# **DREDI4HEAT**

## FINAL CONFERENCE

Accelerating Renewable Heating and Cooling for a Decarbonised Europe

23 SEPTEMBER 2025 at MIX, Brussels from 9:30 to 14:30





Accelerating Renewable Heating and Cooling for a Decarbonised Europe

23 September 2025 - 9:30 to 14:30 MIX, Brussels

Welcome & introduction

# **○**REDI4HEAT







Francesca Tamburrini
EU Projects Manager at
European Heat Pump Association



Vasiliki Drosou
Head of Solar Systems, Storage
and Hydroelectric Power
Department at Centre for
Renewable Energy and Sources



# • REDI4HEAT AGENDA 23/09

Time	Organisation	Presentation name	Speakers
9:30	ALL	Registration & Welcome coffee	
10:00	ЕНРА	Welcome and introduction	Francesca Tamburrini& Vasiliki Drosou
10:05	European Commission - DG ENER	Keynote Speech	Matthieu Ballu
10.15	CRES	Keynote Speech The Role of Energy Next- Generation Renewable Heating & Cooling Technologies: From Lab to Large-Scale Deployment	Dimitrios Kardomateas
10:25	SHE	REDI4Heat: the origins of a project	Esteban Gas
10:35	CRES	The REDI4Heat project: objectives and achievements	Rosie Christodoulaki
10:50	ADENE	The REDI4Heat tools & resources and the Assessment Guidelines.	Silvia Remedios
11:00	Coffee Break		

Time	Organisation	Presentation name	Speakers
11:20	External speakers	Panel discussion "Renewable heating: Has the European Clean Energy Deal delivered"	Juan Antonio Lopez     Morero - Iberdrola     Francesco Robimarga     REHVA     Duncan Gibb - Regulatory     Assistance Project     Edwige Porcheyre     Enerplan     Moderator: Sanjeev Kumar - EGEC
12:10	External Speakers	Panel discussion "Shaping the future: how do EU policy actions impact the energy landscape?	• Davide Sabbadin - EEB • Allison Le Corre - EU Covenant of Mayors • Lucia Verardi - SmartEn • Irene di Padua - Bioenergy Europe Moderator: Leopoldo Micó - EHPA
13:00	Hellenic Passive House Institute	Best Practices on Renewable Energy for heating and cooling	Stefanos Pallantzas
13:10	CRES & EHPA	Closing remarks	
13:15	Networking lunch		
14:30	End of the event		





Accelerating Renewable Heating and Cooling for a Decarbonised Europe

23 September 2025 - 9:30 to 14:30 MIX, Brussels

# Keynote speech

## **○**REDI4HEAT







Matthieu Ballu
Policy Officer at European Commission,
DG ENER

Accelerating Renewable Heating and Cooling for a Decarbonised Europe

23 September 2025 - 9:30 to 14:30 MIX, Brussels

# Keynote speech

# ▶ REDI4HEAT







Dimitrios Kardomateas
President at Centre for Renewable
Energy Sources and Savings

