



# EUROHEAT & POWER

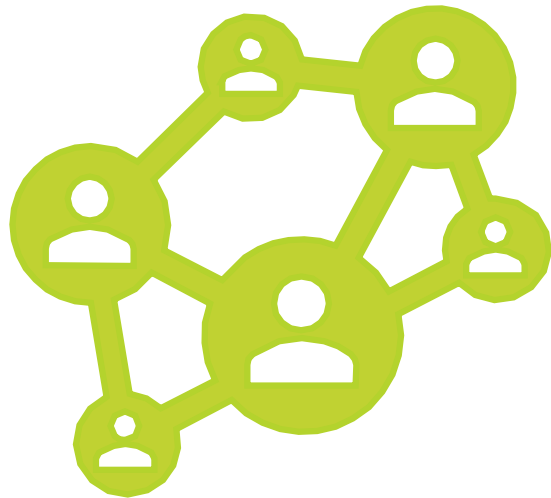
How can waste heat recovery help  
decarbonise cities? Best practices & policy  
recommendations

Recommendations from UAETP Action 2

Pauline Lucas  
25 June 2020



## WHO WE ARE...



[www.euroheat.org](http://www.euroheat.org)

- International association for district heating and cooling and network of professionals
- Headquarters in Brussels, Belgium
- 100 members from more than 30 countries
- National DHC associations, utilities, manufacturers, universities, research institutes and consultancies
  - Advocacy & Representation
  - Research & Innovation

 fortum Savosolar a2a AGFW SWEDENERGY  
ENERGIFÖRETAGEN SVERIGE Fraunhofer  
ISI Danfoss AALBORG UNIVERSITY  
DENMARK



# URBAN AGENDA FOR THE EU

WORKING TOGETHER  
FOR BETTER CITIES

- **Pact of Amsterdam** in 2016 established the Urban Agenda for the EU
- Recognises the importance of **effective urban policy** and **incorporating cities in policy-making**
- Priorities themes considered essential to the **sustainable development of urban areas**
- **12 Partnerships** cover these priority themes
- Partnerships gather cities, Member States and EU institutions



# ENERGY TRANSITION PARTNERSHIP

Partnership drafted an Action Plan with **5 actions** aiming at:

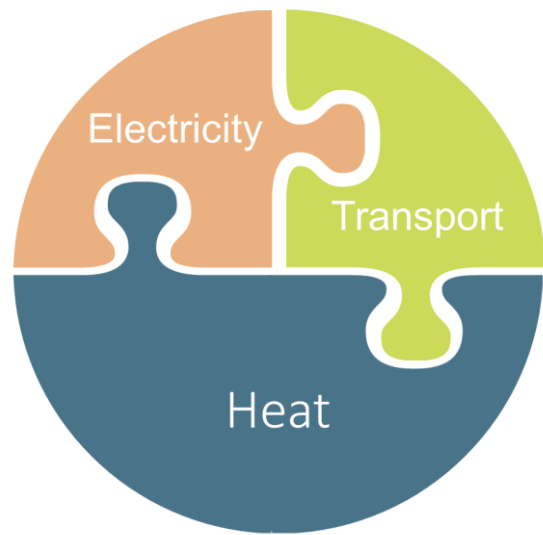
- Improving **energy efficiency** at a city-level through the **recovery and use of waste heat** and at a building level through retrofitting for energy efficiency and energy management;
- Fostering **innovative approaches** to energy storage and supply (e.g. local systems);
- Increasing the amount of local and **renewable energy**.



	NAME	LEADER	CONTRIBUTOR(S)	AIM(S)
<b>DISTRICT ENERGY</b>				
1	'Financing for District Energy' Task Group	Groningen	Navarra, CEMR, Gothenburg, Tilburg, Roeselare, Germany, EIB	EEFIG Subgroup (Better Funding)
2	Maximising Use of Waste Heat in Cities	Euroheat & Power	Tilburg, Roeselare, Udine, Groningen, Gothenburg, CEMR & CELSIUS Project.	Position Statement (Better Regulation + Better Knowledge)
<b>ENERGY MASTERPLANNING</b>				
3	Energy Masterplanning for Cities	Warsaw Germany, Roeselare	Energy Cities, Tilburg, Gothenburg, CEMR, Eurocities, Udine.	Support Document (Better Regulation + Better Knowledge)
<b>ENERGY EFFICIENCY</b>				
4	'Deployment Desks' for City Retrofitting	Navarra	Vidzeme, Vaasa, Eurocities, CEMR	Concept Paper (Better Knowledge)
<b>MAKING EU FUNDING WORK BETTER FOR CITIES</b>				
5	Closer Co-operation with EU Bodies to Promote Energy Transition Funding	Tilburg	Vidzeme, Eurocities, Germany	Position Paper (Better Funding)

