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Multi-Actor Collaboration and Private Sector Engagement in the Cities Mission

Governance Innovation and Implementation in the Cities Mission: Second Case Study Anthology

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Summary

This report explores how five European Mission cities - **Lund**, **Leuven**, **Mannheim**, **Milan** and **Bratislava** - are using multi-actor collaboration and private sector engagement as core governance mechanisms for advancing climate-neutrality implementation. Building on the first edition of NetZeroCities case work on multi-actor collaboration, the report extends the comparative analysis to a second set of city cases and focuses on the practical governance arrangements, instruments and engagement processes through which cities seek to mobilise companies and other non-state actors around Climate City Contract implementation.

Private sector engagement is increasingly framed as centreal component of mission governance, rather than as a separate stakeholder engagement activity. Across the cases, companies are positioned not only as consultees or implementers of individual measures, but as partners in shaping, financing and delivering wider transition pathways. Lund uses CoAction Lund as a system demonstrator for climate-neutral mobility and energy in a defined innovation district. Leuven works through Leuven2030 as an independent multi-actor intermediary supporting a broad portfolio of Climate City Contract actions. Mannheim has developed a layered Local Green Deal ecosystem that combines voluntary commitments, business networks, technical advisory support and public recognition. Milan is experimenting with a territorial “molecular” model that links private actors to specific urban areas, investment opportunities and decarbonisation scenarios. Bratislava has developed a focused Mayor’s Climate Challenge, working intensively with selected first-mover companies on energy efficiency and renewable energy measures.

The cases demonstrate that there is no single model of effective private sector engagement. The cases illustrate several viable configurations: intermediary-led models, municipally embedded engagement ecosystems, territorial collaboration models and high-intensity programme-based approaches. The effectiveness of these models depends less on their formal design alone than on their alignment with local institutional capacity, economic structure, political anchoring and the presence of trusted individuals or organisations that can sustain relationships over time. Across the cases, relational infrastructure - trust, continuity, problem-solving capacity and credible convening - emerges as a decisive condition for moving from general commitment to practical implementation.

Cities are using a wide range of governance tools to translate voluntary engagement into more concrete action. These include Climate City Contract commitments, Local Green Deals, memoranda of understanding, green travel plans, thematic arenas, CoActs, project portfolios, decarbonisation scenarios, energy audits, peer-learning networks, training academies and public recognition mechanisms. Although most of these instruments are non-binding, they help clarify expectations, make commitments visible, support follow-up and create soft accountability through transparency, peer pressure and reputational incentives. In several cases, these tools also help companies justify action internally by linking climate measures to cost savings, ESG requirements, innovation opportunities and local visibility.

Municipalities often act less as direct regulators and more as conveners, brokers, technical advisors and enablers. Their role is to help companies navigate complexity, connect to peers and public actors, access knowledge and funding, and align individual projects with broader city-wide climate goals. Mannheim provides one of the most comprehensive support packages through Local Green Deal managers, the Climate Action Agency, KLIMAnetz and related business-facing initiatives. Lund combines municipal coordination with system demonstrator funding and support for green travel plans. Leuven relies on the institutional capacity and legitimacy of Leuven2030 to maintain momentum across stakeholder groups. Milan provides territorial coordination, scenario development and stakeholder mapping, while also highlighting the need for stronger sustainable finance capabilities. Bratislava demonstrates how a small municipal team can generate meaningful engagement through intensive, pragmatic and relationship-based support.

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At the same time, the report identifies persistent challenges:

- Municipal and intermediary capacity remains a major constraint, particularly where engagement requires repeated bilateral follow-up, technical advice, monitoring and portfolio management.
- Smaller firms and less-resourced organisations remain harder to engage, as they often lack time, knowledge, finance and immediate incentives to participate in collaborative climate action.
- Regulatory and multi-level governance constraints can also limit what can be achieved locally.
- Taxation rules, building codes, permitting procedures, grid regulation, procurement rules and shifting reporting requirements can all shape the feasibility of local action.

These constraints underline that city-level collaboration must be better connected to national and EU-level policy, regulatory and financing reforms.

Monitoring, reporting and accountability are developing but remain uneven. Several cities are strengthening data practices through commuter surveys, emissions estimation tools, energy baselines, portfolio follow-up, scenario modelling and company progress reviews. However, monitoring often remains process-oriented and partly dependent on company-reported data. This reflects the voluntary nature of most engagement instruments and the limited mandate cities have to require detailed performance reporting from private actors. Strengthening the credibility and usefulness of monitoring will therefore require approaches that balance transparency, feasibility, trust and administrative burden.

The cases also highlight important opportunities for the next phase of Mission implementation.

- First, cities are moving beyond isolated projects towards more systemic collaboration ecosystems that combine political framing, intermediary capacity, technical tools and implementation support.
- Second, climate collaboration is increasingly linked to economic and competitiveness agendas, including industrial transformation, green skills, sustainable finance, energy cost reduction and local innovation.
- Third, the cases show that relational and reputational incentives can be powerful levers for action when combined with credible support and visible political backing. These opportunities are particularly relevant as Mission cities move from Climate City Contract formulation into implementation and iteration.

The report highlights that multi-actor collaboration and private sector engagement are indispensable to city-level climate neutrality, and require sustained investment in governance capacity. Effective collaboration depends on stable teams, trusted intermediaries, clear roles, practical instruments, credible political support and mechanisms that help companies move from ambition to implementation. Looking ahead, Mission governance should prioritise investment in people and intermediaries, develop more tailored approaches for SMEs and less-resourced actors, and strengthen the connection between local collaboration ecosystems and higher-level policy, regulatory and finance systems. In this way, the governance innovations illustrated by Lund, Leuven, Mannheim, Milan and Bratislava can contribute not only to local implementation, but also to a wider European net-zero delivery framework.

Disclaimer

Table of contents

List of figures

List of tables

Abbreviations and acronyms

Acronym	Description
CCC	Climate City Contract, the main governance instrument of the EU's 100 Climate Neutral and Smart Cities Mission including a city's action plans, investment plans and stakeholder commitments
ESG	Environment, social and governance; a framework used by investors and companies to measure a business's long-term sustainability
EU	European Union
KU Leuven	*Katholieke Universiteit* Leuven (catholic university)
MoU	Memorandum of Understanding
NECP	National Energy and Climate Plan
OLO	Odvoz a likvidácia odpadu (Bratislava Waste Management Company)
RES	Renewable Energy Source
SECAP	Sustainable Energy and Climate Action Plan
SIEA	Slovenská inovačná a energetická agenúra(Slovak Innovation and Energy Agency-)
SMEs	Small and medium enterprises
SUMP	It is a strategic planning framework used by cities and municipalities
TSB	Technické siete Bratislava (Bratislava Public Lighting and Networks Company)
UZ	*Universiteitsziekenhuis* (university hospital)
WTE	Waste To Energy

Keywords

Mission Governance; Private Sector Engagement; Monitoring, Multi-Actor Collaboration.

Introduction

This synthesis report analyses how five European Mission cities are using multi-actor collaboration and private sector engagement as core governance mechanisms for delivering climate-neutrality commitments: **Lund**, **Leuven**, **Mannheim**, **Milan** and **Bratislava**. It builds on the first 2025 NetZeroCities Theme 1 report on multi-actor collaboration and private sector engagement, extending the comparative lens to a new set of city cases and deepening the focus on implementation practices, instruments and governance architectures.

The cases were selected to reflect a balance of geographical, institutional and economic contexts within the EU Mission "100 Climate-Neutral and Smart Cities". Lund (Sweden) and Leuven (Belgium) represent medium-sized, knowledge-intensive university cities; Mannheim (Germany) is a mid-sized industrial and logistics hub; Milan (Italy) is a large metropolitan centre with strong financial and innovation sectors; and Bratislava (Slovakia) is a capital city operating in a highly centralised governance context. All five cities have made formal net-zero or deep decarbonisation commitments and have developed Climate City Contracts (CCC) and strategic frameworks, but they differ markedly in institutional capacity, economic structure and the maturity of their collaboration infrastructures.

Cities experiment with different institutional configurations to structure relationships with firms, knowledge institutions and civil society: system demonstrators (CoAction Lund), intermediaries (Lund and Leuven), local green deals (Mannheim), territorial "molecules" (Milan), and mayor-led climate challenges (Bratislava). The comparative analysis focuses on how these configurations enable or constrain implementation, how they distribute roles and risks, and how they interact with wider multi-level governance regimes and emerging EU competitiveness and industrial-policy agendas.

This chapter starts by synthesising five in-depth case studies, city presentation materials and a cross-city workshop transcript. The analysis is based on documents and interview material using a shared analytical framework further developed from the initial Theme 1 report. Key themes include: strategic framing, engagement processes, governance structures, instruments, onboarding and inclusion, municipal enabling roles, commitments and outcomes, monitoring and accountability, and motivations and value propositions. Evidence has been triangulated across documents, interviews and workshop reflections to support cross-case comparison while retaining sensitivity to local context.

The five cities exemplify different institutional responses to the Mission's demand for whole-of-society governance. Lund and Leuven leverage long-standing innovation ecosystems and intermediary organisations to convene diverse actors; Mannheim has built a dense architecture of municipal and arm's-length entities; Milan is experimenting with territorial "molecules" as an organising principle for cross-sector investment; and Bratislava is piloting a tightly scoped, mayor-led climate challenge that operates with limited formal powers but high relational intensity.

Each case study follows a shared outline, with Section 1 providing city profile and Mission context, Section 2 detailing the approach to private sector engagement, and Section 3 offering outlook and lessons learned. This common structure enables systematic cross-case comparison while allowing for context-specific elaboration.

