NET ZERO CITIES

EU MISSION PLATFORM | CLIMATE NEUTRAL AND SMART CITIES

Twinning Replication Booklet

Overview of Replication Plans
submitted by Twin cities (Cohort 1, 2023–2025)

PART OF THE
EU MISSIONS
CLIMATE-NEUTRAL & SMART CITIES

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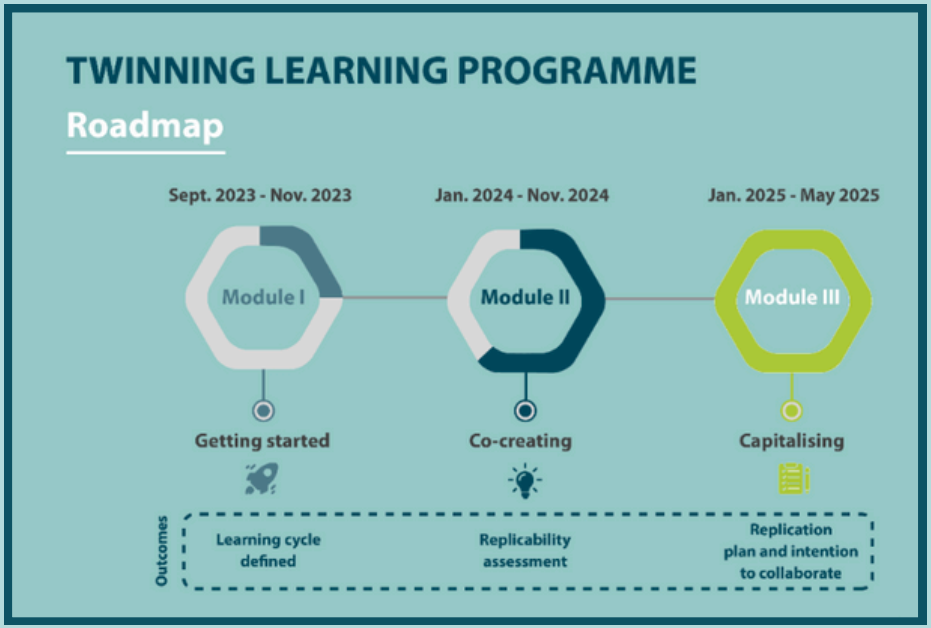
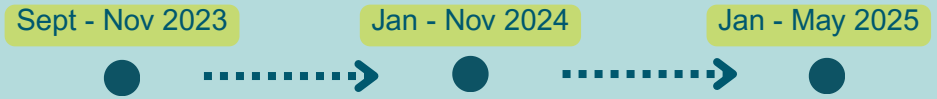
Executive Summary

The first cohort of the Twinning Learning Programme (Sept 2023 – May 2025) paired 56 Pilot Cities implementing 25 innovative climate-neutral activities with 37 Twin cities eager to replicate their approaches. Over nearly two years, cities engaged in a structured programme of online workshops, in-person visits, and facilitated exchanges, enabling Twin cities to closely follow pilot implementation and translate insights into Replication Plans tailored to their own contexts.

The programme demonstrated that well-designed peer learning, anchored in real pilot projects, creates tangible outcomes. Twin cities developed Replication Plans across diverse areas such as sustainable mobility, energy decarbonisation, circular economy, and citizen engagement, while also contributing fresh perspectives that strengthened Pilot city efforts. **The result is Europe's largest peer-learning initiative under the Cities Mission, with 37 Replication Plans now paving the way toward climate neutrality across a broad range of local contexts.**



Roadmap of the Twinning Learning Programme (Cohort I)



Introduction

The EU Mission for Climate-Neutral and Smart Cities (Cities Mission) aims to support 112 cities in becoming climate-neutral by 2030, and to allow all European cities to follow suit by 2050. The Mission ambition is not only to empower the selected Mission Cities but also to ensure that tested solutions and innovative practices can be transferred to a wider group of municipalities.

In this context, the Mission Platform launched the **first cohort of the Twinning Learning Programme** in September 2023. This pioneering initiative was designed to connect **Pilot cities**, implementing innovative climate actions with support from the European Commission, with **Twin cities**, eager to learn from and adapt these practices in their own local contexts. The programme offered more than observation; it created a structured, facilitated environment where cities could engage directly in the learning journey, benefit from peer exchange, and co-develop replication opportunities.

Programme design and approach

The Twinning Learning Programme was designed as a **20-month journey**. Cities advanced through a structured roadmap composed of three modules:

1. Foundation (Module I): establishing partnerships, defining learning objectives, and mapping replication interests.
2. Exchange and Co-Creation (Module II): online workshops and site visits allowed cities to follow pilot implementation step by step, while discussing challenges and solutions in depth.
3. Replication Planning (Module III): Twin Cities synthesised their learnings into concrete **Replication Plans**, outlining how they intend to apply selected practices in their local context.

To maximise learning, the programme paired Pilot and Twin cities in two formats:

- **Individual pairings**: one Pilot city with one or two Twins.
- **Multi-city collaborations**: groups of Pilot cities working jointly on a pilot, paired with Twin cities facing similar challenges.

This design ensured flexibility, tailored learning experiences, and opportunities for cities of different sizes, capacities, and contexts to collaborate meaningfully.

Scale and Participation

The first cohort brought together **56 Pilot cities and 37 Twin cities across Europe and Horizon Associated Countries**, engaging in **25 pilot activities**. These activities covered a wide spectrum of climate actions from energy system decarbonisation, sustainable mobility, and nature-based solutions to circular economy practices, industrial greening, and systemic innovations in governance, citizen engagement, and financing models.

By embedding replication opportunities into the real-time implementation of pilot projects, the programme enabled Twin cities to learn in a highly practical, applied way. Importantly, the programme fostered **two-way learning**: while Twin cities gained reflected on approaches to adapt locally, Pilot cities also benefited from the fresh perspectives, reflections, and good practices shared by their peers.

From Learning to Replication

The culmination of this process is presented in this booklet: **Replication Plans from 37 Twin cities**, developed through sustained exchanges, workshops, and site visits over the course of the programme. Each plan describes the local context, the practices chosen for replication, the resources required, and the next steps toward implementation.

Together, these plans demonstrate the effectiveness of a structured peer-learning approach that is grounded in real projects, real challenges, and real solutions. They also show that **differences in city size, geography, or socio-economic profile do not hinder collaboration** when municipalities share the common goal of advancing towards climate neutrality.

Scaling Impact

The first cohort of the Twinning Learning Programme has proven to be a powerful tool for scaling impact across Europe. By pairing cities around concrete pilot projects, it has fostered meaningful, two-way exchanges and delivered tangible outputs in the form of Replication Plans. This experience underscores the Cities Mission's ability to extend its benefits beyond the initial group of Mission Cities, supporting a much broader ecosystem of municipalities on their path to climate neutrality by 2050.

Replication plans

Genoa

Italy

The Municipality of Genoa pursues the goal of improving the liveability of the city by implementing an extensive investment program in sustainable development and energy efficiency, as key factors in raising the quality of life and promoting urban regeneration, utilising examples of urban planning tools.

*Paired with **Italian Multi-City Pilot Activity** (Let's Gov) implementing Net Zero Investment Co-Innovation Lab, and Issy-les-Moulineaux (Twin city)*

The learnings from the Twinning complement two ongoing projects in Genoa, which will create Self-Consumption Configurations for Renewable Energy Sharing, specifically Remote Individual Self-Consumption. **EnerCMed** (an Interreg project aimed at growing renewable energy communities in marginalised communities) and **SolarShadow** (a Public-Private Partnership focused on deploying photovoltaic (PV) systems on shelters in parking areas and creating individual, remote self-consumption systems of renewable energy) allow testing the pilot.

Replication Practice

Renewable Energy Communities and Self-Consumption Configurations for Renewable Energy Sharing

Genoa selected Renewable Energy Communities to replicate, as the city is committed to energy efficiency, sustainable development, and transitioning to smart communities through the Sustainable Energy and Climate Action Plan (SECAP). This promotes the regeneration of urban territories, and with the Action Plan Genova 2050, which was developed to enhance local awareness. Genoa's local policies align with the Cities Mission Climate City Contract and support the EU 2030 neutrality targets. Early attempts to establish public-private energy communities were jeopardised by a lack of governance models and a final set of norms.

Scope

- Self-Consumption Configuration for Renewable Energy Sharing (CACER), in particular Individual Self-Consumption (ISC)*.
- Tackle energy poverty and improve social cohesion.
- Proximity of energy production and consumption sites.

Link to existing municipal policy

- SECAP and to Action Plan Genova 2050, other projects such as ReMED or CLIMACTIONS. Genoa's local policies align with the Cities Mission Climate City Contract and support the EU 2030 neutrality targets.
- The **Green Plan** has recently been approved, providing a policy tool to manage and optimise green areas in urban areas.

*A self-consumption configuration for renewable energy sharing (CACER) is a group of users who promote renewable production and local consumption through distributed self-consumption on the existing grid. In ISC, a single customer has one or more production units, with production and consumption located in the same market area.

Next steps

February 2026

Activation of ISC configuration within the EneCMed project framework, by the municipality and the Energy Services Manager.

November 2026

Activation of ISC Configuration within SolarShadow project by the municipality and the Energy Services Manager.

Resources

Financial means

- The plan is not fully funded due to regulatory barriers at the national level. Such as it is not possible to include photovoltaic systems built on new buildings in the RECs.
- Possible solutions include the use of tools such as Public-Private Partnership (PPP) or the Energy Performance Contract (EPC).

Stakeholders

- The city has relevant technical expertise in-house to implement the construction and commissioning of photovoltaic systems. In the case of PPP/EPC a financial expertise is required to assess the sustainability of financial plans, including the calculation of the Public Sector Comparator, a numerical tool to verify whether the choice of the administration to carry out a work through a public-private partnership contract determines, compared to an entirely public alternative, the Value of Money, namely the margin of convenience compared to a traditional procurement.
- The legal/administrative aspects of running a REC are also critical; a legal advisor will identify the legal form of the REC and will deal with the drafting of the articles of association, the statute and the internal regulations.
- It is fundamental to involve the users of the building where the photovoltaic plant will be placed, for example, if the PV panels are located on the roof of a school, it is necessary to engage the headmaster and school board members. Associations (consumers, condominium administrators, environmental) and local Businesses are useful for the co-creation of the configuration, sharing information and helping the development of the infrastructure, representing possible community members.
- GSE (Manager of Energy Services) will be involved in consultation, both from a technical and administrative point of view.

Enabling municipal policy framework for replication

Issy-les-Moulineaux

France

*Paired with **Italian Multi-City Pilot Activity** (Let's Gov) implementing Net Zero Investment Co-Innovation Lab, and Genoa (Twin city)*

The city has adopted a climate budget with annual objectives to become climate neutral by 2050. Issy-les-Moulineaux decided to replicate the common data management practice from Bologna, as this is one of the key points for the climate budget of the city, as it is surrounded by other cities that also have to make some efforts.

Replication Practice

Common data management platform for eight cities in Grand Paris Seine Ouest (GPSO)

The common data management is about developing new ways to work around data and to involve other cities located around Issy-les-Moulineaux.

Data is measured in four categories: transport, office buildings, private buildings including social housing, and waste management.

Scope

- Work with the other seven municipalities from Grand Paris Seine Ouest.
- Use of common data management to map the most important climate sectors to be tackled.

Link to existing municipal policy

A climate budget to take yearly actions to support political decision-making process to achieve the climate goals of reducing GHG emissions in the city.

Resources

Financial means

- Considering participating in various European and national projects.

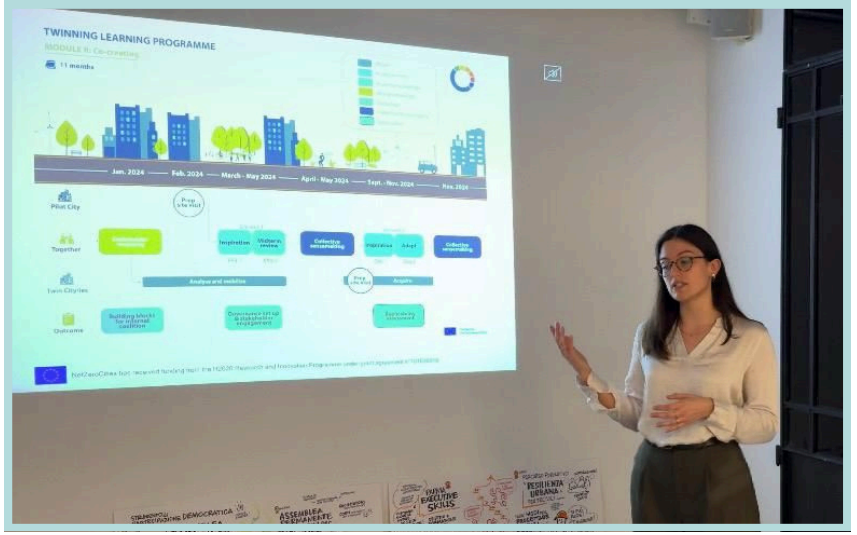
Stakeholders

- Project managers will be appointed internally between the different departments of the city that will be involved in the replication process. At least 4 people will be in charge of the replication process, but it should not take too much of their time. It should be someone from the IT department, another from the sustainable city department, one from Issy media that is in charge of innovation for the city and a member of Grand Paris Seine Ouest.
- Technical experts will also be needed, in particular for the treatment of data for the common data management between the 8 different cities. These experts can come from different backgrounds, internally or externally to the various municipalities depending on their needs.

- Internal
  - Relevant departments and political leaders from each of the seven municipalities from Grand Paris Seine Ouest

- External
  - Citizens
  - Local businesses

Enabling municipal policy framework for replication



Next step

Develop a new platform between the eight cities composing GPSO

2026

Tallinn

Estonia

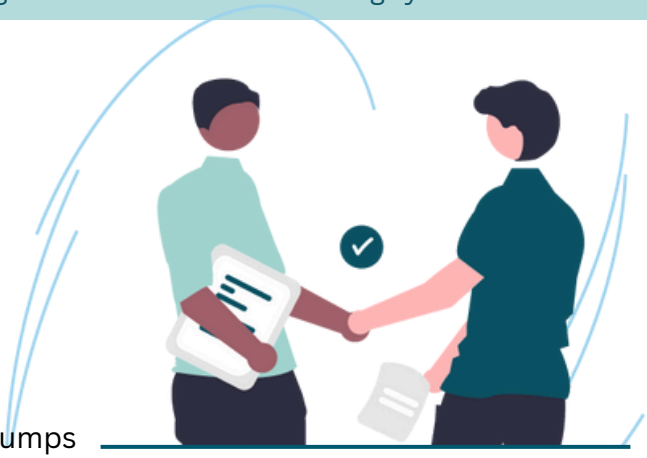
*Paired with **Dutch Multi-City Pilot Activity**, implementing Dutch 100CNSC cities pilot.*

Tallinn has set targets for both climate change mitigation and adaptation, aiming for climate neutrality by 2050. The city plans to replace natural gas with renewable, non-fossil energy sources and reduce greenhouse gas emissions across the building, transport, and energy sectors.

Tallinn identified similarities with Groningen, which also plans to replace gas-based energy with clean sources such as solar thermal, heat pumps, and server waste heat, while renovating buildings for greater energy efficiency. Over 70% of buildings in Tallinn are connected to efficient district heating. The remaining 20% of fossil-based fuels aims to be replaced with energy from wastewater- and seawater-based heat pumps integrated into the district heating system.

Replication Practice

Involving apartment owners in the renovation process to increase energy efficiency



Based on Groningen's model, Tallinn aims to raise awareness among apartment owners, develop a support programme, secure majority approval from owners' associations to renovate their buildings, and implement the renovation projects. Supporting measures for homeowners focus on improving energy efficiency in Tallinn's apartment buildings by:

1. Connecting 200 houses to efficient district heating.
2. Facilitating the design of comprehensive energy-efficient renovations for 500 houses.
3. Replacing gas heating with heat pumps in 300 houses outside district heating areas.