## NO ENERGY TRANSITION WITHOUT HEATING AND COOLING

Heating & Cooling represents  
**50%** of the EU total annual  
energy consumption



**75%** of EU citizens will live in urban areas in 2020,  
with an increase to **84%** by 2050



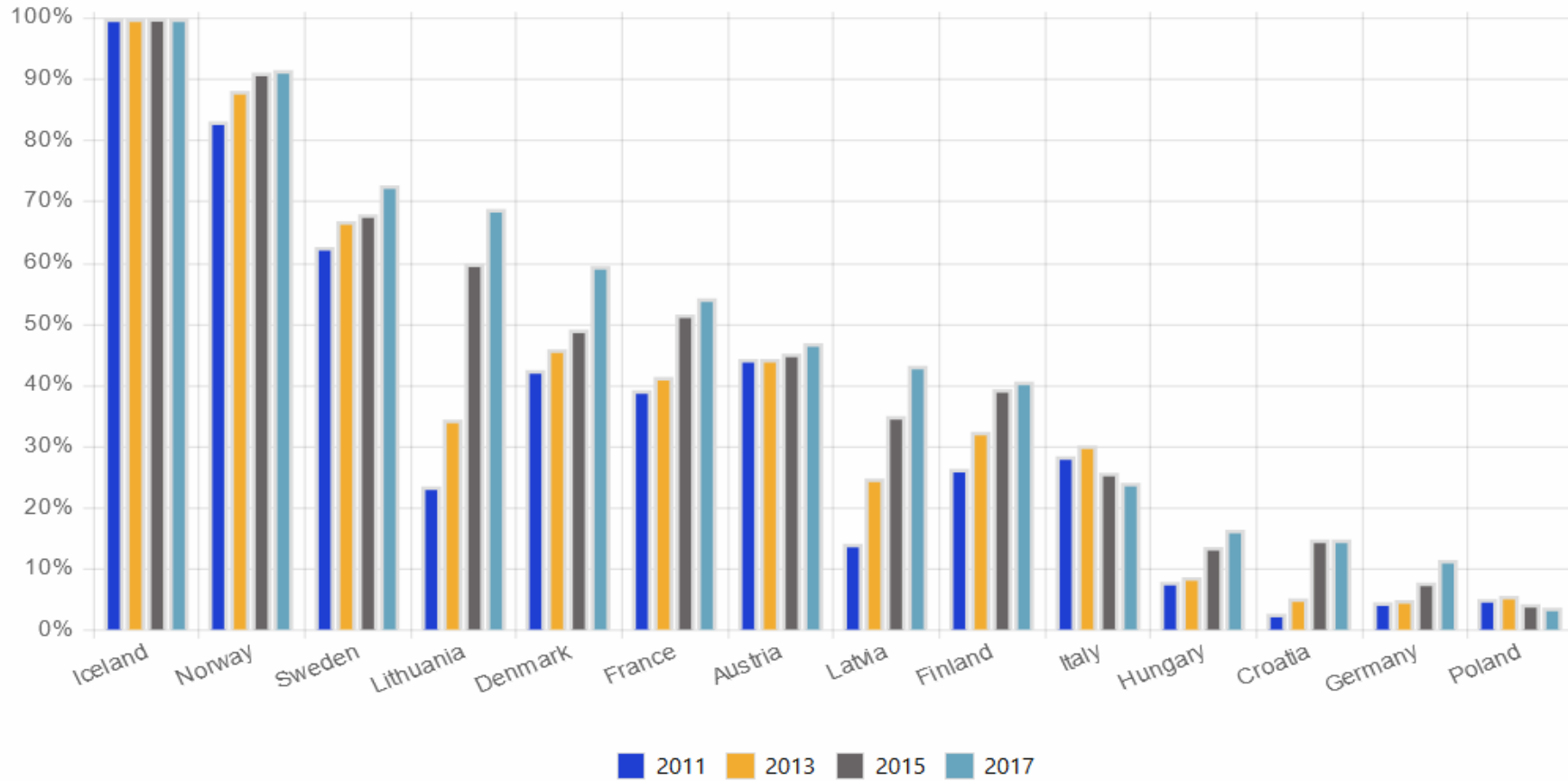


# EU ENERGY & CLIMATE TARGETS



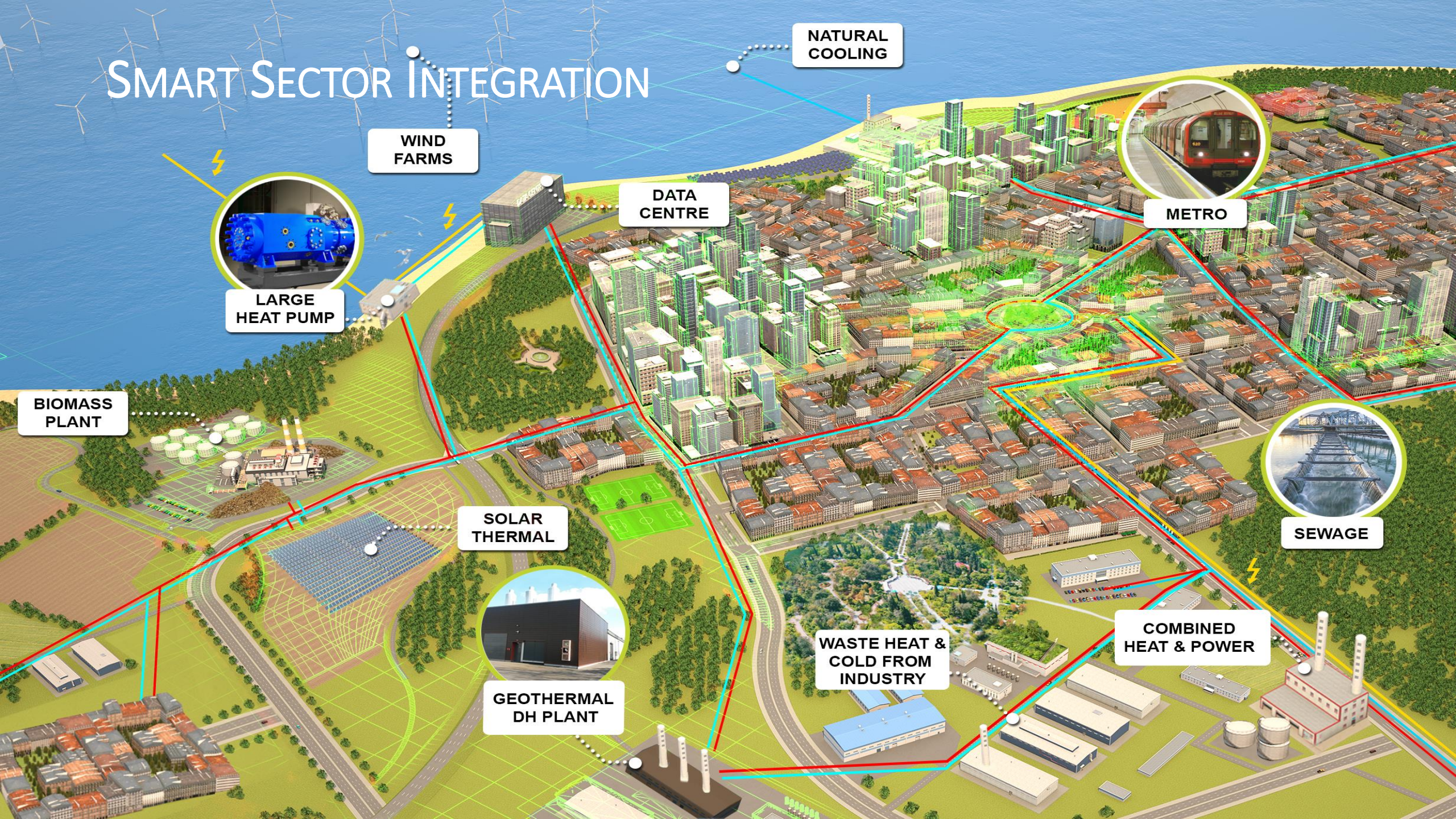
# SHARE OF RENEWABLE SOURCES

The share of renewable energy in DHC (2011 - 2017)





