



Case studies: Practical and replicable outcomes of the Pilot Cities Programme (Cohort 1)

Deliverable D5.8 Multimedia case studies

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Abbreviations and acronyms

Acronym	Description
WP	Work Package
NZC	NetZeroCities
EU	European Union
CCC	Climate City Contract
PCP	Pilot Cities Programme
TLP	Twinning Learning Programme

Summary

The deliverable presents 16 multimedia case studies that have been developed within the NetZeroCities project (WP5 Replication & Upscaling, Task 5.3) and showcase examples of practical, replicable, and innovative solutions and approaches emerging from Pilot Cities Programme (Cohort 1) Pilot Activities. The case studies summarise lessons learned from the Cohort 1 Pilot Activities and aim to inspire other cities and municipalities to apply a systemic approach in tackling existing challenges on their way to climate neutrality. These case studies can also be a source of knowledge for EU decision-makers to understand better the barriers cities must overcome when trying to implement innovative changes within their territories.

Keywords

Case Studies, Pilot Cities, Pilot Activities, Mission Cities, Mission-Minded Cities, Replicable practices



Introduction

The NetZeroCities Consortium members developed and published 16 case studies showcasing examples of practical, replicable, and innovative solutions and approaches emerging from Pilot Cities Programme (Cohort 1) Pilot Activities. The case study selection and development process took place from December 2024 until September 2025 within WP5 Replication & Upscaling (Task 5.3), involving five partners: TalTech (Deliverable 5.8 lead), Eurocities (Task 5.3 lead), Resilient Cities Network, ICLEI, and EIT Urban Mobility. The 16 case studies form a representative sample of good and transferable practices, extracting and synthesising lessons learned from the Cohort 1 Pilot Activities (WP4), ready to be shared with a wider audience and inspire replication.

The 16 case studies showcase outcomes from 3 Multi-City Pilot Activities and 13 Individual Pilot Activities, representing the solutions and approaches developed and piloted in 12 Mission Cities and 4 Mission-minded cities. Case studies cover a wide range of topics that can be grouped into six overlapping clusters, in line with the largest emitting sectors (energy, built environment, mobility, waste) and relevant levers of change for accelerating climate transition (governance innovation, stakeholder engagement, citizen engagement, digitalisation, behavioural change, innovative financing):

- Sustainable Energy Solutions
- Built Environment (with special focus on building retrofit)
- Sustainable Mobility Solutions
- Circular Economy
- Governance Innovations
- Behavioural Change

While focusing on replication, the case studies integrate lessons learned from the Pilot Cities Programme (Cohort 1, WP4) and the Twinning Learning Programme (Cohort 1, WP5). The pool of potential case studies from Cohort 1 Pilot Activities was large and diverse. Therefore, task partners followed a transparent, criteria-based step-by-step process (see Section 1.1) in identifying and selecting a representative and geographically diverse sample of case studies while setting a strict limit of no more than one case study per Pilot Activity. The resulting set of 16 case studies demonstrates the practical outcomes of applying a systemic approach in piloting new solutions and methodologies across European cities to address diverse challenges on their way to climate neutrality.



1 Methodology

The case study development and production followed a structured step-by-step process. It had four distinct, yet partially iterative phases: (1) Case study identification and selection, (2) Data and information collection, (3) Case study development, and (4) Dissemination (See Figure X). The first three phases are described in more detail in the next subsections, while the last phase is outlined in Section 3 on Dissemination strategy and is expected to extend beyond the duration of the NetZeroCities project.



Figure 1 : Case study development: a step-by-step process

1.1 Identification & selection of the case studies

T5.3.2 focuses on developing Pilot Cities' case studies (Pilot Cities Programme, Cohort 1), encompassing a pool of [25 Pilot Activities implemented in 53 cities](#). These include:

- 6 Multi-City Pilot Activities,
- 19 Individual Pilot Cities Activities.

All Pilot Cities were implementing systemic and locally designed innovative actions that span multiple areas, from buildings to waste, and levers of change, including governance, finance, and policy. It provided a diverse pool of potential case studies.

As the underlying focus of the task was on replication, the objective of this phase was to identify concrete, demonstrable solutions or approaches that could be developed into inspiring and potentially replicable case studies. Therefore, the task partners implemented a purposeful and structured process for case study identification and selection.



Figure 2 : Case study identification and selection process

1) Initial mapping of potential case studies

Using the Pilot Activities profiles and the Pilot Cities Programme Year 1 reports, TalTech prepared an initial list of potential case studies. The guiding criteria for the pre-selection were as follows:

- **Replication/scale-up potential:** The selected Pilot Activity outcome (e.g., solution or approach) has transferable features or components that (a) the Pilot City plans to upscale within their context; (b) the Twin City plans to replicate or transfer to their local context, or (c) would be replicable in other cities.
- **Practical outcomes:** The selected Pilot Activity outcome is demonstrable or tangible (e.g., campaign, methodology, funding model, one-stop-shop, platform, etc.). Ideally, it's a practical solution or approach with concrete results that other cities could use in their context.
- **Innovation:** The selected Pilot Activity outcome has brought about new solutions or new ways of doing things in the Pilot City. It should have clearly identifiable innovative features developed and implemented during the Pilot Activity.

2) Validation with Twinning Learning Programme facilitators

Once the initial list was complete, TalTech sent it for validation to the Twinning Learning Programme (TLP) facilitators. TLP facilitators work continuously with Pilot and Twin Cities; therefore, they were involved in doing the early assessment of the quality, maturity, and replicability of potential case studies. They were given the same criteria used to prepare the initial list and asked to prioritise one or two outcomes that meet the selection criteria. TLP facilitators could choose from the existing list or add additional approaches or solutions that were overlooked in the initial mapping. In some cases, the task partners also deemed it necessary to involve City Advisors.

The main output of this step was a **longlist of potential case studies** (one or two per Pilot Activity).

3) Discussion with partner organisations

When the longlist of potential case studies was ready, the task partners were invited to provide their input to develop a diverse and geographically-balanced shortlist of case studies. During this discussion and consultation process, all task partners reflected on the recommendations of TLP facilitators/City Advisors, geographic diversity, balance of sectors/domains and levers of change, and interests and capacity of each partner organisation.

The main output of this step was a **shortlist of potential case studies**, including a pre-assigned task partner responsible for the case study development.

4) Validation with Pilot Cities

Finally, the partner organisations responsible for the case studies were asked to contact the respective cities to validate the selection and request initial information for the development of the case studies. Cities were invited to approve the pre-selected case study or offer an alternative outcome of the Pilot Activity to be considered as a case study, providing reasonable justification, such as better results, greater impact, a higher level of maturity of the solution or approach, or greater replicability potential. If a Pilot City proposed an alternative outcome to be developed as a case study, the partner organisation consulted with the task leads from TalTech and Eurocities for final approval.

This step enabled the task partners to secure an early engagement from the Pilot Cities and give them agency in determining which piloting results they would like to showcase as case studies. The final selection of case studies was taken forward to the case study development phase.

1.2 Data & information collection

Once the case studies were selected and validated with the cities, the task partners proceeded with collecting data and information, as well as drafting the case studies. TalTech provided the task partners with a data and information collection template (Appendix I) to ensure that all partners have clearly defined and unified guidelines. Moreover, all task partners were invited to an info session on case study development.

The task partners primarily used two methods to collect data and information for case study development: (1) desk research and (2) obtaining written input from cities. On some occasions, the task partners also opted for short meetings with the cities if that was considered a faster and more efficient way of obtaining the necessary information.

(1) **Desk research**, i.e., collecting and analysing existing materials on the Pilot Activity, Pilot City, and the specific solution/approach. As the Pilot Activities are well-documented throughout their implementation process, the partners were asked to review the following information sources:

- Pilot City profiles;
- Pilot Cities Programme reports (Year 1 progress report from June 2024, managed by CKIC, and final report, available in late July 2025);
- Clustered & Collective Sensemaking reports (aggregated information with a clustered/thematic approach, but also some detailed insights about each pilot activity);



- City presentation during the last Collective Sensemaking session in June 2025;
- Twinning Learning Programme materials, e.g., Pilot City presentations from workshops & site visits, Replicability assessment (deliverable of Module II), and Replication Plan (final deliverable available in June 2025);
- NZC Knowledge Repository, e.g., the Climate City Contract of the Pilot City;
- NetZeroCities media or blog posts about the Pilot Activity;
- Municipal website or other available information sources provided by the city.

The relevant information extracted from the secondary sources listed above was summarised in the case study data collection template. This meant that the task partners created an early draft of the case study using the data collection template, incorporating existing information. Once complete, it allowed the responsible task partner to identify any open questions in each section before requesting input from Pilot City.

(2) **Input from Pilot cities.** Once the desk research was complete and open questions had been identified, the task partner could proceed with requesting input from the Pilot City. It meant sharing the early draft or the pre-filled data collection template with Pilot City for validation and input. The Pilot Cities were encouraged to answer any open questions in free form and make any other corrections to the text and return it to the respective task partner.

This process allowed reducing the burden for the Pilot Cities in contributing to the case study development, while still ensuring meaningful engagement and ownership of their story and piloting results.

1.3 Development & production of the case studies

The early stages of case study development and production ran in parallel with the data and information collection process, enabling an iterative and collaborative approach. Once the data and information collection were complete, the task partners could proceed with preparing the final draft and case study production stage.

