

NET ZERO CITIES



EU MISSION PLATFORM

CLIMATE NEUTRAL AND SMART CITIES



Funded by
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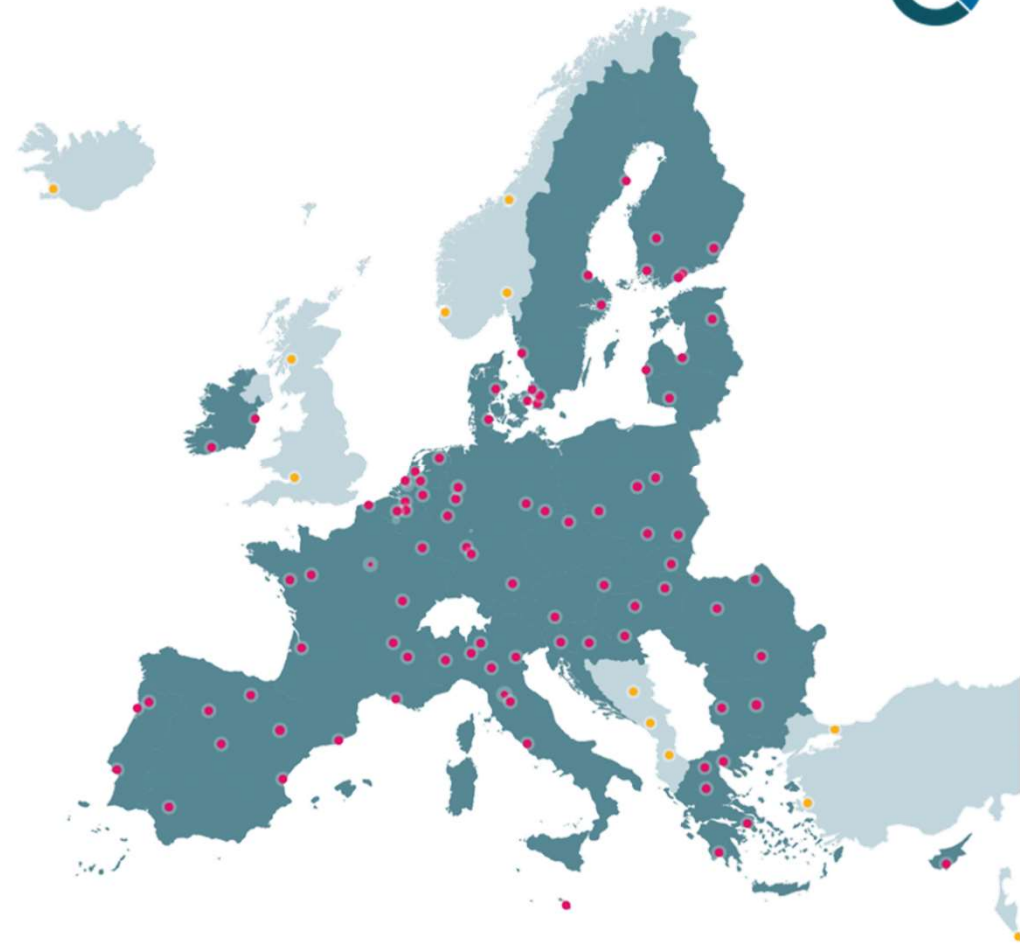
Aim: “Climate Neutral and Smart Cities by 2030”

The EU has launched a Mission [“100 Climate-Neutral and Smart Cities by 2030”](#).

The objectives of the Mission are

- to achieve **112 climate-neutral and smart European cities by 2030.**
- to ensure that these cities act as experimentation and innovation hubs to **enable all European cities to follow suit by 2050.**

NetZeroCities, coordinated by **Climate-KIC**, currently manages the Platform to support the Mission.



