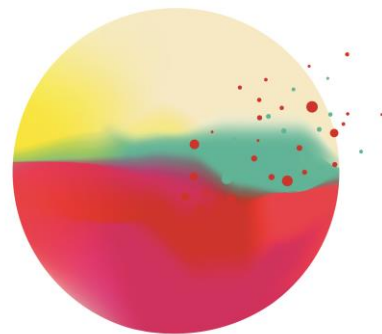


Energy Cities' recent activities on heating topic and insights of discussions with cities

Heating Hub

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« Fossil free districts » Project (supported by ECF)

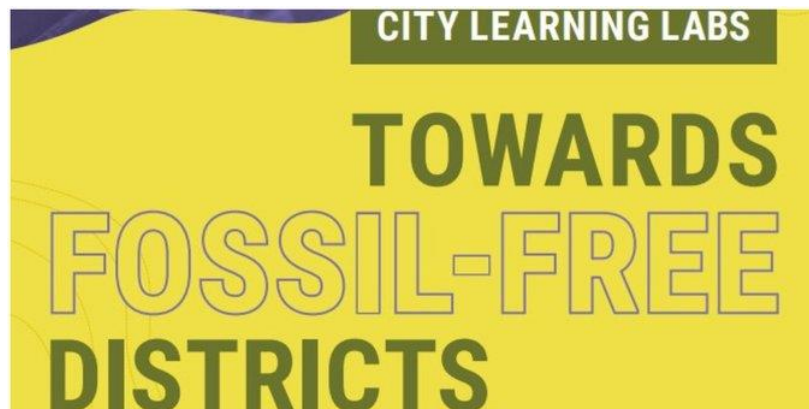
- “Learning Labs” with cities. 3 regional groups for 3 labs during the year :

North-West Europe: Annecy (France), Communauté d’agglomération de Pau Béarn Pyrénées (France), Charleroi (Belgium), Liège (Belgium)

Eastern Europe: Niš (Serbia), Lodz (Poland), Kartuzy (Poland)

Mediterranean: Karlovac (Croatia), Varazdin (Croatia), San Lucido (Italy)

- ✓ With local stakeholders
- ✓ First session on : 1. Getting to know each other 2. Sharing knowledge about EU and National legislations 3. Interactive, hands-on work on identifying barriers and levers
- ✓ Already high quality discussion and exchanges of good practices



« Fossil free districts » Project

Policy activities:

- Launch the Cities Manifesto for Fossil-Free Heating and Cooling. Signed by almost 30 cities of all size with key asks such as :
 - ✓ Measures to empower cities in the energy transition
 - ✓ Local heat planning for cities (in the spirit of the Baden Württemberg program, providing financial and technical support for cities, access to data, inclusion of citizens in the whole process).
 - ✓ Create the right incentives for utilisation of waste heat
- Upcoming Policy Papers:
 - ✓ A mythbuster on fossil gas and renewable heating technologies
 - ✓ Policy Paper for Fossil-free districts and cities: why fossil fuels in buildings will be history by 2050
- Capacity building webinars
 - ✓ Helsinki Energy Challenge on 10th and 23rd June, in cooperation with the Covenant of Mayors Initiative
 - ✓ One to come in Fall



Cities Manifesto for Fossil-Free Heating and Cooling
What cities need from the EU & Member States to implement the Green Deal and accelerate the heating and cooling transition

Decarb City Pipes 2050

- Horizon 2020 Project, 7 leading cities (Bilbao, Bratislava, Dublin, Munich, Rotterdam, Vienna and Winterthur)
- Define Pathways for cities, by Cities towards a decarbonised heating and cooling sector

Technique

What is possible? And needed?

Financial

What are the total costs of the scenarios?

Scenario	Estimated Cost (€)
1. Heating	~800
2. Isolate etc.	~1000
3. Isolate & oil-electric...	~1400
4. Isolate & steel geobed...	~1000
5. Isolate & all-electric...	~1600

Social

What do people think? What do people want?

Changing Citizen Behaviors
Education • Marketing • Law

16% Show Me
68% Help Me
16% Make Me

Opportunity

How to make transition easier and add value?

Credit: Rotterdam

Decarb City Pipes 2050

- Monthly Capacity buildings events focusing on :
 - ✓ How to facilitate the connection of buildings with multi-owners or renters to DHC? Example of Frankfurt
 - ✓ Which role for green gases in decarbonised cities?, with Lisa Fischer from E3G
 - ✓ Energy modelling in cities, examples from Dublin and Munich
 - ✓ How to replace individual gas boilers in multi-family buildings? Studies from Vienna and Heerlen (NL)
- Upcoming event: 25th June 10.00 -12.00 CEST. How to build spatial scenarios for transition towards fossil-fuel alternatives? Example from Rotterdam and Winterthur

Other exchanges between cities on energy outlook, data management, demo districts, governance issues.

- Website: <https://decarbcitypipes2050.eu/>

Key issues cities are facing and their answers

- **#1 Ensure a just and citizen-led transition**
 - ✓ Involving citizens in drafting heat strategies
 - Netherlands
 - Less common in other countries yet (France, Germany...)
 - ✓ Supporting citizen and renewable energy communities
 - Ostende and Eeklo in Belgium
 - ✓ Involving citizens in DHC company governance
 - City of Nis (Serbia)
- **#2 Development of one-stop-shops for advice, support, and financial incentives**
 - Feedback from Frankfurt and Annecy regarding retrofitting of condominiums
 - Support to switch from gas stove to electric cooker (Rotterdam, Amsterdam)
 - Providing financial incentives for energy efficiency AND switch to renewable-based technologies (Ghent, Lyon, Winterthur)

Key issues cities are facing and their answers

How to get to the required scale?