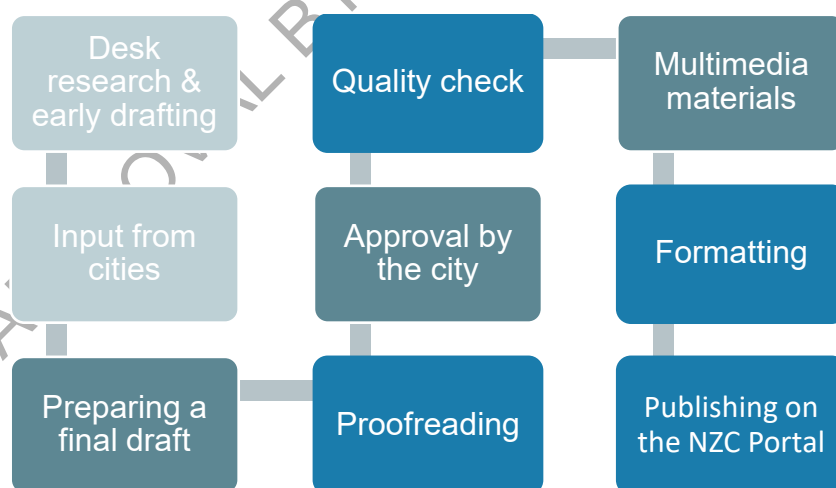


Figure 3 : Case study development and production process

(1) **Preparing a draft.** Using the filled-out data collection template, the task partner prepared a final draft of an article (approx. 1000 words) using the following structure:

- Introduction (a short paragraph introducing the city or cities, its climate-neutrality commitment & Pilot Activity)
- Description of the solution/approach

- Key drivers supporting the implementation (a structured list)
- Challenges and barriers (a structured list)
- Potential for replication
- Key lessons learned (optional, possibly combined with the potential for replication)

(2) **Quality check.** Once the draft was ready, the task partner sent it for quality check to TalTech. During the quality check, TalTech reviewed the final draft, proposing editorial changes or highlighting additional open questions or missing details. If needed, TalTech also proposed restructuring of the draft to improve storytelling. It helped to ensure that all case studies adhere to the same quality standards while maintaining the unique voice or story of each city.

Based on the quality check, the partner responsible for the case study updated the final draft, incorporating the feedback or clarifying open questions.

(3) **Approval by the city.** After the quality check, the task partner sent the final draft of the case study to the city for approval. It allowed the city to fact-check the final product and request minor changes if needed.

(4) **Proofreading.** The approved version of the case study was proofread by TalTech. It helped to ensure language accuracy & style (British English) across all published case studies.

(5) **Multimedia materials.** For the preparation of the final product, the task partner requested multimedia materials from the city (e.g., high-resolution images of the city, pictures of the solution, existing videos, podcasts, or other materials about the Pilot Activity or the solution/approach). In most cases, it was already done when asking for the approval of the case study draft.

The cities were given a tailored multimedia checklist, including all or a select list of the ideas below:

- High-quality images of the project/solution (e.g. a power plant) (2-3 pictures)
- Before/after pictures of the intervention (e.g. construction projects)
- High-quality images of the city (3-4 pictures)
- High-quality images from the Pilot Activity events (e.g., consortium or stakeholder meetings, citizen engagement activities)
- Existing materials (e.g. videos, interviews, guidelines) complementing the case study story, even if they are in the local language
- Links to external websites where readers may find more information about the project.

(6) **Formatting.** After receiving the multimedia materials, TalTech formatted the case studies using an Adobe Express template, combining text with the available multimedia materials. It helped to ensure a stylistically similar approach across all case studies while highlighting their unique features with images and videos.

(7) **Publishing on the NetZeroCities portal.** TalTech pre-published all formatted case studies on the NetZeroCities Knowledge Repository and provided task partners with a publicly accessible link for sharing with the respective cities. It allowed the cities to preview the case studies and suggest any minor changes. The case studies were considered finalised and ready for dissemination only after the task partner had received a final validation from the Pilot City.

2 Outcomes: Case studies

The main outcomes of the task are 16 multimedia case studies, published in the NZC Knowledge Repository. Together, these case studies provide a representative sample of practical, replicable, and innovative results of the Pilot Cities Programme (Cohort 1). The case studies showcase replicable practices in key sectors, such as energy, building renovation, mobility, and the circular economy, while emphasising the importance of levers of change, including governance, digitalisation, citizen and stakeholder engagement, behavioural change, and innovative financing. They also ensure geographical balance, while highlighting lessons learned for other cities willing to implement similar initiatives.

Table 1 provides quick access to the list of case studies (in alphabetical order of cities), providing direct links to the NZC Knowledge Repository. This list also reflects the interconnections of the selected case studies with other Pilot Cities Programme (Cohort 1) Pilot Activities (based on the final reports). Additionally, the next subsections provide a brief snapshot (one-pager), introducing each case study.

Table 1 : List of case studies

No.	City	Case Study	Similarities & complementarities with other Pilot Activities
1.	Barcelona, Spain	Retrofit Playbook for Climate-Neutral Housing	Istanbul: Green and Carbon-Neutral Building Transition Guide UP-SCALE (Velenje): Energy and Climate Office and EVA, a digital assistant helping residents plan home energy upgrades Budapest: Budapest Climate Agency Galway: Homeowner Engagement for Retrofit
2.	Bristol, United Kingdom	Building a System for Innovative Climate Finance	Dutch 100CNSC Cities Pilot: integrated financial toolbox for district-level sustainability & “Quick Scan Climate Investment Plan” template Leuven: Climate Investment Fund – Strategy & Structure NEEST (Polish Cities): a model for financing investments and analytical tools Malmö: Financial Report by SEI, offering a practical basis for other cities to analyse their investment landscapes URBANNEW (Spanish Cities): Financial solutions for city-wide energy renovation
3.	Budapest, Hungary	Budapest Climate Agency	CoLAB (German Cities): a model of Climate Agencies as a local focus point UP-SCALE (Velenje): Energy and Climate Office and EVA, a digital assistant helping residents plan home energy upgrades Liberec: a strategic manual guiding urban development in line with community energy goals and the formal establishment of the Energy Community Liberec URBANNEW (Barcelona): Retrofit Playbook for Climate-Neutral Housing & Financial Solutions for city-wide energy renovation Leuven: Leuven Heat Company – Business Plan NEEST (Polish Cities): a model for financing investments and analytical tools



4.	Drammen, Norway	Circular Business Model for the Reuse of Construction Goods	Uppsala: Scaling Reuse Through a Pop-up Recycling Store Umeå: Prototypes such as the Building Reuse Festival URBANNEW (Barcelona): Retrofit Playbook for Climate-Neutral Housing Guimarães: new circular business models, hands-on circular skills workshops, smart recycling containers with digital rewards, and other initiatives
5.	Galway, Ireland	Homeowner Engagement for Retrofit	NEEST (Polish Cities): a model for engaging residents in the climate and energy transition process URBANNEW (Barcelona): Retrofit Playbook for Climate-Neutral Housing UP-SCALE (Velenje): Energy and Climate Office and EVA, a digital assistant helping residents plan home energy upgrades Budapest: Budapest Climate Agency
6.	Guimarães, Portugal	3D Participatory Approach to Stakeholder Engagement	Cluj-Napoca: Net Zero Caravans (in both urban and metropolitan areas), the CIIC model (Civic Innovation and Imagination Centre) as a structured engagement tool and participatory formats such as school-based activities, youth dialogues and student workshops. NEEST (Polish Cities): a model for engaging stakeholders and building support within organisations Leuven: Mission Dialogue, a trajectory outlining a multi-level Mission Dialogue across local, regional, and European governance levels & Civic Contracting Playbook Limassol: Methodology for conducting participatory solution co-design workshops UP-SCALE (Ljubljana): municipal Innovation Hub Turku: Climate Team – Operational Model for Business Collaboration & Climate Ambassadors' network Umeå: Umecom's participatory approach, with examples like citizen-led "After Work" sessions, creative campaigns, and idea generation booths URBANNEW (Spanish Cities): Sustainability awareness days for young people
7.	Kozani, Greece	Green Heat Module	Leuven: Playbook for District Energy Transition & Leuven Heat Programme Let'sGOv (Padua): Governance Model for Renewable Energy Communities Uppsala: a method for the prioritisation of waste streams at waste facilities



8.	Kranj, Slovenia	Multimodal MaaS Mobility Platform	Drammen: The study on autonomous vehicles and Mobility as a Service (forthcoming) Lahti: Sustainable Urban Mobility Agreements model Turku: Co-Creation Playbook for Nudging and Sustainable Mobility Liberec: Guidelines on how to link community energy and low-emission transport infrastructure development
9.	Lahti, Finland	Driving Sustainable Commuting Practices	Turku: Co-Creation Playbook for Nudging and Sustainable Mobility Nantes: Climate Challenges for Citizens Guimarães: 3D Participatory Approach to Stakeholder Engagement
10.	Limassol, Cyprus	Reimagining Urban Cooling	UP-SCALE (Ljubljana): Handbook for Greening Underutilised Urban Spaces URBANNEW (Barcelona): Retrofit Playbook for Climate-Neutral Housing Guimarães: nature-based solutions along the Couros stream, visibly transforming District C, enhancing resilience and biodiversity
11.	Nantes, France	Climate Challenges for Citizens	Drammen: Health motivator application CoLAB (German Cities): Digital Tools for Citizen Climate Action: Deal-O-Mat (Mannheim), Klima Match (Aachen) & Klimastadt im Alltag (Muenster) Malmö: Strategy for Low-Carbon Consumption & Roadmap for Low-Carbon Consumption Guimarães: incentive-based programs such as PAYT (Pay-As-You-Throw) and SAYR (Save As You Recycle)
12.	Padua, Italy	Governance Model for Renewable Energy Communities	Liberec: a strategic manual guiding urban development in line with community energy goals and the formal establishment of the Energy Community Liberec Leuven: Playbook for District Energy Transition & Leuven Heat Programme Kozani: Green Heat Module
13.	Rivne, Ukraine	Municipal Energy Passport	Istanbul: GreenIST application, a digital tool enabling real-time visibility of energy consumption at the household level UP-SCALE (Velenje): EVA, a digital assistant helping residents plan home energy upgrades Uppsala: Digital tools designed to track emissions from a new housing project
14.	Turku, Finland	One-Stop Platform for Climate Communication	Cluj-Napoca: Net Zero Caravans (in both urban and metropolitan areas), the CIIC model (Civic Innovation and Imagination Centre) as a structured engagement tool and participatory formats such as school-based activities, youth dialogues and student workshops.