Accelerating Renewable Heating and Cooling for a Decarbonised Europe

23 September 2025 - 9:30 to 14:30 MIX, Brussels

REDI4Heat: the origins of a project







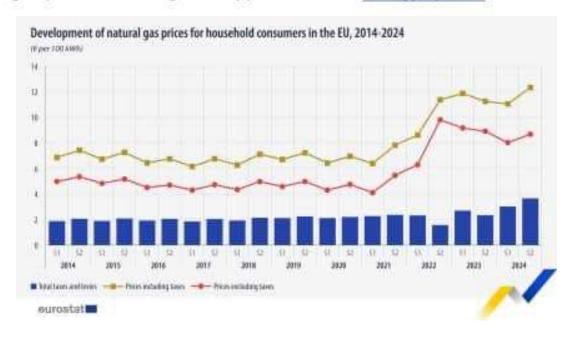


Esteban Gas
Policy Officer at
Solar Heat Europe

## 1. The path to REDI4Heat

## 2016 Heating and Cooling Strategy

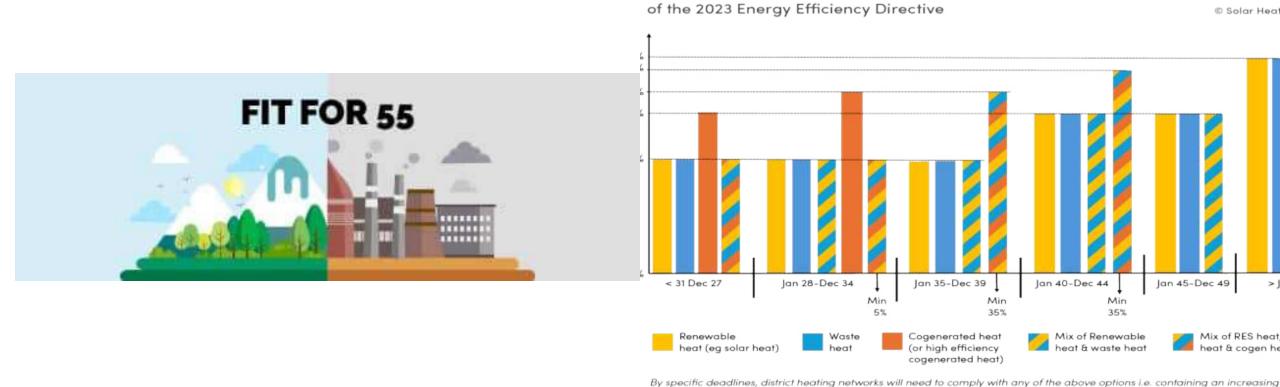
The 2016 EU Heating and Cooling Strategy provided a first overview of the energy consumption and fuel mix of the heating and cooling sector in the main end-use sectors: buildings and industry. It also set out actions and tools to support the heating and cooling sector's contribution to the EU objective of climate neutrality by 2050. These actions and tools, which were implemented in the Clean Energy for all Europeans' package adopted in 2019, relate to increasing renewable energy and energy efficiency in this sector, while applying in parallel an integrated approach to the energy system.



## 2. Fit for 55 as a turning point

Co-funded by

the European Union

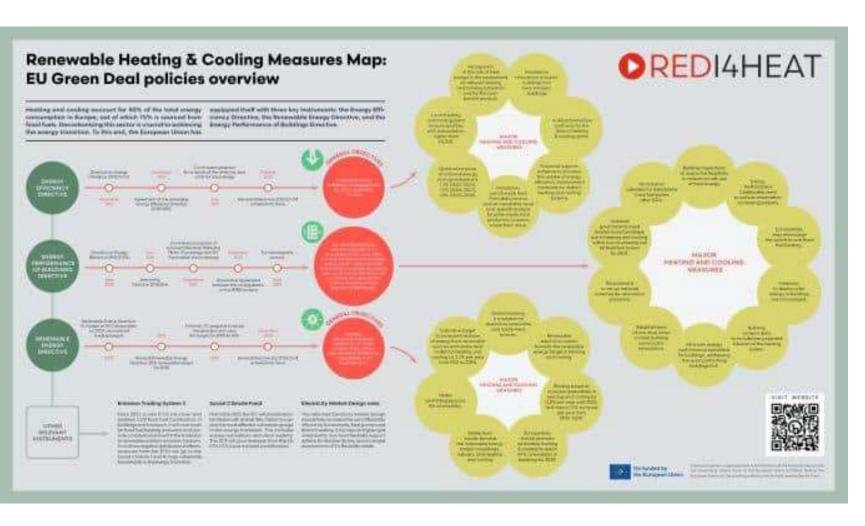


The path towards "efficient district heating", as per the requirements

minimum share of RES heat (or others), reaching 100% in 2050



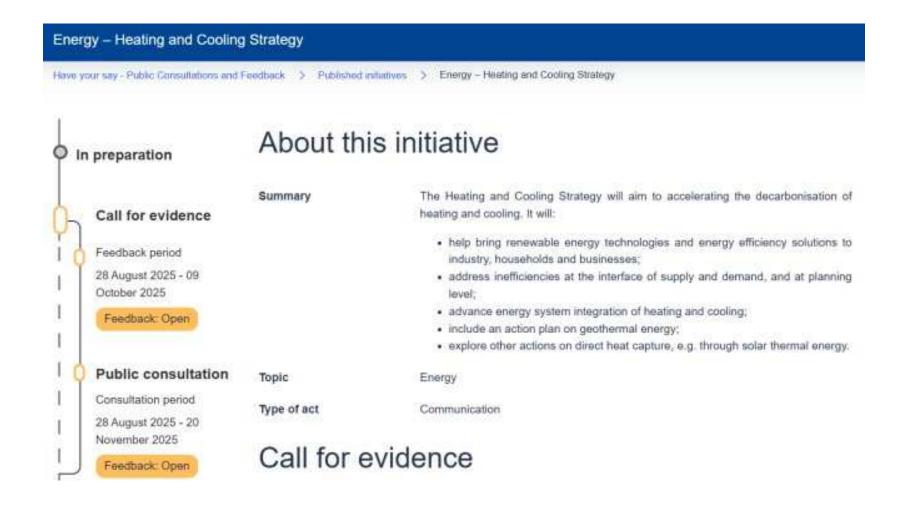
## 3. The contribution of REDI4Heat and the challenges ahead