Table 1 - Overview of the five Mission cities

City	Country/ region	Population and urban form	Economic profile	Climate target / CCC focus	Core private sector engagement focal point
Lund	Sweden, Skåne County; part of the Öresund region	≈131,000 inhabitants in 2024; medium-sized municipality combining dense urban neighbourhoods with surrounding villages and agricultural hinterland.	Knowledge-intensive economy anchored by Lund University, science parks and major research infrastructures, with global corporations and innovation-oriented SMEs.	Climate City Contract with 2030 climate-neutrality target and long-term ambition to become climate-positive; strong focus on mobility and energy transitions.	CoAction Lund system demonstrator as a mission-oriented collaboration hub with thematic arenas and project-based "CoActs".
Leuven	Belgium, Flanders	Just over 100,000 inhabitants in a compact historic core embedded in a wider metropolitan constellation, with strong regional mobility connections.	Diversified, knowledge-intensive economy built around KU Leuven, the university hospital, Interuniversity microelectronics centre (imec), and a dense ecosystem of services, research and high-tech firms.	Aims for at least 80% emissions reduction by 2030 and climate neutrality thereafter, with buildings and heat as dominant emission sources.	Leuven2030, an independent multi-actor intermediary that convenes around 400 members and co-governs the CCC implementation portfolio.
Mannheim	Germany, Baden-Württemberg; Rhine-Neckar Metropolitan Region	≈330,000 inhabitants; mid-sized city at the core of a 2.4 million-inhabitant metropolitan region, with strong industrial and logistics footprint.	Highly diversified industrial base including machinery and automotive manufacturing, chemicals, port logistics and a large trades and services sector.	Climate Action Plan / CCC targeting a 93% reduction from 2020 baseline, with industry accounting for nearly half of emissions.	"Local Green Deal" Team and Climate Action Agency supporting bilaterally, combined with multi-actor platforms like KLIMAnetz, the Climate Protection Alliance and I2M industrial consortia.
Milan	Italy, Lombardy; metropolitan region of over 3 million inhabitants	Large metropolitan centre with dense core and pronounced spatial inequalities across districts in income, housing and access to services.	Financial, design and innovation hub with significant real-estate and service sectors and ongoing large-scale urban regeneration projects.	Climate City Contract with long-term decarbonisation pathways to 2035 and 2050, focusing on buildings, energy systems, mobility and nature-based solutions.	Climate City Contract and "molecular" territorial model (CLIMB project) that anchor collaboration with utilities, developers, financial institutions and housing actors in specific urban molecules.
Bratislava	Slovakia, capital city on the Austrian and Hungarian borders	≈477,000 inhabitants (2022) in 17 urban districts; ageing population and strong in-migration in a prosperous metropolitan region.	Service-led economy with strong roles for trade, retail, education, healthcare and public administration; limited manufacturing base.	Targets 63% per-capita emissions reduction by 2030 from 2005 levels, with buildings and transport as major sources; city directly controls about 11% of emissions.	Mayor's Climate Challenge, a voluntary, two-year commitments-based programme with selected "first-mover" companies focused on energy efficiency and renewables.

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The individual case studies drew on semi-structured interviews with municipal officials, intermediary organisations and private-sector actors: Lund (CoAction Lund and municipal transition team representatives plus company partners), Leuven (Leuven2030 and business partners), Mannheim (municipal entities and three companies), and Bratislava (Climate Office and participating companies). The Milan case integrates interviews with CLIMB project and Urban Resilience Department representatives, plus participating companies with documentary material and workshop-based exchanges. In line with good practice for anonymised qualitative reporting, this synthesis references interview insights in aggregated form, without identifying individual respondents.

A cross-city workshop was convened in April 2026. The workshop involved municipal officials and intermediary representatives from Lund, Leuven, Mannheim, Milan and Bratislava and focused on reflecting across cases on emerging practices, challenges and opportunities. Insights from the workshop were incorporated as an additional comparative lens, particularly in the discussion of shared challenges and opportunities in **Section 1.3.**

The remainder of this chapter introduces the five cities and provides a comparative overview of their demographic, economic and governance profiles, alongside their climate targets and primary private-sector engagement mechanisms. Subsequent sections: draw comparative findings across the five cities structured around the main themes of private sector engagement (**Section 1.2**), present a cross-case comparison (**Section 1.3**), and draw out conclusions and implications for Mission governance and the broader net-zero delivery framework (**Section 1.4**), before presenting the full individual city cases (**Section 1.5**).

1 Key themes for private sector engagement

The thematic framework used for this synthesis builds on the research conducted in the first iteration of this report: **Multi-Actor Collaboration in Mission City Climate Action: Private Sector Engagement**. This section briefly defines the core themes used in the cross-case analysis, before Section 4 expands on these themes to discuss across the five cities. The themes are:

- (i) strategic framing and evolution;
- (ii) engagement processes and practices;
- (iii) governance structures and roles;
- (iv) governance tools and collaboration mechanisms;
- (v) onboarding, inclusion and representation;
- (vi) municipal powers, enabling roles and support;
- (vii) private sector commitments, collaboration and outcomes;
- (viii) monitoring, reporting and accountability; and
- (ix) motivations, incentives and value propositions.

1.1 Strategic framing and evolution

Across the cases, private sector engagement is framed in explicitly mission-oriented or whole-of-society terms.

Lund positions companies as co-owners of a concrete mission to achieve climate-neutral transport and energy in a defined innovation district by 2030, embedded in a broader Climate City Contract roadmap.

Leuven centres shared stewardship around climate neutrality, with Leuven2030 serving as the intermediary through which companies, knowledge institutions and civil society co-produce a portfolio of breakthrough projects aligned with the CCC.

Mannheim articulates an “every deal counts” philosophy that treats each voluntary commitment as a visible step in a cumulative transition, while

Milan’s molecular model situates private actors within specific urban territories where integrated decarbonisation scenarios are co-developed.

Bratislava’s Mayor’s Climate Challenge frames collaboration as a long-term partnership for concrete, site-specific investments that simultaneously cut emissions and reduce operating costs.

The evolution trajectories show a common pattern: cities move from ad hoc, project-based collaboration and informal networks toward more structured, mission-anchored frameworks. In Leuven and Mannheim, earlier experiments with broad coalitions (Leuven2030’s early volunteer network, Mannheim’s Climate Protection Alliance) gradually gave way to more targeted engagement tools and portfolios once Climate City Contracts and Local Green Deals were established. Lund’s CoAction Lund emerged from Sweden’s Viable Cities “system demonstrator” programme and now functions as a flagship arena for mobilising firms around mobility and energy transitions. Milan and Bratislava, both working under stronger multi-level constraints, have used the Mission as a lever to reframe earlier, more fragmented approaches into more coherent, long-term frameworks (the molecular model and the Climate Challenge, respectively).

1.2 Engagement processes and practices

Engagement modalities across the cases blend bilateral relationship-building, multi-actor forums and project-based collaboration.

Lund’s CoAction hub convenes general assemblies for all members, thematic arenas for mobility, energy and construction, and more operational “CoActs” in which small coalitions of firms and municipal units design and implement specific interventions.

Leuven2030 combines bilateral meetings, thematic working groups, and governance participation through its multi-stakeholder board, while Mannheim’s Local Green Deal Managers, Climate Action Agency and business networks like KLIMAnetz orchestrate a dense ecology of bilateral advisory relationships, peer-learning networks and public recognition events.

Milan’s engagement practices are strongly tied to the molecular model, with study visits, co-design workshops, World Café sessions and finance-focused focus groups structured around specific territories. These gatherings use visual mapping, scenario exercises and actor-mapping to align perspectives and identify cross-sectoral interventions within molecules.

Bratislava’s Climate Challenge relies on intensive, high-touch engagement: a dedicated municipal programme manager conducts repeated bilateral calls with each company, organises joint training sessions and peer meetings, and maintains ongoing contact to troubleshoot implementation challenges.

In several cases, engagement practices deliberately cultivate soft peer pressure - for example by grouping competitors in Bratislava or by publicising deals on Mannheim’s iDEAL platform to trigger a “fear of missing out” effect.

1.3 Governance structures and roles

Governance architectures differ substantially across the cases, but all attempt to embed private-sector engagement within broader climate governance rather than treating it as an add-on.

Leuven’s model is distinguished by an independent intermediary, **Leuven2030**, with a multi-stakeholder board representing six stakeholder groups, operating alongside municipal governance but structurally embedded in Climate City Contract processes. Mannheim’s climate governance is unusually well-resourced, with a Transition Team led from the First Deputy Mayor’s office, a Local Green Deal team

situated between the Mayor and First Deputy Mayor, a Climate Action Agency, the Environment and Economic Development Departments, and several business networks focused on climate.

Lund's governance is organised around a municipal transition team and the CoAction hub, which coordinates CoAction arenas and projects while linking them to the broader CCC roadmap. Milan's Urban Resilience Department leads the molecular model and CCC processes, supported by technical agencies and university partners, while Bratislava's Climate Office - embedded in the Mayor's Office - serves as the central node for both city-wide climate strategy and the Mayor's Climate Challenge. In all cases, specific individuals - project managers, intermediaries and technical advisors - play outsized roles as relational linchpins, translating political mandates into operational collaboration and providing continuity across political cycles.

1.4 Governance tools and collaboration mechanisms

A wide repertoire of instruments is used to structure collaboration. Leuven's CCC and associated portfolio templates provide a shared framework for voluntary commitments, while Leuven2030's project templates and analytic tools help partners translate indicative commitments into concrete actions. Mannheim's Local Green Deal uses an online platform to publicise "deals" - voluntary, above-baseline commitments - supported by 7 Local Green Deal managers that work with companies to develop deals and accessing funding information; the Climate Action Agency provides standardised energy audits and technical support, and KLIMAnetz structures a 2.5-year peer-learning and target-setting cycle for ten participating firms.

Lund has developed green travel plans as a central instrument to operationalise collaboration on mobility, complemented by project contracts for CoActs and developing collaboration agreements for CoAction membership. Milan uses decarbonisation scenarios at molecule level, visual maps and case-study repertoires to support shared understanding and investment planning. Bratislava's Climate Challenge relies on memoranda of understanding specifying concrete measures and targets for each building or site, complemented by standardised progress reviews and public recognition at a mayor-hosted closing event. Across all cases, these tools remain formally non-binding, but they make expectations explicit, create reference points for monitoring, and signal seriousness of intent.

1.5 Onboarding, inclusion and representation

Onboarding strategies differ according to institutional capacity and the maturity of local ecosystems.

Leuven2030 maintains an open membership model but has strategically shifted from broad coalition-building to working more intensively with a smaller group of high-leverage actors. Mannheim's Local Green Deals are open to any organisation willing to make a qualifying commitment, but more intensive formats such as KLIMAnetz and the Climate Protection Alliance are deliberately limited-cohort or closed-membership to preserve trust and depth of engagement. Lund's CoAction started with a formation group of ten key companies and gradually expanded membership to around 37 organisations, prioritising actors with strong leverage over mobility and energy in the target district.