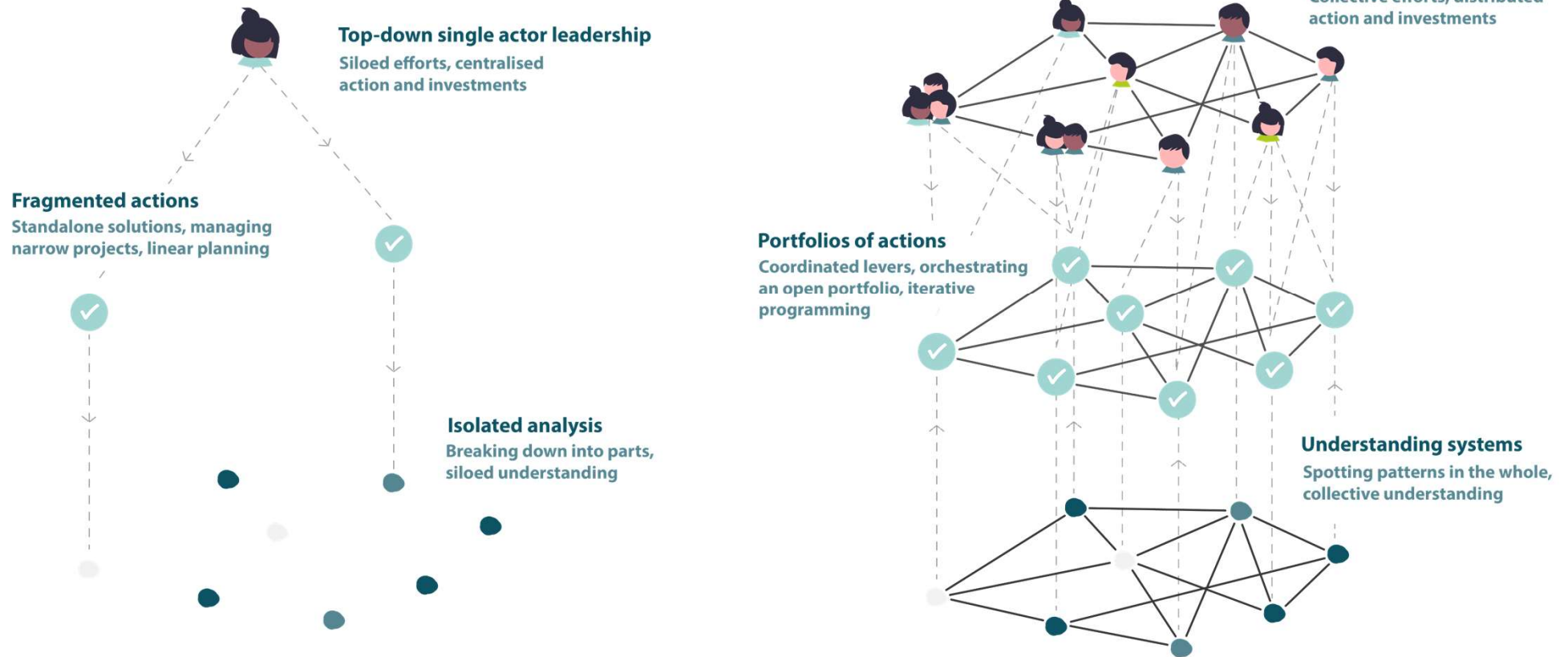
**100 EU cities & 12 cities from
Horizon Europe Associated Countries**



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Systemic, multi-level, multi-actor





City Support



NetZeroCities has received funding from the H2020 Research and Innovation Programme under grant agreement n°101036519.



Climate City Contract: A Roadmap to Climate Neutrality

A multi-level government collaboration tool to help cities collaboratively address barriers to accelerate transformative action.

The Climate City Contract (CCC) has three interlinked components:

- **Commitments**
- **Action Plan**
- **Investment Plan**

Lays out action and investment pathways to climate-neutrality 2030



Cities Mission Climate City Contract





53 Cities Awarded the EU Mission Label



EU MISSION LABEL CLIMATE-NEUTRAL & SMART CITIES

1st batch of awarded cities (October 2023): Sønderborg (Denmark), Mannheim (Germany), Madrid, Valencia, Valladolid, Vitoria-Gasteiz and Zaragoza (Spain), Klagenfurt (Austria), Cluj-Napoca (Romania) and Stockholm (Sweden).