			Dijon: website www.faasst.eu NEEST (Polish Cities): a model for engaging residents in the climate and energy transition process UP-SCALE (Ljubljana): “It’s Time to Innovate!” Campaign Nantes: Climate Challenges for Citizens Liberec: Dedicated Community-Energy Website, https://energetika.liberec.cz/ URBANEW (Spanish Cities): Sustainability awareness days for young people Guimarães: 3D Participatory Approach to Stakeholder Engagement
15.	Umeå, Sweden	Building Capacity for Transition Leadership	Let’sGOv Toolkit (Italian Cities): guidelines, practical exercises and recommendations for implementing climate-neutral initiatives and accelerating energy transition at the local level Dijon: Handbook, methodological guide to manage territorial transitions, and the cooperation project method, a framework for building multi-stakeholder projects on shared territorial issues Drammen: Model for iterative private-public cooperation for taking green innovations from strategy to implementation Turku: Climate Team – Operational Model for Business Collaboration NEEST (Polish Cities): Model for organisational competence building Leuven: Mainstreaming Toolbox supporting climate mainstreaming across city departments & Climate Team ‘Roadshow’ Approach Malmö: Roadmaps for Climate Transition and Low-Carbon Consumption CoLAB (German Cities): House of Change Transformation Platform Uppsala: Uppsala's climate budget - a new governance model for Uppsala's climate transition URBANEW (Spanish Cities): Systems innovation toolkit training Guimarães: 3D Participatory Approach to Stakeholder Engagement & Multi-Actor Local Climate Governance and Participatory Ecosystem
16.	Uppsala, Sweden	Scaling Reuse Through a Pop-up Recycling Store	Drammen: Hybrid physical/digital marketplace and market opener tool Umeå: Prototypes such as the Building Reuse Festival URBANEW (Barcelona): Retrofit Playbook for Climate-Neutral Housing

2.1 Barcelona, Spain

Retrofit Playbook for Climate-Neutral Housing

Pilot Activity: [URBANEW: Multi-stakeholder Innovative & Systemic Solutions for Urban Regeneration Spain](#)

Keywords: building retrofit, building renovation, technical guidance, financial incentives, one-stop municipal support

Summary:

Given that buildings account for over 40% of the city's energy consumption, Barcelona has identified residential retrofit as a priority for emissions reduction. As part of Spain's multi-city Pilot Activity, URBANEW, Barcelona has developed a Guide for Decarbonising Building Rehabilitation. This strategic document offers precise criteria, tools, and institutional pathways to scale up low-carbon renovations across the city's housing stock. Beyond setting technical criteria, city agencies provide municipal support functions, funding systems, and stakeholder engagement to enable matrixed action on retrofit. Barcelona's approach intertwines clear guidance, streamlined delivery, financial incentives, technical innovation, and stakeholder inclusion.

Replicability:

Barcelona's experience offers a replicable roadmap for cities aiming to scale housing decarbonisation in line with climate neutrality targets. Rather than inventing isolated tools, the city has demonstrated how to align standards, finance, governance, and capacity-building into a cohesive system. Key to this is clarity, both in technical guidance and institutional responsibilities. The combination of practical measures, targeted funding, and one-stop municipal support offers a model that other local governments can adapt to their contexts.

Cities seeking to replicate this model should focus on four pillars: (1) setting actionable standards for retrofit, (2) simplifying access to funding through integrated offices or service platforms, (3) building partnerships across housing, sustainability, and innovation departments, and (4) embedding equity into grant design and area prioritisation. With growing national and EU support for building renovation, Barcelona's approach shows how cities can lead by structuring the retrofit ecosystem to be transparent, inclusive, and impactful over the long term.

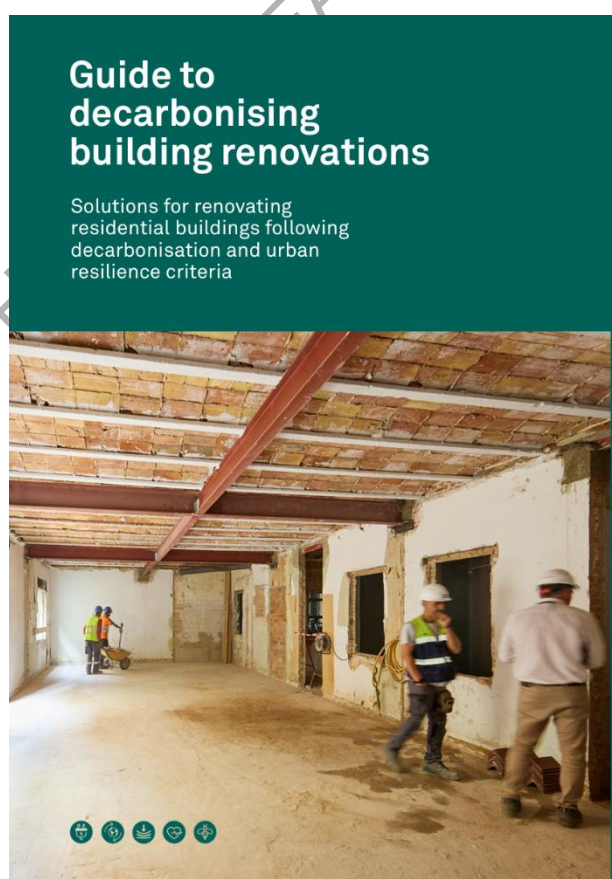


Figure 4 : Barcelona's Guide to decarbonising building renovations

Credit: The case study was developed by Nadine Burbar (RCN) in collaboration with Eduard Cabre (City of Barcelona).



2.2 Bristol, United Kingdom

Building a System for Innovative Climate Finance

Pilot Activity: [Net Zero Investment Co-Innovation Lab](#)

Keywords: circularity, business model, reuse, construction goods, hybrid marketplace

Summary:

Bristol is moving beyond traditional public funding and aims to be a catalyst for relevant investment by building the institutional infrastructure and capabilities to direct capital toward climate action. Central to these efforts is the Net Zero Investment Co-Innovation Lab: a space for testing new financing mechanisms, reshaping internal governance, and forming partnerships that can unlock systemic investment. The Lab designed and launched three new financial products: a Community Climate Investment Scheme, the Green Growth West Fund, and the Carbon Multiplier Fund, alongside building capacity and alignment across council teams and beyond.

Replicability:

Bristol's experience demonstrates that even without devolved fiscal powers, local authorities can act as stewards of investment by establishing the governance structures, relationships, and instruments necessary to align resources with their mission. Bristol's Lab offers replicable finance methods and early but concrete lessons for other cities seeking to develop their own local climate finance ecosystems:

1. Cities can design and deploy multi-instrument finance systems, using advisory groups and internal reform to take a more strategic role in directing capital.
2. Strategic alliances with professional organisations and cross-team collaboration are key to success. A shared language and practice between finance, planning, legal, energy, and climate professionals increases agility and decision-making quality.
3. Civic finance is viable when products are co-designed and tailored to public understanding and values, employing transparency and consistent communication.



Figure 5 : Advertising campaign in Bristol

Credit: The case study was developed by Nadine Burbar (RCN) in collaboration with Alex Ivory (City of Bristol)



2.3 Budapest, Hungary

Budapest Climate Agency

Pilot Activity: [CARES - Climate Agency for Renovation of homES](#)

Keywords: one-stop shop, building retrofit, stakeholder engagement, funding scheme, governance innovation

Summary:

More than a third of GHG emissions in Budapest can be attributed to residential buildings, making it both the most challenging and the most promising area for interventions. Therefore, Budapest focused on developing and deploying strategic, institutional, and financial support mechanisms and initiatives for building retrofit, with the ambition of accelerating the transition. One of the key objectives of the Budapest CARES Pilot was to establish the Budapest Climate Agency (BCA), a one-stop shop for expertise, fundraising, and coordination of future climate-related programmes. The BCA, officially established on May 2, 2024, aims to promote sustainable energy use, build bridges between different sectors and establish partnerships while informing the public and developing support programmes for building retrofit. Furthermore, the BCA set up a novel pilot tendering model tailored for the renovation of prefabricated panel buildings, called the Budapest Green Panel Program. It is the first city-level scheme in Hungary that integrates loan accessibility criteria into its tendering process, an innovation that moves towards a quasi one-stop shop model.

Replicability:

Building retrofit is a major challenge for many cities across Europe. Budapest's experience could be particularly replicable in other Central and Eastern European cities that are also struggling with the renovation of prefabricated panel buildings, which make up a significant proportion of their residential housing stock. The Budapest Green Panel Program, as a city-led, scalable initiative supporting the energy renovation of multi-apartment buildings, is particularly applicable to large housing estates. Its significance lies not only in its technical framework but also in its innovative, resident-focused delivery model, which integrates outreach, technical assistance, and financing. The hybrid financing model provides a strong basis for replication in cities where public funding alone is insufficient and market involvement is needed to scale residential renovations. There's also great potential for upscaling and replicating the pilot in Budapest and other Hungarian cities. However, replication is currently constrained due to national-level institutional and financial conditions. Nevertheless, if the enabling conditions are improved, the pilot's model of combining grant elements with mobilised private capital holds strong potential for uptake across Hungary.