Scope

- Built environment
- District heating and heat pumps
- One-Stop-Shops

Link to existing municipal policy

- 'Climate-neutral Tallinn. Tallinn Sustainable Energy and Climate Action Plan 2030', a cross-sectoral development document outlining Tallinn 2035's strategic goal of achieving climate neutrality by 2050, in line with Cities Mission goals.

Next step — Supporting replacement of gas heating — From March 2025

Resources

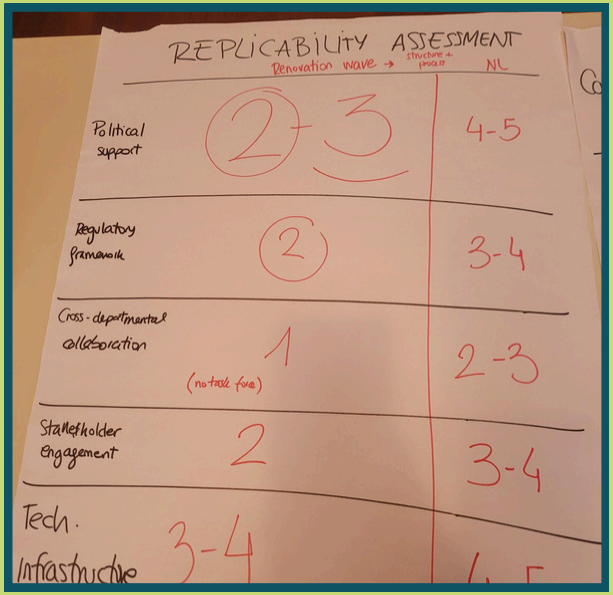
Financial means

- Estimated budget for the explained support measures is 1,3M EUR from the city's yearly budget.
- This support covers 50% expenses in all listed measures; left 50% will be covered by the association's own finances.

Stakeholders

- Internal stakeholders:
  - Tallinn City Strategic Centre Green Transition Bureau – provides support measures services, including a full-time staff member managing homeowners' association applications.
  - One-Stop-Shop – staffed to deliver training, information, and support for house renovations and district heating connections.
  - Energy Efficiency Experts – support staff in addressing specific questions on technical solutions.
  - Environmental and Communal department, and City Property department, in cooperation with the DH provider.
- External stakeholders:
  - Homeowners' associations providing feedback and helping design support measures that address real obstacles and match the exact needs of residents.

Enabling municipal policy framework for replication

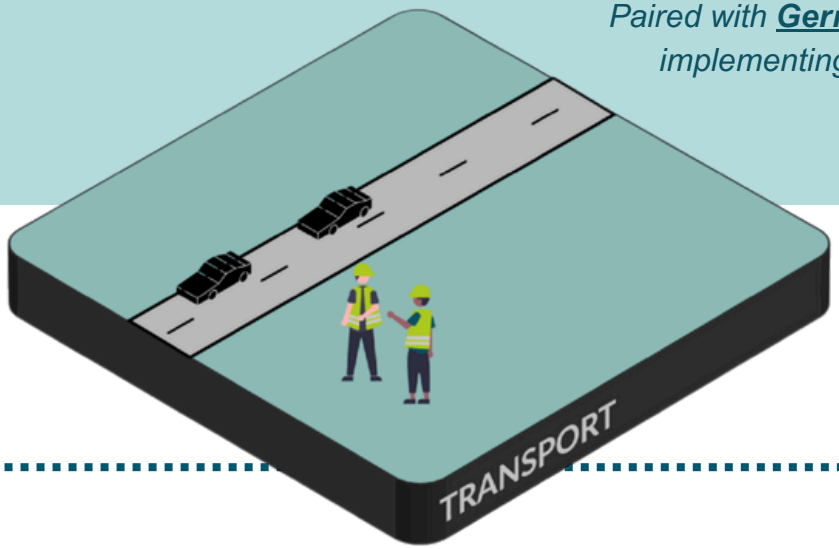


Jyväskylä
Finland

Jyväskylä aims to be carbon neutral by 2030. With road traffic and transportation accounting for nearly 40% of the city's CO2 emissions, the mobility sector is a priority for climate action.

*Paired with **German Multi-City Pilot Activity**, implementing CoLAB - Committed to Local Climate Action Building, and Jyväskylä (Twin city)*

The city is looking to adopt effective practices to cut transport-related emissions, increase public transport use to 15 million journeys per year by 2030, and strengthen the involvement of businesses in its climate efforts.



The public transportation unit and local companies experiment the model

Next step

2026

Replication Practice

Develop a simple model of sustainable mobility for companies

Promoting sustainable mobility through cooperation with local businesses (Aachen model) and developing a climate commitment model with local companies.

Scope

- Road traffic/ public transport
- Cooperation with local businesses
- Awareness raising

Link to existing municipal policy

- City Strategy (emphasises resource wisdom and sets the target for Jyväskylä to become carbon neutral by 2030)
- Resource-wise Jyväskylä 2040 Programme (guides long-term sustainability work from goal-setting to implementation and monitoring)
- Public Transport Development Plan 2030 – Linkki tulevaisuuteen 2030 (a strategic plan to improve and expand public transport in support of climate and mobility objectives)

Resources

Financial means

- Cooperation with the Green Industrial Areas project.
- Aim to find relevant and interested companies for cooperation in sustainable mobility. The city plans to apply for project funding in autumn 2025 from the Finnish Transport and Communications Agency.

Stakeholders

Internal

- The public transportation unit.

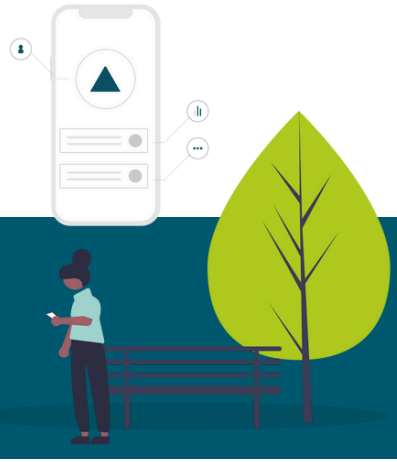
External

- Cooperation with local companies.

Enabling municipal policy framework for replication

Photo credit: City of Jyväskylä

Photo credit: City of Jyväskylä



Vilnius

Lithuania

Vilnius is dedicated to reaching climate neutrality by 2030. During the Programme, the city learnt how to successfully engage with various stakeholders, how to encourage them to take climate action in transport, energy, or waste management, and how to build capacity for multiple activities that contribute to the reduction of GHG emissions in cities.

*Paired with **German Multi-City Pilot Activity**, implementing CoLAB - Committed to Local Climate Action Building, and Jyväskylä (Twin city)*

In the Twinning Learning Programme, Vilnius set a goal to figure out the best strategies for citizen involvement in climate initiatives. In that regard, the activity Deal-o-Mat from Mannheim has been chosen as the most relevant, reachable, and most engaging practice for citizens, as well as the easiest to replicate considering Vilnius' human resources and budget.

Replication Practice

Sustainability Test for citizens on climate topics and their willingness to participate in activities related to climate change.

The test will serve to identify the age groups reached through it, raise awareness about climate topics, provide statistics in percentages, track respondents' progress through each question, and direct citizens to websites of companies, public bodies, and municipal departments that interest them the most.

Vilnius adapted the test to its needs by shortening it (for now) to eight main questions covering topics such as the age group taking the test, sustainability in general, sustainability trainings, waste management, city green areas, home renovation, city mobility, and sustainability initiatives.

It is crucial to inspire citizens to rethink their everyday consumer behavior and how organizations operate. The Sustainability Test includes many relevant questions and helps reach various stakeholders, mainly citizens.

As one of the tools to foster engagement, the test supports shaping a climate-neutral and environmentally friendly future for the city. The test is available on the Climate Neutral Vilnius website, and it's accessible from mobile devices.

Scope

- Citizen engagement
- Municipal companies and departments
- Climate Neutral Vilnius (fully funding the Test)
- External stakeholders: NGOs, Mobility associations, Youth associations

Link to existing municipal policy

- Vilnius Climate City Contract (the main EU Cities Mission document).
- Vilnius Green City Action Plan (developed with the support of the European Bank for Reconstruction and Development).

The question from the Sustainability Test about waste management.

Resources

Financial means

- Climate Neutral Vilnius, funded by the Municipality with its own dedicated budget, fully covers the costs of the Sustainability Test.

Stakeholders

- Internal
  - Departments contacted about citizen usage of their website links and potential flow of people: Mobility and Green Capital.
  - Departments to be involved in the Sustainability Test promotion plan:
    - Mobility Department
    - Green Capital
    - Home Renovation Department
    - Sustainability Manager
    - Waste management department
- External
  - External IT specialist (for finalising the test replication).
  - Businesses, NGOs, and youth associations (for promoting the test).

Enabling municipal policy framework for replication

During Climate Neutral Vilnius events

Next step

Involving citizens, internal and external stakeholders in the test trial and promotion.

Slavonski Brod

Croatia

The city plans to set up citizen engagement workshops to raise awareness and involve them in climate projects implemented by the municipality in areas related to public transport, cycling paths, botanical garden, and energy renovation of buildings.

*Paired with **Polish Multi-City Pilot Activity**, implementing NEEST - NetZero Emission and Environmentally Sustainable Territories.*

Thanks to the Twinning Learning Programme, Slavonski Brod learned from Warsaw (as part of the Polish Pilot Cities group) how to involve citizens in decision-making processes and the implementation.

Replication Practice

Set up citizen engagement workshops in climate projects

Slavonski Brod learned about communication between the municipality of Warsaw and other institutions, such as a primary school, through site visits. The city saw the importance of making solid foundations for developing awareness about net-zero emission themes (free public transport, cycling paths, botanical garden, energy renovation of public buildings) among children. Slavonski Brod lacks good communication with its citizens because of difficult access, political disagreements, unconcern and low awareness on this topic and the predominant elderly population in the area.

Slavonski Brod decided to implement citizen engagement in all projects that could affect residents. An example would be a project of modernisation of residential buildings and regeneration of surrounding areas.

Scope

- Citizen engagement
- Educational training and awareness raising
- Elderly, youth and single-family building homeowners

Link to existing municipal policy

- Strategy of green urban renewal of the City of Slavonski Brod for the period from 2022 to 2032.
- Programme of climate change mitigation, climate change adaptation and ozone layer protection of Slavonski Brod for the period from 2024 to 2027.

Next step **07th and 8th of May 2025** Workshops to get information about interest of citizens for applying for co-financing solar panel installation.

Resources

Financial means

- The most important financing source is the City budget.
- The city also counts on national options of financing of the ministries responsible for climate, energy, building, transport and public lighting.
- Actions related with the Green urban renewal strategy is covered by EU non-refundable funds.

Stakeholders

- Internal stakeholders:
  - Department of economy and Department of environmental protection, and Department of
  - Integrated Territorial Investments.
  - Our Financial department also has a key role in forecasting all citizen engagement activities in the budget.

- External stakeholders:
  - Schools and the kindergarten system
  - Elderly population
  - Single-family homeowners

Enabling municipal policy framework for replication

Eilat

Israel

Eilat's local context is defined by its geographic isolation, arid climate, and status as a major tourism hub, creating both environmental challenges and unique opportunities for innovation. The Slovenian cities' collaborative project, UP-SCALE, demons-trated how systemic innovation, stakeholder engagement, and digital tools can address complex challenges such as mobility, energy, and public awareness.

*Paired with **Slovenian Multi-Pilot Activity** implementing UP-SCALE-Urban Pioneers - Systemic Change Amid Livable Environments.*

The NetZeroCities Twinning Learning Programme fostered capacity-building, interdepartmental collaboration, and adaptation of tested practices to Eilat's local context, supporting its ambition to create an integrated electric mobility ecosystem.

Replication Practice

Center for climate and mobility awareness

Kranj's work on MaaS and digital citizen platforms, Ljubljana's Innovation Hub and GHG monitoring tools, and Velenje's just energy transition provided practical insights for Eilat. These models helped define key elements for Eilat's climate initiatives, including a city twin for simulating mobility behavior, a one-stop-shop for citizen participation, and a cross-sectoral governance forum.

The interactive municipal centre will combine physical infrastructure, digital tools, and participatory processes to strengthen citizen engagement and data-informed planning for climate and mobility.

At the intersection of mobility, energy awareness, citizen engagement, and digital transformation, this practice will empower residents, gather behavioural insights, and connect local communities to the city's climate goals using tangible, accessible, and technological means.

The practice integrates:

- A mobility app gathering anonymised data on travel patterns, access gaps, and transportation behaviours.
- A citizen participation app to submit feedback on transport infrastructure, climate services, and city planning.
- Inclusive participation in the development of mobility and climate solutions via two surveys, one of which focuses on marginalised groups.

Next steps

Q1 2026

Finalise the centre in the Terminal

Q4 2026

Call for proposals for innovation and solutions for GHG

Scope

- Engaging Eilat's diverse urban population in climate awareness and behavioral change, with emphasis on youth, marginalised communities, and residents of high-impact areas such as tourist zones.
- Targeting public spaces and municipal buildings, most notably the Terminal building, envisioned as a central hub for climate education and participation.

Link to existing municipal policy

- The Climate City Contract
- Eilat's Sustainable Mobility Strategy

Resources

Financial means

- The replication of a municipal center for energy efficiency and renewable energy is funded by the municipality as part of the innovation hub that is currently being built in the old airport Terminal - located at the heart of the city.

Stakeholders

- Ministry of Energy
- Israel Electric Company
- Eilat-Eilot NGO
- Universities and research institutions
- Hotel association

Enabling municipal policy framework for replication

The European Union continues to apply the Guidelines on the eligibility of Israeli entities and their activities in the territories occupied by Israel since June 1967 for grants, prizes and financial instruments funded by the EU from 2014 onwards as regards Israel in general.

Cologne
Germany

In 2021, following a two-year collaboration with key stakeholders, Cologne adopted the 'Climate Neutral Cologne 2035'. This first framework charts transformation, sets a roadmap towards climate neutrality, and builds the background for replicating local energy advisory offices.

*Paired with **Spanish Multi-City Pilot Activity**, implementing URBANEW - Multi-stakeholder innovative and systemic solutions for urban regeneration, and Soria (Twin city)*

The exchange focused in particular on the refurbishment of neighbourhoods and buildings, activating citizens for climate protection and on the implementation of neighbourhood offices as one-stop shops.

Replication Practice

Neighbourhood Energy Office

The replication practice is linked to the field of energy rehabilitation of private buildings. For this reason, Cologne is working on a mobile energy office, or mobile One-Stop-Shop (OSS), to provide support and advice services to citizens, tenants and homeowners. It is introduced to reduce reservations about the complex topics of heating transition and building refurbishment, bringing counselling services directly to target groups.

Building on the success of the 'Treffpunkt Solar' advisory centre for solar power, the initiative will transform it into a mobile OSS. Over a two-year pilot phase, the OSS will tour Cologne's neighbourhoods, offering tailored information on building energy efficiency - such as heat pumps, insulation, photovoltaic systems, and window replacement - on designated days.

Resources

Financial means

- Project partners make their financial contribution to their specific field of action.
- The city household foresees 100.000 Euro per year (2025/2026) to implement an energy advice centre.
- The pilot phase of two years would be fully covered by the project partners. However, the budget needs to pass the administrative processes.
- Funding exploration: analysing local, national, and EU-level opportunities to expand resources and support mobile OSS activities.

Stakeholders

Internal

- Majors office
- Department of Climate, Environment, Green and Property
- The team of the Competence Centre for Climate Action
- Procurement office
- Other offices of the city administration for consultation/cooperation

External

- Project partners of the One-Stop-Shop:
  - RheinEnergie (local energy supplier)
  - Chamber of Crafts
  - Consumer Center
  - German association of energy advisors
- Citizens
- Multipliers in the targeted areas (e.g. sports associations, churches, community initiatives).
- Actors on climate action (e.g. Cologne Business, Universities, HeuteStadtmorgen (local energy cooperative)).
- Media

Enabling municipal policy framework for replication

Scope

- Built environment, energy efficiency, citizen and stakeholder engagement
- Detached houses
- Private homeowners, tenants and communities of flat owners
- One-stop shop for renovation and heating transition

Link to existing municipal policy

The activity is closely linked to the strategy “Climate Neutral Cologne 2035”.