Milan's onboarding is closely tied to existing regeneration initiatives and CCC signatories, using the molecular approach to bring in actors with assets or projects in the selected molecules. Bratislava has deliberately targeted "first-mover" companies with strong internal ESG capacity and significant building footprints. Bratislava seeks for scale by inviting partners (ESG lead) with high capacity for implementation and to inspire others to do the same.

Across all cases, SMEs and less-resourced organisations remain harder to engage, with capacity constraints, knowledge gaps and weaker incentives limiting their participation; initiatives such as Leuven2030's support for smaller cooperatives, Mannheim's Heat Transition Academy and Lund's outreach to additional employers show emerging responses but also underline enduring inclusion gaps.

1.6 Municipal powers, enabling roles and support

Municipal powers are structurally constrained in all cases, but cities leverage a mix of convening authority, technical expertise, financial support and regulatory navigation. Leuven's municipal administration provides strategic framing, data, planning instruments and some project funding, while relying on Leuven2030 to broker relationships and maintain momentum. Mannheim offers one of the most comprehensive support packages, including free technical advisory services via the Climate Action Agency, assistance accessing funding, targeted subsidies, recognition awards and training programmes such as the Heat Transition Academy for tradespeople.

Lund's municipality plays multiple roles through its CoAction hub: convener, technical advisor, funder and broker. It provides coaching for green travel plans, small project grants and administrative support. Milan's Urban Resilience Department coordinates technical analysis, scenario work and stakeholder engagement, but faces gaps in sustainable finance expertise, highlighting the need to complement urban planning skills with financial engineering capacities. Bratislava's Climate Office emphasises pragmatic support: helping companies interpret regulations, facilitating access to municipal land where needed, and providing tailored advice even when it cannot directly change national rules. In all cases, cities act as problem-solvers and enablers more than as classical regulators.

1.7 Private sector commitments, collaboration and outcomes

Private-sector commitments across the cases range from city-wide climate pacts and CCC signatory roles to highly concrete, site-specific measures. In Leuven, companies commit to participating in breakthrough projects on green heat, building renovation, circular construction and logistics, with the CCC and Leuven2030's portfolio governance cycle providing structure and follow-up. In Mannheim, companies formalise Local Green Deals, join KLIMAnetz with quantified energy and emissions targets, and participate in industrial consortia on hydrogen, circular economy and other transformation themes. Lund's CoAction members sign statements of intent linked to the CCC, develop green travel plans with minimum action requirements, and participate in CoActs on shared mobility and local energy networks.

Milan's private actors make portfolio commitments through the CCC and co-develop decarbonisation scenarios and investment concepts within molecules, while Bratislava's Climate Challenge participants sign MoUs specifying percentage energy reductions and concrete measures for each site. Quantified outcomes are still emerging, but there is evidence of energy savings, new photovoltaic capacity, behavioural changes in commuting, and strengthened project pipelines in all cities. Equally important are relational and institutional outcomes: stronger networks, improved internal legitimacy for sustainability teams, and more structured channels for city-business dialogue.

1.8 Monitoring, reporting and accountability

Monitoring and accountability remain predominantly soft and process-oriented, but several cases have begun to strengthen data practices. Leuven2030 systematically follows up on CCC commitments and is developing tools to estimate the emissions impact of measures, even as systematic monitoring of individual companies is still emerging. Mannheim's KLIMAnetz publishes collective targets and progress, while the city is developing methods to estimate the CO_2 impact of Local Green Deals more systematically. Lund integrates commuter surveys, project reporting and CCC monitoring pathways, and uses external coaching to support firms in interpreting data and adjusting measures.

Milan's monitoring is tied to scenario modelling and molecule-level data layers, with municipal staff and technical partners jointly validating assumptions and outputs. Bratislava's Climate Challenge requires baseline and follow-up energy data for participating buildings, but in practice much monitoring is internal

to companies, with the city focusing on implementation progress and visibility rather than enforcing strict performance obligations. In all cases, accountability relies heavily on transparency, peer visibility, reputational incentives and ongoing dialogue, reflecting both legal constraints and the voluntary nature of most instruments.

1.9 Motivations, incentives and value proposition

Companies participate for a mix of normative, strategic and pragmatic reasons. Across the cases, large firms emphasise alignment with corporate climate targets and ESG expectations, reputational benefits, and a desire for stable local policy environments. SMEs, cooperatives and social-economy actors value access to networks, practical support and visibility that they could not easily secure individually. In Mannheim and Bratislava, regulatory pressure (for example from EU sustainability reporting) and energy costs are strong underlying drivers, while the value proposition is framed in very pragmatic terms: cost savings, risk reduction and business opportunities as a result of public recognition/greater visibility.

In Leuven and Lund, relational and learning benefits stand out: companies stress the importance of peer examples, trusted municipal counterparts and opportunities to experiment with new solutions. Milan's stakeholders emphasise the chance to influence strategic decarbonisation scenarios, align investments with urban plans and participate in high-visibility Mission-labelled initiatives. Across all cities, there are tensions between high expectations and finite municipal capacity, making honest communication about what cities can and cannot offer an important part of maintaining trust.

2 Discussion: emerging themes of multi-actor collaboration and private sector engagement

This section discusses three common themes emerging from the cases, along with shared challenges and opportunities. For each theme, we highlight convergences and divergences in governance choices and implementation practices, supported by comparative tables where appropriate. The analysis emphasises how different institutional designs respond to similar underlying challenges, and how they variously balance ambition, inclusiveness, feasibility and scalability.

2.1.1 Strategic framing and political anchoring

All five cities explicitly frame climate neutrality as a shared societal mission that cannot be delivered by municipal action alone, but the way this narrative is operationalised differs.

Lund's CCC and the CoAction Lund system demonstrator presents climate neutrality as an innovation-driven transformation, using concrete goals (such as a 90% reduction in transport emissions and a modal split target) to make the mission tangible.

Leuven's CCC and Leuven2030 governance model frame climate neutrality as a city-wide project anchored in co-ownership by six stakeholder groups, with an emphasis on just transition and social equity alongside technical decarbonisation.

Mannheim situates its Local Green Deal and broader climate architecture in a narrative that explicitly links decarbonisation to industrial competitiveness and innovation, echoing the EU's Clean Industrial Deal logic that the green transition is a route to renewed prosperity.

Milan's molecular model gives the mission a territorial and spatial dimension, treating specific urban "molecules" as living test beds where decarbonisation, regeneration and innovative finance are integrated.

Bratislava's framing is more explicitly pragmatic and relational: the Mayor's Climate Challenge is presented as a movement for change built on long-term partnerships with responsible companies, with a strong emphasis on cost savings and resilience as entry points.

A common feature is political anchoring. In Mannheim, the First Deputy Mayor holds the environmental portfolio and chairs the Transition Team; in Leuven and Lund, climate neutrality is elevated in city strategies and backed by visible mayoral support; in Bratislava, the Mayor and Vice Mayor for Climate actively endorse the Climate Challenge; and in Milan, the Urban Resilience Department works closely with political leadership around the CCC and CLIMB project.

2.1.2 Engagement architectures and relational infrastructures

The cases illustrate three broad types of engagement architectures.

- First, intermediary-centred models (Leuven and Lund) use a dedicated organisation or hub to convene and sustain relationships with businesses and other actors.
- Second, municipal-ecosystem models (Mannheim) embed engagement capacity directly in city administration and municipally co-owned agencies, combining advisory, networking and recognition functions.

- Third, programme-centred models (Bratislava, and to some extent Milan's CLIMB) focus on a specific, tightly defined programme with intensive bilateral support and relatively small cohorts of companies.

In Leuven, the presence of Leuven2030 as a neutral intermediary with its own governance and staff is repeatedly cited as the key enabler of sustained collaboration: it can bridge municipal silos, maintain continuity across political cycles and provide a trusted platform where businesses feel they are co-owners rather than mere consultees.

Lund's CoAction hub, although located within the municipality, functions in a similar way as a focal point for engagement around a system demonstrator.

Mannheim invests heavily in municipal capacity: Local Green Deal Managers, who provide assistance to companies developing "deals", are embedded in departments across the administration, and the Climate Action Agency offers free technical support - companies describe these individuals as genuine "sparring partners", underlining the importance of relational quality.

Bratislava demonstrates that high-intensity engagement with a small group of companies can be achieved even with limited formal powers, provided there is a dedicated and trusted programme manager who can leverage prior corporate-sector experience.

Milan's molecular engagement shows the value of anchoring relationships in concrete territories and projects, where stakeholders jointly walk the streets, examine sites and co-design actions.

Across all cases, relational infrastructure - trust, continuity of contact persons, and the ability to mediate between municipal procedures and business logics - emerges as at least as important as formal governance diagrams.

2.1.3 Instruments, incentives and accountability

The menu of instruments used to engage and incentivise companies is broad but can be grouped into four clusters: strategic frameworks and charters (CCC, Local Green Deals, Climate Challenges); project and portfolio tools (green travel plans, breakthrough projects, molecule scenarios, CoActs); advisory and capacity-building services (energy audits, coaching, training academies); and recognition and visibility mechanisms (awards, public events, online platforms).

In Leuven, the CCC and its 86-project portfolio serve as a central reference, while Leuven2030's assessment tools and follow-up procedures give it practical bite.

In Mannheim, the Local Green Deal and KLIMAnetz formats combine voluntary commitments with structured peer learning, technical assistance and public recognition via the iDEAL platform and environment awards.

Lund's combination of green travel plans, CoActs and system-demonstrator funding lowers the barrier for firms to move from intent to action, while Milan's decarbonisation scenarios and financial-instrument work seek to make complex, cross-sector investment opportunities legible and investable.

Bratislava's Climate Challenge sharpens the instrument mix further: participation is contingent on companies being able to specify concrete measures upfront, with MoUs turning corporate ambitions into time-bound, site-specific commitments. The city offers non-financial incentives - tailored training, persistent municipal support and high-profile recognition - while emphasising the cost-saving logic of many measures.