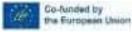




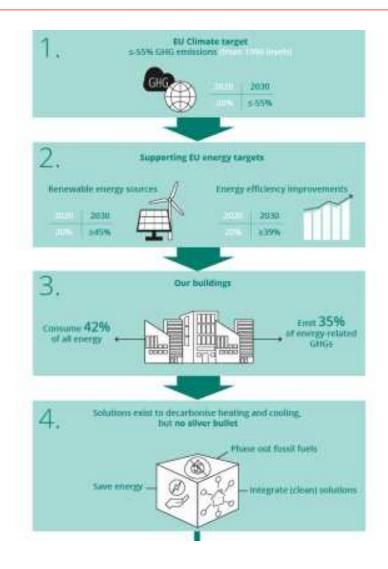


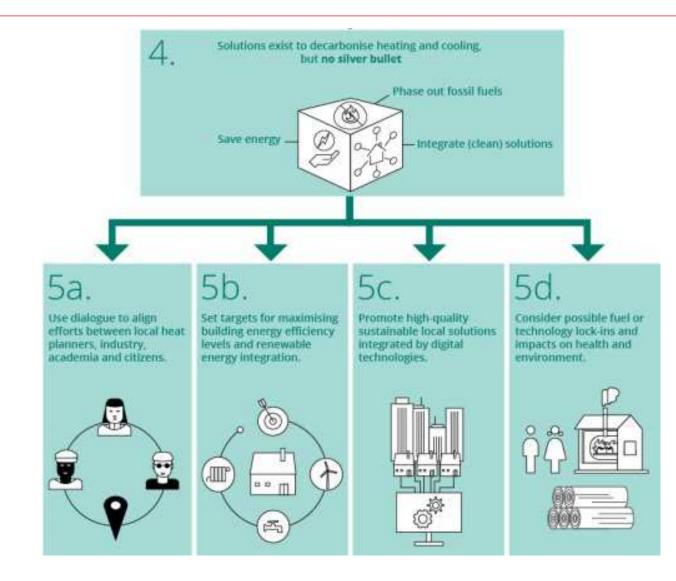
## 4. A new Heating & cooling strategy





## Conclusion





Accelerating Renewable Heating and Cooling for a Decarbonised Europe

23 September 2025 - 9:30 to 14:30 MIX, Brussels

The REDI4Heat project: objectives and achievements









Rosie Christodoulaki
Senior RES Specialist at Centre for Renewable
Energy Sources and Saving





Renewable Energy Directive implementation for heating and cooling

## The REDI4Heat project: objectives and achievements

Dr Rosie Christodoulaki

Centre for Renewable Energy Soources and Savings



High Level Event, 23 Sept 2025, The MIX hotel Brussels

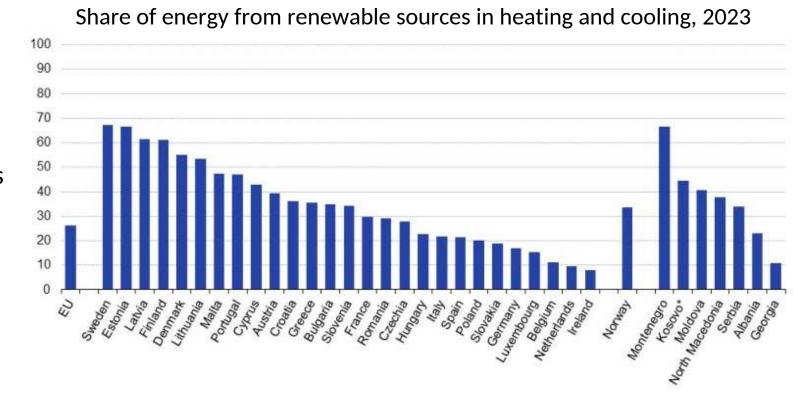
## The gap

Total energy consumption 50% heating and cooling 30% transportation

20% electricity

Heating and Cooling
40% of the global CO<sub>2</sub> emissions
26% of heating and cooling comes
from RES (traditional biomass)