Next steps

The mobile OSS will be on the road for 30 days

2026

Soria

Spain

The stationary energy sector in Soria represents the biggest decarbonisation challenge, followed by transport. As both sectors combined account for close to 90% of the city's total emissions, the city's strategy focuses on energy retrofitting of buildings and sustainable mobility.

*Paired with **Spanish Multi-City Pilot Activity**, implementing URBANEW - Multi-stakeholder innovative and systemic solutions for urban regeneration, and Cologne (Twin city)*

The Twinning Learning Programme has allowed for capacity building of municipal and technical staff, which will strengthen the design and the implementation of a One-Stop Shop. The programme exchanges offered practical references for designing a system suited to Soria's scale and context, while connecting with Spain's Green Offices network to share experiences, tools, challenges, and solutions.

Replication Practice

Design and implementation of the one stop shop 'Energy Rehabilitation Office of Soria'

Inspired by the blended model of One-Stop Shop between Vitoria (built environment) and Valencia (energy communities and renewable energy, and socially focused offices), this service will provide an access point for citizens, offering energy assessment, technical design, permit management, contractor selection, site monitoring and financial advice. It will focus on the support of 4300 vulnerable households facing energy poverty.

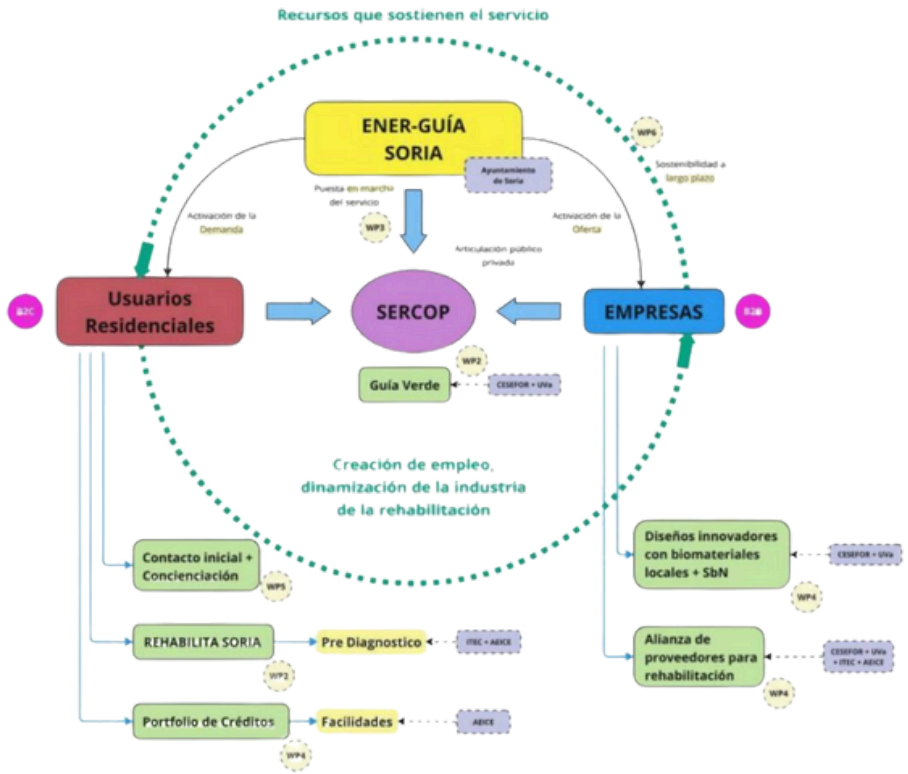
The practice will target this part of the population that lives in at least 20% of the dwellings for the energy refurbishment. Its general objective is to accelerate the energy refurbishment of the residential stock in Soria, contributing to the achievement of local climate targets and improving the quality of life of citizens.

The One Stop Shop will also:

- Simplify the energy renovation process for homeowners by centralising technical and administrative services in a single point of care.
- Promote the renovation of private single-family and multi-family dwellings, with special attention to households in a situation of energy vulnerability.
- Develop a portfolio of financial solutions adapted to the local context.
- Provide continuous technical advice.
- Promote solutions based on bio-based products and nature.
- Promote citizen participation and environmental awareness.

Scope

- Built environment retrofitting
- Single family and multi-family dwellings
- Energy poor or vulnerable households
- Bio-based local materials and Nature-Based-Solutions for the retrofitting



Map of the replicability proposal

Resources

Financial means

- Partially covered. Additionally, the LIFE ENER-GUÍA SORIA project is being worked on, with a direct share of investment of 460,000 euros over 3 years.

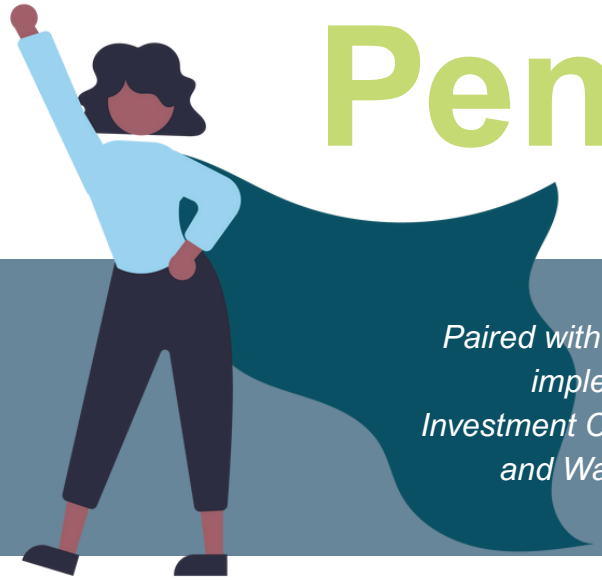
Stakeholders

- Soria will set up a multidisciplinary team made up of:
  - Project Coordinator, responsible for the overall project.
  - Energy rehabilitation technician, specialist in energy efficiency of buildings, responsible for energy diagnostics, design of solutions and supervision of interventions.
  - Technical advisor, financial advisor, personalised attention technician, and administrative and legal support.

- External stakeholders:
  - Local financial institutions
  - Companies and associations in the construction and bioeconomy sector.
  - Urban innovation platforms and networks, such as CitiES 2030
  - Neighbourhood associations and homeowners' associations
  - Educational and vocational training centres local citizens' organisations, environmental associations, public-private partnerships and local collaborative platforms.

Enabling municipal policy framework for replication

Next step — OSS implementation 2026 Q2-Q3 — Sustainability, replication and exploitation of results 2027 Q3



Penteli

Greece

The Municipality of Penteli has shown a strong commitment to climate resilience, as evidenced by its status as a signatory to the EU Mission on Adaptation to Climate Change. Additionally, Penteli is participating since 2024 in a community of practice on climate change adaptation. This participation allows the municipality to tap into research and innovation funding opportunities, further bolstering its climate resilience efforts.

*Paired with **Bristol** (Pilot city, implementing Net Zero Investment Co-Innovation Lab) and Waterford (Twin city)*

Penteli is exploring the potential to replicate elements of Bristol's innovative finance approach by, for example, ringfencing municipal land as an asset or leveraging its value to support investments—particularly in nature-based solutions for areas affected by wildfires. While the land itself doesn't need to generate direct returns, any entity created for this purpose would need to be financially viable to sustain such a model.

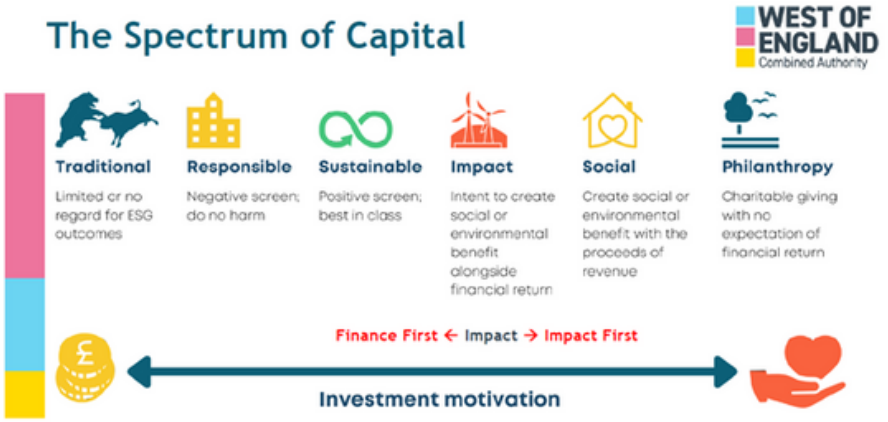
Replication Practice

A Net Zero Investment Co-Innovation Lab

Pentali aims to create a Net Zero Investment co-innovation Lab for reforestation and other sustainable land-use practices. This practice aligns with the municipality's commitment to climate resilience.

As an example, the work of Bristol and Bath Regional Capital, a local impact investment house, to find the private investors took a lot of market research and also calls and pitches to people working in finance in the City of London.

Pentali's goals are to highlight possible methods for the creation of a reforestation or climate fund and investigate what options are available according to Greek law. The option for Greek municipalities to build a development company should be further investigated, in addition to the public/private model and the Energy Community model according to Greek law. Additionally, the possibility of establishing a carbon credit scheme to support reforestation of the mountainside is also under consideration.



Scope

- Innovative financing beyond public-private partnerships and the energy community model.
- Nature-based-solutions
- Land use

Resources

Financial means

- Penteli is strongly involved in projects and bids in the area of adaptation (MI4Adapt) and resilience (P2R) with other cities from the Attica region. They aim to create a climate administration.

Stakeholders

The Penteli Climate Team - Citizens, public servants (mainly coming from the urban planning, environment and technical services department) and Academia in order to foster policies and capacity building in the field of climate administration.

Internal

- Urban planning, environnement and Technival servisies departments

External

- Government & Public Authorities:
  - Neighbouring municipalities
  - Ministry of the Interior
  - Ministry of the Environment & Energy
  - Green Fund
  - Forest Department
- Research & Academic Institutions
- Business & Professional Sector, such as companies or the Technical Chamber of Greece.
- Civil Society, NGOs and local associations
- Local Infrastructure & Public Services:
  - Schools
  - Hospitals
  - Sports facilities (swimming pool, courts, etc.)
  - Municipality offices (e.g., police department, municipal services)

Enabling municipal policy framework for replication

Next step

Q4 2025

Reach out to stakeholders (mainly academia and wild-fire affected communities) to prepare a feasibility study on financing nature-based solution.

Waterford

Ireland

*Paired with **Bristol** (Pilot city, implementing Net Zero Investment Co-Innovation Lab) and Penteli (Twin city)*

In 2021, Waterford City became the test bed for delivering innovative climate projects that would deliver Waterford to its Carbon Neutral goal in 2040. Waterford is currently reliant on government grants to deliver projects, and with a change in government, those funds could be removed. These funds are also not enough for the emissions reductions that Waterford wants to achieve.

Being twinned with Bristol allowed Waterford to learn how to set up an ecosystem of private investment, aiming to also understand how to best use that money to invest in renewable energy, bringing everyone along for the creation of a platform for renewable energy investments. No municipality in Ireland has used private finance in this way before.

Replication Practice

An ecosystem of collaboration to create the Waterford Green Bond or investment platform

Waterford learned from Bristol the importance of support across the city from the public and from the main players. From that ecosystem, Bristol was able to get the support and learning that they needed to build the investment tools that they are currently using.

Waterford wants to engage the major employers in the city, as well as environmental or finance professionals and community groups that want to facilitate and drive the change where they live. The municipality is focusing on the sector of Renewable Energy, as that is the area with the most straightforward investment opportunities.

Scope

- Creating a network of environmental and financial people.
- Coordinate sustainability efforts with large companies across the city.
- Collaborate with Waterford University to develop the financial skills necessary to create a comprehensive green investment portfolio for the city.

Resources

Financial means

- Funding has not been sourced yet, specifically to cover staff costs to set up the financial instruments.
- Social enterprises were relevant in the pilot of Bristol, but the resources for this haven't been calculated yet in Waterford. Ireland has a good support network and funding for social enterprises, and funding for that support may already be in place.

Stakeholders

- Climate Steering Group, which has representatives from across Council operations.
- Finance and Procurement are two essential departments as we work within national investment rules to deliver projects.
- Create a network of professional organisations that can support Waterford in the work to reduce emissions by creating platforms for investment in Renewable Energy Communities.

Enabling municipal policy framework for replication

Next steps

Contract creation for Renewable Energy investments made by Waterford City and County Council, and Social Enterprise Partner

Q4 2025

Launch event for Citizen Investment scheme

Q1 2026

Eskisehir

Turkey

The municipality has set a bold climate target: a 55% reduction in Greenhouse Gas Emissions by 2030.

*Paired with **Budapest** (Pilot city, implementing Climate Agency for Renovation of homES)*

In the Twinning programme, key focus areas included energy performance mapping data-driven renovation planning, and participatory methods for implementation.

Replication Practice

Accelerating building renovation and energy efficiency through data-driven planning and inclusive financing approaches.

This practice is part of Eskişehir's inclusive, just, and climate-resilient urban transformation strategy. It focuses on accelerating building renovation and improving energy efficiency across the built environment, energy, and urban planning sectors.

Key components include the collection of building-level and socio-economic data to inform decision-making, the development of sustainable financial models to support building renovations, and the integration of vulnerability-based prioritisation with active citizen engagement in the planning of pilot projects.

The practice also aims at strengthening local governance structures to support systemic transformation towards climate neutrality.

Scope

- Residential buildings located in vulnerable neighbourhoods (energy-poor districts).
- Publicly owned buildings.

Link to existing municipal policy

Sustainable Energy and Climate Action Plan, in line with Mission's 2030 climate neutrality ambition.

Next steps

Q2-Q3 2026

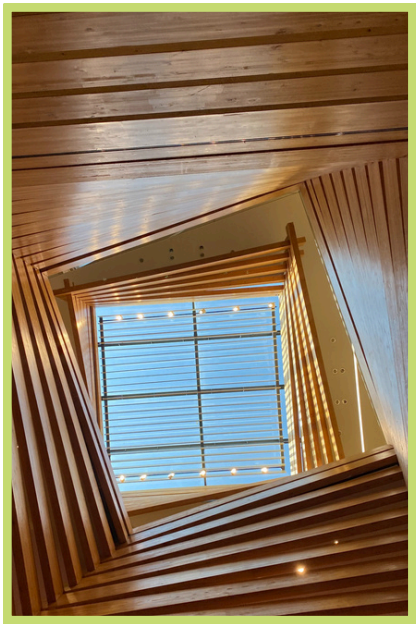
Pilot test the model in selected neighbourhoods

Q3 2026

Establish an Energy Center, led by Climate, Urban Transformation, Finance and Geographic Information Systems Unit

I am very satisfied with the Twinning Learning Programme so far. [...]. The exchange of ideas has been enriching, allowing us to learn from each other's experiences and insights. [...]. The opportunity to see successful projects firsthand through site visits has been particularly beneficial, as it allows us to observe how best practices are implemented in real-life settings and adapt them to our own needs. Overall, the Twinning Learning Programme has greatly contributed to our professional growth and the development of more effective solutions for our municipality.

Vural Yildrim, Data Scientist



Resources

Financial means

To fill this gap, the municipality is actively seeking external funding sources. These include:

- Applying to EU climate and energy funds.
- Exploring partnerships with national development banks and international financial institutions.
- Private sector actors for co-financing schemes.
- Integrating this effort into larger urban regeneration or PED-related proposals.

Stakeholders

Climate Change and Energy Department, which will coordinate overall implementation and inter-departmental collaboration. This cross-departmental structure allows for a comprehensive, institutional review of project outputs and ensures that the model is aligned with broader urban policy priorities.