2nd batch of awarded cities (March 2024): Ioannina, Kalamata, Kozani, Thessaloniki (Greece), Heidelberg (Germany), Leuven (Belgium), Espoo, Lahti, Lappeenranta, Tampere, Turku (Finland), Barcelona, Seville (Spain), Pecs (Hungary), Malmö (Sweden), Guimaraes, Lisbon (Portugal), Florence, Parma (Italy), Marseille, Lyon (France), Limassol (Cyprus) and Izmir (Türkiye).

3rd batch of awarded cities (October 2024): Aachen, Münster (Germany), Trikala (Greece), Miskolc (Hungary), Eilat (Israel), Bologna, Bergamo, Milan, Prato, Turin (Italy), Liepāja (Latvia), The Hague (the Netherlands), Porto (Portugal), Bucharest 2nd District, Suceava (Romania), Ljubljana, Kranj (Slovenia), Gothenburg, Gävle, Umeå (Sweden).





The analysis of the CCCs in underway..



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..JRC feedback on the mobility pathways of the 33 Mission Labelled cities



Common areas for improvement:

- **Holistic approach and inclusion of certain measures:** cities demonstrate awareness of stakeholder collaboration, emphasizing private, public, and academic involvement.
- **BUT gaps remain in addressing reduction of the car traffic, Low Emission Zones, Urban Vehicle Access Regulations and digital integrations.**
- Emphasis on electrification is common but optimizing and **shifting demand through sustainable modes (e.g. active mobility) and logistics improvements are often overlooked.**
- **Lack of detail**





...JRC feedback on the mobility pathways of the 33 Mission Labelled cities

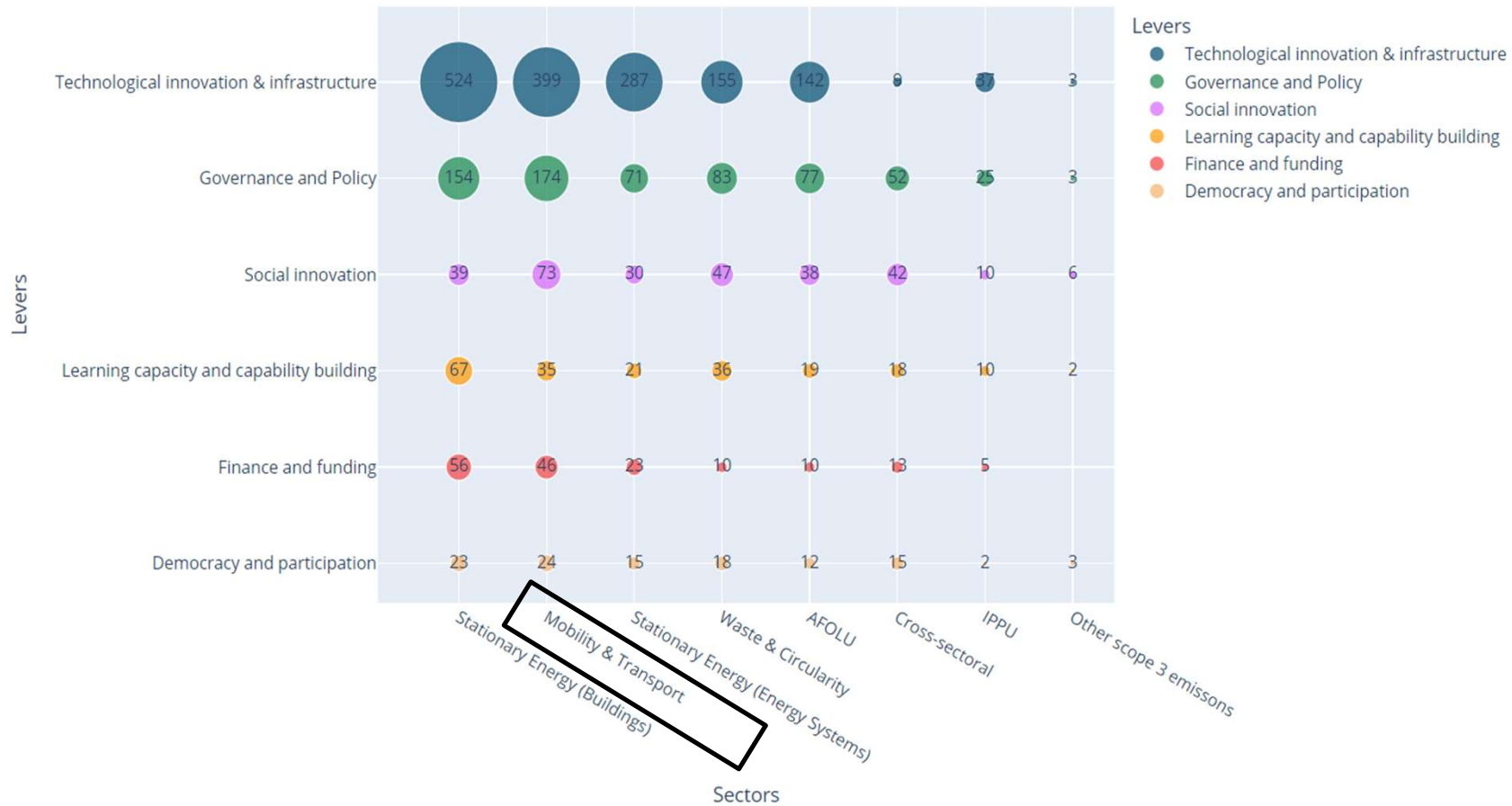
- Include **specific measures addressing the reduction of the need for motorized transport**, for modal shift and for shared transport;
- Assess **impacts beyond CO2 emissions** on changes in mobility
- Address emissions from **private cars, urban freight, airports**.
- Incorporate **innovative measures** (e.g., waterborne transport, cable car)
- Explore the **digitalization potential** and leveraging new data sources to enhance their transport planning.





