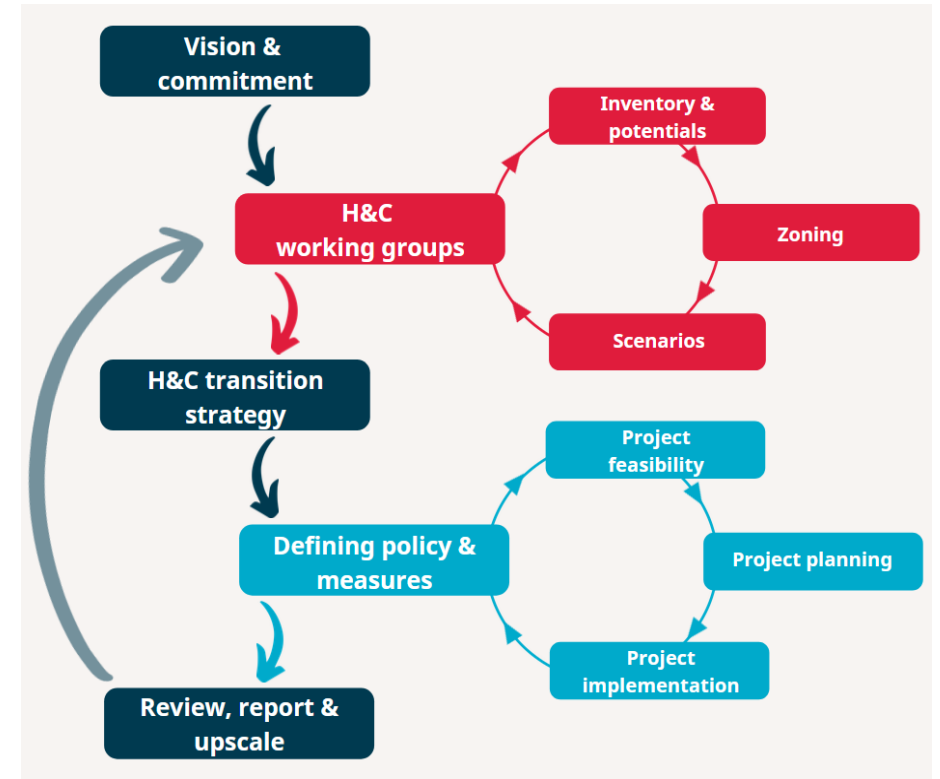
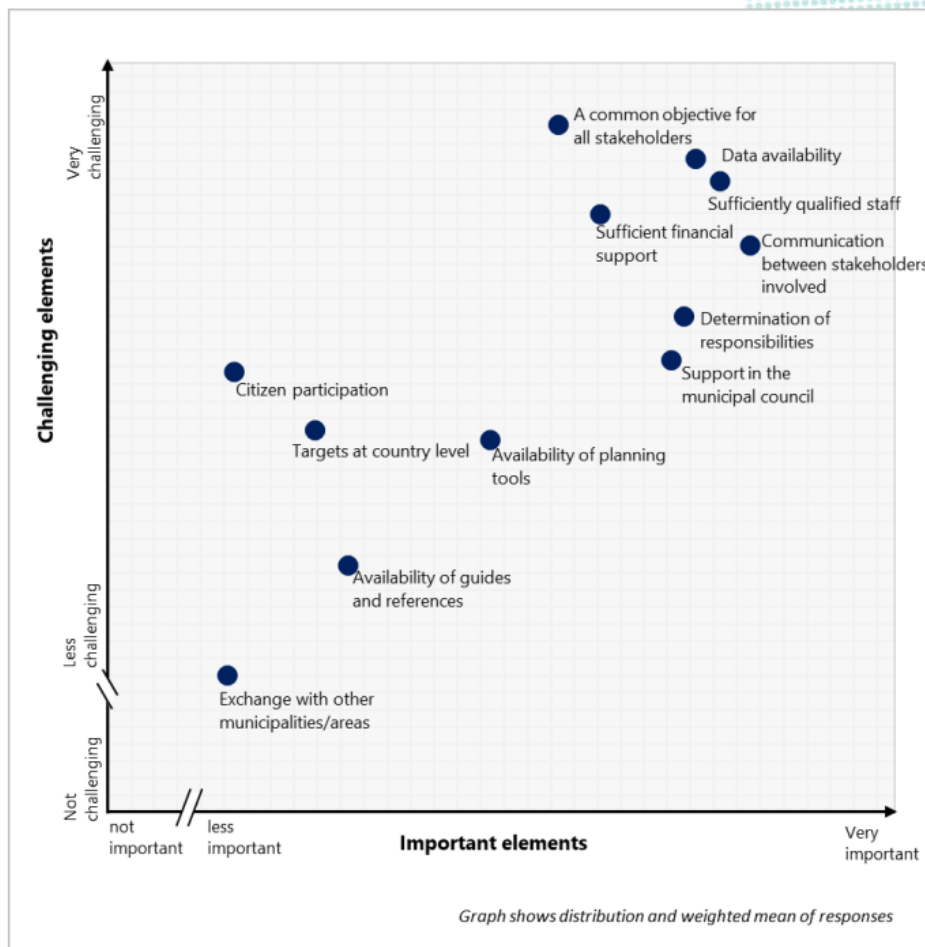
<https://cordis.europa.eu/project/id/101033706>