- Internal. Continuous coordination and communication will be maintained with:
  - Urban Planning and Development Department
  - Urban Transformation Department
  - Financial Services Department
  - Strategy Development Department
  - Political leadership

- External
  - Citizens and neighbourhood associations
  - Local businesses and renovation contractors
  - Universities and research institutions
  - National development agencies and EU fundind programmes
  - Energy service companies

Enabling municipal policy framework for replication

Vari-Voula-Vouliagmeni

Greece

*Paired with **Cluj Napoca** (Pilot city, implementing Blueprint for Net-Zero Apartment-block Neighbourhoods)*

Located in the southern coastal area of the Athens metropolitan region, Vari-Voula-Vouliagmeni faces challenges such as coastal erosion, water scarcity, and high energy consumption due to its growing population and vibrant tourism sector. The city wants to achieve climate neutrality by 2030, and chose to replicate the 'Neighbourhood Managers' model from Cluj-Napoca, due to its proven effectiveness in mobilising local climate action, fostering inclusive community involvement, and enabling innovative sustainability solutions.

Replication Practice

Neighborhood Managers for Climate Neutrality

This is a decentralised approach to climate action from Cluj-Napoca that empowers local communities to implement and manage sustainability initiatives. Neighbourhood managers act as liaisons between the municipality, residents, businesses, and other stakeholders, driving localised climate solutions, promoting sustainability awareness, and facilitating green projects. Specific activities include promoting energy retrofitting of private and public buildings, expanding solar panel installations, developing pedestrian-friendly infrastructure, and enhancing waste management systems through the participation of citizens and businesses.

Specific objectives include:

- Enhancing community engagement in climate action.
- Supporting the implementation of renewable energy projects at the neighbourhood level.
- Promoting energy efficiency in residential and commercial buildings.
- Encouraging sustainable mobility through active transport and shared mobility solutions.
- Facilitating waste reduction, recycling, and circular economy initiatives.

Scope

- Awareness raising trainings
- Citizen engagement
- Stakeholder engagement (local business)

Link to existing municipal policy

The action to replicate aligns with the Municipality of Vari-Voula-Vouliagmeni's Climate Action Plan, Sustainable Urban Mobility Plan, and Waste Management Strategy. This supports the EU 2030 neutrality targets and aligns with the Cities Mission goals.

Resources

Financial means

- Partially covered through municipal budgets and external funding sources.
- The municipality plans to apply for European Union programmes, for example, a municipal climate neutrality fund is being considered.
- Efforts will be made to attract private investments.
- By diversifying funding sources and actively seeking external investments, the municipality aims to ensure a successful implementation and long-term viability of the Neighbourhood Managers.

Stakeholders

- Internal
  - Active involvement and coordination of several internal departments.
    - Urban Planning and Environment
    - Procurement and Finance Office
    - Energy and Infrastructure Division
    - Digital Governance and Smart City Team
    - Communication and Public Relations Office
    - Political Leadership and Mayoral Cabinet
    - Legal and Regulatory Services
- External
  - National Observatory of Athens
  - Technical Chamber of Greece
  - National and Kapodistrian University of Athens
  - Large Corporations and Local Businesses
  - Hotel Association of Athens, Attica and Argosaronic
  - Local Citizen Association and Community Groups
  - Utility Providers
  - NGOs
  - Regional and National Government Bodies
  - Media and Communication Networks

Enabling municipal policy framework for replication

Next step

Q3-Q4 2025

Pilot Implementation in selected neighborhoods, by Neighbourhood Managers and municipal authorities.

Gabrovo

Bulgaria

Gabrovo is committed to achieving climate neutrality by 2030. Participation in the NetZeroCities Twinning Learning Programme and the FAASST project, specifically paired with Dijon Metropole and Matosinhos, has been transformative. It allowed the city to build critical capacity by observing and learning from established climate leaders.

*Paired with **Dijon** (Pilot city, implementing FAASST-NZ: Facilitate trAnsition Actions maSSification Towards Net Zero) and Matosinhos (Twin city)*

Gabrovo sought to replicate best practices in territorial governance for climate transition, crucial for implementing its Climate City Contract. Dijon demonstrated success in mobilising diverse stakeholders, securing financial pathways, and implementing systemic, impactful climate actions across sectors like buildings, energy, and transport.

Replication Practice

Climate Action Forums or 'Living Labs' in key city districts

These forums will enable citizens, businesses, and community groups to co-design, pilot, and evaluate small-scale climate solutions (e.g., community gardens, energy-saving campaigns, sustainable mobility projects).

Establishment of Climate Governance Structure: A Transition Team has been formalized and is overseen by a Board of Council for Sustainable Urban Development. This structure guides the implementation of the Climate City Contract and ensures diverse stakeholder representation.

Gabrovo Innovation Camp

To drive these strategic goals, Gabrovo's newly (one year operational) established Directorate of Sustainable Development, comprising 12 members, along with other municipal departments, are actively working as part of the transition team.

Scope

- Reduce greenhouse gas emissions by 80.5% from 2008 levels.
- Engage stakeholders and community in collective action.
- Transition Team leads with transparency and accountability.
- Implement climate initiatives effectively for a sustainable future.

Next step

2025 - 2028 - 2030

Phase 3: Sustained Engagement & Expansion through regular stakeholder forums and annual comprehensive reviews of collected data.

Gabrovo's summer ecological festival Uzana Polyana Fest

Resources

Financial means

- Currently analysing funding opportunities from national and EU programs, as well as exploring potential private business partnerships.

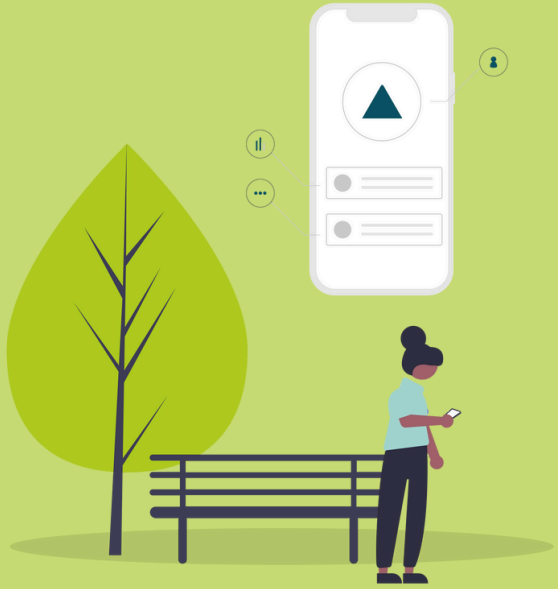
Stakeholders

- Transition team, with domain-specific teams working alongside municipal, academic, and resource partners to implement initiatives and report to the Council for Sustainable Urban Development.
- Extended list of Gabrovo's stakeholders are around 34 national agencies, ministries, and bodies, along with academic institutions, NGOs, media and the business.

Enabling municipal policy framework for replication

Link to existing municipal policy

- Gabrovo's climate neutrality commitment by 2030 embedded in the city's Climate City Contract (CCC), is underpinned by several key strategic plans integrated into the Gabrovo Integrated Development Plan (2021-2027) in thematic building blocks related to waste, decarbonising energy, sustainable mobility, nature-based-solutions, sustainable development tourism and smart specialisation.
- The Transition Team will guide the process, fostering transparency and ensuring successful implementation of the climate-neutrality actions.



Matosinhos

Portugal

Matosinhos is a coastal city in northern Portugal committed to becoming carbon neutral by 2030. In 2022, with a strong focus on climate governance, sustainable mobility, green infrastructure, and community engagement, the city reduced its GHG emissions by 66% since 2009 and is actively working to close the remaining gap.

*Paired with **Dijon** (Pilot city, implementing FAASST-NZ: Facilitate trAnsition Actions maSSification Towards Net Zero) and Gabrovo (Twin city)*

Matosinhos is drawn to Dijon's approach to cross-sectoral collaboration, integrated climate planning, and governance tools that engage multiple stakeholders in implementing the city's Climate City Contract. These elements align with Matosinhos' efforts to mobilise its local ecosystem and improve coordination across departments, companies, and civil society.

Replication Practice

An integrated digital platform that enables continuous data sharing, monitoring, and communication with both private stakeholders and the wider community.

Scope

- Initial scope: Municipal departments and services for data integration and policy monitoring.
- Expanded scope: Private stakeholders, local communities, schools, housing associations, and NGOs.
- Purpose: Enable participation through open-access tools for monitoring, feedback, education, and co-design of solutions.

Next step — 2026 Q1

The platform will serve a dual function:

- **Data and monitoring:** Enable private stakeholders (e.g., businesses, utilities, housing managers) to share relevant environmental and energy data in real-time or through periodic reporting, contributing to more accurate monitoring and better-informed decision-making.
- **Engagement and awareness:** Offer functionalities that raise public awareness, communicate progress on climate action, and encourage behavioural change through transparent and accessible information. It will also support interactive features, including feedback loops, community reporting tools, and learning resources.

This practice tackles the energy and climate governance sectors, with key levers of change being digitalisation, data transparency, stakeholder engagement, and citizen empowerment.

Initial launch of the platform (pilot version)

Link to existing municipal policy

This initiative is closely aligned with several ongoing strategies and commitments of Matosinhos:

- The Local Climate Action Plan, which integrates a roadmap 2030 carbon neutrality goal.
- The Civic Lab for Climate and Transition provides a foundation for co-creating and testing solutions with the community.
- Existing digital platforms such as ‘Mais Matosinhos’ will be enhanced or linked to the new system to consolidate functionalities and user engagement.
- Urban Intelligence Centre.

Resources

Financial means
Recently approved European Urban Initiative project.

Stakeholders
Most of the human resources will come from internal teams, especially through the creation of the new Urban Intelligence Center, which will lead the implementation of the platform.

Also, to replicate the practice successfully, the city will work with:

- Local businesses and private sector (data sharing and partnerships)
- Universities and research centres (technical advice and innovation)
- Citizen associations and environmental NGOs (public engagement)
- Schools and youth groups (education and awareness)
- Citizens

Enabling municipal policy framework for replication

L'Aquila
Italy

L'Aquila is located in the Italian region of Abruzzo. It is affected by climate change in mountainous areas. The municipality is working with the University of L'Aquila to develop the strategy for mitigation and adaptation to climate change.

*Paired with **Drammen** (Pilot city, implementing Drammen Zero emission 2030) and Oulu (Twin city)*

Adaptation-level actions are appropriate to moderate the effects of summer heat during the day. The combined effect of increasing temperatures, therefore, with greater potential evapotranspiration, with the slight decrease in precipitation, suggests that actions are appropriate to safeguard the water resource.

Replication Practice

Drammen River Park

The replication practice complements the actions that were planned to take under the existing Aterno River Contract project in L'Aquila. The Aterno River Contract is an important tool for mitigation and adaptation to climate change; it is a voluntary instrument of strategic and negotiated planning which pursues the protection, correct management of water resources and the valorisation of river territories, as well as safeguarding them from hydraulic risk, contributing to local development. It is a large-scale nature-based intervention to regenerate the Aterno River, close to the Italian city, and its banks. L'Aquila will develop and test innovative technologies, including mobile applications and virtual reality, enhancing citizen engagement with the renovated areas and boosting their health and well-being.

This practice addresses multiple sectors important for climate mitigation and adaptation, including nature–based solutions, water management, waste management, agriculture, and forestry.

Scope

- Nature-based solution
- Water management
- Forestry

Link to existing municipal policy

- This activity is related to 'Aterno River Contract', for which the Strategic Scenario and the Action Plan have been developed.
- Linked to the city's Climate Change Mitigation and Adaptation Plan.

Resources

Financial means

- The project is not fully covered. Therefore, L'Aquila is analysing funding opportunities at the European level, and aims to expand cooperation activities (e.g. with local universities).
- Aterno River Contract is funded by the Abruzzo Region.

Stakeholders

Internal:

- Environmental Sector,
- Majors office,
- Procurement office
- Other offices of the city administration for consultation or cooperation.

External:

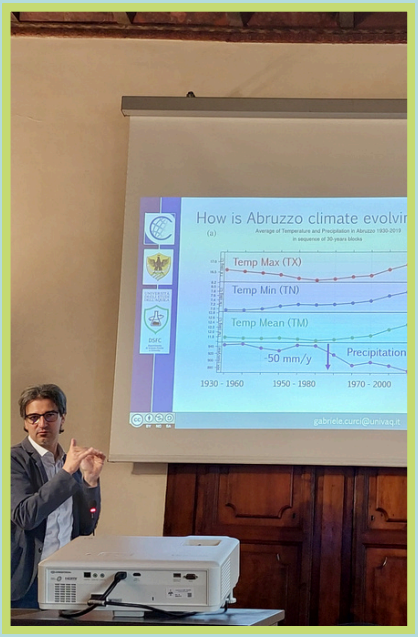
- 28 municipalities
- Abruzzo Region
- Ministry of Environment
- National Pak Gran Sasso monti della Laga
- Sirente Velino Regional Park
- Citizens
- Environmental Associations
- University of L'Aquila
- Multipliers in the targeted areas
- Actors on climate action
- Local media partners

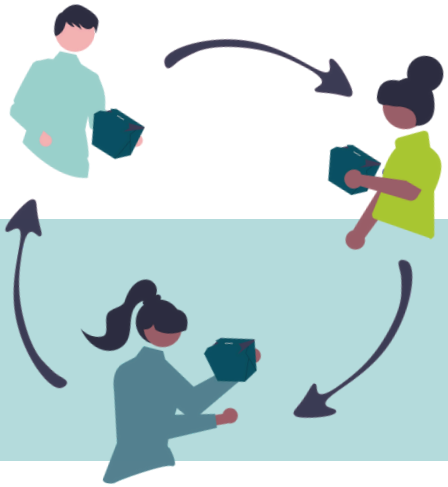
Enabling municipal policy framework for replication

Next step

2026

Execution of works foreseen in the first tranche of the Aterno River Contract.





Oulu
Finland

Oulu will be carbon neutral in 2035. Circular economy plays a central role in the city's strategic goals, supported by a dedicated roadmap for circularity.

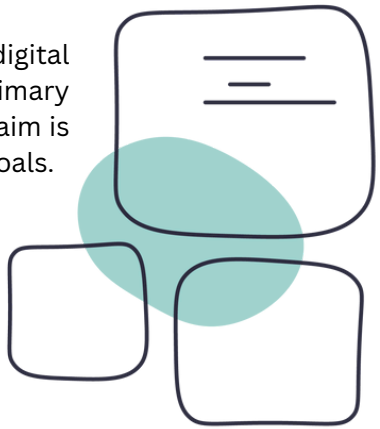
*Paired with **Drammen** (Pilot city, implementing Drammen Zero emission 2030) and L'Aquila (Twin city)*

Under the Twinning Learning Programme, Oulu chose to focus on the reuse of construction materials as a core replication focus, recognising the substantial climate impact of construction material reuse.

Replication Practice

Circular economy practices with the reuse of building materials both in private and public sectors.

The City of Oulu aims to establish a concept and cluster for the reuse of building materials, including both physical and digital material banks from both private and public sectors, intending to reduce emissions and resource consumption. The primary scope of this practice is to enable the reuse of construction materials from both private and public sectors in Oulu. The aim is to establish a functioning circular flow of building materials, reducing waste and supporting the city's climate neutrality goals.



Scope

- Circular construction
- Public and private sector
- Reducing waste
- Physical and digital banks to collect, store, manage and redistribute reusable materials

Link to existing municipal policy

- The practice of reusing construction materials is aligned with Oulu's strategic and policy framework for climate action and the circular economy.
- Carbon Neutrality Roadmap.
- Circular Economy Roadmap, which includes actions such as developing a material bank and creating a management and utilisation plan for material flows.

Resources

Financial means

- Currently, the replication of the practice is approximately 25% covered through existing human resources.
- However, securing dedicated financial resources is one of the first and most critical steps.
- Identifying suitable funding opportunities will be a priority.