Across all cases, the absence of hard legal enforcement shifts the centre of gravity toward soft accountability: visibility, peer pressure, and the reputational and relational benefits of being part of an ambitious climate coalition.

Table 2 - Selected thematic configurations across the five cases.

City	**Primary engagement vehicle**	**Dominant narrative**	**Key instruments**	**SME inclusion approach**
Lund	CoAction Lund system demonstrator and CCC roadmap	Mission-oriented implementation in a defined innovation district, with companies as co-owners of climate-neutral mobility and energy.	CoAction membership, thematic arenas, green travel plans, CoActs, project funding, commuter surveys.	Focus initially on large employers and utilities; gradual outreach to additional employers and solution providers; smaller local firms remain under-represented.
Leuven	Leuven2030 intermediary and Climate City Contract	Shared stewardship of climate neutrality through a multi-actor network spanning six stakeholder groups.	CCC commitments, breakthrough projects, Leuven2030 membership structure, bilateral engagement, portfolio management cycle.	Strong engagement of large institutions and cooperatives; SMEs often reached via clusters; recent shift toward working more deeply with a smaller set of high-leverage actors.
Mannheim	Local Green Deal ecosystem (iDEAL), Climate Action Agency, KLIMAnetz, industrial consortia	"Every deal counts": cumulative impact of many voluntary commitments, linking decarbonisation and industrial competitiveness.	Local Green Deals, Deal Box, KLIMAnetz peer network, Climate Protection Alliance, Heat Transition Academy, Green Industry Cluster.	Strong offer for SMEs via advisory services, LGD Managers and KLIMAnetz, but engagement remains more consolidated among larger firms and trades with clear market opportunities.
Milan	Climate City Contract and CLIMB molecular model	Territorially grounded decarbonisation, linking regeneration, mobility, energy and finance in specific urban "molecules".	Stakeholder workshops and study visits in molecules, decarbonisation scenarios, finance-focused World Cafés and focus groups, visual mapping.	Focus on actors with assets and projects in pilot molecules (utilities, developers, housing providers, universities); challenges in sustaining engagement of some associations and in reaching broader SME base.
Bratislava	Mayor's Climate Challenge	Small-scale, high-intensity partnership programme showcasing pragmatic, cost-saving climate action within tight governance constraints.	MoUs with concrete measures, bilateral consultations, joint training sessions, public recognition events.	Deliberate prioritisation of large, sustainability-leading companies with strong internal capacity; targeting large building owners provided a feasible and high-impact entry point for a programme of this scope; SMEs not yet a primary focus in the pilot phase.

2.1.4 Shared challenges and emerging opportunities

The cross-case analysis confirms many of the shared challenges identified in the 2025 Theme 1 report and adds new nuances. Four clusters of challenges recur across the five cities: (i) capacity and resourcing constraints within municipalities and intermediaries; (ii) difficulties in engaging SMEs and less-resourced organisations; (iii) regulatory and multi-level governance misalignments; and (iv) sustaining momentum and managing expectations in volatile economic and political contexts.

Capacity constraints are visible even in relatively well-resourced Mannheim and Leuven, where maintaining intensive engagement, monitoring and portfolio management strains staff time and budgets. In Lund and Bratislava, small teams shoulder complex facilitation roles; Milan struggles to complement strong planning and engagement skills with specialised sustainable-finance expertise. Turnover in key positions threatens relational continuity, underlining the need to treat engagement capacity as a strategic investment rather than a short-term project cost.

Engaging SMEs and less-resourced actors remains a structural challenge. Across cases, smaller firms face time, knowledge and financing constraints, and tend to prioritise core business over collaborative climate action unless a clear and immediate business case is evident. Initiatives such as Leuven2030's attention to smaller cooperatives, Mannheim's Heat Transition Academy for trades, and Lund's efforts to broaden CoAction membership beyond large institutions show promising directions but have not yet reached the "long tail" of companies that collectively shape urban emissions trajectories.

Regulatory and multi-level dynamics effect what cities can achieve through collaboration alone. Lund cannot resolve tax rules that penalise ride-sharing benefits or grid regulations that make local flexibility solutions difficult; Bratislava operates in a highly centralised system where building codes, energy regulation and permitting are largely national competences; Milan's partners experience long and unpredictable authorisation processes that can delay projects for years; and Mannheim grapples with shifting EU reporting requirements that affect SME engagement in KLIMAnetz. These constraints confirm the need for Mission governance to intentionally connect city-level experiments to national and EU-level regulatory and financing reforms.

At the same time, the cases reveal several shared opportunities and breakthroughs.

- There is growing experimentation with governance architectures that move beyond single-project partnerships to more systemic ecosystems: Leuven's intermediary model, Mannheim's layered engagement system, Milan's molecular approach and Lund's system demonstrator illustrate different pathways.
- New forms of capacity-building and knowledge infrastructures are beginning to tackle practical bottlenecks in implementation, not just awareness. These include: Mannheim's Heat Transition Academy, Leuven2030's impact assessment tools and Milan's data-rich decarbonisation scenarios.
- There is increasing recognition that climate collaboration must be connected to economic and competitiveness agendas. Mannheim's Green Industry Cluster, Leuven's climate fund work and Bratislava's cost-savings narrative all speak to a convergence between climate policy and industrial / investment strategies.
- Relational and reputational dynamics can be powerful levers for action. The challenge for the next phase of Mission implementation is to scale these relational successes, extend them to harder-to-reach actors, and connect them to structural reforms in finance, regulation and skills.

3 Overall conclusions and outlook from selected cases

The five cases in this anthology highlight both the indispensability and the complexity of multi-actor collaboration and private sector engagement in city-level climate governance. They confirm that without sustained, structured engagement with businesses and other non-state actors, municipal climate plans and Climate City Contracts risk remaining aspirational. At the same time, they show that meaningful collaboration is not a simple matter of convening workshops or collecting signatures: it requires carefully designed governance architectures, long-term relational work, targeted instruments, and honest navigation of regulatory and economic constraints.

Several overarching conclusions emerge:

- **There is no single ideal model for private sector engagement**: intermediary-led networks, municipal ecosystems, territorial programmes and high-intensity challenges can all be useful mechanisms when aligned with local institutional realities and capacities. What matters is clarity of roles, credible political anchoring, and the presence of dedicated people and structures that can translate strategic missions into everyday collaboration.

- **Voluntary commitments can drive substantial action**, provided they are embedded in supportive instruments (advisory services, funding access, technical tools) and anchored in soft but meaningful accountability mechanisms (visibility, peer pressure, portfolio follow-up).
- **Multi-actor collaboration is itself a site of learning and institutional innovation**. Cities and intermediaries are continually adjusting their engagement portfolios - shifting focus from breadth to depth, redesigning tools such as alliances and networks, and developing new capacities in areas such as sustainable finance and skills development. These adaptive processes are not peripheral but central to Mission governance, and should be explicitly recognised and supported in EU and national frameworks (for example through long-term funding for engagement capacity and knowledge infrastructures).
- **Structural challenges cannot be solved at city level alone**. Mission governance will need to connect city experiments more deliberately to national reforms on taxation, building codes, energy regulation and procurement, and to EU-level instruments under the Clean Industrial Deal, cohesion policy and green finance agenda.

Cities like Mannheim, Leuven and Milan, already engaging with industrial and financial actors at scale, can serve as laboratories for aligning climate and competitiveness agendas; cities like Bratislava show how relational, trust-based programmes can operate effectively.

Looking ahead, three strategic priorities stand out for advancing multi-actor collaboration and private sector engagement in Mission cities.

- **Invest in people and intermediaries:** without stable teams and trusted conveners, even well-designed instruments will underperform.
- **Deepen work on scaling and inclusion** by designing tailored approaches for SMEs, social-economy actors and neighbourhood-based initiatives, building on emerging practices such as energy-transition academies, climate funds and territorial programmes.
- **Strengthen the connective tissue between local collaboration ecosystems and higher-level policy and finance systems**, so that lessons from cities inform regulatory change and large-scale investments, and vice versa.

If these priorities are pursued, the kinds of governance innovations illustrated in Lund, Leuven, Mannheim, Milan and Bratislava can become not isolated exemplars but core components of a net-zero delivery framework across Europe.

4 City Cases: Multi-Actor Collaboration and Private Sector Engagement in the Cities Mission

4.1 Lund (CoAction Lund)

4.1.1 City Profile and Mission Context

Lund is a medium-sized municipality in southern Sweden, located in Skåne County and forming part of the wider Öresund region together with the city of Malmö and the metropolitan area of Copenhagen. The municipality comprises the historic city of Lund and eight surrounding villages, embedded within a predominantly agricultural hinterland, and thus combines dense urban neighbourhoods with smaller settlements and rural land (Lund Municipality, 2024). This spatial configuration shapes both emission profiles and the governance challenges of orchestrating climate action across different territorial and sectoral contexts.

Lund had around 131,000 inhabitants in 2024 and is projected to grow to roughly 140,000 residents by 2030, driven mainly by in-migration and the continued expansion of research and knowledge-intensive industries (Lund Municipality, 2024). The age structure is characterised by a relatively large share of young adults linked to Lund University, but also by demographic ageing in the oldest cohorts, which reinforces concerns about long term welfare and fiscal pressures. Socio-economic statistics indicate that most residents live in areas classified as having good or very good socio-economic conditions, although a non-trivial share live in more disadvantaged or mixed neighbourhoods, which matters for distributional dimensions of the climate transition.

Economically, Lund is a knowledge-intensive city anchored by Lund University, Ideon Science Park and Medicon Village, with major research infrastructures such as the European Spallation Source (ESS) and MAX IV cementing its position as a European research hub (Lund Municipality, 2024). Global corporations such as Tetra Pak, Alfa Laval and Axis, along with a dense field of high-tech and life-science SMEs, provide a strong base of private-sector actors with significant innovation capacity. This economic structure both facilitates and complicates climate governance: it provides a pool of potential frontrunner firms and solution providers, but also creates complex interdependencies across global value chains and local infrastructures.

Lund has been engaged in climate and environmental policy since at least the 1990s and has progressively tightened its targets. The current CCC commits the city to achieving climate neutrality by 2030, with an 80 percent reduction in territorial greenhouse gas emissions from 2010 levels and a long-term ambition of becoming climate-positive around 2045 (Lund Municipality, 2024). The territorial emissions inventory shows that emissions have declined substantially since 2010, largely due to decarbonisation of the district heating system, while transport and agriculture/land-use now constitute the main emitting sectors. The city has adopted a specific goal of reducing transport emissions by at least 90 percent between 2010 and 2030, alongside a consumption-based target of one tonne of emissions per capita by 2050.