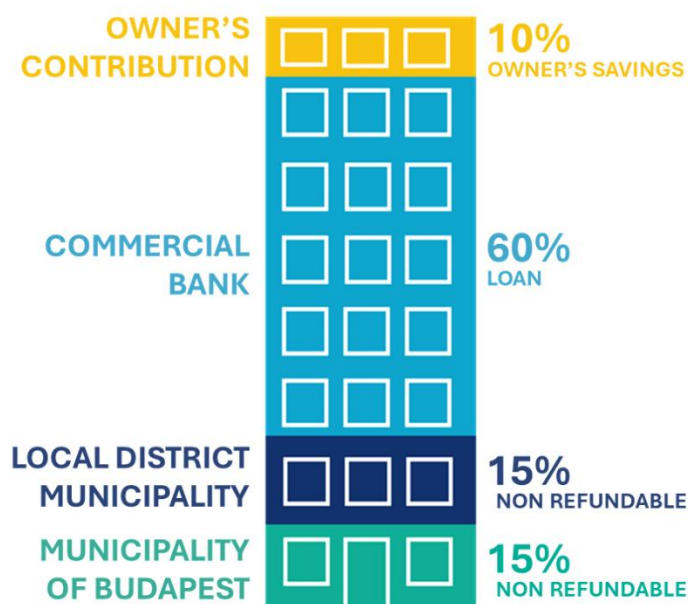


Figure 6 : Financial scheme for funding the renovation of multi-apartment buildings

Credit: The case study was developed by Lita Akmentina (TalTech) in collaboration with Dávid Gábor Szabó (Municipality of Budapest) and Sára Tóth (Municipality of Budapest).



2.4 Drammen, Norway

Circular Business Model for the Reuse of Construction Goods

Pilot Activity: [Drammen City – Zero emission 2030](#)

Keywords: circularity, business model, reuse, construction goods, hybrid marketplace

Summary:

The Municipality of Drammen, in collaboration with Green Growth Drammen, a private-public ecosystemic initiative, has been working on developing a regional circular market for construction goods by introducing several circular business models and market scaling instruments. During the Pilot, they designed a model to improve the operational flow of the construction goods, identifying key challenges and areas for improvement. To test the business model, Green Growth Drammen partnered with SIRKEN, Norway's leading platform for circular resource utilisation in the construction industry, and opened a physical marketplace in Drammen, connecting it to both a digital platform and 17 other reuse hubs across Norway. Additionally, Green Growth Drammen launched a digital platform for "Donor Buildings" to ensure early information sourcing. Drammen's case study shows that employing an iterative and user-centric development process and engaging with market actors that already have the necessary operational knowledge is key to successful public-private innovation.

Replicability:

The circular business model is designed as a framework to be replicated by other cities in Norway or Europe. For example, Oulu, Drammen's Twin City, is also actively working on enabling the reuse of building materials. Inspired by Drammen, Oulu aims to establish a concept and cluster for the reuse of building materials, encompassing both physical and digital material banks.

The solutions developed within the Pilot have high potential for replication. For example, SIRKEN's resource utilisation platform is growing fast in Norway. It could be introduced in other European countries and scaled as a European network of regional hubs and a shared digital market. Also, the platform for registering donor buildings and available goods could be used in other cities and countries.

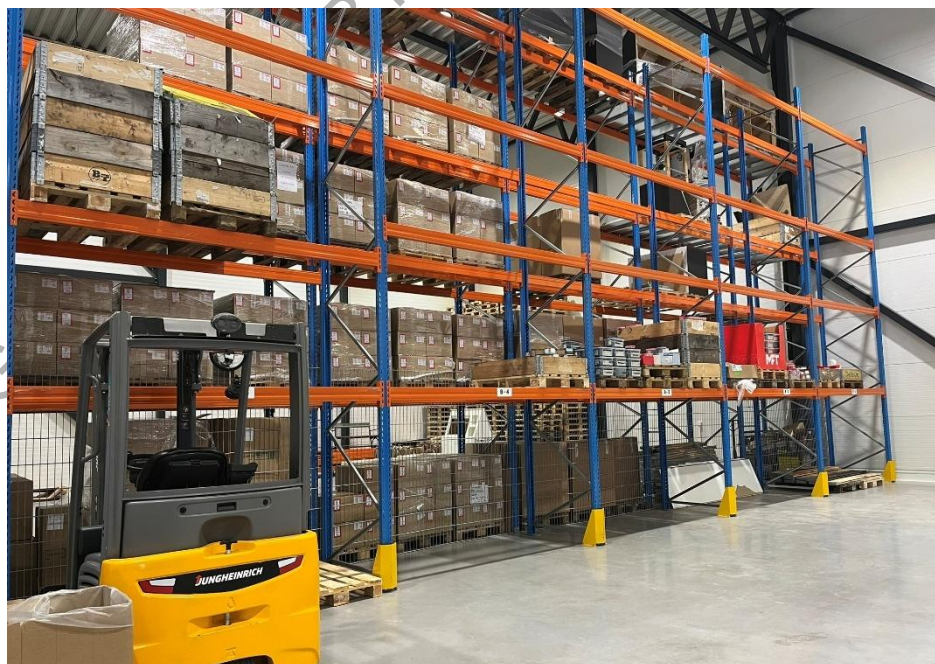


Figure 7 : A physical marketplace of construction goods in Drammen

Credit: The case study was developed by Lita Akmentina (TalTech) in collaboration with Eirill Eckbo (Green Growth Drammen) and Ingebjørg Weselka Tofte (Municipality of Drammen).



2.5 Galway, Ireland

Homeowner Engagement for Retrofit

Pilot Activity: [Galway's Net Zero Pilot](#)

Keywords: citizen engagement, stakeholder engagement, awareness raising, capacity building, building retrofit

Summary:

Improving the energy efficiency of buildings is one of Galway's top priorities on the road to net zero. However, many homeowners are unaware of retrofit options or daunted by the process. Therefore, Galway implemented a hands-on approach to citizen engagement. The city created a Warm Home Hub, a neutral, accessible space where residents can receive custom support. They also strengthened the supply side of the retrofit ecosystem by connecting citizens, contractors and students with accredited training pathways, e.g., hosting a week-long visit from the Mount Lucas LOETB Retrofit Rig, a mobile demonstration and training unit designed to raise awareness and build local capacity. Finally, Galway established a Quadruple Helix Steering Group, bringing together representatives from local government, academia, industry and civil society. These efforts mark a clear shift from one-way information campaigns to practical, community-based engagement in Galway.

Replicability:

Galway's citizen-centred retrofit approach highlights the power of empathy, place-based engagement, and local collaboration. By reframing retrofit as a personal journey, the city has taken an important step towards a fairer and more inclusive transition. With the right tools and mindset, this model can inspire similar efforts across Europe. The replication is possible if supported by sufficient coordination, staffing and funding. Key success factors include embedding engagement in local communities, using practical tools, and aligning efforts across stakeholders from the start.



Figure 8 : Homeowner engagement for building retrofit in Galway

Credit: The case study was developed by Jon Zurimendi (EuC) in collaboration with Lyndsey O'Leary (City of Galway).



2.6 Guimarães, Portugal

3D Participatory Approach to Stakeholder Engagement

Pilot Activity: [District C - A zero-carbon commitment](#)

Keywords: stakeholder engagement, participatory approach, community engagement, co-creation, place-making

Summary:

Climate transition is not only technological or regulatory but also social, cultural, and participatory. Therefore, Guimarães has implemented a systemic approach to stakeholder engagement to ensure that climate action is not perceived as a top-down process, but rather as a shared effort shaped by those who live and work in the city. The city designed and implemented the 3D Participatory Approach, a stakeholder engagement model built on three dimensions: creating identity, transforming the landscape, and building the future. Guimarães' experience shows that it is important to start early with inclusive design processes that involve a wide range of stakeholders. Leveraging schools, cultural programs, and place-making efforts can help create visible and meaningful community engagement. Participation should not be limited to sharing information but should enable citizens to have real influence over decision-making. Finally, embedding feedback and learning mechanisms from the beginning ensures continuous improvement and adaptability.

Replicability:

Guimarães' 3D Participatory Approach is already being replicated. For example, Torres Vedras, the Twin City of Guimarães, has implemented a comprehensive community engagement strategy modelled after Guimarães' participatory framework. Successful replication of the 3D Participatory Approach depends on several key factors. First, strong political will combined with inclusive governance structures is essential. Trust between institutions and citizens must be well established to foster effective collaboration. Cities also need the capacity to develop and manage participatory processes, including the use of digital tools that facilitate engagement. Additionally, having access to supportive funding frameworks at the national or European level plays a critical role in sustaining these initiatives.



Figure 9 : 3D Participatory Approach in Guimarães

Credit: The case study was developed by Chiara Cecchin (Eurocities) in collaboration with Francisco Carvalho (Lab Paisagem, City of Guimarães).



2.7 Kozani, Greece

Green Heat Module

Pilot Activity: [NEUTRON](#)

Keywords: district heating, renewable energy, energy storage, on-demand supply, agrivoltaics, biogas

Summary:

The Municipality of Kozani faces a major challenge of replacing lignite as the source of thermal power through the gradual introduction of renewable energy sources. Therefore, the NEUTRON Pilot focused on developing a technological solution to support the transition using innovative technologies and renewable energy sources. The proposed technical concept uses a Green Heat Module to enable energy storage and on-demand supply, thereby addressing the volatility of electricity supply from renewable energy sources and the market. The Green Heat Module can use excess grid electricity or locally produced electricity from renewable sources. In NEUTRON, the pilot team explored renewable energy production using Agrivoltaics – photovoltaic (PV) parks combined with the cultivation of agricultural crops. Additionally, the technical concept examines the utilisation of organic (and not only) waste for biogas production, i.e., agricultural waste, sewage sludge, and the organic waste stream of Municipal Solid Waste.