Stakeholders

Internal:

- Key decision-makers
- Municipal subsidiaries
- Public utilities

External stakeholders:

- Local businesses involved in construction and demolition, who play a critical role in supplying and utilising reusable materials.
- Citizens who are building or renovating homes are important participants in the material reuse ecosystem.

Enabling municipal policy framework for replication

Next steps

Digital material bank
Physical material bank
2026

External stakeholder engagement
Later in 2026

Belfast

United Kingdom

Belfast has adopted a city target of reaching net zero by 2050, with interim targets of a 66% reduction by 2025, and 80% by 2030. After identifying buildings and transport as the two key sources of emissions, the city is establishing a Belfast Retrofit Delivery Hub and programme, developing a pipeline, and creating a Belfast Electric Vehicle Strategy.

*Paired with **Galway** (Pilot city, implementing Galway City Net Zero pilot city)*

The city has also undertaken a Climate Risk Assessment and produced a Belfast Resilience Strategy, which includes targets for land use, tree planting, nature-based solutions and created a sustainable food partnership in the city.

Replication Practice

Establishing a community retrofit one-stop shop for private homeowners

Retrofit Delivery Hub aims to take a whole systems approach to retrofit across domestic, public and commercial buildings by focusing on skills, standards, engagement, area pathfinders, finance, and public sector retrofit. The Hub is currently exploring several one-stop-shop type models for householders across all tenures and from a wide variety of information and support providers. The twinning process is highlighting the role of data provision and use, as well as housing retrofit processes.

The replication practice also focuses on the supporting processes and success factors, including: citizen engagement, sector skills analysis and scalability factors.

Educational work is required with the public to help them make informed choices around retrofit, supporting them through programmes such as one-stop shops to help identify contractors to carry out the work. The Retrofit Hub can lay the groundwork by increasing awareness of climate change as an issue and of retrofit as part of the solution.

Scope

- Belfast Retrofit Hub (a city-wide consortium on retrofit)
- Skills training activities when grants become available
- Private buildings
- Awareness raising

Link to existing municipal policy

Belfast Local Area Energy Plan (2024) – commitment to support installation of domestic retrofit measures in up to 2,000 homes.

Resources

Financial means

- Lack of national government grants across different tenancy types.
- The funding is probably a few years away and is likely to be relatively modest compared with that of neighbouring regions.

Stakeholders

Internal:

- Climate Team
- City Regeneration & Development
- Planning & Building Control
- Strategy Programmes & Partnerships
- Place & Economy – Labour Market Partnership
- Elected members

External:

- The Belfast Retrofit Hub has approximately 70 membership organisations and 150+ members.

Enabling municipal policy framework for replication

Next steps

Explore funding options from Great Britain, Republic of Ireland, private investment and EU funding streams

2025

Use findings from Galway Business Planning on the One-stopshop model and help to influence Northern Ireland government ambitions, feeding into community-led programmes, considering offering support services

2025-2028

The Twinning Programme is not overly demanding; it is well structured, and progress is made. In our experience, we learnt a lot from our twin city, so the learning is not all one way; the pilot city can also learn from the twin city. For both cities, the opportunity to reflect on their own work and their approach to projects is very worthwhile.

Sharon Carroll, NetZeroCities Project Coordinator at Galway municipality

Torres Vedras

Portugal

Torres Vedras is a Portuguese city located in the Western region, in the north of Lisbon. It is characterised by agriculture, tourism, and industry that aims for carbon neutrality by 2050, as detailed in its Municipal Climate Action Plan (SECAP).

*Paired with **Guimarães** (Pilot city, implementing District C: a zero-carbon commitment)*

A democratic approach was selected based on the premise that climate goals require public endorsement and participation. Learning from Guimarães enhances the capacity to integrate citizens into decision-making, ensuring climate neutrality as a shared municipal objective.

Replication Practice

Community involvement and active participation in climate action

Torres Vedras has implemented a comprehensive community engagement strategy for climate action, modelled after the participatory framework of Guimarães. The Torres Vedras Climate Action Pact serves as a formal structure for engaging stakeholders in collaborative climate commitments. Through the Pact, entities from companies to civil society voluntarily commit to emissions reductions, increased climate resilience, and enhanced awareness and accountability.

This approach ensures climate action is not implemented top-down but is constructed bottom-up, reflecting the concerns, insights and innovations of the local community. Digital platforms, public tools like the carbon footprint calculator, and partnerships with national initiatives, such as the Gulbenkian Foundation's Climate Participation Initiative, further support inclusive participation and scalable capacity-building.

Scope

- Local stakeholder engagement (private, public, and non-for-profit)
- Citizen engagement
- Participatory model

Link to existing municipal policy

- SECAP, which establishes the vision and pathway for decarbonization and adaptation, and connects local action to the broader EU Mission objective of climate-neutral cities by 2030.
- The Climate Action Plan functions as a participatory democracy tool that encourages local community co-responsibility in designing climate responses, aligning individual decisions with the collective goals outlined in the SECAP. Through these initiatives, Torres Vedras intends to mobilise collective action through inclusive and democratic practices.

Resources

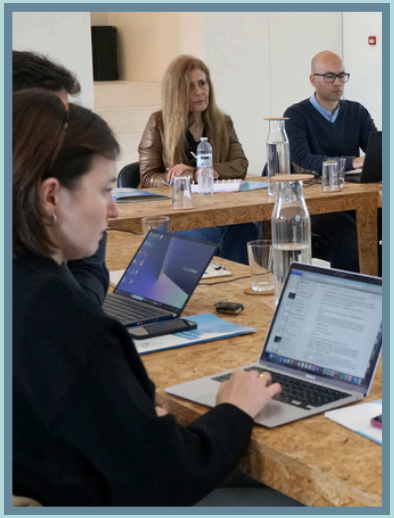
Financial means

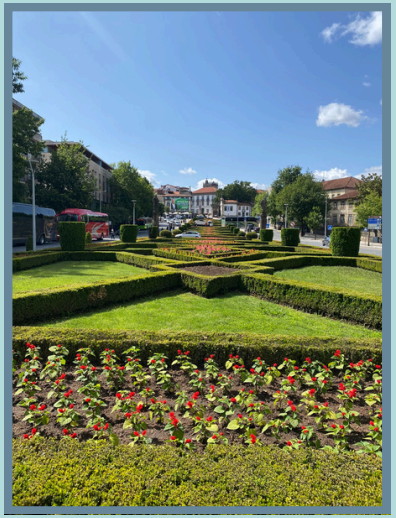
- Partially covered through a combination of municipal funding and external support.
- The municipality actively seeks and applies for external funding opportunities.
- This hybrid funding model — relying on the municipal budget while strategically leveraging external funding when needed — will continue to guide future developments.

Stakeholders

- Community engagement approach in Torres Vedras — with the Climate Action Pact and the Climate Action Platform as core elements
  - Implementation team
  - Strategic planning support
  - Communication Office
  - Funding management Office
- Internal stakeholders
  - Political leaders
- External stakeholders
  - Citizens and local communities
  - Businesses and industries in sector like agri-food, forestry, transport, tourism and manufacturing
  - Educational institutions (schools)
  - Environmental NGOs and civic associations support outreach
  - Local media, key to disseminate information

Enabling municipal policy framework for replication





Next step

2025 Q4

Develop and distribute a support template to help new Pact subscribers define their baseline and plan/report their actions

Mytilene

Greece

Mytilene, a town of approximately 32,000 residents, is the capital of Lesvos Island, Greece. As part of the Twinning Learning Programme, the city is replicating a data collection and monitoring practice originally implemented in Istanbul, and integrating it into its digital transformation strategy.

*Paired with **Istanbul** (Pilot city, implementing Green and Carbon Neutral Building Transition Guide)*

As part of the Twinning Learning Programme, Mytilene partnered with Istanbul, a city from the region with similarities in climate and culture. In selecting the practice to replicate, the city carefully considered factors such as scalability —recognising that Mytilene is significantly smaller than Istanbul—, available funding opportunities, and the city's overall planning framework.

Replication Practice

Date collection and monitoring practice

The goal is to establish a scalable, reliable system for collecting and monitoring environmental and operational data to inform climate actions and improve urban services. The practice was tailored to suit available resources and existing municipal systems.

Data Collection Infrastructure

- Smart Sensors: Installed across the city to monitor air quality (PM2.5, NO_2), noise pollution, energy use in public buildings, and waste bin fill levels.
- IoT-Enabled Devices: Integrated into street lighting, pedestrian crossings, and mobility hubs.

Monitoring System

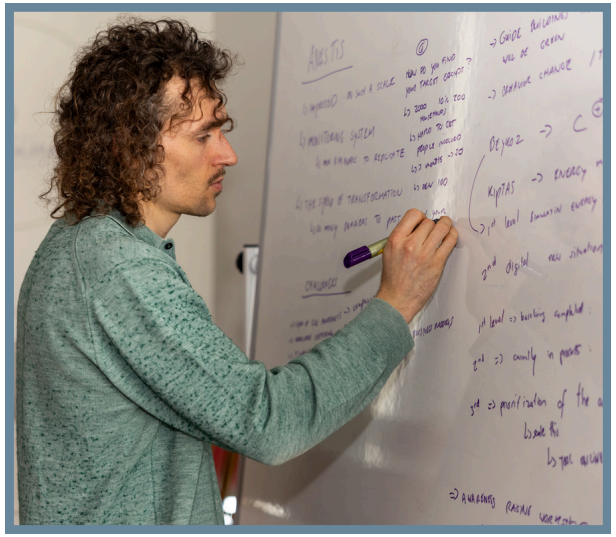
- Digital Control Dashboard: A central monitoring platform aggregates real-time data from all sources.
- Automated Alerts: The system issues warnings for critical thresholds (e.g., poor air quality or overflowing bins).
- Historical Data Analysis: Enables tracking of trends and seasonal variations.

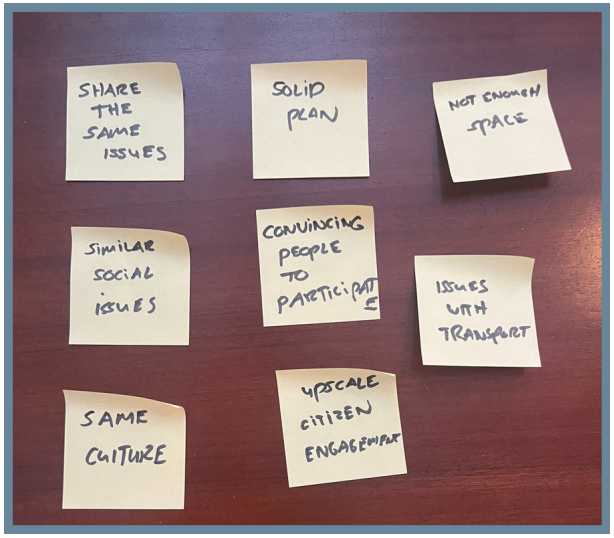
Scope

- Data-driven climate action
- Environmental monitoring
- urban service optimisation
- digital infrastructure integration
- public engagement

Link to existing municipal policy

This practice is part of a broader digital transformation strategy, as outlined in the "Marketplace for Digital Transformation".





Resources

Financial means

- The practice is partly covered by the National Strategic Reference Framework.
- Additional funding will be used thanks to a combination of national initiatives and European Union funding mechanisms.

Stakeholders

Internal:

- Municipal Technical Services Department
- Digital Transformation and IT Department
- Environmental and Urban Planning Unit
- Administrative and Public Engagement Staff

External stakeholders:

- Consultants
- Academia and research institutions
- Private sector partners

Enabling municipal policy framework for replication

Next steps

Community Engagement and Public Launch of the Digital Platform

January 2026

Alba Iulia

Romania

The city has managed to reduce emissions by 25% by 2023, compared to the reference year 2008, when they totalled 219k tons of CO2, the vast majority coming from the buildings sector, followed by transport.

*Paired with **Kozani** (Pilot city, implementing NEUTRON)*

Alba Iulia focused on the learnings from Kozani, linked to the development of Agri Photovoltaics and the Green Heat Module for thermal storage.

Replication Practice I

Agri Photovoltaics

Agri PV (or agrivoltaics) is a dual use system: promotes the usage of solar PV system for producing electricity and using it for agricultural activities. Agri PV has several advantages, like dual use of land, increased land productivity, protection of crops, reducing water consumption, energy generation for pumps or other equipment, development of pollinator's habitat. Such projects can be considered for minimising emissions in agriculture, based on usage of RES, with a possible contribution for greening the electricity network (considering energy not used locally and injected to grid).

Scope

- Support small farms in Alba Iulia struggling with rising electricity costs and energy poverty.
- Promote agri-PV solutions to support sustainable food production, despite limited government support, making such projects rare locally.
- Leverage insights from the Neutron project (Kozani) on technical, financial, and farmer engagement aspects.

Link to existing municipal policy

This solution aligns with the Integrated Strategy for City Development and Plans for energy efficiency, the use of renewable energies, and mitigating climate change.

Next step

April 26 – October 26

Implementation of Practices (2 months for Agrivoltaics and 6 months for the Green module)

Replication Practice II

Green Heat Module for thermal storage

Green Heat module is an innovative patented solution of Kraftanlagen Germany, partner in the Neutron project. In Kozani, the system will be used to supplement the energy needed for the city's thermal energy distribution system.

Scope

- Implement Green Heat Module systems in municipal buildings and new apartment blocks.
- Phase out natural gas boilers for hot water and heating (natural gas = 47% of total energy use).
- Address the absence of centralised heating. Currently, only a partial geothermal system with heat pumps provides limited storage.

Resources

Financial means

- No major funds are needed for agrivoltaics, a minimum of 15.000 EUR for 20KW farm;
- Important funds are needed for the Green module, not identified yet

Stakeholders

- Public Manager, Experts in EU projects, International projects, technical experts, financial experts, legal experts.
- Capacity is desired and needed, especially for the Green module Practice.
- Capacity must be improved in technical personnel, shared on various projects and expertise, especially on new solutions.
- The municipality has a good capacity in terms of project management: International Relations, Partnerships and Urban Innovation, Technical Department, including Investments and Buildings technical maintenance teams.
- Alba Local Energy Agency – ALEA, Prosumers Association, local Universities, RES local companies.

Enabling municipal policy framework for replication

The twinning program is a good opportunity to test and implement innovative approaches to rapid decarbonisation from other cities. Communication with the Municipality of Alba Iulia was very constructive and gave us the opportunity to see how some actions worked, which we also intend to implement in Kozani. We were also given the stimulus to plan some projects in the field of energy transition.

Kyriaki G. Sakellariou, Department of Procurement, Services and Projects, Waste Management of Western Macedonia Region

Jerusalem

Israel

The city aims to increase sustainable transportation from 32% in 2024 to 36% by 2040 across all of its resident population and among those who travel to work or visit the city.

*Paired with **Lahti** (Pilot city, implementing Systemic change towards sustainable commuting) and **Reykjavik** (Twin city)*

Jerusalem's learnings focused on sustainable transportation, reducing emissions, and citizen and business engagement to promote public transport, walking, cycling and improve infrastructure.

Next step

Further programme development and integration into city and transportation planning

January 26 – March 26

Replication Practice

SUMP (Sustainable Urban Mobility Planning)

As the majority of emissions in Jerusalem are from transport, the city decided to focus on:

- Policies and programmes to encourage and increase cycling and walking.
- Collaboration with research and academia for data collection and planning.
- Learnings from the multi-modal transportation centre in Reykjavik.
- Policies and interventions encouraging employers to commute sustainably and thereby reducing private vehicle use.
- Community engagement, education and priority setting at the neighbourhood level and with school and community centre participation.

Scope

- Private vehicles
- Public transport
- Bicycle routes and walking paths
- Awareness-raising campaigns
- Expansion of city-wide Light Rail System

Link to existing municipal policy

Jerusalem's SUMP is linked to the municipality's Climate Change Action Plan and additional internal policy documents from the Department of Urban Planning and Development and Transportation for Reduced Emissions.