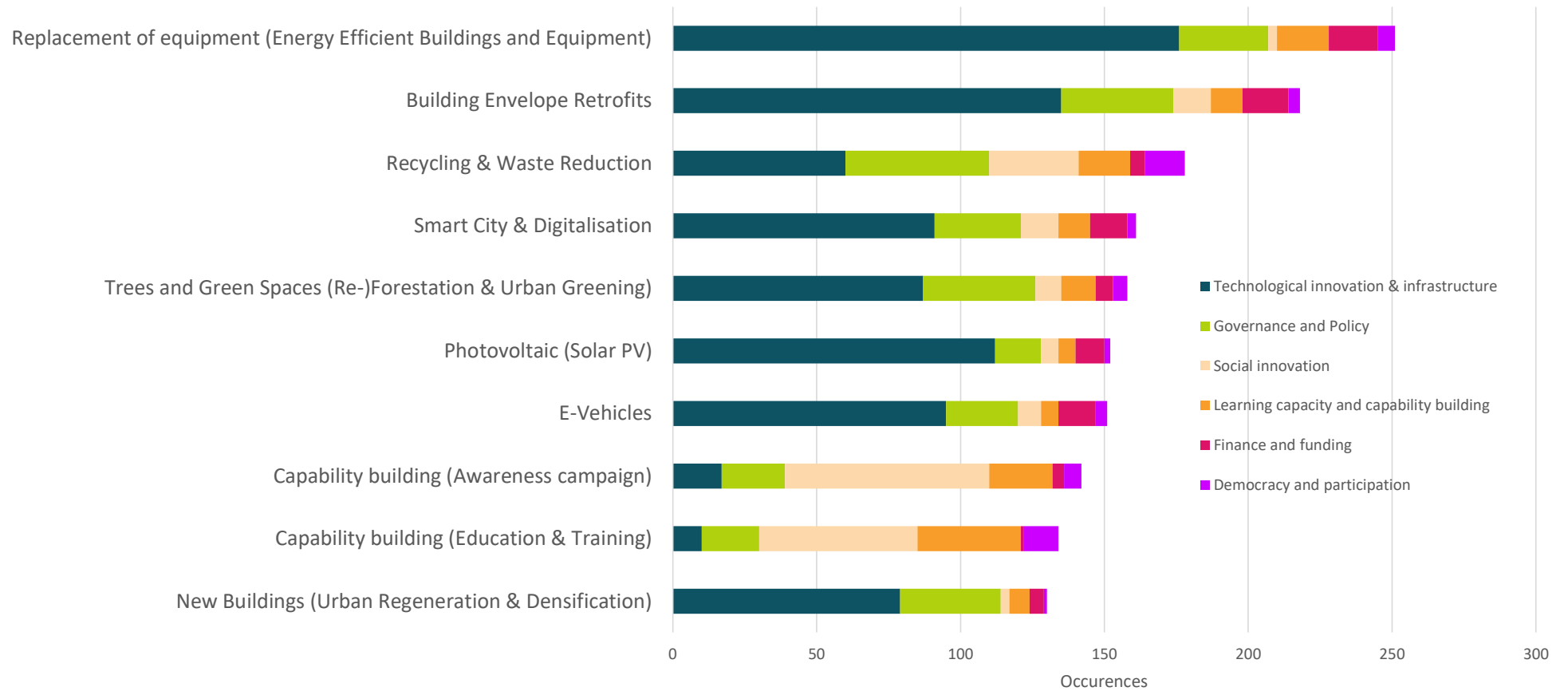
...NZC analysis of 53 action portfolios

Overall portfolio tends to focus on T&I and stationary energy





..most frequently cited actions





What we know about mission cities' Investment Plans (IPs) and our post-submission support



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Stakeholders are change-makers

90%+ of investments required to get to net-zero would need to go into assets not owned by the cities themselves, but **by citizens and businesses in the city.**

- **Commitments from business** and support to decarbonize is essential in cities with industries.
- Cities will need to **leverage city, regional, national and EU funding and policy to promote the behavior change** necessary to get citizens and businesses to make these large investments on assets the city does not control.
- On average, almost **half of all investment required to decarbonize will be on assets controlled by citizens.** How much of this cost ultimately falls on citizens depends on government policy and subsidies at the city, regional, national and EU level.
- **Individual vs collective solutions** (transport, heating, retrofit...): the strategic choices that cities make can hugely impact both cost and co-benefits. Large infrastructure may have a bigger decarbonization payoff.





Stakeholders are change makers and there are plenty of co-benefits across beneficiaries

Distribution of co-benefits across beneficiaries

	Economic growth			Health				Inclusivity		
	Employment	Time savings	Property value	Air quality	Noise	Road safety	Physical health	Well-being	Equality	Community assets
Citizens		✓		✓	✓	✓	✓	✓	✓	✓
Businesses			✓							
Cities	✓	✓	✓	✓	✓			✓		✓
Healthcare providers				✓	✓	✓	✓	✓		
Transport operators		✓	✓							
Utilities										

Investments and recurring costs / savings are distributed across all beneficiaries

Typically, 90+% of investment required will not be under the control of the city, and will need to be made by citizens and businesses. In addition, benefits do not always accrue to the group making the investment.



NetZeroPlanner for cost-benefit analysis

Why NetZeroPlanner?

Unlike other tools, NetZeroPlanner requires no emissions data to calculate and evaluate your city's sustainability investments, costs, and benefits.

Our advanced algorithm delivers insights and visibility to support informed decisions, aligning financial resources with climate goals.

- Roadmaps for achieving decarbonization by 2030.
- Calculate CAPEX and OPEX to evaluate the cost-effectiveness of climate actions.
- Monitor city progress against defined emission targets.
- Analyze and optimize climate strategies using real-time data and performance metrics.