Question of scale:

- How to raise awareness of citizens? "Why us in the NL and not the other countries?"
- How to support thousands of homeowners? 750 vs. +30 000 flats/homes in Pau.
- How much does it cost, which technologies, how many city staff needed?

Condominiums as an example of difficulties:

- Difficult legal framework
- Lack of awareness from owners
- Time-consuming for decisions (costly)
- Individual gas boilers costly to replace



National support and legislation:

- Change of national legislation
- Ban and standards
- Financial support for planning and supporting citizens (Baden-Württemberg)
- Guidelines on technologies

Municipal staff needed for decarbonisation of buildings in the Netherlands

Hypothesis: one district is about 650-950 buildings

Drafting a district plan: 2 years

Implementing a district plan: 6 years

Neighbourhood actions	Action 2.1	Drafting neighbourhood implementation plans
	Action 2.2	Implement neighbourhood implementation plans and guide residents
City-wide actions	Action 2.3	Collaborate with housing corporations and owners associations
	Action 2.4	Implementing permits, supervision and enforcement
	Action 2.5	Provide municipality-wide communication (including energy one-stop-shop)
	Action 2.6	Making own real estate more sustainable (public buildings)
	Action 2.7	Making social real estate more sustainable
	Action 2.8	Making other non-residential construction more sustainable
	Action 2.9	Monitoring and recalibration of heat vision

	Average number of inhabitants	Criteria
4 biggest cities	600 000	4 biggest
Big cities	126 000	40 biggest
Middle-sized	54 000	Above 40 000 inhabitants
Small cities	22 900	Below 40 000 inhabitants

Source: *Implementation costs of the Climate Agreement for local governments in 2022 – 2030*, Andersson Elffers Felix (in Dutch)

Municipal staff needed for decarbonisation of buildings in the Netherlands

FTE/year	2022		2024		2026		2030	
	Min	Max	Min	Max	Min	Max	Min	Max
4 Biggest cities	31,8	47,7	45,0	72,0	58,4	96,7	73,9	125,1
Big cities	11,6	17,2	15,0	23,6	18,7	30,5	24,5	41,8
Middle-sized cities	5,9	7,3	8,0	11,4	10,2	15,9	15,1	25,1
Small cities	2,7	4,0	3,5	5,5	4,4	7,1	6,0	10,1

FTE in 2026 per action	4 Biggest cities		Big cities		Middle-sized cities		Small cities	
	Min	Max	Min	Max	Min	Max	Min	Max
Action 2.1	4,7	9,4	1,3	2,7	0,7	1,5	0,2	0,6
Action 2.2	33,0	60,8	8,6	16,1	5,3	10,1	2,0	3,8
Action 2.3	4,7	7,0	1,4	2,1	0,6	0,9	0,3	0,4
Action 2.5	7,9	9,6	3,8	4,6	1,8	1,2	0,9	1,1
Action 2.6	2,5	2,5	0,8	1,3	0,5	0,5	0,1	0,2
Action 2.7	3,6	4,9	1,1	1,5	0,5	0,7	0,3	0,5
Action 2.8	1,0	1,0	0,8	0,8	0,5	0,5	0,3	0,3
Action 2.9	1,0	1,5	1,0	1,5	0,3	0,5	0,3	0,3
Total	58,4	96,7	18,7	30,5	10,2	15,9	4,4	7,1

Source: *Implementation costs of the Climate Agreement for local governments in 2022 – 2030*, Andersson Elffers Felix (in Dutch)

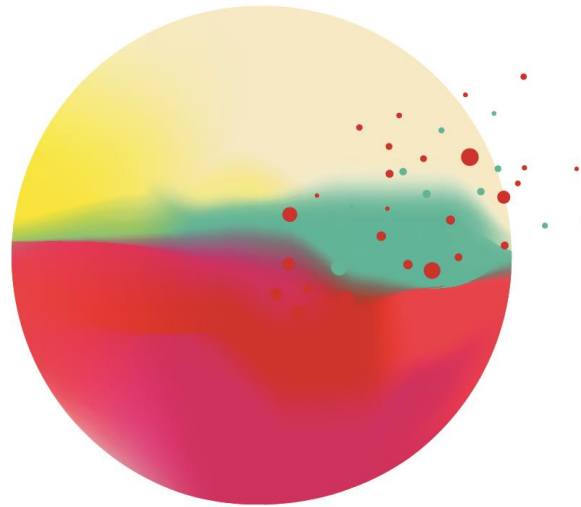
Key issues cities are facing and their answers

- **#3 Adopt district-oriented and zoning approach**
 - ✓ Mapping of local and renewable resources and development of transition scenarios
 - ✓ Holistic approach including socio-economic aspects, mobility
 - Dijon
- ✓ New jobs in city administration (Hotmaps)
- ✓ Lack of financing for DHC and clean technologies, especially in Eastern countries (Varazdin, Lodz), but not only (Liège)
- **#4 Settle some ambitious building rules for future-proof building**
 - Climate protection areas in Vienna
 - CO₂-law in Switzerland (to come)
 - Compulsory connection to DHC (FR)

Key issues cities are facing and their answers



- #5 Develop data platform and policy
- ✓ Foster open-knowledge policy to engage stakeholders and citizens
- ✓ Get data for scenario buildings
 - Frankfurt
 - London Heat map
 - Shallow Geothermal Potential in Vienna (individual vs. collective)
-
- ✓ National legislations
 - Poland
 - Netherlands and France



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