Resources

Financial means

- Funding from the Ministry of Health, Ministry of Transportation, and the municipality's Budget for City Planning and Urban Renewal

Stakeholders

- The office of the Authority for Environmental Quality and Sustainability
- Cooperation with academy and research
- Essential political support, particularly from the Mayor, local and regional council members, and the Environmental Protection Authority of Israel

Enabling municipal policy framework for replication

The European Union continues to apply the Guidelines on the eligibility of Israeli entities and their activities in the territories occupied by Israel since June 1967 for grants, prizes and financial instruments funded by the EU from 2014 onwards as regards Israel in general and Jerusalem in particular.

Reykjavík

Iceland

By participating in the Twinning Learning Programme, Reykjavík's aim is to accelerate the process of reaching its climate goals by tackling its biggest sector of carbon release: mobility.

*Paired with **Lahti** (Pilot city, implementing Systemic change towards sustainable commuting) and Jerusalem (Twin city)*

The most effective interventions in Lahti's experiment were communication efforts from the workplace to staff members with the results of the Reykjavík team putting together a communication package for workplaces. The communication package will be tested, its effects measured and adapted and scaled up to more workplaces in the city.

Next step

Start of communications package with participant organisations in collaboration with the Twinning team

October 2025

Replication Practice

A communication package on sustainable mobility practices

Reykjavík will offer workplaces a communication package, which covers various ways of encouraging staff to use sustainable transport modes. In addition, the team will encourage workplaces to better their cycling infrastructure and offer members of staff motivators and increased services, for example to borrow e-bikes. The practice tackles the mobility sector and uses stakeholder engagement as the lever of change, and indirectly citizen engagement (through stakeholders).

Scope

- Sustainable mobility;
- Nudging with strategic communication practices
- Stakeholder engagement with local private companies and their staff

Link to existing municipal policy

Green deal, the Climate City Contract and the Climate Action Plan.

Resources

Financial means

The most expensive activity to fund is the making of video material / online communication material. This will be funded by the NetZeroCities Pilot project – Cohort 3 in Reykjavík.

Stakeholders

- The Twinning team, the transport team at the environment and planning department, the urban and economic team and the climate city working group.
- The Reykjavík science city group, the centre for sustainable companies, the bus company and cycling associations.

Enabling municipal policy framework for replication

The Twinning Programme has been an enriching experience, providing a platform for knowledge exchange and collaborative problem-solving. This collaboration has reinforced the importance of international partnerships in tackling global challenges, especially in behavioural change. Cities may be different, but citizens are surprisingly similar.

Katja Ojala, Project Manager City at Lahti municipality

Lorquí

Spain

Lorquí is a small municipality in the Region of Murcia that has been experiencing the impacts of climate change with particular intensity. The city will replicate a cooling paint initiative to respond directly to one of Lorquí's most pressing challenges: extreme heat.

*Paired with **Limassol** (Pilot city, implementing Lemesos City Cooling Challenge: LC³ - Limassol) and Viladecans (Twin city)*

It represents a simple, cost-effective, and scalable solution that could be extended to the private sector, provided it is supported by an effective communication and dissemination campaign.

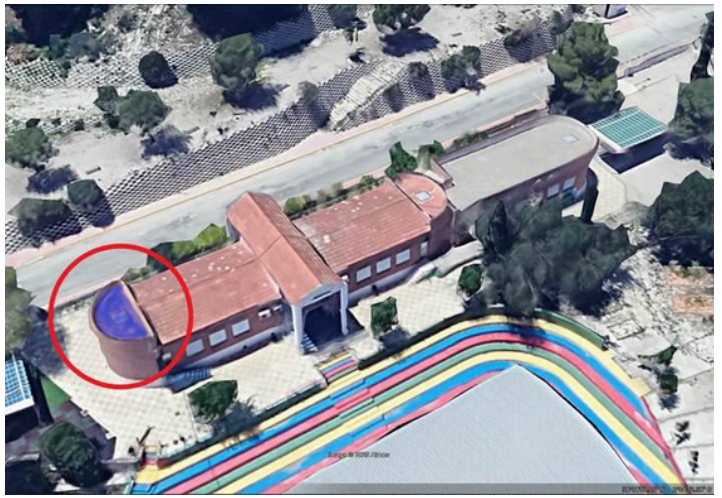
Replication Practice

Pilot the use of cooling paints on the exterior surfaces of buildings

These paints are designed with specific reflective properties that reduce heat absorption, thereby lowering indoor temperatures and the need for mechanical cooling.

To explore their potential, the municipality plans to test this solution on a newly constructed public building. The experimental approach involves applying cooling paint to a portion of the building while the remaining sections will be painted with conventional exterior paint. The municipality will then monitor and compare external and internal temperature conditions between the two areas. This real-life experiment will serve not only to assess the paints' effectiveness but also to raise awareness among citizens.

By showcasing the cost-effectiveness and environmental impact of this solution, the municipality aims to encourage wider replication in both public and private buildings.



Proposed building for the cooling paint test. In red the testing area and in blue de control area.

Next steps

- **October 2025** — Application of cooling paint by local public workers crew
- **September 2026** — Measurements of termperature conditions by local technical staff

Scope

- Sustainable cooling
- Energy efficiency
- Citizen engagement and awareness raising

Link to existing municipal policy

- The cooling paint pilot project is fully aligned with Lorquí's broader strategic framework, which includes the Local Urban Agenda, the Sustainable Energy and Climate Action Plan (SECAP), and the municipality's Energy Policy. This practice supports the Climate City Contract framework and supports the EU 2030 neutrality targets.

Resources

Financial means

The estimated surface area of 17–18 m² requires at least 32 kg of paint, with an estimated cost of €450 for application by the municipality.

Stakeholders

- Construction contractors.
- Communication and awareness team.

Internal:
Several internal teams within the Municipality of Lorquí need to be informed, involved, and regularly updated throughout the process:

- Technical Office
- Local Development Agency
- Political Leaders and Decision-makers

External:

- Paint manufacturers/supplier
- municipal maintenance team
- Covenant of Mayors for Climate and Energy
- Media and Communication Channels

Enabling municipal policy framework for replication

Viladecans

Spain

Viladecans aims to achieve carbon neutrality by 2030. The city's dedication is reflected in its 2030 Strategy. The city's Sustainable Energy and Climate Action Plan and key projects like **Vilawatt support** integrated energy governance, citizen participation, and innovative financing.

*Paired with **Limassol** (Pilot city, implementing Lemesos City Cooling Challenge: LC³ - Limassol) and Lorquí (Twin city)*

A takeaway from Limassol's City Cooling Challenge pilot was using reflective cooling materials on buildings, a scalable and cost-effective method to reduce energy demand and improve heat resilience. This technique reflects more sunlight and absorbs less heat than standard roofing materials. The city promotes this low-cost, energy-efficient solution as part of its strategy to mitigate the urban heat island effect.

Replication Practice

Application of reflective paint on rooftops, building surfaces or public spaces to reduce urban heat and improve indoor thermal comfort.

This practice tackles several sectors, especially the built environment, by improving energy efficiency and indoor comfort. By reducing the need for air conditioning, it helps lower energy consumption, ease pressure on the power grid during heatwaves, and cut associated emissions. It contributes to the city's urban resilience strategy to cope with rising temperatures and adapt to climate change.

The initiative is led by the municipal government as part of its broader climate action plan. Implementation involves collaboration with building owners and local contractors to apply the reflective materials, while public awareness campaigns encourage wider adoption among residents and promote the benefits of cool roofing across the city.

Scope

- Vulnerable households
- Social housing and other public buildings
- Private buildings
- Extreme heat and the heat island effect
- Climate adaptation

Link to existing municipal policy

- 3, 30, 300: Adds value to greening goals by cooling non-vegetated surfaces, reducing heat island effects.
- Vilawatt project: Supports local energy transition by offering a passive, low-cost solution to reduce cooling demand in buildings.

Resources

Financial means

- **P**artially covered by existing municipal budgets for building maintenance and climate adaptation.
- To scale up the intervention, the city would consider applying for external funding, including the measure in future municipal budgets, and leveraging the Vilawatt governance model to explore co-financing or partnerships with local actors.

Stakeholders

- Internal
  - Active involvement and coordination of several internal departments.
    - Technical department
    - Maintenance department
    - Procurement department
    - Urban planning department
    - Political leadership (Deputy Mayor) to endorse the measure and facilitate interdepartmental coordination.
- External
  - Product suppliers and technical providers – e.g. companies like Nanoavant, who could supply the paint and offer technical support.
  - Research institutions – such as UPC, to assist with impact monitoring, temperature measurement, and validation.
  - Local construction or maintenance companies – for application and surface preparation, especially for large-scale deployment.
  - Schools, or public spaces, as pilot locations and partners in communication and evaluation.
  - Citizen associations and neighbourhood groups to help identify local needs, build trust, and explore private sector uptake.
  - Energy communities (e.g. under Vilawatt) as potential co-implementers, particularly for mixed-use or residential areas.

Enabling municipal policy framework for replication

Next step

Application of cool roofing paint on selected surfaces by Technical Department and External Partner

Q2 2026

Lund

Sweden

Lund has set the goal to become a climate-neutral and fossil fuel-free city by 2030, and climate positive by 2045. The aim is to strengthen collaboration between the municipality and city stakeholders to enable faster transformation, more impactful projects, efficient implementation, scale-up and increased investments.

*Paired with **Leuven** (Pilot city, implementing Green Heat Transition) and Westminster (Twin city)*

Leuven's model, focused on shared ownership, distributed leadership, and coordinated investments, provided Lund with valuable insights for structuring the city's ecosystem approach.

Replication Practice

Set CoAction Lund as a transition arena that strengthens collaboration across sectors for climate transition

CoAction Lund is currently a system demonstrator focused on achieving climate neutrality in energy and mobility by 2030. It brings together the municipality, businesses, academia, and civil society to co-create solutions for fossil-free, flexible transport and energy systems while ensuring sufficient local energy production to meet electrification needs.

Building on this foundation, Lund's ambition in this replication activity is to scale CoAction Lund into more areas outlined in our climate roadmaps, such as agriculture, circular economy, and the built environment. The transition arena will serve as a platform to co-develop Lund's Climate City Contracts, define sector-specific missions, and link these efforts to financing mechanisms, including a dedicated climate investment fund, to drive impactful climate action.

In summary, the transition arena addresses multiple sectors—starting with mobility and energy and expanding to other areas such as agriculture, circular economy, and built environment—and activates important levers of change: stakeholder engagement, citizen participation, governance innovation, investment and financing coordination, and knowledge development.

Scope

- Collaboration with local business, academia, civil society and the municipality.
- Largest emitting sectors: mobility, energy, agriculture, circular economy and built environment.
- Financing solutions.
- Regional collaboration beyond Lund's municipal borders.

Link to existing municipal policy

- Climate City Contract as well as the LundaEko programme (Lund's plan for ecological sustainability).
- The Energy Plan.
- The Plan for Climate-Neutral Construction and Waste Plan.

Resources

Financial means

- Municipal climate funds partially cover operational costs.
- The estimated annual cost of operating the current CoAction Lund secretariat is approximately SEK 2 million.
- Lund will explore how to develop a climate investment fund aimed at financing specific measures within the transition arena.

Stakeholders

- The replication effort will be led by a transition team, coordinated by a process leader, responsible for strategic alignment and facilitating collaboration across departments and sectors.
- Internal
  - Steering Group for the Urban Development Process
  - Municipal Executive Committee
  - Municipally owned companies such as LKF (housing) and Kraftringen (energy).
- External
  - Lund University (LU) for research collaborations
  - Future by Lund for innovation and business collaboration.
  - Klimatalliansen, a network of local businesses actively engaged in climate work, is also a crucial partner for private-sector commitment and best-practice exchange.

Enabling municipal policy framework for replication

The exchange with both Leuven and Westminister has given a lot of new ideas and perspectives. The site visit in Leuven was great in helping us really understand the ecosystem of sollutions and details on the Leuven 2030 governance model that makes their climate work successfull. Being on site and meeting different people from the organisation/city gives a more full-picture understanding of why certain policy solutions has worked in that context that is not possible to gain through online presentations or shorter meetings.

Madeleine Wahlund, Project leader in climate transition at Lund municipality

Next step

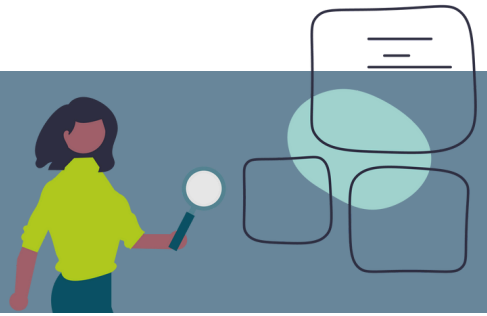
2025 Q4

Establish portfolio governance framework by Portfolio manager, Steering Group for the Urban Development Process and Process Leader

Westminster

United Kingdom

In 2019, Westminster City Council (WCC) set targets for the council to reach net zero carbon emissions for its own assets and services by 2030, and for the wider city by 2040.



*Paired with **Leuven** (Pilot city, implementing Green Heat Transition) and Lund (Twin city)*

Over 80% of Westminster's city-wide emissions are from energy use to heat and power buildings. This represents a particular challenge to our decarbonisation goals, given the dense and historic nature of our built environment.

Replication Practice I (from Leuven)

Development of low-carbon heat networks

Focusing on two areas:

1. Zoning and delivery of neighbourhood heat network projects by the local authority.
2. Building capability and removing barriers to heat network delivery by third parties.

Replication Practice II (from Lund)

Exploring private green investment potential

Our main project is that we will be working over the next 3 years is a Net Zero Partnership with King's College London to develop innovative green finance initiatives and consider financing for our clean energy projects. We may also investigate other private financing routes such as issuing our own green bonds.

Scope

- Westminster-owned residential housing assets and private commercial and public sector buildings.
- Innovative financing, Green bonds.

Link to existing municipal policy

- NW8 Heat Network Project: WCC is entering the design stage for the development of a new low-carbon heat network using our housing assets as anchor loads. This project aims to connect social housing blocks currently used gas-fired communal boilers in the north-east of the borough (NW8 postcode) into a wider heat network using local waste heat sources, including from a nearby electricity substation.
- Westminster Heat Network Forum: This is a diverse group of stakeholders who have formed to meet on a quarterly basis to share updates, opportunities and challenges related to heat network development in Westminster. Members include Government representatives, Mayor of London representatives, large landowners, academic institutions and developers.

Resources

Financial means

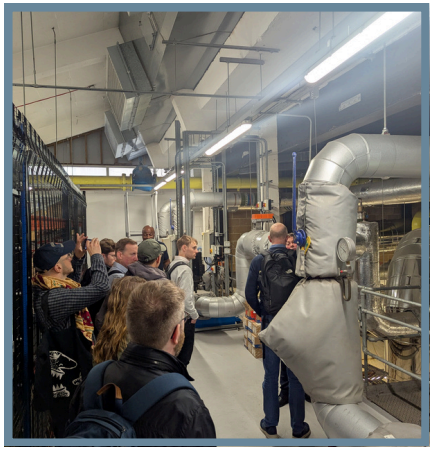
- To replicate the practice around the development of low-carbon heat networks, the city is financially well covered on strategic, consultancy, engagement and design work.
- To address the funding gap around capital funding, the city is looking to replicate the practice with partnership and green funding to identify opportunities to partner with private investors.

Stakeholders

- Internal. Westminster will need to work with, inform and update the following services to successfully replicate the practices:
  - Cabinet Member for Climate, Ecology & Culture
  - Housing Sustainability
  - Housing Asset Management & Major Works
  - Corporate Property
  - Highways
  - Town Planning
  - Planning Policy
  - Procurement
  - Strategic Finance
  - Legal

- External:
  - UK Government Department for Energy Security & Net Zero
  - Greater London Authority
  - Large private landowners
  - Business Improvement Districts
  - Heat network developers
  - Academic institutions
  - Other public sector bodies
  - Housing resident groups

Enabling municipal policy framework for replication



Next steps

July 2025

Delivery of NW8 Detailed Project Development

Sept 2025 - May 2026

Agreed work programme and priorities for the partnership arrangement with King's College London

Wiesbaden

Germany

The State Capital of Wiesbaden aims to achieve climate neutrality by 2045. Due to the large number of old buildings, the areas of heat and energy-efficient renovation are extremely important, but also associated with high costs. In the context of financing, considering funding potential is highly relevant and an important building block for the successful transformation towards a climate-neutral city.