Replicability:

The NEUTRON concept or its technological components can be replicated in other Greek or EU cities, aiming to make their district heating systems more sustainable and resilient. It is a good example of a new generation district heating system that leans towards decentralised generation of heat and takes advantage of all available local energy sources. Furthermore, Kozani's Twin City, Alba Iulia (Romania), has already expressed interest in the Green Heat Module and Agrivoltaics as two possible solutions for replication. Other cities can learn more about NEUTRON Pilot through freely available [online courses](#). The Solar-Insitut Jülich of the FH Aachen, together with NEUTRON's industrial partners, has developed a course on NEUTRON's technical concept to enable a better understanding of the Green Heat Module and its applicability in district heating systems. The course is designed to facilitate knowledge transfer and enable other cities to use the NEUTRON concept as a blueprint for greening their district heating systems.

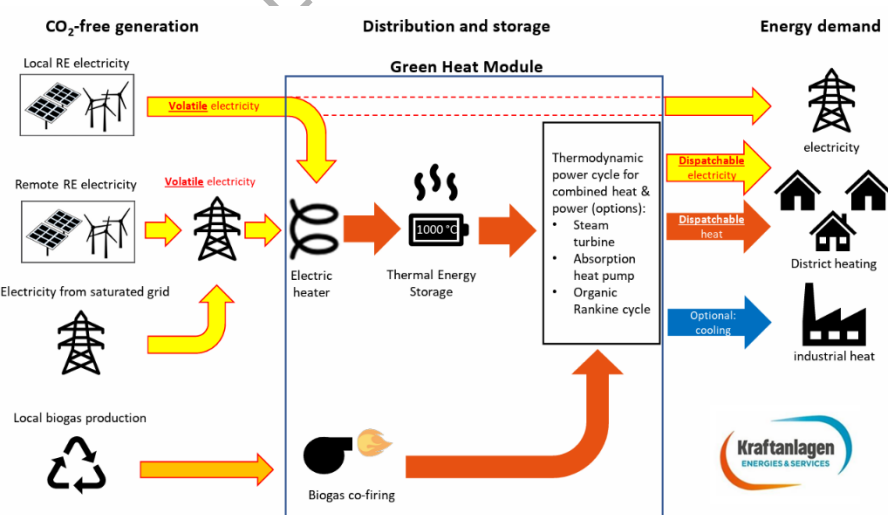


Figure 10 : The NEUTRON concept – energy flow diagram of the proposed energy system

Credit: The case study was developed by Lita Akmentina (TalTech) in collaboration with Kyriaki G. Sakellariou (DIADYMA SA: Waste Management of Western Macedonia).

2.8 Kranj, Slovenia

Multimodal MaaS Mobility Platform

Pilot Activity: [UP-SCALE-Urban Pioneers – Systemic Change Amid Livable Environments](#)

Keywords: sustainable mobility, MaaS, behavioural change, multimodal integration, travel behaviour

Summary:

Kranj aims to enable a shift to more sustainable mobility habits by increasing the accessibility and attractiveness of public transport. Therefore, the city has developed a cloud-native mobility as a service (MaaS) module within the Smart Kranj platform, providing multimodal navigation options and nudging users toward more sustainable transport choices. The platform offers: (1) inter-city routing across the national public transport network, (2) multimodal navigation: integrates walking, cycling, shared bikes, bus, and cars, (3) personalised routing: based on CO₂ emissions, energy use, or shortest time, and (4) display of environmental impact data: showing CO₂ emissions and energy consumption for each option. The pilot has enhanced the city's data-driven transport planning capacity, and the solution is expected to significantly influence citizens' travel behaviour and encourage a shift towards sustainable travel choices.

Replicability:

Kranj is building on the success of the UP-SCALE pilot by integrating the MaaS App into other initiatives and projects. For example, the city aims to expand the app's functionalities to cover rail transport and extend its use to other cities like Ljubljana, further increasing its value and sustainability. The MaaS platform can serve as a blueprint for replication in other European cities, aiming to enable a shift in travel behaviour. Kranj's experience demonstrates the importance of political support, partnerships, data availability, tailoring of the technological solution, digital literacy, local branding, and communication as key success factors.

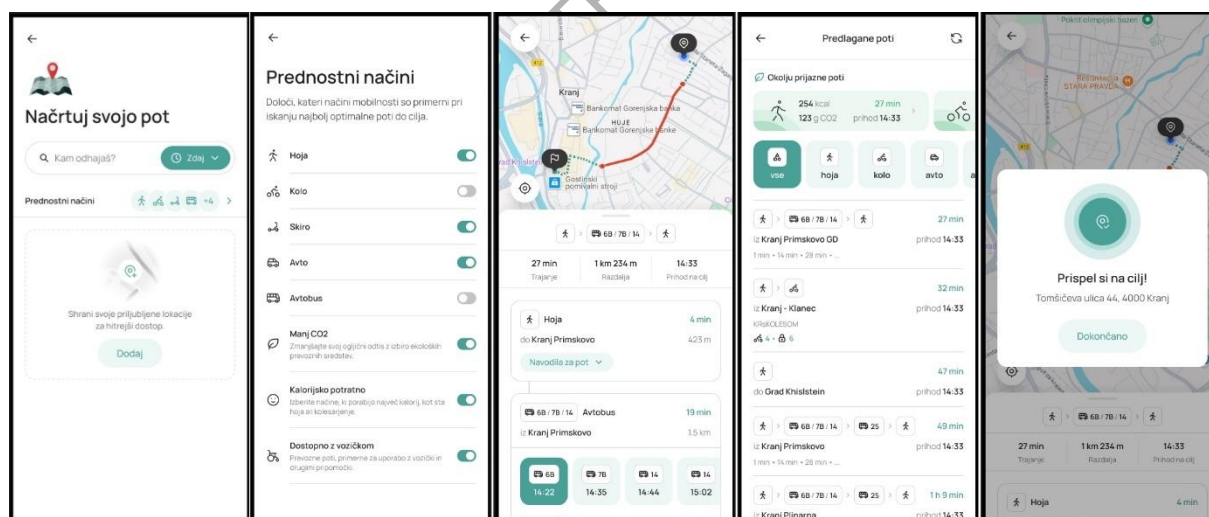


Figure 11 : The Multimodal MaaS App in Kranj

Credit: The case study was developed by Carmen Alonso (EIT UM) and Paola Rodríguez (EIT UM) in collaboration with Polona Prosen Šprajc (City of Kranj) and Luka Stopar (Jozef Stefan Institute).

2.9 Lahti, Finland

Driving Sustainable Commuting Practices

Pilot Activity: [Systemic Change Towards Sustainable Commuting in Lahti](#)

Keywords: sustainable mobility, partnership model, workplace travel policy, commuting habits, behavioural change

Summary:

In Lahti, mobility remains a key challenge. Therefore, the city focuses on shifting commuting habits toward walking, cycling, and public transport usage through a co-creation process with local organisations. More specifically, Lahti developed and tested a Sustainable Mobility Agreement with local companies, focusing on collaborative actions to reduce emissions associated with commuting. It included developing a tailored set of recommendations, including updates to workplace travel policies, infrastructure improvements, and incentive schemes for low-carbon commuting modes. The Sustainable Mobility Agreement showcased several innovative features, including a clear partnership model between a city and a business, defined roles and accountability structures, and the use of verified data to guide implementation. Rather than a static commitment, the agreement functioned as a dynamic tool for iterative learning and adaptation.

Replicability:

Lahti's approach to shifting commuting habits has a high potential for replication in other cities. Reykjavik, Lahti's Twin City, is already working on replicating interventions and implementing lessons learned from Lahti's Pilot Activity within its local context. Other cities looking to replicate should focus on establishing regular dialogue and mutual problem-solving with businesses. The tools can vary, but what truly drives success is a shared commitment to collaboration, adaptability, and ongoing engagement. To help other cities embark on a similar journey, Lahti has prepared a guide for cities and businesses on sustainable mobility agreements.

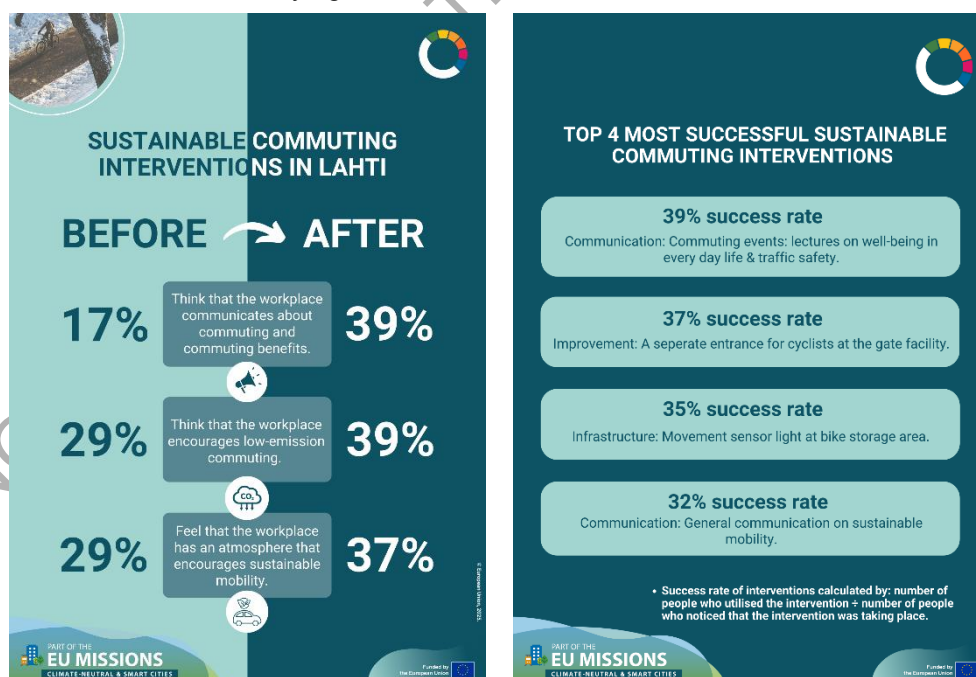


Figure 12 : Survey results from 5 participating companies in the Lahti pilot

Credit: The case study was developed by Paul Barton (ICLEI) in collaboration with Aino Kulonen (City of Lahti) and Katja Ojala (City of Lahti).