- > Heat is still produced by fossil fuels
- Most policy efforts are focused on decarbonizing electricity and transportation
- ➤ Deployment of RES in H&C is not in line with climate change targets





## The REDI4Heat objectives

#### **Objective**

- > Acceleration of Renewable energy sources in heating and cooling
- Advisory services in 5 EU MS (EL, DE, PL, PT, HR) on how to comply with the new regulations

#### Methodology

- Policy studies
  - Assessment / review of current legislation
  - Development of Strategic policy priorities
  - Drawing of Policy adoption measures
- Online tools
  - Knowledge sharing centre
  - Heat Transition Toolbox
- Dissemination & training
  - Meetings with stakeholders
  - Workshops and training
  - Publications







## Achievements: Critical assessment of legislation

#### 3 Policy briefs for RED - EED - EPBD



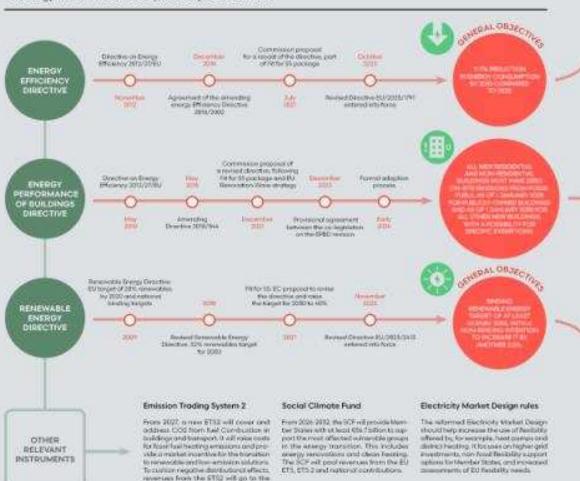




## Renewable Heating & Cooling Measures Map: **EU Green Deal policies overview**

Heating and cooling account for 50% of the total energy consumption in Europe, out of which 75% is sourced from fossil fuels. Decarbonising this sector is crucial to achieving the energy transition. To this end, the European Union has

equipped itself with three key instruments: the Energy Efficiency Directive, the Renewable Energy Directive, and the Energy Performance of Buildings Directive.



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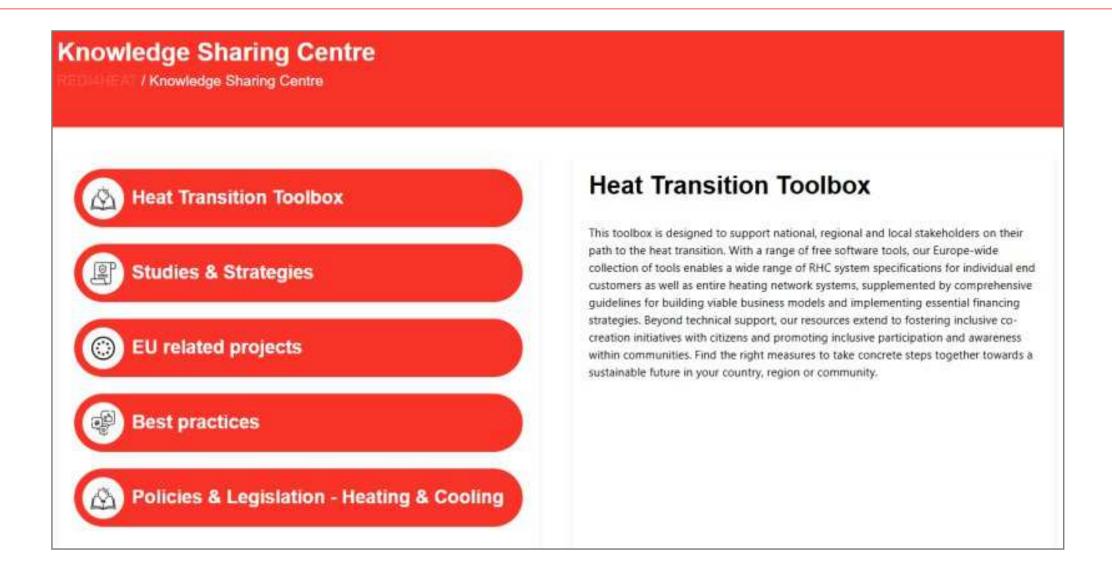
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## **Achievements: Tools and Resources**