Lund is deeply embedded in multi-level climate-governance frameworks. It is a founding member of the Swedish Viable Cities programme, participates in the EU-funded NetZeroCities project and is part of the Urban Transition Mission (Lund Municipality, 2024). At the local level, the governance landscape includes Climate Alliance Lund, Future by Lund as an innovation platform, and a Climate Policy Council composed of researchers from Lund University and the Swedish University of Agricultural Sciences who provide independent assessments of local climate progress. Within this architecture, CoAction Lund is positioned as one of the municipality's key "system demonstrators" for

climate-neutral mobility and energy, and as a focal arena for collaboration with private-sector actors (Lund Municipality, 2024; NetZeroCities, 2025).

4.1.2 CoAction Lund as mission-oriented system demonstrator

Lund's overall approach to engaging private-sector actors is framed in explicitly mission-oriented terms. The CCC states that achieving the 2030 climate-neutrality target requires mobilisation of actors well beyond the municipal organisation, including businesses, research institutions and civil society, and highlights the importance of system demonstrators such as CoAction Lund as implementation vehicles (Lund Municipality, 2024). Rather than treating companies solely as objects of regulation or beneficiaries of municipal programmes, the city positions them as co-owners of the mission who are expected to contribute both through their own internal transitions and through participation in collaborative projects.

Officials describe an evolution from earlier, more fragmented forms of engagement (including one-off projects, ad hoc consultations and voluntary business networks) towards a more coherent, mission-anchored approach tied to the CCC and the EU Cities Mission. In this narrative, CoAction Lund functions as a flagship initiative that concentrates and structures engagement around the intertwined systems of mobility and energy in a geographically bounded innovation district. The mission for CoAction is defined as achieving climate-neutral transport and energy in the area by 2030, with concrete targets such as a 90 percent reduction in transport emissions and a "one third" modal split between cars, public transport and active modes (Lund Municipality, 2024; Interview 2, 2026).

CoAction Lund emerged from a call issued by Viable Cities for "system demonstrators for climate-neutral cities", with the explicit aim of creating large-scale, real-world pilots that pioneer new ways of working and can be scaled to other cities (Lund Municipality, 2024a). Lund's proposal focused on the highly workplace-dense district encompassing Brunnshög, Ideon Science Park and Medicon Village in the north-eastern part of the city, where infrastructure investments, research facilities and major employers intersect. The initiative was designed as a system demonstrator for the intertwined systems of mobility and energy, with a mission to achieve climate-neutral transport and energy in the area by 2030 (CoAction Lund, 2025). The mission framing is unusually concrete: CoAction aims to contribute to a 90% reduction in transport-related emissions from 2010 levels and to a modal split where no more than one-third of trips are made by car, with the remaining two-thirds split between active modes and public transport, supported by flexible, locally produced and digitally coordinated energy systems (CoAction Lund, 2025; Lund Municipality, 2024).

Mission-oriented approaches require a clear narrative about why private-sector engagement is central, how it is expected to contribute to emissions reduction, and how it is linked to broader economic and social objectives (NetZeroCities, 2025). Lund's strategy is broadly consistent with this guidance. Private-sector engagement is framed as necessary not only for mobilising emissions reductions in sectors outside direct municipal control, but also for leveraging local innovation ecosystems, attracting investment and experimenting with new business models and governance arrangements. The CoAction system demonstrator embodies this logic by linking company participation to both climate impact and innovation opportunities.

In terms of evolution, city actors distinguish an exploratory phase of engagement prior to the CCC, a co-creation phase during CCC preparation, a launch phase for CoAction as a Viable Cities system demonstrator, and a current early implementation and scaling phase marked by the development of CoActs and testbeds (Interview 2, 2026). Major milestones include joining Viable Cities, adopting the CCC, securing funding for CoAction as one of two Swedish system demonstrators, and moving from an initial statement of intent signed by 37 members towards a more formal collaboration agreement.

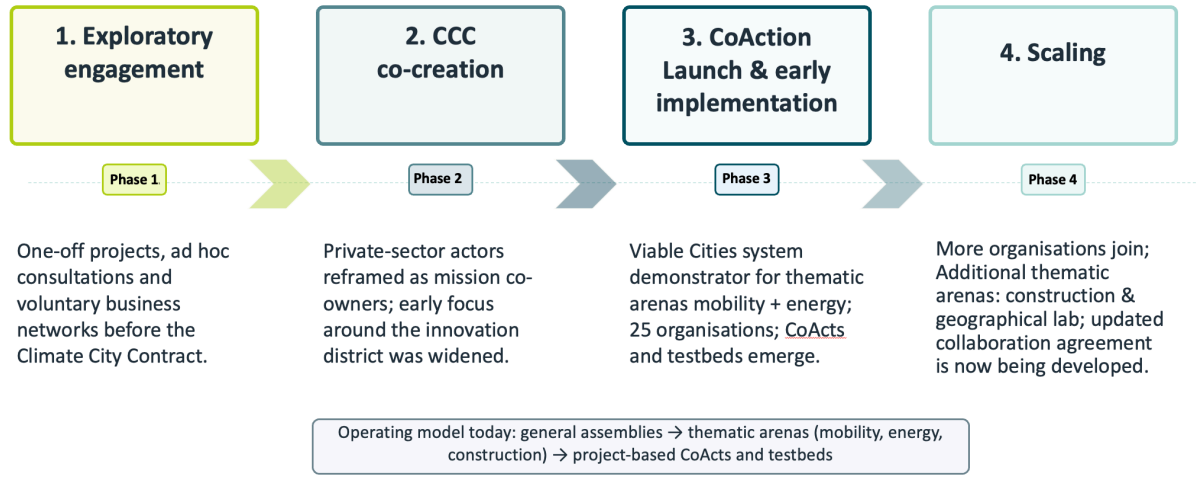

Figure 1 - Evolution of CoAction Lund.

Target groups have been explicitly prioritised. The city's initial outreach for CoAction focused on large employers, property owners, municipal companies and key infrastructure and utility actors in the innovation district, on the basis that their decisions around commuting, parking, building energy use and infrastructure investments would have the largest leverage on local emissions (Interview 2, 2026). Solution providers and start-ups with relevant mobility and energy services were subsequently brought in to provide technical and digital capabilities. While the CCC and CoAction materials refer to SMEs more broadly, the current engagement is still strongly weighted towards larger organisations and innovation-oriented SMEs, which has implications for inclusion and representation analysed in later sections.

Figure 2 - Active stakeholder members in CoAction Lund.

Engagement Processes and Practices

Engagement with companies in Lund occurs through a layered set of modalities. At the broadest level, CoAction Lund organises general assemblies that bring together all members and associated "CoAction friends" for networking, high level updates and horizon-scanning. These meetings are

typically used to present overall progress, spotlight specific CoActs, and share information about funding opportunities and regulatory developments (Interview 2, 2026). Stakeholders describe these assemblies as important for maintaining a sense of shared purpose and for enabling contacts across sectoral and organisational boundaries (Interview 3, 2026; Interview 4, 2026).

Below this level, thematic arenas for mobility, energy and construction convene smaller groups of actors with relevant expertise around more focused agendas. Mobility-arena meetings bring together employers, property owners, mobility service providers and municipal mobility planners to discuss commuting, business travel, freight and shared mobility, often working directly with the data and insights generated through commuter surveys and green travel plans. Energy arena meetings involve Kraftringen, ViaEuropa, Energy Opticon, property owners and other stakeholders in examining issues including local energy networks, flexibility services and the integration of new research infrastructures into the energy system (Interview 3, 2026; Interview 4, 2026).

At the most operational level, CoActs function as project-based collaboration units. Initial idea-generation workshops in each arena produced a long list of potential interventions, which were then clustered and refined into a smaller number of CoActs with defined objectives, partners, budgets and timeframes. Examples include green travel plan programmes and ride-sharing portals in mobility, and EnergyNet pilots and flexibility services in energy (Interview 2, 2026; Interview 3, 2026; Interview 4, 2026). Stakeholders characterise CoActs as “chaotic in a positive way”: they allow for bottom-up initiative and flexibility, but also depend heavily on the time, motivation and informal leadership of participants.

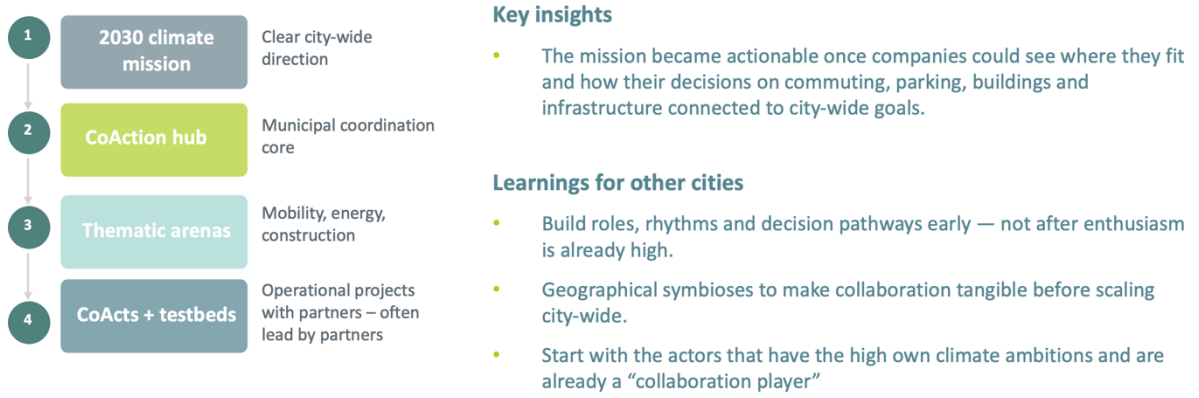

Figure 3 - Distributed implementation through "CoActs".