2.10 Limassol, Cyprus

Reimagining Urban Cooling

Pilot Activity: [Limassol City Cooling Challenge: LC³](#)

Keywords: urban cooling, participatory governance, co-creation, behavioural change, digital tools, cooling prototypes

Summary:

As summers grow hotter and longer, Mediterranean cities like Limassol are becoming increasingly vulnerable to urban overheating, which is escalating energy demand for cooling and widening social inequalities in thermal comfort exposure. Rather than tackling rising heat through technical fixes alone, the city frames urban cooling as a systemic, governance-intensive challenge, placing co-creation, digital innovation, and governance reform at its core. Limassol's pilot initiatives include *Lemesos Commons*, a deliberative governance forum assessing, shaping, and refining the city's climate neutrality actions, a series of exploratory pilot interventions testing real-world constraints, such as procurement procedures, technical capacity, and the practical application of environmental measure, and the use of remote sensing, GIS mapping, and predictive modelling, enabling the city to identify urban heat hotspots, prioritise areas with vulnerable populations, and model intervention impacts.

Replicability:

The LC³ model is highly adaptable, particularly for small and mid-sized cities facing similar climate pressures. Key transferable elements include: (1) a Commons-style participatory governance hub, (2) digital spatial tools to guide cooling interventions, (3) embedding of climate functions in municipal teams (e.g. transition offices), (4) designing cooling prototypes as rapid experiments, not finished products, and (5) treating citizen behaviour change as a core objective, not an afterthought. Other Mediterranean cities, and beyond, can replicate LC³ by starting with addressing cooling as a ubiquitous issue, building trust through co-creation, and using that momentum to reform institutional routines and governance culture gradually.



Figure 13 : Cool Roof and Greening Interventions in Limassol

Credit: The case study was developed by Nadine Burbar (RCN) in collaboration with Krystallia Drystella (The Cyprus Institute, Limassol).

2.11 Nantes, France

Climate Challenges for Citizens

Pilot Activity: [Together Towards Climate Neutrality](#)

Keywords: behavioural change, sustainable lifestyles, climate challenges, citizen engagement, digital tool

Summary:

Nantes Métropole is committed to engaging citizens and promoting behavioural change towards more sustainable and climate-friendly lifestyles. Building on its previous experience with climate challenges, the city has developed a new application, LES DEFIS CLIMAT, that functions as a registration tool for Climate Challenge users, providing useful information, tips, resources, and a CO2 measurement tool. Citizens can join an individual or a collective challenge. They are also encouraged to measure their carbon footprint to gain an understanding of their current level of GHG emissions. Moreover, each challenge provides information on the CO2 reductions that can be achieved if completed, raising awareness about the impact of lifestyle choices. Since the launch of the app in March 2024, Nantes Métropole has successfully engaged 52 collectives and 1,200 participants across 11 municipalities in the metropolitan area.

Replicability:

Many cities in Europe are seeking new ways to promote behavioural change among their citizens. Therefore, the Nantes Pilot Activity can serve as a good example of mobilising and engaging a broader group of stakeholders to develop a solution for awareness-raising and participatory action, encouraging diverse groups of citizens to adopt more sustainable daily habits. Moreover, the development of new functionalities is ongoing to enable the usage of the app in other French cities and regions. Additionally, an English beta version is in reflection with the support of NetZeroCities, as several other EU Mission Cities have expressed strong interest in testing the app. Moreover, Nantes Twin City Križevci (Croatia) aims to replicate and adapt the Climate Challenge app to their local context.

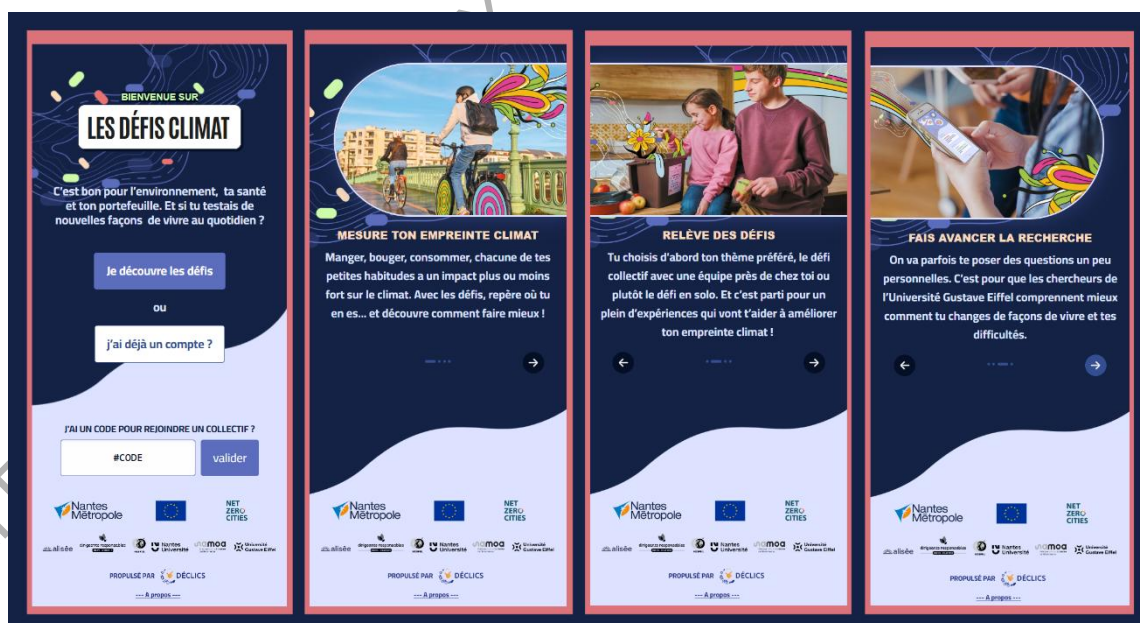


Figure 14 : LES DEFIS CLIMAT – a Climate Challenges app in Nantes

Credit: The case study was developed by Lita Akmentina (TalTech) in collaboration with Elise Lindner (Nantes Métropole).



2.12 Padua, Italy

Governance Model for Renewable Energy Communities

Pilot Activity: [Let'sGOv – GOVerning the Transition through Pilot Actions](#)

Keywords: governance model, energy communities, renewable energy, stakeholder engagement, partnership model

Summary:

The City of Padua, in collaboration with the Province of Padua, the University of Padua, the Chamber of Commerce, and Padova Hall S.p.A developed an innovative public governance model for a *Multicabina* Renewable and Solidarity Energy Community (RSECs). These entities signed a co-design agreement, committing to share data, provide technical and scientific support, identify funding sources, and allocate suitable surfaces for energy installations. The *Multicabina* partnership structure ensures distributed roles among various public actors while maintaining full public control. It has fostered a data-driven planning in line with specific micro-territorial needs while ensuring citizen protection and the preservation of the social goals of the energy community.

Replicability:

The Padua pilot is designed as a scalable and replicable model, with a public governance structure and clearly defined stakeholder roles. The RSEC *multicabina* model aims to be a case study for other cities interested in promoting climate neutrality through energy communities. The main enabling conditions for replication include strong political will, cross-institutional collaboration, and a shared strategic vision among public stakeholders. Access to technical expertise, availability of suitable municipal assets (e.g. rooftops, disused land), and robust socioeconomic data analysis tools are also essential. The use of a data dashboard for micro-territorial planning is particularly transferable. However, replication may be more challenging in cities with limited administrative capacity, insufficient public assets, or lacking established networks among local institutions. Regulatory complexity may also vary by national context, potentially hindering implementation in cities without legal frameworks that support energy communities.