## Achievements: Capacity Building events











Thessaloniki, Greece, 2025

Warsaw, Poland, 2024

Braga, Portugal, 2025











Zagreb, Croatia, 2025

Halle, Germany, 2024

Decarb Cities Conference, 2025



## The findings

## Good

- ✓ NECPs are a powerful tool for the EU and its Member States to drastically accelerate climate action and the energy transition already in this decade.
- ✓ The 2024 final NECPs showed improvements compared to the older versions and drafts.
- ✓ The RES and EE targets have improved to better align with EU legislation.

## The findings

## Bad

- û Gaps and inconsistencies between the stated targets and planned measures
- û Unclear policies and investments attached to the targets
- û Inefficient support framework for energy efficiency
- û Insufficient incorporation of just transition elements
- û Unclear schedule and targets for the phase out of fossil fuels
- û Gaps in the transparency and quality of climate and energy data

# Looking ahead

- Support the core project ideas decarbonisation of heating and cooling
- Build on REDI4Heat's achievements continued real impact
- Support the policy uptake solutions reach society
- Upcoming EPBD & EED transpositions new opportunity for heating and cooling

## Stay inspired & connected - the REDI4Heat community lives on!

#### Dr Rosie Christodoulaki

christodoulaki@cres.gr

Centre for Renewable Energy Sources and Savings Department of Solar energy and Energy storage



Accelerating Renewable Heating and Cooling for a Decarbonised Europe

23 September 2025 - 9:30 to 14:30 MIX, Brussels

The REDI4Heat tools & resources and the Assessment Guidelines









Silvia Remedios
Project Manager for the Strategy, Policy and Projects
Department at Adene Agência para Energia

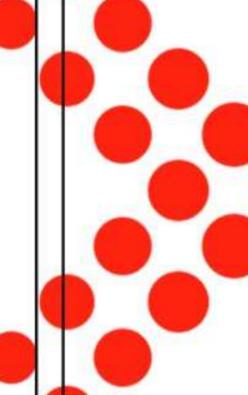
# Final Conference

The REDI4HEAT Project: Tools & Resources and the Assessment Guidelines

## Sílvia Remédios

Project Manager

ADENE – Agência para a Energia



23 sep.

2025 09h30 - 14h30





## CONTENTS

- 1. Policies/Recommendations
- 2. Tools & Resources
- 3. Events/Networking



# Methodology

### Policies / Recommendations

- Assessment of current legislation
- Strategic Policy Priorities
- Policy Adoption Measures for the decarbonization of the H&C sector

## Tools & Resources

- Knowledge Sharing Centre/Heat Transition Toolbox
- NECP Assessment Guidelines
- Policy tracker

## Events / Networking

- Capacity Building initiatives
- Workshops / High-level meetings
- Awareness-raising campaigns
- Publications









# Methodology

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# Policy Adoption Measures

## Portfolio of Measures to Accelerate the decarbonization of the H&C sector

- Total: 25 Measures

- <u>Sector</u>: DHC | Residential | Non-Residential | Other

- Type: Policy | Technical | Market & Capacity Building | Other

### Objectives:

- Improve energy security;
- Reduce dependence on fossil fuels;
- Promote the involvement of local authorities and stakeholders by raising awareness and strengthening capacities;
- Identify effective strategies for policy-making that support the integration of renewables in the H&C sector at national, regional and local levels.









# Methodology

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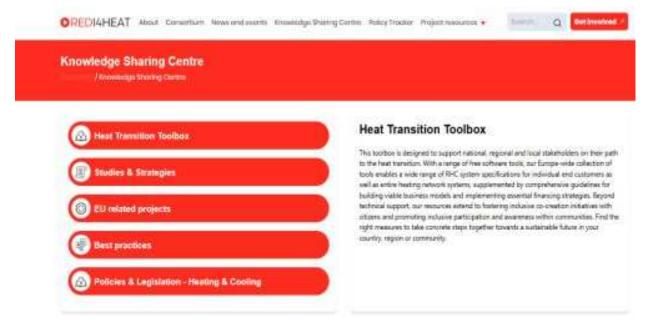






# What is the Knowledge Sharing Centre?

The REDI4HEAT Knowledge Sharing Centre is a platform designed to facilitate the exchange of information and best practices related to heating and cooling within the framework of the Renewable Energy Directive, the Energy Efficiency directive, and the Energy Performance of Buildings Directive.