Trust-building is a central feature of these engagement processes. Companies repeatedly emphasise the accessibility of municipal coordinators, the perceived sincerity of the city’s commitment, and the fact that reporting and administrative requirements are kept proportionate to the size of projects (Interview 2, 2026; Interview 3, 2026; Interview 4, 2026). Joint workshops and team-building exercises, particularly in the early phases of CoAction, are reported to have built relational capital that later facilitated more sensitive discussions around data sharing, competitive boundaries and risk-sharing. This aligns with findings from the Theme 1 2025 report that trust and perceived fairness of process are crucial enablers of durable multi-actor collaboration (NetZeroCities, 2025).

Engagement practices are differentiated across company types. Large firms and municipal companies tend to engage through strategic dialogues, participation in steering or leadership groups, and involvement in larger work packages. Innovation-oriented SMEs and start-ups including CoRide or ViaEuropa participate through smaller, more agile projects, often with limited direct financial compensation but significant test-bed access and relational benefits (Interview 2, 2026; Interview 3, 2026). Routine communication is maintained through email lists, regular arena meetings, bilateral conversations and surveys; there is no dedicated digital collaboration platform, which may limit visibility across projects and actors but keeps transaction costs relatively low.

Governance Structures and Roles

The organisational architecture for private-sector collaboration in Lund revolves around a municipal transition team and the CoAction hub. The CCC describes a climate-governance setup in which a central transition team coordinates climate-neutrality efforts across municipal departments and companies, overseen by political leadership and supported by thematic roadmaps (Lund Municipality, 2024). Within this framework, the CoAction hub is located in the municipal organisation and staffed by project managers with expertise in environmental strategy, mobility, business development and finance (Interview 2, 2026). The hub manages stakeholder engagement, project-portfolios, communication and monitoring related to CoAction.

Internally, the transition team links CoAction to other elements of the CCC implementation, including sectoral programmes for buildings, waste, circular economy and agriculture, and to cross-cutting governance innovations (Lund Municipality, 2024). This reduces the risk that CoAction becomes an isolated experiment disconnected from municipal planning and investment cycles. The hub team has evolved from a focus on CCC preparation and project application writing to a more complex role that involves coordinating dozens of actors, managing EU and national funding streams, and integrating learning from CoAction into broader policy frameworks (Interview 2, 2026).

Formal multi-actor structures include the thematic arenas for mobility, energy and construction, the Urban Transition Lab area, and, in some cases, leadership and steering groups that bring together senior representatives from key organisations. These structures are not legal entities but are nonetheless institutionalised through recurring meetings, shared agendas and joint documentation (Lund Municipality, 2024; Interview 2, 2026). Companies play central roles in these arenas: for example, Kraftringen, ViaEuropa and major property owners are key actors in the energy arena, and large employers, parking companies and mobility-service providers are central in the mobility arena (Interview 3, 2026; Interview 4, 2026).

Decision-making within CoAction is largely based on consensus. While the municipality retains formal authority over budget allocations and project-selection decisions, the choice of which CoActs to pursue and how they are designed is strongly influenced by stakeholder input during workshops and arena meetings (Interview 2, 2026; Interview 2, 2026). Companies do not co-chair the overall hub, but they do co-lead specific CoActs and are sometimes involved in setting meeting agendas and initiating new work packages. This hybrid governance model, combining a municipal lead organisation with networked thematic arenas and project-based coalitions, is consistent with collaborative governance patterns identified in other Mission cities (NetZeroCities, 2025).

Governance Tools and Collaboration Mechanisms

A range of tools is used to formalise and operationalise collaboration between the municipality and private-sector actors. At the highest level, the CCC provides a framework for commitments by the municipality, municipal companies and external stakeholders, including businesses, utilities and research institutions (Lund Municipality, 2024). CoAction Lund adds a more specific layer: all 37 CoAction members have signed a statement of intent in support of Lund's 2030 climate-neutrality goal, and the city is in the process of upgrading this to a more formal collaboration agreement that clarifies roles and expectations (Interview 2, 2026).

Green travel plans are a central instrument for operationalising collaboration in the mobility domain. Participating employers commit to undertaking commuting surveys, receiving external coaching and developing plans that contain at least five concrete measures to reduce emissions from commuting and business travel (Interview 5, 2026). These plans translate system-level goals into organisation-specific actions and are supported by technical assistance provided through CoAction. While the plans are not legally binding, the expectations are clear enough to structure behaviour and provide a basis for monitoring.

CoActs and work packages constitute another key tool. They function as modular collaboration units through which specific interventions are designed, funded and implemented, often involving small coalitions of public and private actors. Examples include the development of a ride-sharing portal and mobility wallets for CoAction members, parking campaigns that provide incentives for carpooling, EnergyNet pilots that test local energy networks and energy-sharing arrangements, and flexibility projects that optimise energy demand and supply (Interview 2, 2026; Interview 3, 2026; Interview 4, 2026). These tools are co-created through workshops and bilateral discussions and are formalised through project contracts linked to funding agreements.

From the perspective of effectiveness, interviewees generally see these tools as enabling experimentation and learning, but also note some limitations. The voluntary nature of CoAction membership and green travel plans means that there are no hard sanctions for non-compliance, and companies facing internal capacity constraints can slow down or deprioritise actions without formal consequences. Work-package funding is appreciated but is not always sufficient to compensate for the full opportunity costs of participation, especially for smaller firms and start-ups (Interview 2, 2026; Interview 3, 2026).

Onboarding, Inclusion and Representation

The onboarding of companies into Lund's Mission-related collaboration followed a targeted and relational strategy. During CCC preparation and the design phase of CoAction Lund, municipal staff identified key stakeholders based on emissions relevance, strategic influence and existing relationships, and 10 companies were part of the formation group. This number quickly expanded to 25 companies; property owners, municipal companies, major employers and key utilities in the innovation district were prioritised for early outreach, including direct contact and by leveraging existing arenas such as Climate Alliance Lund and Future by Lund (Interview 2, 2026; Lund Municipality, 2024). This reflects the logic of focusing first on actors with high leverage over emissions and infrastructure.

Ongoing onboarding into CoAction has expanded the membership to 37 organisations, with the expectation that an additional 10 companies will join throughout 2026 (Interview 1, 2026). New firms can join by expressing interest to the hub, being identified through existing networks or being recommended by current members (Interview 2, 2026). There is some evidence of learning and adaptation: the city has sought to increase diversity by reaching out to additional employers and solution providers, and by using success stories from early CoActs to attract new participants.

The current membership focusses more on large organisations and innovation-oriented SMEs, while smaller local firms, cooperatives and minority-owned businesses are less visible. Stakeholders point out that many SMEs lack the staff time and institutional capacity to participate in time-consuming meetings and projects unless the direct business case is very clear (Interview 2, 2026).

Municipal Powers, Enabling Roles and Support

Lund municipality deploys a variety of powers and roles to mobilise private-sector action. As a convener, it uses its political legitimacy and central position in local governance to bring together actors that might not otherwise collaborate, creating safe spaces for dialogue and experimentation. The CoAction hub, housed within the municipal organisation, is a key expression of this convening power, providing a recognisable contact point for companies and coordinating activities across arenas and projects (Interview 2, 2026).

The city also provides technical support. It supplies data on emissions and mobility patterns, facilitates commuter surveys and data analysis for green travel plans, and offers external coaching to help companies interpret results and design effective measures (Interview 5, 2026). In the energy domain, municipal actors help facilitate access to testbed sites, align planning processes with experimental

initiatives such as EnergyNet, and connect local projects to national funding opportunities through agencies including the Swedish Energy Agency (Interview 3, 2026; Lund Municipality, 2024).

Financially, the coordinating city officials channel funding into CoActs and work packages. Most participating organisations have their staff time reimbursed for project work, and start-ups receive small direct fees to compensate for part of the opportunity costs of participating in non-commercial pilot activities (Interview 2, 2026; Interview 3, 2026). Administrative and financial coordination for these funds is largely handled by the hub, reducing transaction costs for firms and allowing them to concentrate on technical and organisational contributions.

Stakeholders specifically highlighted several forms of support.

- **CoRide highlighted the role of the project management office in maintaining the overall process**, helping when activities became stuck, and managing administration and finance. The interviewee stated that the project team was "really fantastic help" and described frequent contact with them (Interview 2). This highlights how central coordination and facilitation were important forms of support.
- **SAAB identified support in the form of structured mobility tools and coaching**. Participation in CoAction included the requirement to develop a green travel plan and undertake a commuter survey, but this was accompanied by "three coaching sessions with the external consultant company" (Interview 5). The interviewee explained that these sessions helped participating companies work through their baseline, consider actions, and learn alongside other firms facing similar tasks. This demonstrates that the city-supported programme did not only convene actors, but also provided targeted implementation support.
- **Opticon described support more in relational and collaborative terms**. The interviewee emphasised the unusual level of willingness from participants to cooperate in the project and said that, from the beginning, "it has felt like we are working on this together" and that "this is more like a cooperation" than in many other projects (Interview 4). The same interview also linked this to trust and explicitly praised the role played by Lund's energy strategist in creating that feeling of shared endeavour (Interview 4).
- **ViaEuropa referred both to practical and enabling support**. The interview indicated that approved work packages received partial financial compensation, but also highlighted the value of the city's support in creating legitimacy, awareness, and room for innovation. The interviewee suggested that the city's role had made it easier to raise issues and move innovation forward, describing this as enabling the actors to "do more innovation with less time" (Interview 3).

At the same time, both city officials and companies emphasise significant constraints. Lund cannot unilaterally change national tax rules that make ride-sharing benefits taxable, nor can it reform taxi regulations that create legal ambiguity for ride-sharing platforms, nor can it easily alter grid-regulation frameworks that disincentivise local flexibility solutions (Interview 2, 2026; Interview 3, 2026; Lund Municipality, 2024). Internal municipal capacity is also limited: staffing levels and budgetary cycles constrain the extent to which new support instruments (for example, systematic ESG/CSRD guidance or innovative procurement mechanisms) can be developed. These constraints mirror those identified in the Theme 1 report, which highlights the importance of multi-level governance reforms in enabling city-led collaboration with the private sector (NetZeroCities, 2025).