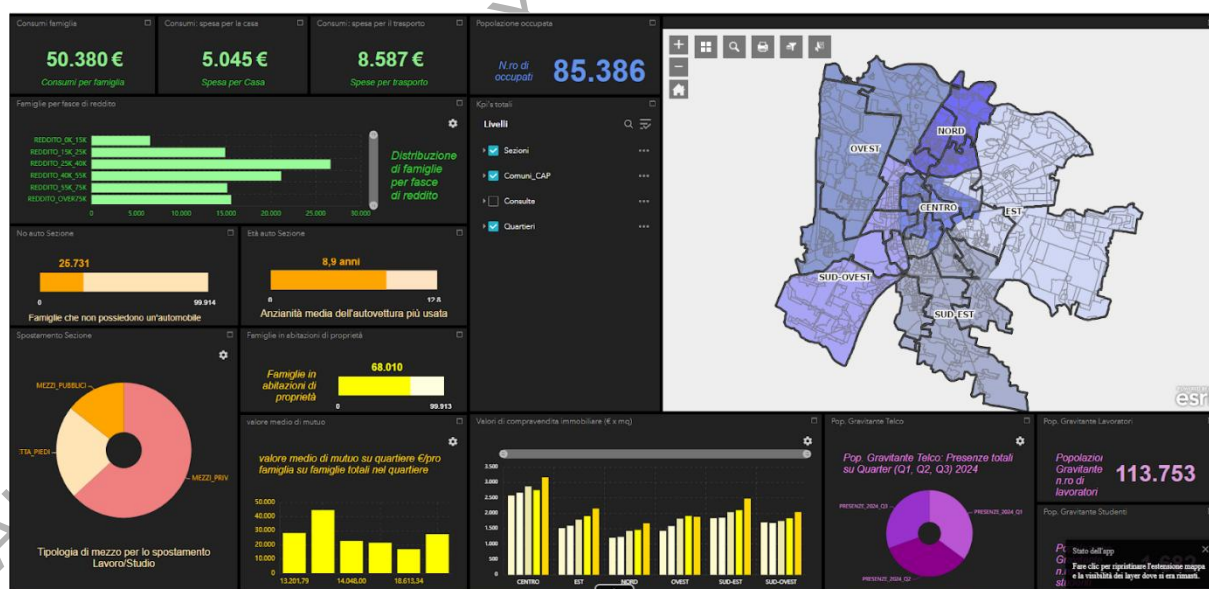


Figure 15 : An internal-use dashboard for visualisation of spatial and thematic data for planning

Credit: The case study was developed by Lucia Garrido (EuC) in collaboration with the Let'sGov Pilot Activity team.



2.13 Rivne, Ukraine

Municipal Energy Passport

Pilot Activity: [Creating NetZero Vision for Rivne](#)

Keywords: energy data, data management, digital platform, system-wide monitoring, public buildings

Summary:

Rivne has developed a Municipal Energy Passport (MEP), a digital platform for monitoring, managing, and analysing energy consumption across municipal infrastructure. The MEP aggregates real-time data on electricity, heating, water, and gas use across 188 public buildings, utilising newly installed auxiliary devices on older meters (115 for water and 122 for electricity), while also allowing for manual data entry where necessary. The platform builds on Rivne's earlier "Energobalans" system, with legacy data integrated and ongoing parallel operation during the transition. The solution addresses key structural barriers to decarbonisation: outdated and incomplete energy data, lack of system-wide monitoring, and limited long-term planning capacity. Following a successful pilot, the system is expanding to cover housing, transport, waste, and industry, offering a broader view of the city's emissions and decarbonisation potential.

Replicability:

The Municipal Energy Passport offers clear potential for replication and upscaling, both within and beyond the city. Under the NetZeroCities Twinning Learning Programme, Konya in Turkey has already identified the MEP as a replicable practice and plans to pilot it in the newly constructed Konya City Library, aiming to expand the system to other municipal buildings and utilities. Several preconditions are essential for replication. These include a basic level of technological readiness, strong internal capacity or access to trusted external expertise, and clear political support. Replication also requires leadership willing to challenge traditional practices in energy management and embrace digital innovation.

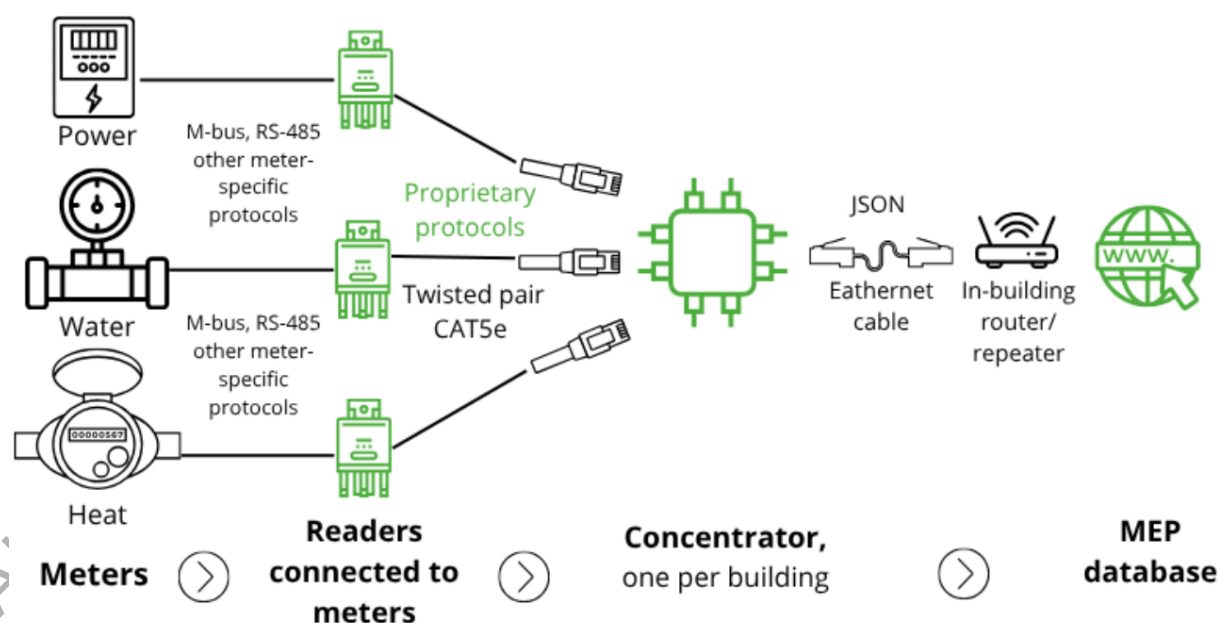


Figure 16 : Municipal Energy Passport: a digital platform for integrated energy data management

Credit: The case study was developed by Chiara Cecchin (Eurocities) in collaboration with Інля Єременко (City of Rivne).



2.14 Turku, Finland

One-Stop Platform for Climate Communication

Pilot Activity: [1.5-Degree City](#)

Keywords: climate communication, digital platform, climate campaign, stakeholder engagement, citizen engagement

Summary:

Many cities face a common challenge: how to communicate complex climate and sustainability topics effectively and clearly. To address this issue, Turku developed and launched a new multilingual digital platform in February 2025 on the municipal website. It's a digital space that serves multiple audiences (residents, businesses, city staff, and leadership) and provides tailored content and tools on climate and nature topics to different users. Additionally, the city implemented the Climate Changemakers Campaign in Spring 2025. It was the first joint initiative co-created by the City of Turku and its Climate City Contract partners to communicate about climate action in different workplaces in an inclusive way. The campaign also helped to introduce the digital platform to a broad audience. Both initiatives have reached a large audience and fostered collaborative climate communication between the city and its stakeholders.

Replicability:

Turku's digital platform plays a key role in building the narrative of Climate and Nature City Turku, supporting both internal and external communication and fostering a sense of shared ownership. It can serve as an example for other cities seeking to improve their communication strategy and tools. Additionally, the Climate Changemakers campaign offers practical ideas for communicating climate action in the workplace and for collaborating with business partners on sustainability messaging. It can serve as a replicable reference model for other cities willing to showcase people and organisations behind their climate efforts and inspire others to join. Moreover, it can serve as a low-threshold first step for joint action with Climate City Contract partners. Furthermore, Turku's pilot has already inspired its Twin City, Fundão. Encouraged by Turku's digital platform and communications campaign, Fundão plans to adopt and replicate these tools locally to unify and strengthen the municipality's efforts to communicate about climate and sustainability.

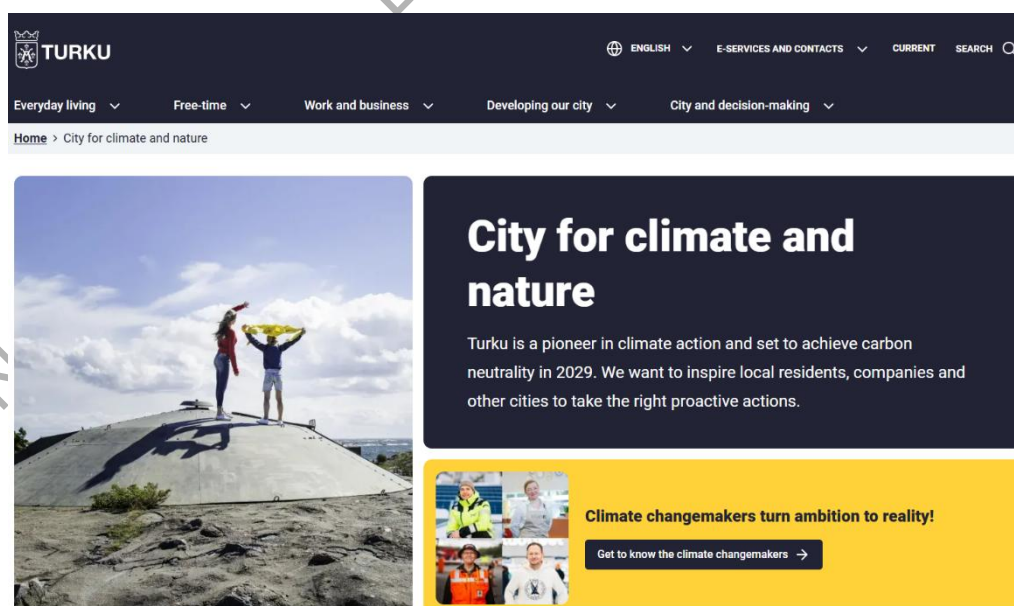


Figure 17 : Turku's digital platform for climate communication

Credit: The case study was developed by Lita Akmentina (TalTech) in collaboration with Maria Granlund (City of Turku) and Lotte Suveri (City of Turku).