*Paired with **Malmö** (Pilot city, implementing Net Zero Malmö Pilot)*

The Twinning Learning Programme enables a very fruitful exchange with our pilot city Malmö to optimise the identified measures and, above all, to professionalise the use of funding programmes, which is essential for achieving the objectives.

Replication Practice

Leveraging funding programmes for professional climate action

Gaining funding for projects that aim at reducing carbon emissions is important in very different sectors, such as mobility, heat planning, energy efficiency or unsealing of the city. As this approach is only beginning to take shape in Wiesbaden, it offers strong potential for replicating Malmö's proven solutions.

As the smart city unit in Wiesbaden serves as a cross-cutting unit, its work is designed to support various other departments with digital tools and platforms to achieve their climate protection goals.

Wiesbaden can replicate solutions from Malmö in the following areas: tender evaluation, short- and medium-term strategies for acquiring suitable funding programs, appropriate committees for rapid decision-making, a specific project management model for processing funding applications, tools for resource planning and resource allocation, or preparation of texts and correct formulation of funding applications.

[The Twinning Learning Programme] provides you with an opportunity to step outside of the confines of your own organisational circumstances and focus on learning opportunities.

Joakim Nordqvist, Climate strategist at Malmö municipality

Scope

- Third-party funding to expand the city's resources beyond the city budget.
- Tender evaluation.
- Short and medium-term strategies for acquiring suitable funding programs on climate action and digital tools.

Link to existing municipal policy

The implementation of funded activities will be a collaboration between the smart city unit – bringing in the digital tools and other units in charge of working more closely in the focus of climate change adaptation and mitigation.

Resources

Financial means

- The practice to replicate is fully covered through Wiesbaden's unit for European affairs and funding and the Smart City unit.

Stakeholders

Internal:

- Political leaders
- Smart City Team
- Funding Unit Team
- Environmental Department

External stakeholders:

- Environmental Department of Malmo
- Potential external partners

Enabling municipal policy framework for replication

Next step

Q1 -Q2 2026

Implementation of the replication, including regular reviews together with experts from Malmö with the possibility to adjust the plan

Križevci

Croatia

The city of Križevci aims for energy independence by 2030 through investments in green infrastructure, citizen engagement in the energy transition, and partnerships with local businesses to build a resilient and sustainable community.

*Paired with **Nantes** (Pilot city, implementing Together Towards Climate Neutrality) and Palaio Faliro (Twin city)*

Through the Twinning Learning Programme, Križevci sought to foster public awareness, participation, and behavioural change, drawing on Nantes' model to engage a wider public through education and participatory action, encouraging more sustainable daily habits.

Replication Practice

A digital platform to engage citizens in climate action and encourage behavioural change

The practice Križevci aims to replicate is the Climate Challenges platform - an interactive digital tool designed to raise citizen awareness of individual carbon footprints and promote sustainable behaviour. The platform allows the city administration to engage a broader audience more efficiently by educating residents about climate change and encouraging low-carbon lifestyle choices through gamified, challenge-based participation of various target groups.

This practice addresses multiple sectors: buildings, transport, waste management, grid-supplied energy, agriculture, and forestry.

Scope

- Online platform
- Social innovation
- Awareness raising and behavioural change

Link to existing municipal policy

- The City of Križevci is steadily advancing toward sustainable and environmentally responsible development, driven by strong political commitment and community engagement.
- Key municipal policies.

Next step Launch the platform (pilot or full, depending on readiness), by city and project partners.

Q1 2026

Resources

Financial means

The city is actively exploring opportunities to secure funding through national tenders and public calls that support digital tools for citizen engagement and climate action.

Stakeholders

Internal:

- Political leader - The Mayor's Procurement Office
- Technical Implementation Team
  - Project Manager
  - Product Designer
  - Front-end Developer
  - Back-end Developer
  - QA Engineer / Tester
- Programme Implementation Team
  - Programme Advisors
  - Programme Implementers / Coordinators
  - Community Engagement and Communication Specialist
  - Local Facilitators or Ambassadors

External:

- Citizen associations and civil society organisations
- Local businesses
- Educational institutions
- Community initiatives and energy cooperatives
- Local media partners
- Technology providers and developers
- National and regional government bodies

Enabling municipal policy framework for replication

Palaio Faliro

Greece

Palaio Faliro is committed to achieving climate neutrality by 2030 and works to accelerate its climate action by building institutional capacity. The city is developing an integrated, cross-sectoral governance mechanism to coordinate the design, implementation and monitoring of actions aligned with its climate commitments.

*Paired with **Nantes** (Pilot city, implementing Together Towards Climate Neutrality) and Križevci (Twin city)*

Inspired by the city of Nantes and its approach to climate governance and local-level climate strategies, Palaio Faliro gained valuable insights into effective models for planning, coordinating, and implementing cross-sectoral climate initiatives.

Replication Practice

Creation and institutionalisation of a Climate Neutrality Office within the municipal structure

The city established a dedicated Climate Neutrality Office responsible for overseeing climate-related planning, coordination, and monitoring across all municipal departments. It ensures integration of climate objectives within key sectors such as energy, environment, transport, urban planning, procurement, and technical services.

The Office also plays a pivotal role in enabling both horizontal and vertical collaboration, and in engaging stakeholders, including citizens, businesses, academic institutions, and various levels of government. Key goals include strengthening leadership, improving data collection and monitoring, and supporting pilot initiatives in areas like energy efficiency, green mobility, sustainable land use, and the circular economy.

To further transparency and public involvement, the municipality launched a digital platform — netzeropalaiofaliro.gr — as a central access point for updates, activities, and information related to the city's climate neutrality efforts.

Scope

- The Office promotes cross-cutting themes, such as climate justice, inclusive participation, and digital tools for smart monitoring.
- The Climate Neutrality Office will also work in synergy with the online platform developed by the municipality to increase transparency and citizen involvement in the climate transition.

Link to existing municipal policy

- The Climate Neutrality Office is embedded within and contributes to the implementation of several key municipal and regional policy frameworks.
- It is directly aligned with the Local Urban Plan currently under development, where it facilitates the integration of spatial and environmental sustainability principles.

Resources

Financial means

- Limited operational budgets. The full-scale functioning of the Office remains financially under-resourced.

Stakeholders

Internal

- The Climate Neutrality Office must act as a transversal unit, enabling collaboration and capacity-building across these departments to ensure that climate action is not siloed but embedded in all municipal operations.

External

- Local businesses and commercial actors. Examples: Retail shops, cafés, restaurants, supermarkets, logistics providers, and small-to-medium enterprises (SMEs).
- Educational Institutions (Schools, Universities, Kindergartens)
- Civil society and citizen groups
- Regional and national institutions

Enabling municipal policy framework for replication

Next steps

Finalise internal decision to fully activate the Climate Neutrality Office — 2025 Q1

Final decision and role definition — 2025 Q3

Konya

Turkey

Konya is a central hub for agriculture, industry, culture, and public services The city aims to achieve a significant reduction in greenhouse gas emissions and to implement a resilient urban transformation.

*Paired with **Rivne** (Pilot city, implementing Creating NetZero vision)*

Within the scope of the NetZeroCities Twinning Learning Programme, Konya has identified the successful implementation of the "Municipal Energy Passport (MEP)" system in Rivne, Ukraine, as a replicable practice.

Replication Practice

Municipal Energy Passport

The Municipal Energy Passport (MEP) is a smart monitoring system designed to facilitate real-time tracking, analysis, and strategic decision-making regarding the energy consumption of municipal buildings. By enabling continuous monitoring of electricity, heating, water, and gas usage, the system supports the calculation of building-level carbon footprints and promotes the identification of cost-effective energy efficiency scenarios.

The MEP system will initially be implemented at the Konya City Library. All utility consumption data will be collected through in-building meter readers connected to a local concentrator, which will compile the data and transmit it to a centralized municipal system in JSON format over Ethernet. This will serve as the technical backbone for evidence-based energy governance and performance reporting.

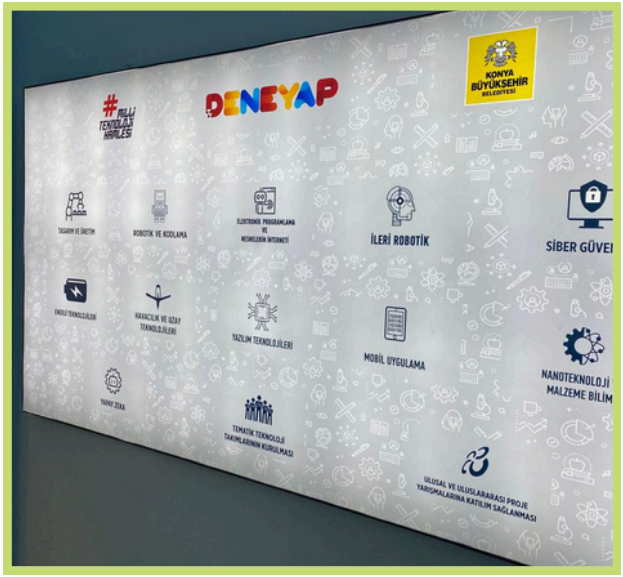
Scope

- Data monitoring of energy consumption
- Konya City Library

Link to existing municipal policy

- This practice directly aligns with Konya's strategic objectives under the Sustainable Energy and Climate Change Action Plan.
- It will be integrated with the city's ongoing development of a digital tracking System.

Next steps



Q4 2026

Initial data entry and platform testing

2027

Development of scale-up plan for municipal buildings

Resources

Financial means

- Municipal own resource.
- Additional funding applications will be submitted to Horizon Europe, the Union of Municipalities of Türkiye, and the European Bank for Reconstruction and Development.

Stakeholders

Internal:

- Directorate of Climate Change and Zero Waste
- Department of Information Technologies
- Department of Financial Services
- KOSKİ General Directorate

External:

- Local universities

Enabling municipal policy framework for replication

Fundao

Portugal

Fundão is a rural territory facing the dual challenge of driving economic development while ensuring climate resilience and social inclusion. Its goal is to reduce CO_2 emissions by at least 40% by 2030 and to strengthen climate adaptation and community engagement.

*Paired with **Turku** (Pilot city, implementing 1.5 Degree City) and Taurage (Twin city)*

The Twinning Learning Programme provided valuable insights into how mid-sized cities can engage citizens and stakeholders in the climate transition.

Replication Practice

Turku's 1.5 Degree City

Fundão was particularly inspired by this approach as it supports broader goals of fostering a shared narrative on sustainability, enhancing visibility, and connecting local actors through a common agenda.

This practice stood out as the most relevant and feasible to replicate, as it combines strategic branding, digital tools, and local ambassadorship, elements that Fundão can adapt to its context to mobilise collective climate action.

By focusing on communication and engagement across these target groups and activities, Fundão seeks to build a **shared climate identity** and inspire collective action to complement technical and policy initiatives.

Scope

- A digital platform to communicate climate objectives, highlight local projects, and provide transparent climate data in an accessible format.
- A communication campaign that reinforces a sense of shared responsibility and collective action, using clear visuals and storytelling to inspire local pride and engagement.
- A network of climate ambassadors, involving key local actors (youth, businesses, civic organisations) to champion sustainability and amplify the message within the community.

Next step

Official launch of the climate brand and digital platform — 2026 Q1

Resources

Financial means

- The replication of the “-1.5 Degree City” branding approach is not yet fully financed. However, the Municipality of Fundão is actively analysing the possibility of supporting this initiative within the scope of the Horizon Europe project DesirMED, already under implementation.
- In parallel, Fundão is mobilising other potential resources through:
  - Municipal budget allocations, particularly in the fields of climate action, communication, and education.
  - Additional national and EU-level funding opportunities.

Stakeholders

- Political leadership (Mayor and Deputy Mayors)
- Division of Innovation, Investment and Strategic Planning
- Communication Office
- Environment and Energy Efficiency Service
- Office for Rural Development and Agriculture
- Education and Culture Division (to ensure integration with ongoing learning policies)
- Procurement and Legal Teams (especially for contracting services)
- Youth Municipal Assembly (empowering younger generations in the climate transition through co-design and advocacy roles).

Enabling municipal policy framework for replication

Link to existing municipal policy

- Alignment with the Sustainable Energy and Climate Action Plan
- Complementation to the Sustainable Urban Mobility Plan
- Connection to the Fundão Innovation Plan

Taurage

Lithuania

Tauragė is committed to achieving climate neutrality by 2030 and aims to encourage more climate-friendly practices among residents across multiple domains, such as mobility, energy and circular economy.

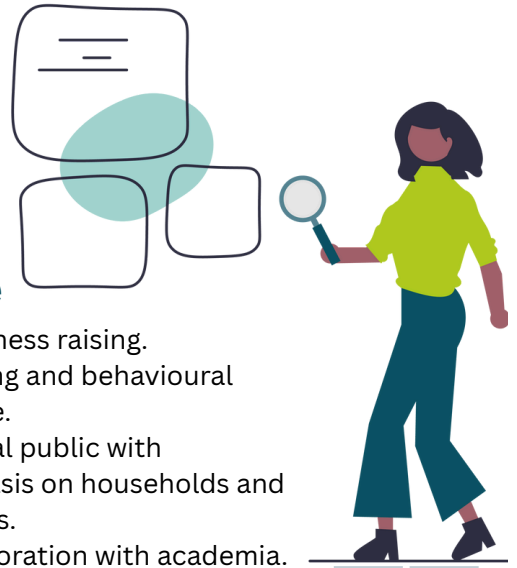
*Paired with **Turku** (Pilot city, implementing 1.5 Degree City) and Fundao (Twin city)*

Taurage chose to explore the Climate Nudge practice from Turku to boost behaviour change. This practice gives the city a chance to try something new, collaborate with researchers from university, and create something that can work in their context. It's also a reminder that reaching climate neutrality isn't just about technology or infrastructure but about making the sustainable choice the easiest for people in their everyday lives.

Replication Practice

"Climate Nudge": encouraging sustainable behaviour through small-scale behavioural interventions

The practice, originally developed by the Turku School of Economics, is based on behavioural science and explores how small, cost-effective changes — known as "nudges" — can influence individuals' decisions in a more sustainable direction without restricting choice. In collaboration with researchers from Kaunas University of Technology, Tauragė aims to design, monitor, and evaluate such behavioural interventions. These will be tested and applied across multiple domains to encourage more climate-friendly practices among residents, such as walking or using public transport instead of private cars, saving electricity or switching to renewable energy at home, and improving recycling habits. The overarching aim is to reduce carbon emissions by making sustainable behaviour easier, more appealing, and more automatic in everyday situations.



Scope

- Awareness raising.
- Nudging and behavioural change.
- General public with emphasis on households and citizens.
- Collaboration with academia.

Climate neutrality isn't just about technology or infrastructure—it's about making the sustainable choice the easy one for people in their everyday lives.
Agnė Petrošiūtė, Advisor at Taurage Municipality Administration.

Resources

Financial means

- It is not yet fully financially covered.
- Two main categories of funding are required:
  - Research Funding to support Kaunas University of Technology.
  - Implementation Costs to cover the development, testing, and communication of nudges across sectors such as mobility, energy, and waste.

Stakeholders

- Internal
  - Streamlined municipal structure: project coordinator, communications officer, energy specialist, researchers from Kaunas University of Technology.
- External
  - Kaunas University of Technology
  - Local Public Transport Operator
  - Waste Management Company
  - Energy Utility Providers
  - Citizen Groups and Community Initiatives
  - Schools and Educational Institutions
  - Local Businesses and Retailers

Enabling municipal policy framework for replication

Next step

Prepare and submit project proposal for funding

2026 Q2-Q4

Braga

Portugal

Braga aims to achieve carbon neutrality by 2050 and reduce greenhouse gas emissions by 55% by 2030. Its focus on the circular economy in construction arises from the sector's significance to the local economy and its substantial potential for emissions reduction.