Private-Sector Commitments, Collaboration and Outcomes

Private-sector commitments in Lund are multi-layered. At the broadest level, some companies have signed the CCC or are part of city-wide climate pacts, signalling support for the 2030 climate-neutrality goal (Lund Municipality, 2024). Within CoAction, all members have signed a statement of intent endorsing the city's climate targets, and a more formal collaboration agreement is under development

(Interview 2, 2026). These commitments are primarily normative and symbolic, but they create a shared reference point for subsequent project-level collaboration.

Green travel plans represent a more concrete form of commitment. Participating employers pledge to undertake commuter surveys, work with external coaches and adopt a set of measures to support sustainable commuting and business travel (Interview 5, 2026). While there are no legal sanctions for non-compliance, the existence of agreed-upon action plans, combined with follow-up coaching and peer visibility, exerts a degree of soft pressure on organisations to act. For some firms, these plans complement internal commitments made as part of science-based targets or corporate sustainability strategies.

Commitments translate into concrete projects most visibly in the mobility and energy domains. In mobility, green travel plans and CoActs have led to the introduction of ride-sharing portals for CoAction members, integration of mobility wallets that allow employees to allocate mobility benefits across sustainable modes, and parking campaigns that incentivise carpooling (Interview 2, 2026; Interview 5, 2026). In energy, EnergyNet pilots demonstrate shared investments and experiments in local energy networks linking municipal housing and parking companies, while flexibility projects develop services that optimise energy demand and supply at neighbourhood scale (Interview 3, 2026; Interview 4, 2026).

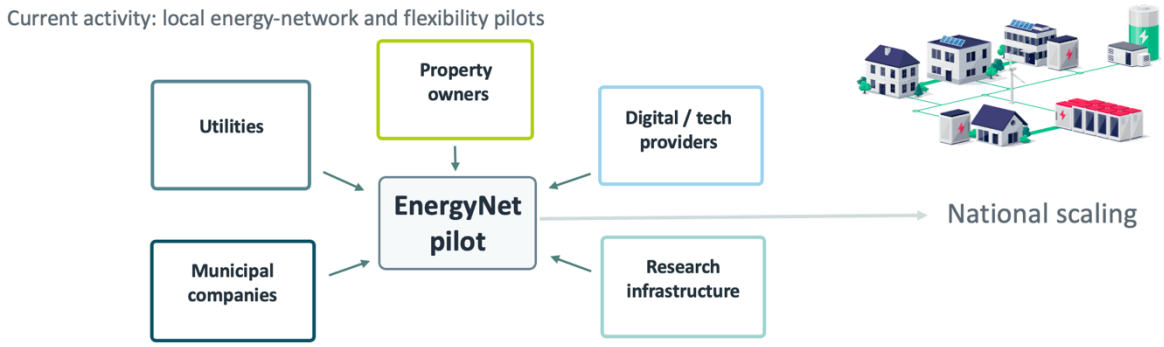

Figure 4 - Scaling of flexible energy solutions through EnergyNet.

Inter-company collaboration is evident within CoActs and in national-scale projects. Locally, companies cooperate on shared mobility services, joint campaigns and energy-flexibility solutions, often facilitated by the municipality but also driven by shared interests and mutual gains (Interview 2, 2026; Interview 3, 2026; Interview 4, 2026). Nationally, the scaling of EnergyNet into a multi-city, multi-actor project funded by the Swedish Energy Agency illustrates how local system demonstrators can generate coalitions that extend beyond the initial set of actors and sites (Interview 3, 2026). Outcomes in terms of quantified emissions reductions are still emerging, but there is evidence of behavioural change around commuting, development of new technical solutions, and strengthening of relationships and capacities.

Monitoring, Reporting and Accountability

Monitoring and reporting arrangements in Lund combine project-level data collection with integration into the broader CCC monitoring, evaluation and learning (MEL) framework. For mobility, commuter surveys conducted among employees of participating firms provide baseline and follow-up data on travel behaviour, enabling both the municipality and employers to track modal shifts and identify barriers and opportunities (Interview 5, 2026). External coaching helps translate survey results into actionable measures and supports internal monitoring of progress within firms.

For CoActs and work packages, partners are required to report regularly on hours worked, progress against milestones, deviations from plans and key lessons learned. Stakeholders describe these templates as clear and proportionate, neither overwhelming nor superficial (Interview 4, 2026). In the energy domain, monitoring includes technical data on energy flows, flexibility services and system performance, though many pilots are still in early stages and long-term impact metrics are not yet fully established (Interview 3, 2026; Interview 4, 2026).

At the strategic level, the CCC defines impact pathways and indicators for each roadmap, and CoAction activities feed into this framework conceptually, even if attribution of specific emissions reductions to individual CoActs remains methodologically challenging (Lund Municipality, 2024). The emphasis to date has been on learning and adaptive governance rather than on strict performance management. City officials emphasise the importance of creating feedback loops between project experiences and policy and planning decisions, consistent with the reflexive approach advocated in the Theme 1 report (NetZeroCities, 2025).

Accountability for private-sector commitments is primarily 'soft' rather than formal/legal. Beyond the reporting required for funded work packages and participation in surveys, there are no binding legal obligations for companies to meet specific emissions targets under CoAction. Instead, accountability is exercised through visibility within the network, peer expectations, ongoing dialogue and, in some cases, reputational considerations associated with being part of a high-profile system demonstrator (Interview 2, 2026; Interview 2, 2026). This reliance on soft accountability mirrors patterns in other Mission cities and reflects both legal constraints and the voluntary nature of most collaboration mechanisms (NetZeroCities, 2025).

Motivations, Incentives and Value Proposition

From the municipality's perspective, companies engage in climate collaboration for a mixture of normative, strategic and pragmatic reasons. Officials highlight reputational benefits, innovation opportunities, access to funding and alignment with corporate sustainability strategies as key motivators, and frame CoAction as a way for companies to be at the forefront of the transition and to shape future markets and regulatory environments (Interview 2, 2026; Lund Municipality, 2024). The narrative emphasises mutual benefit: companies contribute to city-wide climate goals while gaining from networking, learning and experimentation.

Stakeholder interviews confirm some of these motivations but also reveal distinct emphases across actor types. SAAB, a large industrial employer with science-based climate targets, participates in CoAction to complement its internal decarbonisation efforts, strengthen its image as a sustainable and attractive employer and gain support in addressing commuting emissions that are not central to its formal scope 3 targets but are visible locally (Interview 5, 2026).

Energy Opticon and ViaEuropa are motivated by the opportunity to develop and test advanced energy-optimisation and digital-infrastructure solutions in partnership with utilities and property owners, and see CoAction as a pathway to national and international recognition and markets (Interview 3, 2026; Interview 4, 2026). CoRide, as a ride-sharing start-up, engages to access a dense network of employers, refine its service in a real-world testbed and advance its mission of reducing car use (Interview 2, 2026).

A clear theme across the interviews was alignment between the objectives of CoAction Lund and the participating organisations' own activities or priorities.

- For CoRide, the motivation was strongly linked to the fit between the programme's mobility agenda and the company's core service. The interviewee described CoAction as "a perfect opportunity" because "their goals are so much aligned with ours, which is to reduce the number of cars on the streets" (Interview 2). Participation therefore appears to have been motivated by direct alignment between the programme's target and the company's business model.

- For SAAB, participation was linked to the city's climate neutrality goal and the company's interest in supporting lower-carbon commuting among employees. The interview framed the baseline challenge in practical terms: how companies could contribute by reducing commuting by private car and instead encourage cycling or public transport. The interviewee presented CoAction as useful because it addressed this challenge in a practical and action-oriented way, rather than at the level of broad discussion (Interview 5).
- For Opticon, the motivation combined business relevance with a wider commitment to sustainability. The interviewee explained that the company works with energy companies and that its goals align with the green transition, while also describing a "burning passion for … the environment" within the company (Interview 4). Participation was therefore connected both to the relevance of the topic to the company's field and to a broader normative commitment.
- For ViaEuropa, motivation centred on involvement in the design and development of a concrete innovation process. The company had been approached by Lund and was involved in writing the first application. Participation therefore appears to have been motivated by the opportunity to shape and test new technical solutions in a real city context rather than simply to observe or advise from a distance (Interview 3).

Across companies, networking and relational benefits stand out as central value elements. Interviewees emphasise the "short distance to decision-makers", the ability to meet actors from different sectors, and the trust that develops through repeated interaction (Interview 2, 2026; Interview 3, 2026; Interview 4, 2026). Access to technical support and external coaching is also valued, particularly by firms that do not have extensive internal capacity for mobility or energy analysis. For solution providers, visibility within a nationally recognised system demonstrator and through Viable Cities is an important reputational asset.

In particular, the value of networking was one of the strongest and most consistent themes across the four interviews.

- **CoRide described the network created through CoAction as a major advantage**. The interviewee stated that "the network that we have established within the projects" was highly valuable because it was "very easy to get hold of the right persons" and because "the distance to people is very short" (Interview 2). He also noted that, because the participants wanted the same thing, there was less need to persuade others of the value of an idea.
- **SAAB also attached strong value to interaction with other organisations, particularly in the form of peer learning**. The interviewee stated that one of the most useful elements of CoAction was having "very practical examples from other companies" on how to work with sustainable commuting in "a cost efficient and an easy way" (Interview 5). This highlights the value of networking beyond simply for relationship-building, but because it allowed companies to learn from others already working on similar issues and this was considered valuable for advancing conversations within internal steering groups.
- **Opticon described the larger meetings as important**, because "it's important for all the actors to get to know each other, because it creates engagement from everybody" (Interview 4). Even when not every topic was directly relevant to the company's own work, the meetings were seen as useful for providing the bigger picture and enabling participation across perspectives. In this sense, networking was associated both with engagement and with system-level understanding.
- **ViaEuropa also attached clear value to the different meeting levels within CoAction**. The interviewee explained that the General Assembly had been useful as a networking environment bringing together "the movers and shakers inside Lund," including academia, large firms, startups, scale-ups, and non-profits (Interview 3). The interview also showed that networking across groups led to new work tasks, new connections to other projects outside

CoAction, and identification of additional stakeholders that should be brought into the process (Interview 3).

Recognition and expectation management are more ambivalent. Companies appreciate the visibility and opportunities provided, but some also report mismatches between expectations - for example, hopes for easier access to external funding, rapid regulatory change or strong municipal procurement shifts - and the actual constraints under which the city operates (Interview 2, 2026; Interview 3, 2026). The Theme 1 report similarly cautions that cities must carefully calibrate their value propositions and be transparent about what they can realistically offer to avoid disillusionment and loss of trust (NetZeroCities, 2025).