2.15 Umeå, Sweden

Building Capacity for Transition Leadership

Pilot Activity: [The North Star](#)

Keywords: governance, climate leadership, capacity building, institutional transformation

Summary:

Umeå is pushing the boundaries of what municipal climate leadership looks like. It aims to transform the city's underlying governance capacity by testing new tools, processes, and relationships that enable coordinated, adaptive, and systemic climate action across sectors and institutions. A core element of this approach is the training and capacity-building programme Leading Transition Together. Rather than treating leadership as the domain of a few, the programme focuses on creating the conditions for many actors to lead together. The result is not a conventional course, but a platform for cultural and institutional transformation, one that redefines how cities can build enduring capacity for change from within.

Replicability:

The North Star pilot illustrates that for cities to deliver climate neutrality, they must invest in systemic innovation and institutional transformation, not only project-level outcomes. This approach has a high potential for replication, especially for cities with the political will to adapt internal structures and enable shared leadership. While Umeå's size and experience offer certain advantages, the principles of adaptive governance, stakeholder co-creation, and capacity building are widely relevant. The programme is supported by a [handbook](#) that outlines its structure, learning formats, and facilitation methods. Umeå's Leading Transition Together programme offers a tangible, rigorous model for cities ready to face that truth. It doesn't promise instant results, but it does offer a way forward: not through lone heroes, but through shared leadership, mutual learning, and institutional courage.



Figure 18 : Umeå's Leading Transition Together programme handbook

Credit: The case study was developed by Nadine Burbar (RCN) in collaboration with Luca Röhlinger (Umeå).



2.16 Uppsala, Sweden

Scaling Reuse Through a Pop-up Recycling Store

Pilot Activity: [SCALE UP – Systematic Climate Action to Lower Emissions in Uppsala](#)

Keywords: circularity, reuse, construction materials, recycling store, resource hub

Summary:

In Uppsala, the high level of emissions associated with construction and demolition partially comes from the underutilisation of reusable building materials and furnishings. To address this issue, the city opened a pop-up reuse warehouse in the Gottsunda district to extend the life cycle of materials from housing renovations. Rather than discarding usable items, such as sinks, coat racks, and refrigerator parts, from old apartments, the warehouse collects and redistributes them for use in ongoing municipal housing projects. The warehouse serves not only as a resource hub but also as a powerful communication tool. It is designed to emulate a professional retail environment, thereby normalising and elevating the appeal of reused materials. The initiative demonstrated that reuse can be successfully integrated into mainstream construction and renovation processes as a scalable and sustainable practice.

Replicability:

By focusing on practical, real-world testing, Uppsala's pop-up warehouse offers a replicable model for other cities looking to embed circular economy principles into urban development, reduce construction-related emissions, and promote a cultural shift in material use. What began as a bold, full-scale experiment has evolved into standard operating procedure for one of Sweden's ten largest municipal housing companies. With dedicated staff now responsible for the refinement of materials, and a shift in perspective that views 18,000 apartments as a "reuse bank," the pilot has proven both practical and transformative, even after its formal conclusion. One of the key lessons was the power of framing: celebrating progress, sharing results openly, and inviting others to join created a sense of collective momentum. Consequently, this model offers a replicable blueprint for other cities and housing providers seeking to embed circularity in practice, not just in principle.



Figure 19 : A pop-up reuse warehouse in the Gottsunda district

Credit: The case study was developed by Paul Barton (ICLEI) in collaboration with Lars Gustafsson (Uppsala).



3 Dissemination strategy

All 16 case studies have been published in the NZC Knowledge Repository. To increase their visibility and impact, these case studies will be promoted using NZC communications channels and integrated with other activities such as peer learning programs or thematic discussions, under the EU Cities Mission, ensuring their continuous dissemination beyond the formal duration of the NZC project.

Communication activities:

- All case studies will be added to the [Resources → Results & Publications section](#) of the NZC website alongside other case studies (responsible partner: LGI).
- The NZC communications team will ensure promotion of the case studies through NZC communications channels, e.g., LinkedIn, Instagram, and X.

Integration with other activities:

- The case studies will be used to foster peer-learning opportunities for all cities interested in accelerating their climate action.
- The case studies will be integrated as learning material (evidence-based case studies) in the Learning Hub or other resources.
- The case studies will potentially also be used for knowledge production, summarising and analysing drivers, challenges, and key lessons learned from a diverse pool of Pilot Activities.

The proposed list of dissemination activities should not be considered exhaustive, as the developed case studies provide a structured source of information about practical outcomes of the Pilot Cities Programme (Cohort 1). As examples of diverse and replicable pilot initiatives, the case studies have the potential to inspire both Mission Cities and Mission-minded cities willing to implement systemic approaches and solutions to accelerate climate transition.

Conclusions

The case study production process, carried out in a comparatively short time span, highlighted several important takeaways for future work:

- Pilot Cities Programme produces a great variety of replicable and innovative solutions or approaches that can be used as a basis for inspirational case studies. Many Pilot Cities are willing and highly interested in showcasing their results to a broader audience to amplify the impact of their pilot initiatives.
- Ensuring a transparent and iterative case study identification and selection process is crucial. Using existing PCP materials to do early criteria-based scoping of potential case studies and engaging with city-interfacing NZC partners (TLP facilitators and City Advisors) helped to identify a diverse and representative sample of case studies, while early validation with cities allowed Pilot Cities to take agency in determining which solutions or approaches they would like to showcase to a broader audience.
- Early buy-in from Pilot Cities ensured their commitment to case study development. As case studies were primarily developed from May 2025 until August 2025, coinciding with the PCP final reporting and summer vacations, the commitment from the city representatives was essential for the successful production of case studies.
- Using various existing information sources for the preparation of the case studies ensured that the case study development process was relatively quick and efficient, requiring minimal input from the cities. Ideally, the case study development process should take place after the final reporting to take full advantage of the PCP materials, but given the project timeline and the ambition of the task, it was necessary to start developing case studies no later than May 2025.
- Providing clear guidelines and case study examples (from NZC Task 5.3.1) to all task partners ensured a uniform approach to developing case studies. Moreover, an iterative quality control and validation process between the deliverable lead (TalTech), task partners, and Pilot Cities guaranteed that the final products adhere to consistent quality standards while emphasising the unique features of each pilot initiative.
- The cities highly appreciated the structured and visually appealing format of the case studies, as demonstrated by the direct feedback from some of the cities (Direct quote: *It was also very valuable for us to look at our project with the help of an “external eye,” and it is great to see our results summarised in this way*). Using the same case study structure and layout for NZC Task 5.3.1 and NZC Task 5.3.2 has helped to ensure consistency with NZC branding and deliver a large set of informative and inspiring case studies with a focus on replication.
- As the case studies were developed and delivered at the end of the NZC project, it is essential to extend the dissemination strategy beyond the formal project duration. Continuous engagement with the NZC communications team and other project partners will ensure the promotion of the case studies and further integration with other activities under the EU Cities Mission.



Appendix I: Data and information collection template

Pilot Activity:

City:

Case study: [solution or approach]

Introduction

Brief description of the Pilot City, its climate neutrality ambition, and the Pilot Activity.

Information sources: [Pilot City profile](#) and the [Climate City Contract](#)

[max 100 words]

Description of the solution/approach

Brief description of the solution or approach developed and implemented during the Pilot Activity.

Please outline:

- *The problem/challenge the solution or approach is aiming to solve (this can be related to specific emission domains or levers of change);*
- *The main development/implementation steps or stages and stakeholders involved;*
- *The resulting solution or approach, its key innovative features;*
- *The impact achieved so far, e.g., performance indicators, benefits [if possible]. It can also be in the form of feedback from stakeholders, users, or participants.*

Ideally, links to external resources should be integrated to showcase tangible outputs if available.

Information sources: Pilot City Programme Year 1 reports, NZC comms articles, Twinning Learning Programme materials (Pilot presentations, meeting recordings, etc.), municipal website or other sources provided by the city.

[max 400 words]

What were the key drivers for the initiative?

Brief description of enabling conditions or drivers for successful implementation of the solution/approach, i.e., factors or aspects that ensured the success of the Pilot Activity. Please think about governance conditions (e.g., political support, strategic vision, collaboration), technical, socioeconomic, financial, legal, and other aspects.

Information sources: Pilot City Programme Year 1 reports, Twinning Learning Programme materials (Pilot presentations, meeting recordings, etc.), input from cities

[max 300 - 400 words]

What were the challenges and barriers?

Brief description of challenges or barriers during the implementation process, i.e., any problems, obstacles, or difficulties encountered during the implementation process and strategies used to overcome them. Please think about regulatory barriers, technical (e.g., lack of data, technological readiness level), governance (e.g., lack of collaboration, low levels of citizen participation), financial, or other challenges.

Information sources: Pilot City Programme Year 1 reports, Twinning Learning Programme materials (Pilot presentations, meeting recordings, etc.), input from cities



[max 300 - 400 words]

Key takeaways & lessons learned

Brief description of the replication potential and main lessons learned during the implementation process. Please try to answer the following questions:

- *Are there any plans for the solution/approach to be upscaled within the Pilot City or replicated by the Twin City?*
- *What are the preconditions for replicating the solution or approach, i.e., enabling conditions that are required for doing something similar in another city?*
- *Are there any limitations for replicating the solution, i.e., factors making the replication unfeasible in certain contexts (e.g., geography, city size)?*
- ***What are the main lessons learned from this piloting experience?***
- ***What are the recommendations for other cities considering implementing a similar solution/approach? What are the most important things to consider? What would you have done differently?***

Information sources: Pilot City Programme Year 1 reports, Twinning Learning Programme materials (Replicability Assessment, Twin City Replication Plan, Pilot presentations, meeting recordings, etc.), input from cities

[max 300 words]