Knowledge Sharing Centre – REDI4HEAT (ehpa.org)







# Knowledge Sharing Centre/Heat Transition Toolbox





#### Toolbox Categories

This report contains a ballaned EU handing strategy for host regional heating and cooking projects, namely. And alone (ED), Western Massilveis (EL), Cartilla y Lains (ES) and the Florest Romania (RD). This study follows a province should be study, which provided an overview of EU funding province, for the regional heating and casting section.

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#### Semple

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# Methodology

- Policies / Recommendations
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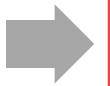


## **NECP Assessment Guidelines**

- Methodology based on two phases:
  - Assessment of the weakness and loopholes in policy document based on Strategic Policy Priority Areas (SPPs);
  - Identification of relevant options and actions.
- Based on data from policy document; relaying on subjective assessment of assessor.

# 1<sup>st</sup> phase - Evaluation of plan's weaknesses & loopholes

- Step 1 evaluate the relevance of an assessed element
- Step 2 evaluate the completeness of the policy document in addressing the element
- Step 3 identify the priorities



# 2<sup>nd</sup> phase - Identify relevant options and actions

- Step 1 evaluate the relevance of actions and measures
- Step 2 Identification of appropriate monitoring indicators







# Methodology

#### Policies / Recommendations

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# What is the *Policy Tracker?*

- The REDI4HEAT policy tracker shows the transposition of H&C related EU directives into the national framework of the individual member states;
- It serves as a **low barrier starting point** for further research on H&C policies of the participating countries.



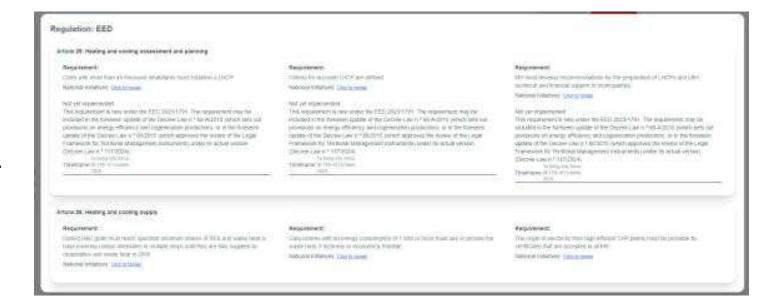






## Policy Tracker: Added Value

- Wide scope: covers the central H&C related directives from the fit-for-55package (RED, EED, EPBD);
- Transnational / Pan-European;
- Constructive approach: the tracker focuses on solutions and mutual inspiration.









## Methodology

- Policies / Recommendations
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## Capacity Building Initiatives



#### **Objectives:**

- Promote peer-to-peer learning;
- Highlight good practices and existing experiences on the topic of heating and cooling;
- Expand and strengthen national stakeholder groups supporting the decarbonization of the H&C sector.





## Capacity Building: National Level



- **1 workshop** to present the capacity-building sessions programme, sharing relevant case studies, exchanging ideas on barriers and challenges, and strengthening the connection between stakeholders.
- **1 study tour** for observation of good practices on the ground, collection of direct experiences, and establishing direct contacts.
- 3 capacity-building events focused on tools available in the Heat Transition Toolbox and the action plan / Policy Adoption Scenario for the decarbonization of the H&C sector.





## Capacity Building: EU Level

- 3 workshops (in-person)
  - Valencia, Spain
  - Besançon, France
  - Krakow, Poland
- 2 workshops (online)
- "Involving citizens in community heating projects";
- "Transposing EU Regulation into National Transformation Strategies – Accelerating Renewable Heating and Sector Coupling".