COORDINATOR: Fraunhofer ISI



Act!onHeat support facility/2



- Policy
- City planning
- Execution

Survey for the identification of key success factor for strategic heating and cooling plans. Full report [here](#).

New [workflow](#) addressed to energy agencies, consultants and local authorities to guide them with questions that help to structure the strategic heating and cooling planning. Source: Act!onHeat project



Act!onHeat support facility/3



NEXT CALL: Early May 2023 on
https://actionheat.eu/Call_for_applicants

Call for Application published directed to local and regional governments, energy agencies and city planners interested in receiving strategical support on H&C infrastructure.

Applicants will be clustered into groups depending on the topic of focus, that can vary from the development of a heat inventory to the assessment of DH potential, estimation of RES potential, etc.

The support package will consist of:

- Interactive webinars / online workshops
- Guidance documents for the different topics
- Individual support activities



KeepWarm

Supporting modernisation of district heating systems in Central and Eastern Europe



Support for the modernisation of **24 inefficient DH systems** in Austria, Croatia, Czech Republic, Latvia, Slovenia, **Serbia and Ukraine**

Tailored training based on capacity needs surveys

Technical advisory services, including

- pre-feasibility analyses;
- advice on business plans;
- technical support;
- legal advice;
- identification of financing sources.

<https://cordis.europa.eu/project/id/784966>



617 employees of DH operators trained

39 national/local energy and climate plans supported;

Contribution to investment decisions for 12 DHS
(100 EUR million)

COORDINATOR: GIZ



KeepWarm/2

Supporting modernisation of district heating systems in Central and Eastern Europe

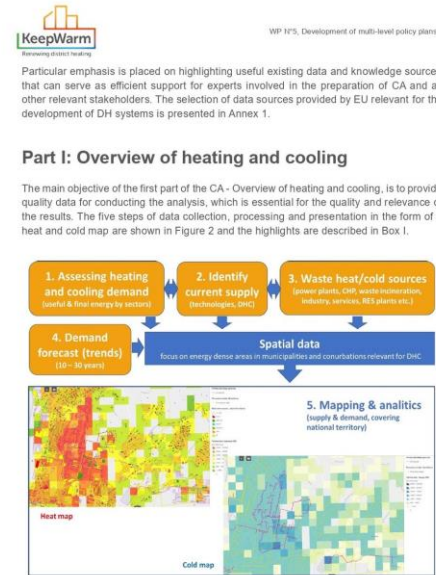


Figure 2: Overview of heating and cooling – data collection and mapping

KeepWarm Learning Center, including training material in local languages

Recommendations for the development of the national comprehensive H/C assessment under Art. 14 EED (complementary to EC Guidance and tailored to DH)

A **sustainable adoption roadmap**: outlining KeepWarm approach for future replication in support of municipalities and operators.



DecarbCityPipes2050

- DecarbCityPipes2050: 7 cities **phasing out of natural gas in buildings** by 2035-2050
- **Aim: help them build up their skills in the use of data, planning tools and instruments + process and transition management**
- **Highly evidenced Heating and Cooling plans** developed based on **guidance for cities**
- **Full transition roadmaps** including measures, policies, timelines, finance, responsibilities & **real success-narratives from city to city**

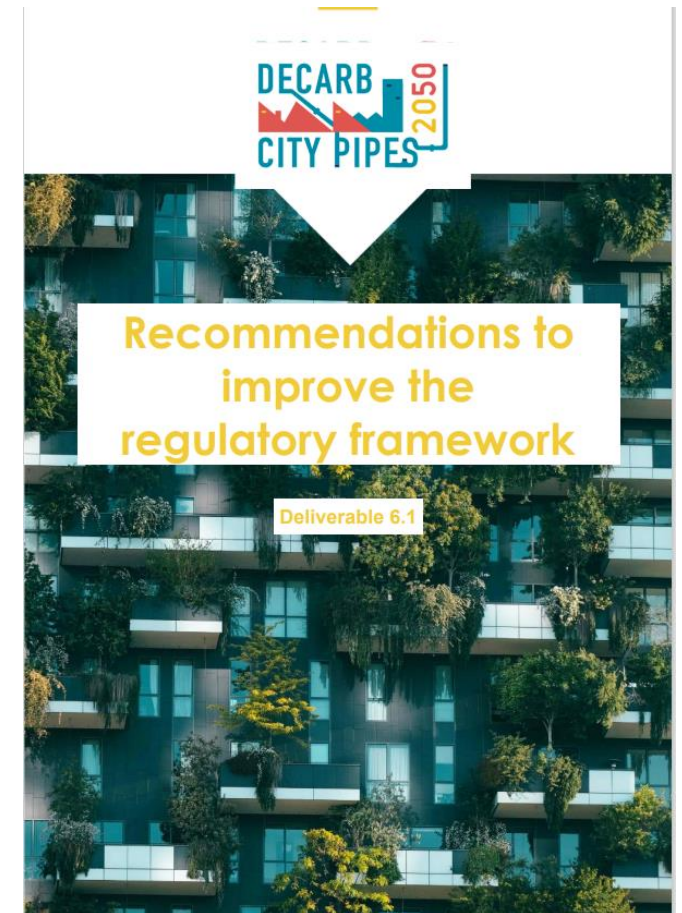
<https://cordis.europa.eu/project/id/893509>