Kausal 2024

The screenshot displays the NetZeroPlanner web interface. A modal window titled 'Create new plan' is open, showing a form for 'Sunnydale Action Plan (2022)'. The form includes the following fields:

- 'What's your city's population? *': 432,000
- 'Is your city warm or cold? *': Warm (Above 12°C yearly average)
- 'What's the percentage of renewable plus nuclear energy in your electricity mix? *': High (50-100% renewable & nuclear)

At the bottom of the modal, there are 'Previous' and 'Add plan' buttons. The background shows a dashboard for Sunnydale with a 'Data completion score: 5/7' and a 'Data collection (2019)' section.



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Capital Hub facilitating investments into climate-neutrality

THE AIM OF THE CAPITAL HUB IS TO PROVIDE A PLATFORM TO:



- 🎯 Support cities through the **project preparation process** to ensure projects are investment ready.
- 🎯 Help cities **identify and access the technical assistance** required for project development using both in-house expertise and connections to existing technical assistance programmes.
- 🎯 Provide **financial assistance and structuring** for funding projects and pools of projects.
- 🎯 Provide **access to a range of capital providers (including lenders and investors)** from both the public and private sector and support the process to deal closure.





Pilot Cities Programme: Showcasing the systemic approach



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Pilot Cities

- Cohort 1 (2022)
- Cohort 2 (2023)
- Cohort 3 (2024)

EU COUNTRIES

AUSTRIA

- Klagenfurt (CF4Cities)

BELGIUM

- Leuven
- Antwerp
- Brussels

BULGARIA

- Gabrovo

CROATIA

- Zagreb

CYPRUS

- Limassol

CZECH REPUBLIC

- Liberec

DENMARK

- Aarhus
- Copenhagen
- Sonderborg

FINLAND

- Lahti
- Turku
- Lappeenranta
- Espoo
- Helsinki
- Tampere

FRANCE

- Dijon
- Nantes
- Lyon
- Marseille
- Angers Loire Métropole
- Bordeaux Métropole
- Communauté Urbaine de Dunkerque
- City of Paris

GERMANY

- Aachen (CoLAB)
- Mannheim (CoLAB)
- Muenster (CoLAB)
- Munich (Climate City Dash 2.0)
- Dortmund (Climate City Dash 2.0)
- Heidelberg (Climate City Dash 2.0)
- Leipzig (EnAct4CleanCities)
- Dresden (EnAct4CleanCities)

ASSOCIATED HE COUNTRIES

ALBANIA

- Elbasan

ICELAND

- Reykjavik

ISRAEL

- Eilat

NORWAY

- Drammen
- Oslo
- Trondheim

TURKEY

- Istanbul
- Izmir

UKRAINE

- Rivne

UNITED KINGDOM

- Bristol

GREECE

- Kozani
- Ioannina
- Athens
- Kalamata
- Thessaloniki
- Trikala

HUNGARY

- Budapest
- Pécs (MODENT)
- Miskolc (MODENT)

IRELAND

- Galway
- Dublin (BUILD CAPA-CITIES)
- Cork (BUILD CAPA-CITIES)

ITALY

- Bergamo (Let'sGOv)
- Bologna (Let'sGOv)
- Florence (Let'sGOv)
- Milan (Let'sGOv)
- Padua (Let'sGOv)
- Parma (Let'sGOv)
- Prato (Let'sGOv)
- Rome (Let'sGOv)
- Turin (Let'sGOv)

LATVIA

- Riga

LITHUANIA

- Vilnius (CF4Cities)

MALTA

- Gozo (CF4Cities)

NETHERLANDS

- Amsterdam (Dutch 100CNSC Cities)
- Eindhoven (Dutch 100CNSC Cities)
- Groningen (Dutch 100CNSC Cities)
- Helmond (Dutch 100CNSC Cities)
- Rotterdam (Dutch 100CNSC Cities)
- The Hague (Dutch 100CNSC Cities)
- Utrecht (Dutch 100CNSC Cities)

POLAND

- Krakow (NEEST)
- Łódź (NEEST)
- Rzeszów (NEEST)
- Warsaw (NEEST)
- Wrocław (NEEST)

PORTUGAL

- Guimarães
- Porto
- Lisbon

ROMANIA

- Cluj-Napoca
- Bucharest

SLOVAKIA

- Bratislava (Building Power)
- Košice (Building Power)