# SMART SECTOR INTEGRATION



NATURAL COOLING

WIND FARMs



LARGE HEAT PUMP

DATA CENTRE



METRO

BIOMASS PLANT



SEWAGE

SOLAR THERMAL



GEOTHERMAL DH PLANT

WASTE HEAT & COLD FROM INDUSTRY

COMBINED HEAT & POWER



# DISCUSSION PAPER: A MULTI-STAKEHOLDER APPROACH



## DISCUSSION PAPER

*The barriers to waste heat recovery  
and how to overcome them?*

June 2020

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### Document versions

Version	Date	Comment
1	20 March 2020	First version
2	25 June 2020	Version updated following stakeholders' feedback

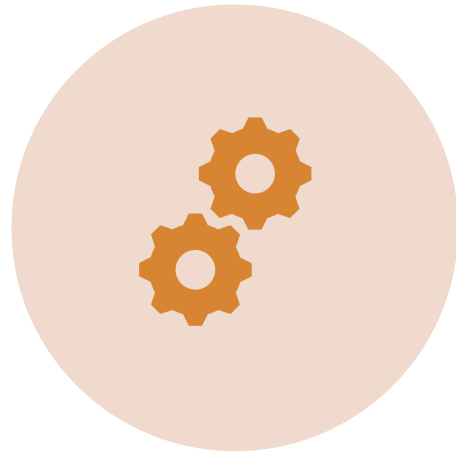
The present paper is part of the delivery of the Urban Agenda Energy Transition Partnership Action 2, Maximizing Waste Heat Recovery in Cities. It was financed by the European Commission, DG Regio.  
<https://ec.europa.eu/futurium/en/energy-transition>



- Identification of challenges and good practices in a discussion paper:
  - on different levels: technical, economic & financial, legislative and regulatory, societal and cognitive
  - from different perspectives: waste heat owners, DHC sector, cities, research, etc.
- Literature and expert review: Workshop in Brussels on 5/3/20 and several round of comments and exchange

<https://www.euroheat.org/wp-content/uploads/2020/06/Discussion.pdf>

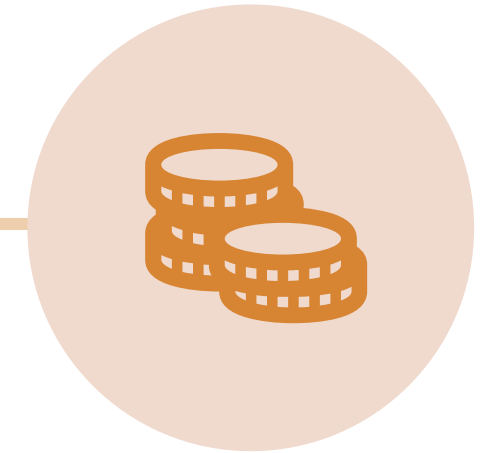
# RECOMMENDATION PAPER



A REINFORCED EU FRAMEWORK  
TO UNLOCK WASTE HEAT  
RECOVERY AT LARGER SCALE



EMPOWERMENT AND  
COOPERATION FOR WASTE HEAT  
ACTORS

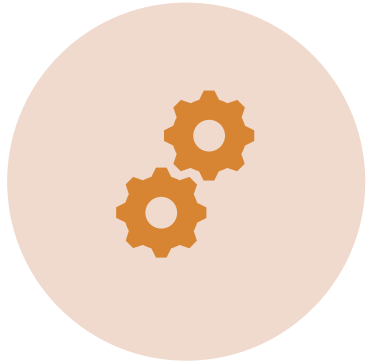


A ROBUST FINANCING AND  
BUSINESS FRAMEWORK FOR  
WASTE HEAT PROJECTS

<https://www.euroheat.org/wp-content/uploads/2020/06/Recommendation.pdf>



## RECOMMENDATION PAPER



### A reinforced EU framework to unlock waste heat recovery at larger scale

- ✓ Set a uniform CO<sub>2</sub> price across the heating sector
- ✓ Promote best practices from Member States
- ✓ Consistent EU legislative framework
- ✓ Update EU modelling tools
- ✓ Promote the visibility and use of the results of the EED Comprehensive Assessments

## RECOMMENDATION PAPER



### Empowerment and cooperation for waste heat actors

- ✓ Ensure the cooperation between governance levels
  - Structured dialogue
  - Involvement of local level in EU policy-making
- ✓ Empower the different waste heat actors: better communication, knowledge and trust
  - Forums for matchmaking, facilitating contacts and exchange
  - Spreading know-how, good practice and training stakeholders
  - Raise awareness of waste heat in the general population and end-users





**EUROHEAT  
& POWER**

Thank you!

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