*Paired with **Uppsala** (Pilot city implementing SCALE UP -Systematic Climate Action to Lower Emissions in Uppsala) and Riga (Twin city)*

The city drew inspiration from the successful implementation of circular economy strategies in the construction sector in both Uppsala and Riga. It now aims to adapt and apply these practices by promoting material reuse, enhancing waste management, and collaborating with local companies to foster a more sustainable transition within the construction industry.

Replication Practice

Implementing circular economy principles in the construction sector

The initiative aims to reduce waste, extend the life cycle of materials, and promote sustainable construction practices through collaboration with local companies and public stakeholders. This includes actions such as encouraging the reuse and recycling of construction and demolition materials, fostering innovation in construction techniques that prioritise low-carbon and recyclable materials, and supporting the creation of platforms for material exchange.

This practice primarily targets the circular economy and built environment sectors, operating through multiple levers of change:

- Stakeholder engagement.
- Governance and policy alignment: embedding circular principles.
- Capacity-building: training and technical support.
- Innovation and experimentation: new models for circular construction.

It also promotes the circularity criteria in public procurement processes and urban planning, as well as awareness raising and capacity building.

Scope

- Construction and demolition waste management
- Promotion of material reuse and recycling
- Integration of circularity in procurement and planning
- Engagement with the local construction ecosystem
- Pilot projects in public buildings and infrastructure

Link to existing municipal policy

This practice aligns with several existing strategies and action plans of the Municipality of Braga, including:

- The Local Climate Action Plan.
- Municipal Strategic Plan for Sustainable Development
- Sustainable Urban Development Strategy
- The Climate-neutral and Smart Cities Mission

Resources

Financial means

Braga's initiative is partially covered through existing municipal resources and ongoing European-funded initiatives. For the rest, they aim to:

- Apply for European funding opportunities.
- Mobilise private sector co-investment by engaging local construction companies.
- Leverage public procurement innovation.

Stakeholders

The successful replication of circular economy practices in the construction sector will require a multidisciplinary team involving various municipal departments, external experts, and strategic partners.

- Internal: Several internal teams within the Municipality of Braga must be informed and regularly updated.

- External:
  - Construction companies and industry associations
  - Architects and engineers
  - Universities
  - Waste management companies
  - Business innovation networks
  - Citizen and environmental associations
  - Real estate developers and housing cooperatives
  - Financial institutions

Enabling municipal policy framework for replication

Next step

January 2026

Launch of pilot project using circular principles in a public building

Riga

Latvia

Riga, committed to achieving climate neutrality by 2030, aims to advance its sustainability goals by supporting the implementation of circular economy principles in the local context, with a particular focus on maximizing material reuse and reducing waste in the construction sector.

*Paired with **Uppsala** (Pilot city, implementing SCALE UP - Systematic Climate Action to Lower Emissions in Uppsala) and Braga (Twin city)*

Inspired by Uppsala's selective demolition practice, Riga identified it as a best practice model to enhance sustainability in local construction and demolition activities. Uppsala demonstrated its expertise through carefully planned selective demolition, aiming to reclaim and reuse as many dismantled materials as possible.

Replication Practice

Uppsala's selective demolition practice

Riga is set to replicate Uppsala's selective building demolition practice, which focuses on sustainable demolition and circular material management. This approach involves carefully planning demolition activities to maximise the recovery and reuse of building materials while minimising waste generation.

Key elements of the practice include conducting detailed material audits before demolition, assessing the potential for material reuse, and implementing meticulous demolition strategies that separate and preserve reusable components.

This practice falls primarily within the built environment sector and addresses key levers of change such as stakeholder engagement, governance, and circular economy implementation. In Latvia, circular economy solutions in construction remain largely untapped due to limited practical experience and restrictive regulatory frameworks.

Stakeholders are keen to identify existing barriers and opportunities for improvement, particularly in terms of increasing material reuse and minimising waste generation. By adopting this practice, Riga aims to improve its sustainability performance in the built environment sector, overcome current regulatory and practical challenges, and foster collaboration among local and national stakeholders.

Scope

Buildings that need to be demolished to pilot the practice of selective deconstruction.

Next step

April - December 2026

Implementation of selective demolition practice, after stakeholder engagement and fundraising, by Riga Energy Agency, Riga Property Department, municipal and national real-estate properties.

Resources

Financial means

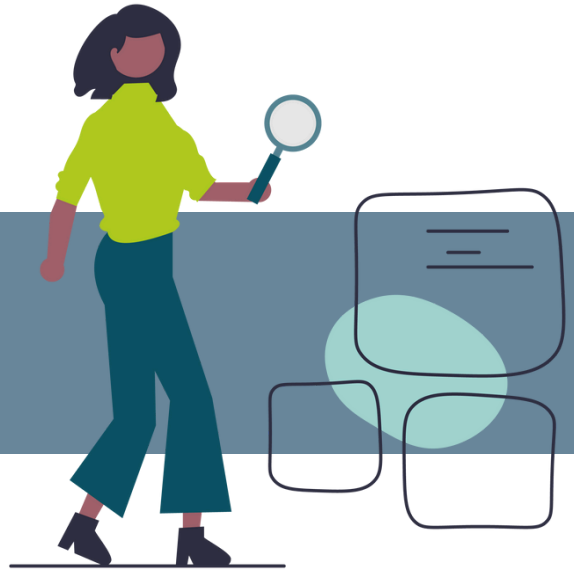
- Not financially covered by the city. Riga Energy Agency is looking for possibilities to finance the pilot through EU programme funding.

Stakeholders

- Internal
  - Political leaders and municipal departments
- External
  - National real estate companies
  - Construction and demolition companies
  - Local government authorities and regulators
  - Citizen associations and community initiatives
  - Waste management and recycling companies
  - Academic and research institutions

Enabling municipal policy framework for replication

- Circular economy actions are incorporated into the Sustainable Energy and Climate Action Plan 2030 and will be further detailed in Riga's Circular Economy Action Plan 2026-2030, developed by the Riga Energy Agency.



Luleå

Sweden

The City of Luleå is developing a new climate plan that sets ambitious targets for achieving climate neutrality. The municipal corporation aims to be climate neutral by 2030, and all residents and businesses in Luleå aim to be climate neutral by 2045.

*Paired with **Umea** (Pilot city, implementing The North Star) and Wuerzburg (Twin city)*

The Twinning Learning Programme has helped Luleå to build capacity and gain knowledge on how to handle construction and maintenance with special focus on the reuse of building materials.

Replication Practice

Strategy for circular economy in the built environment

For the municipality to succeed in growing while achieving the decided climate goals, circular principles need to be integrated throughout the entire construction process, such as promoting the reuse of materials and developing circular business models.

The practice includes a minimum of three experimental pilots and learning by doing, increasing the municipality's capacity to include circular principles in regard to demolition, renovation and new construction. Luleå also wants to investigate the possibilities for shared storage of building materials that can be reused and different business models that could work in the context of the responsibility of the municipality and current regulations.

This practice involves both sectors, the built environment and the circular economy. To handle these new business models, the municipality should work together with external actors.

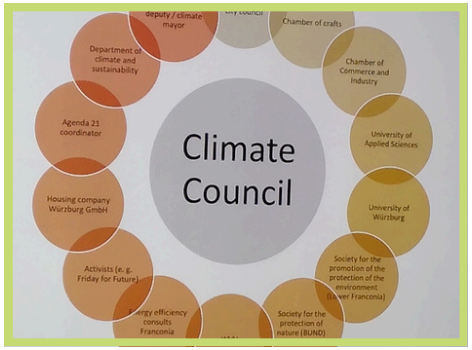
Scope

- Public buildings owned by the municipality
- Internal processes within the municipality as an organisation.

Link to existing municipal policy

Program for Vision Luleå 2040

Worth the time spent. [The Twinning Learning Programme was] helpful to accelerate the work towards climate neutrality at the municipality.
Sophie Forsberg Johansson, Senior Climate and Environmental Officer at Luleå municipality



Resources

Financial means
A working group of officials from different departments and companies owned by the municipality is in place. The financial resources that are not fully covered are:

- Investment funds for extra expenses related to the process and use of reused building materials.
- Investment funds for a large-scale shared storage of reusable building materials.

Stakeholders

- Internal
  - Different management teams and officials.
  - CEO and management teams for publicly owned companies within the municipality.
  - Political leaders.
- External
  - Businesses that are members of the Network for sustainable construction and maintenance.
  - Businesses that are suppliers to the municipality within the sector of construction and maintenance.

Enabling municipal policy framework for replication

Next step

Development of proposals for political decision regarding business models for large-scale reuse market — Q1 – Q2 2026

Initiate pilots — October 2026

Implementation strategy for action plan — 2027

Würzburg

Germany

Würzburg is located in Bavaria and is considered a hotspot for climate change in Germany. The city is facing up to the challenges that can already be identified today (increase in heat extremes, urban heat island effect, heavy rains, and dryness). Würzburg has set the goal of becoming climate-neutral as an entire city by 2040, and by 2028 for the administration.

*Paired with **Umeå** (Pilot city, implementing The North Star) and Luleå (Twin city)*

The collaboration with local stakeholders and its potential to support climate mitigation goals inspired the replication of activities from Umeå. The "Local Green Deal(s) for Würzburg" aims to create a tangible impact on climate protection and climate adaptation within the economic sector.

Replication Practice

Local Green Deal(s) for Würzburg

Local Green Deal(s) for Würzburg build on existing local networks and partnerships to establish a structured, collaborative framework that embeds sustainability into business practices. It builds upon existing Green Network, that was already active in the city. It fosters innovation, cooperation, and shared responsibility, while aligning with long-term municipal planning goals. It represents a vital step toward a climate-neutral and climate-adapted Würzburg.

Scope

Large, medium and small businesses in Würzburg.

Link to existing municipal policy

- Würzburg's Integrated Climate Action Plan
- Future Climate Adaptation Strategy
- Master Plan for Open Spaces
- Future Sustainable Urban Mobility Plan (SUMP)

Resources

Financial means

- Applying funds from the municipal budget.
- Complemented by external funding for a forthcoming project application to the German Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety.

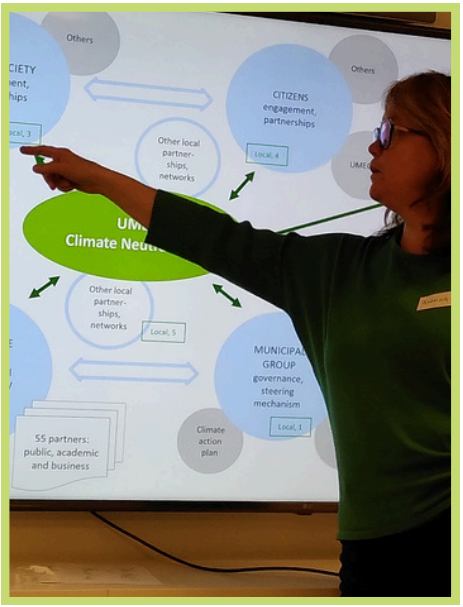
Stakeholders

- Project manager (Climate Mitigation Manager).
- Coordinator of Green Network.
- External advisor for facilitation.
- Leader and/ or Sustainability Manager of participating businesses.

- Internal
  - Climate Mitigation Manager.
  - Close collaboration with the Department of Economic Affairs will also be essential.
  - Political level for financial commitment, as only a portion of the project costs will be covered by external funding.

- External
  - Businesses located in Würzburg

Enabling municipal policy framework for replication



Next step

Formulating first local Green Deals — Fall 2026

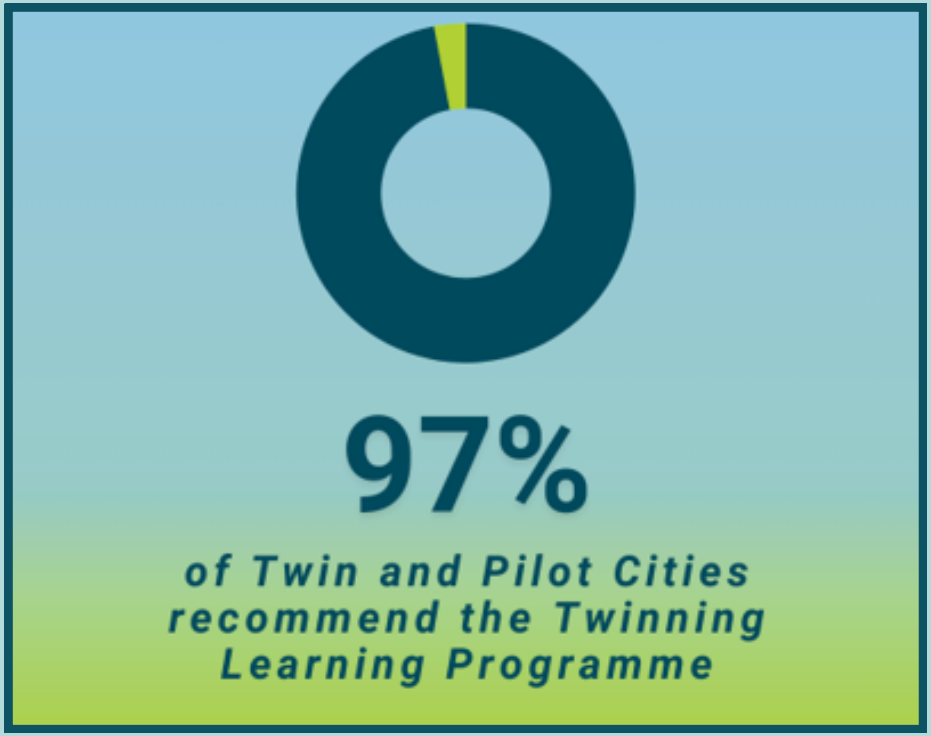
Looking ahead

The first cohort of the Twinning Learning Programme has demonstrated the value of **structured peer learning anchored in real pilot projects**. By pairing Mission cities implementing innovative climate actions with Twin cities eager to replicate their approaches, the programme has created a unique space for **practical knowledge exchange, mutual reflection, and capacity building**.

The **Replication Plans presented in this booklet** are the most tangible outcome of this process. They show how Twin cities have translated inspiration into concrete next steps, identifying practices to adapt, resources to mobilise, and partnerships to strengthen in their local contexts. Importantly, they also highlight the **two-way learning of the exchange**: Pilot cities benefited from feedback and perspectives that helped refine their own activities.

Several cross-cutting lessons stand out.

- **Programme design matters**: Clear milestones, combined with flexibility, allowed cities to progress at their own pace while remaining on track.
- **Breaking down complex actions into replicable elements** made exchange more effective and replication more realistic.
- Success also depended on political commitment and stakeholder involvement, ensuring that plans are not only technically sound but also socially anchored.
- Finally, **financing remains a critical challenge** for scaling climate-neutral practices, underlining the need for continued EU and national support mechanisms.



Twinning mid-term feedback review survey Cohort 1, November 2024

> *The Programme has provided an invaluable platform for sharing the challenges we face and exchanging ideas on how to address them. It made us realize that we share more similarities than differences with other cities in and outside of Europe and being able to deliberate and brainstorm together has been beneficial for our efforts.*
>
> **Sara Toth, Climate-Neutral City Project Manager at Budapest municipality (Pilot City)**

Looking ahead, these replication plans mark not the conclusion, but the **beginning** of a longer journey. NetZeroCities and Mission partners will follow up with Twin cities to track progress, while future cohorts of the Twinning Learning Programme will expand this model to new cities and new contexts. The experience gained here will also inform and strengthen national platforms and European initiatives, helping to build a more coherent and supportive ecosystem for cities' climate transition.

Above all, this cohort has shown that when **cities learn from each other through structured, hands-on collaboration**, the impact goes beyond the programme. The partnerships and practices developed here will continue to support cities into the future, accelerating Europe's collective progress towards climate neutrality by 2050.

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Find out more on the NetZeroCities website

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