# Thank you for your attention!









Feel welcome to contact:

Sílvia Remédios | ADENE

silvia.remedios@adene.pt

Accelerating Renewable Heating and Cooling for a Decarbonised Europe

23 September 2025 - 9:30 to 14:30 MIX, Brussels

## COFFEE BREAK



From 11:00 to 11:20





23 September 2025 - 9:30 to 14:30 MIX, Brussels

Accelerating Renewable Heating and Cooling for a Decarbonised Europe

# Panel discussion Renewable heating: Has the European Clean Energy Deal delivered?



Sanjeev Kumar Policy Director at EGEC



Juan Antonio Lopez Romero
Policy and Regulation Manager
at Iberdrola



Francesco Robimarga
Policy and Advocacy Officer
at REHVA



**Duncan Gibb**Senior Advisor at the Regulatory
Assistance Project



**Edwige Porcheyre**Project Coordinator at Enerplan





23 September 2025 - 9:30 to 14:30 MIX, Brussels

Accelerating Renewable Heating and Cooling for a Decarbonised Europe

# Panel discussion Shaping the future: how do EU policy actions impact the energy landscape?



**Leopoldo Micó** Head of Keymark at EHPA



Davide Sabbadin
Deputy Policy Manager for
Climate & Energy at European
Environmental Bureau



Allison Le Corre
Communications & Campaigns
Coordinator at EU Covenant of
Mayors



Lucia Verardi Senior Policy Officer at SmartEn



Irene di Padua Policy Director at Bioenergy Europe





Accelerating Renewable Heating and Cooling for a Decarbonised Europe

23 September 2025 - 9:30 to 14:30 MIX, Brussels

Best Practices on Renewable Energy for heating and cooling









Stefanos Pallantzas
Building Certifier at Hellenic Passive House Institute









## Hellenic Passive House Institute

HPHI is a Non-profit Organisation that was established in 2012 in order to raise awareness about the building stock's contribution to the climate crisis, since it's responsible for 40% of CO2 emmissions, through the Passive House concept.

We raise awareness about the Passive House concept, support Passive House projects, educate professionals in order to obtain the "Passive House" **Designer**" certification and certify buildings that meet the Passive House criteria.

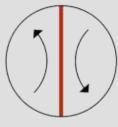
HPHI has 2 accredited Passive House Building Certifiers - currently there around 60 Certifiers in the world.

HPHI is an **international working group** composed by 45 building **Professionals** 



## 5 Principles of a Passive House

+++ Efficient
H&C systems
with Zero
Carbon
Emissions



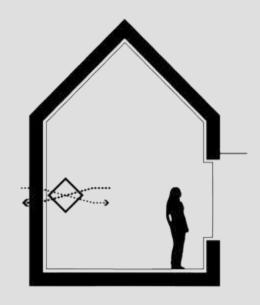


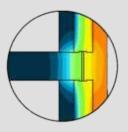


Mechanical Ventilation with Heat Recovery

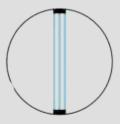


Continuous Insulation





No Thermal Bridges

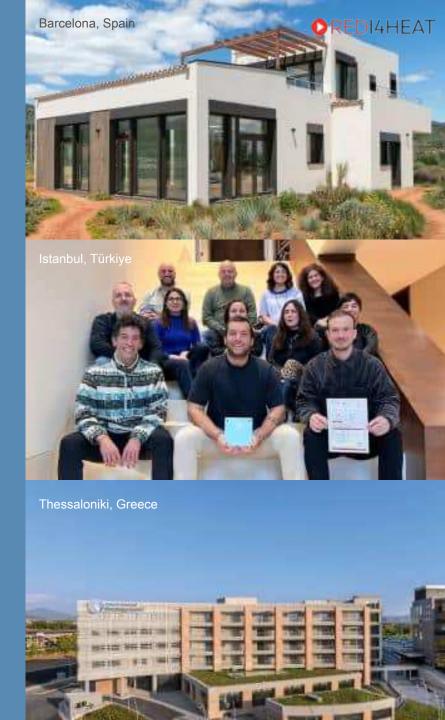


High-Performance Doors & Windows

# Our Projects

The HPHI has been involved in more than 100 PH projects in Greece & worldwide and has certified PH buildings all over the world.