SLOVENIA

- Kranj (UP-SCALE-Urban Pioneers)
- Ljubljana (UP-SCALE-Urban Pioneers)
- Velenje (UP-SCALE-Urban Pioneers)

SPAIN

- Barcelona (URBANEW)
- Madrid (URBANEW)
- Seville (URBANEW)
- Valencia (URBANEW)
- Valladolid (URBANEW)
- Vitoria-Gasteiz (URBANEW)
- Zaragoza (URBANEW)

SWEDEN

- Malmö
- Umeå
- Uppsala
- Gävle
- Helsingborg
- Lund
- Stockholm
- Gothenburg
- Tampere



EU MEMBER STATES

ASSOCIATED HORIZON EUROPE COUNTRIES

* This designation is without prejudice to positions on status, and is in line with UN/ECOFIN 1744/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Pilot Cities, Cohort 1 (2022)	Pilot Cities, Cohort 2 (2023)	Pilot Cities, Cohort 3 (2024)
Name of Pilot City projects are indicated for Multi-City Pilot activities		





Policy innovation work in Finnish Mission Cities



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The 'why' of Mission-Driven Policy Innovation



Policy: an overtalked and underutilised lever

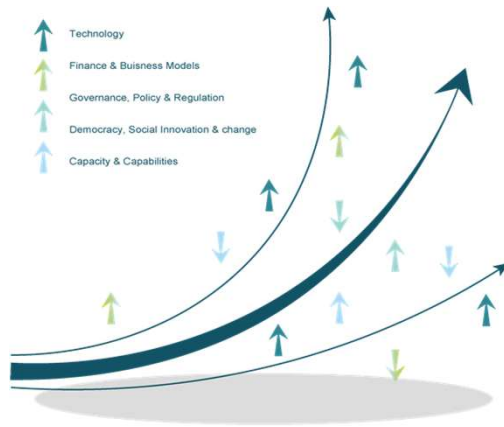
We know governance, policy and regulation is a key lever of change. To date, it has **not been strongly present in Climate City Contracts & Cities Mission work**, although many cities mention it.

Mission-Driven Policy Innovation provides cities with a way to work with regional and national authorities to **(re)orient their policy and regulatory systems** to overcome challenges they face **in achieving their city missions**.





Finnish Cities journey so far



Problem space exploration

Online working session
11th November, 2024.

Mission-coordinators and city transport officers worked together on an initial systemic analysis of three problem spaces cities shared in common when it comes to **decarbonising transport & mobility systems**.

The problem spaces were chosen because they 1) are **holding cities back** in their missions, and 2) they could **benefit from a focus on policy & regulatory innovation**. They are:

- **Problem space #1:** Citizens' mobility behaviours / car-dependent culture
- **Problem space #2:** Heavy traffic & logistics
- **Problem space #3:** Contested urban space



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Finnish Cities Mission-Driven Policy Innovation: seuraavat askeleet



We are bringing together a range of city and national stakeholders working on **Transport & Mobility Systems** to:

1. Build a shared and **deep understanding of key problem spaces** holding Finnish Cities back in their missions; concentrating on what is in their sphere of influence
2. Discover **coordinated actions and strategies** to drive faster progress.
3. Lay the foundations for a **bespoke Mission-Driven Policy Innovation support package** that enables Finnish Cities and their national and local stakeholders to explore new policy & regulatory regimes in support of those leverage points / coordinated actions.





Join The NetZeroCities Portal



NetZeroCities.app



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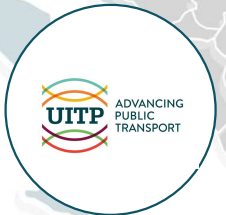
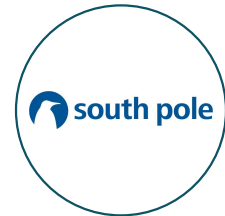
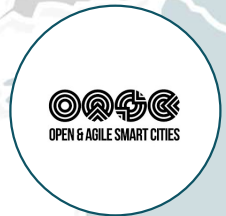


Kiitos!

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