DecarbCityPipes2050/2

Policy recommendations to improve the regulatory framework on H/C

- Need for **laws restricting/banning the use of fossil fuels** or “fossil fuel boilers” and prevent the replacement with new fossil fuel systems;
- Substitution of fossil fuel heating systems in **combination with building renovation** should be encouraged;
- **Energy zoning and heat plans** (at district level when relevant) key to enable the H/C transition and should include clear strategies, roadmaps, targets, timelines and public support
- **Simplification of procedures/permits** needed to exploit the heat potential from different sources (e.g. geothermal, waste heat)
- Financial incentives are needed for investments in infrastructure and to protect **vulnerable consumers**
- More **data** for heat planning e.g. on heat consumption and heating systems is necessary; what role for grid operators and utilities?



<https://cordis.europa.eu/project/id/893509>

More resources and support coming

Some more resources:



<https://cordis.europa.eu/project/id/723757>



<https://cordis.europa.eu/project/id/768567>

COMMUNITY ENGAGEMENT FOR CLEAN HEAT

<https://webgate.ec.europa.eu/life/publicWebsite/project/details/101076258>



<https://cordis.europa.eu/project/id/101033676>

The screenshot shows the European Commission website for funding and tender opportunities. The page title is "Integration of low-grade renewable energy or waste heat in high temperature district heating" with a topic ID of "LIFE-2022-CET-DH". The project is categorized as a "Grant". A table of general information is visible, showing the programme as "Programme for Environment and Climate Action (LIFE)" and the work programme part as "LIFE-2021-2024". A warning message at the top indicates that proposals evaluation services may not be available on 18/04/2023 from 20:00 to 23:55 (CET) due to technical maintenance.

General information	General information
Topic updates	
Topic description	Programme Programme for Environment and Climate Action (LIFE)
Conditions and documents	Work programme part LIFE-2021-2024

LIFE- 2022-CET **closed**

- **Project Development Assistance**
- Support for developing **financial plans** to support fuel switch in existing DH to comply with EED criterion on efficient DHC

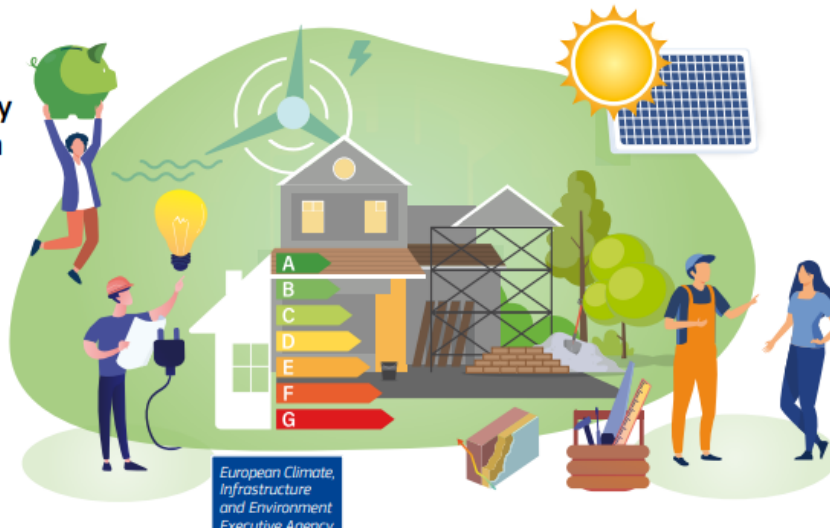
EU LIFE CET Info Day



European
Commission

Life clean energy transition sub-programme

Supporting the delivery
of the European Green
Deal and sustainable
energy policies



European Climate,
Infrastructure
and Environment
Executive Agency

On-line: 1 June 2023
Further information
[here](#)



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Thank you