### HPHI contribution

#### Hp's for heating-cooling-DHW

- Energy Design

Certifier: Stefan Pallantzas Architect: Maria Kaltsa





# Special Project





Off Grid Single Family Villa



131 m<sup>2</sup>



Aegina Island, Greece

#### **HPHI** contribution

Combi HP/Ventilation unit for heating/ cooling, all produced on site

- Energy Design
- Hygrothermal Simulation
- Implementation Study
- Site Supervision
- Thermal Comfort Analysi
- Certification

#### Calculations

- Heating Demand: 15,1 kWh/m2a
- Cooling Demand 11,77 kWh/m2a

Certifier: Stefan Pallantzas, HPHI Architect: Vesko Mutafchiev



# Large-scale Project



International Oncology Center by latriko Athinor



6,250 m<sup>2</sup> (new construction



Thessaloniki, Greece

# HPHI contribution HP's and Ventilation for heating and cooling (Gas as a backup, but never used

- Energy Design
- Implementation Study
- Thermal Comfort Analysis
- CFD Analysis
- Site Supervision
- Certification

#### Calculations

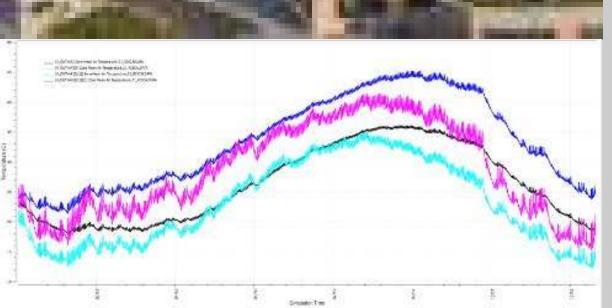
- Heating Demand: 13.8 kWh/m2a
- Cooling Demand: 15,5 kWh/m2a

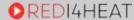
Certifier: S

Certifier: Stefan Pallantzas, HPHI

Architect: ASPA KST

Constructor: TERNA SA









The Tavros Project, 60s Multi-family building



750 m<sup>2</sup>



Tavros, Athens, Greece



Minisplits for heating/cooling, Solarpanels for DHW, all electricity needed produced on site.

The second pilot project by the **Passivistas Team** which concerns the energy retrofit of a multifamily building following the Passive House standard. With the solar panels that will be added to the roof, the building will become a Positive Energy Building, meaning that it can produce more energy than it consumes, which results in zero energy bills for its users as well as zero CO2 emissions.

Certifier: Stefan Pallantzas Architects: Elena Anagnostopoulou

Ilektra Mancini





# Large-scale Project

 $\triangle$  s

Stadtnatur Munich



3,124 m<sup>2</sup> (new construction)



Munich, Germany

HPHI contribution

District Heating supported by big HP's

- Energy Consultancy
- Tradesperson/workers training
- Certification

Calculations

Heating Demand: 14,3 kWh/m2a

Certifier: Stefan Pallantzas Architect: Vallentin Architektur

**GmbH** 



# Large-scale Project

University of Victoria Residence Building

30,814 m² (new construction)

🦻 🛮 British Columbia, Canada

# HPHI contribution Hp's for heating/ DHW

Energy Consultancy

Certification

#### Calculations

Heating Demand:13,8 kWh/m2a

Certifier: Roberto Iannetti, HPHI

Architect: Perkins & Will Architects Canada Co.

Energy Consultancy: RDH Building Science Inc.

Contractor: EllisDon Kinetic (A Joint Venture)

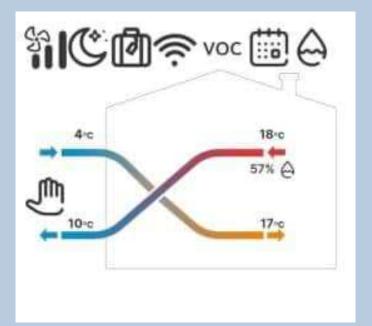


### The Result

Certified Passive House residence in Türkiye had 18°C indoor temperature without any heating, while it snowed outside.

- Minimisation of heating and cooling loads
- Decarbonisation of H&C
- Increase of indoor comfort What was promised is what was delivered.

#### Indoor

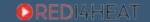


#### Outdoor



We haven't needed any heating yet. The comfort is incredible. We thank you every day

Happy residents



#### Build better. Live better.



A Passive House decreases its energy demand as much as possible in order to produce more than it consumes.

# Let's get in touch!



www.eipak.org

+30 211 408 1109

Tzanni Alevizatou 64, Papagou, 15669, Athens @ Hellenic Passive House Institute

Mellenic Passive House Institute

@hellenic\_passive\_house\_inst

@hellenicpassivehouseinst

@hellenic\_passive\_house\_inst

## **OREDI4HEAT**



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# **DREDI4HEAT**

# THANK YOU FOR STAYING WITH US!

Last info: Lunch will be served in the Foyer of the Mix, at the ground floor