4.1.3 Outlook

Challenges, Barriers and Enablers

The Lund case highlights some challenges and barriers on both the municipal and company sides. Internally, the city faces some capacity considerations: coordinating a complex system demonstrator, managing multiple funding streams and maintaining engagement across dozens of actors is resource-intensive (Interview 2, 2026). There are also tensions between different municipal departments and companies, for example between mobility and energy actors around the setting and prioritisation of charging infrastructure, which may require mediation.

The stakeholder interviews were generally very positive, but did also identify several areas where potential improvements could be made.

- **CoRide highlighted the self-organised and flexible nature of the co-acts**. While the interviewee valued this flexibility, he also noted that progress depended heavily on the time, energy, and continuity of the individuals involved. Some sub-projects moved too slowly because they required “someone holding the flag and running forward” (Interview 2). This indicates that flexibility could also lead to uneven momentum when participant capacity changed. CoRide also raised a more specific point about follow-up. Referring to the use of green travel plans, the interview suggested that planning alone was not enough and that participating organisations should also “measure” and have “internal follow up procedures and measurements” after actions had been identified (Interview 2).
- **Opticon pointed to uneven engagement and access as a potential challenge**. Although the overall experience was very positive, the interviewee suggested that some actors had been more active than others and that access had not been uniform across all participants. The interview nevertheless implied that workshop processes and repeated interaction had helped to build stronger cooperation over time (Interview 4).
- **SAAB identified fewer direct problems, but did indicate that internal buy-in can be a practical issue**. The interviewee noted that joining CoAction does not require companies to pay a fee, which lowers the entry barrier, but that it still requires someone in a senior position to sign off and someone internally to drive the initiative (Interview 5). The interview also suggested that collective activities such as a city-wide cycling initiative could help strengthen visibility and momentum across participating employers.
- **ViaEuropa’s interview implied that wider awareness remained an challenge**. The participant highlighted that there was already considerable potential within existing tools and arrangements, but that more actors needed to understand the opportunities available. This highlights that broader communication and diffusion of the lessons from the programme could further strengthen impact (Interview 3).

Companies face their own constraints. Time and resource limitations mean that participation in CoActs must compete with core-business activities, and the benefits of engagement are sometimes uncertain or long term (Interview 2, 2026; Interview 4, 2026). The failure of the planned physical mobility hub, despite considerable preparatory work, illustrates how large, capital-intensive interventions can stall when no actor is willing or able to assume long-term operational responsibility and when permitting and regulatory requirements are complex (Interview 2, 2026).

Regulatory misalignments present a structural barrier. Tax rules that treat ride-sharing benefits as taxable income for employees, ambiguous taxi legislation that can be used to challenge ride-sharing, and grid-regulation frameworks that assume centralised upgrades rather than local flexibility all constrain the feasibility and scalability of innovative solutions piloted in CoAction (Interview 2, 2026; Interview 3, 2026; NetZeroCities, 2025). The CCC itself acknowledges that many key levers for agriculture, land use and circular economy lie at national or regional levels, highlighting the importance of multi-level advocacy (Lund Municipality, 2024).

Several enabling conditions stand out. Strong municipal leadership and a clear mission framework provide direction and legitimacy. Existing networks such as Climate Alliance Lund, Future by Lund and university partnerships supply relational infrastructure and trust that can be mobilised for CoAction (Lund Municipality, 2024; Interview 3, 2026). Anchor institutions, including the university, municipal utilities and major employers, play key roles in stabilising collaboration and providing critical mass. External programme support from Viable Cities and national agencies provides funding, knowledge exchange and political leverage. Most importantly, stakeholders emphasise the importance of trust, proximity and the perceived fairness and pragmatism of municipal processes for sustaining engagement (Interview 2, 2026; Interview 3, 2026; Interview 4, 2026). These enabling conditions echo those identified across other Mission cities in the Theme 1 report (NetZeroCities, 2025).

Lessons Learned and Transferable Insights

Lund's experience with CoAction Lund offers several lessons for Mission governance and for other cities seeking to develop multi-actor collaboration with the private sector.

- **First, the case illustrates the value of concrete, mission-framed collaboration structures.** The combination of a municipal hub, thematic arenas and project-based CoActs provides a clear architecture within which companies can situate their engagement and understand how their actions contribute to city-wide goals (Lund Municipality, 2024; Interview 2, 2026). The use of system demonstrators to concentrate experimentation in a specific district, while linking it to city-wide roadmaps, is particularly noteworthy.
- **Second, the CoAction case underscores the importance of pairing voluntary commitments with support instruments**. Green travel plans and CoAction membership would likely have limited impact in the absence of technical support, coaching, financial contributions and administrative assistance. By lowering transaction costs and providing tangible help, Lund increases the likelihood that companies will move from abstract commitments to concrete action (Interview 5, 2026; Interview 2, 2026). This aligns with the Theme 1 report's argument that effective private-sector engagement typically requires a combination of normative, informational, financial and procedural instruments (NetZeroCities, 2025).
- **Third, the case highlights the need to balance experimentation with clarity of leadership and responsibility within co-created projects**. The reliance on self-organisation in CoActs has enabled creativity and bottom-up initiative, but has also led to some situations in which promising ideas stalled due to unclear leadership or insufficient capacity. City actors report that they are adjusting project-selection and governance arrangements to ensure that each CoAct has a clearly designated lead and a realistic resource base (Interview 2, 2026; Interview 2, 2026).

- **Fourth, Lund's experience demonstrates both the potential and the limits of local experimentation in the face of multi-level regulatory constraints**. CoAction Lund has been able to pilot innovative solutions in mobility and energy, generate evidence and build coalitions that are now influencing national-level projects, as in the case of EnergyNet (Interview 3, 2026). However, fundamental barriers in tax law, taxi regulation and grid rules cannot be resolved at the municipal level. This underscores the importance of Mission governance structures that deliberately connect local experiments to national and EU policy processes, a point emphasised in the NetZeroCities reference report (NetZeroCities, 2025).
- **The case offers insights into transferability and context-specificity**. Stakeholders note that CoAction's success depends partly on context factors including a strong innovation ecosystem, proactive municipal leadership and existing networks, which may not be present in all cities (Interview 2, 2026). Nonetheless, several elements appear transferable: systematic green travel plan programmes anchored in coaching and surveys; hub-based governance models that integrate multiple arenas; use of system demonstrators and testbeds; and a deliberate focus on trust-building and proportionate reporting requirements.

The Lund case thus contributes to a growing body of evidence on how Mission cities can design and manage multi-actor collaboration with the private sector as a core governance mechanism for the climate transition (NetZeroCities, 2025).

4.2 Leuven

Leuven2030 is an experienced multi-actor network in support of climate action in the city of Leuven, Belgium. It provides a best practice example of collaboration between government, private sector, knowledge parties and civil society representatives, and plays a key role in establishing and implementing the city's Climate City Contract (CCC) as part of the EU's 100 Climate Neutral and Smart Cities Mission (the 'Cities Mission'). In this case study, we elaborate on its key features, success factors and challenges for future development, to provide other European cities inspiration for their trajectories towards climate neutrality through collaboration.

4.2.1 City profile and Mission context

Leuven is a compact city in Flanders, Belgium, characterized by a dense historical core with surrounding residential neighbourhoods, embedded within a broader metropolitan constellation that includes Brussels. The city sits at the intersection of major mobility and ecological corridors, notably the Dijle river valley and the ring road dividing inner and outer districts. Leuven's regional connectivity is significant; commuting patterns, logistics flows, and shared water systems link the city structurally to neighbouring municipalities, making the urban-regional interface a key dimension of its climate governance.

Leuven has a little over 100,000 inhabitants, with an internationally oriented population linked to the presence of KU Leuven (the university) and associated research institutions. As in many European medium-sized cities, demographic change is intertwined with housing pressure, mobility demands, and social vulnerability, all of which shape its Mission's emphasis on wellbeing and a just and inclusive transition.

Economically, Leuven hosts a diversified knowledge-intensive economy anchored by KU Leuven, UZ Leuven (the university hospital), imec (a major global semiconductor R&D institute) and headquarters or major sites of large firms such as AB InBev, BENEO-Remy, and a wide network of SMEs and service providers. Leuven's economic profile is thus dominated by research, education, healthcare, professional services, and innovation-driven manufacturing. The broader employment structure reflects this: the service sector accounts for the largest share of energy consumption and emissions within buildings, while industry - though smaller in aggregate - includes high-tech players with significant decarbonisation potential (heat integration, circularity, process emissions). Private-sector actors are repeatedly recognised as essential in delivering climate neutrality, not only because of their energy use but also because of their role as innovators, employers, and infrastructure owners.

Leuven has a highly multimodal mobility system, yet private car use - particularly through-traffic from neighbouring municipalities - remains a major contributor to emissions. The city has already introduced strong mobility interventions, including circulation plans and robust cycling infrastructure. Mobility is both an opportunity and a challenge: Leuven's compact form supports low-carbon choices, but its regional centrality generates high commuter inflows.

Local governance setup

Leuven's governance structure centres on the municipal administration led by the mayor and supported by key departments covering climate, mobility, spatial development, energy, social affairs, and public works. The governance model is distinctly collaborative, characterised by partnerships with Leuven 2030, and numerous knowledge, industry and civil society organisations. Municipal companies such as AG Stadsontwikkeling Leuven (project development) and public actors like EcoWerf (waste) and ECoOB (energy cooperative) play operational roles.

The city's governance is also strongly shaped by multilevel policy dependencies. Many enabling levers for energy, mobility, and buildings lie with the Flemish government or federal fiscal frameworks; Leuven therefore positions the Cities Mission as a bridge to strengthen vertical governance alignment.

For the Cities Mission, Leuven has built a distinctive governance model centred on collaboration between the city administration and the non-profit Leuven2030. Mission governance features three nested bodies: Mission Control (political-strategic guidance), the Mission Cockpit (administrative steering), and operational subteams, including Portfolio, Data & Monitoring, Investment Plan, Commitments, and Communication. This structure is intended to function interdepartmentally and ecosystem-oriented.

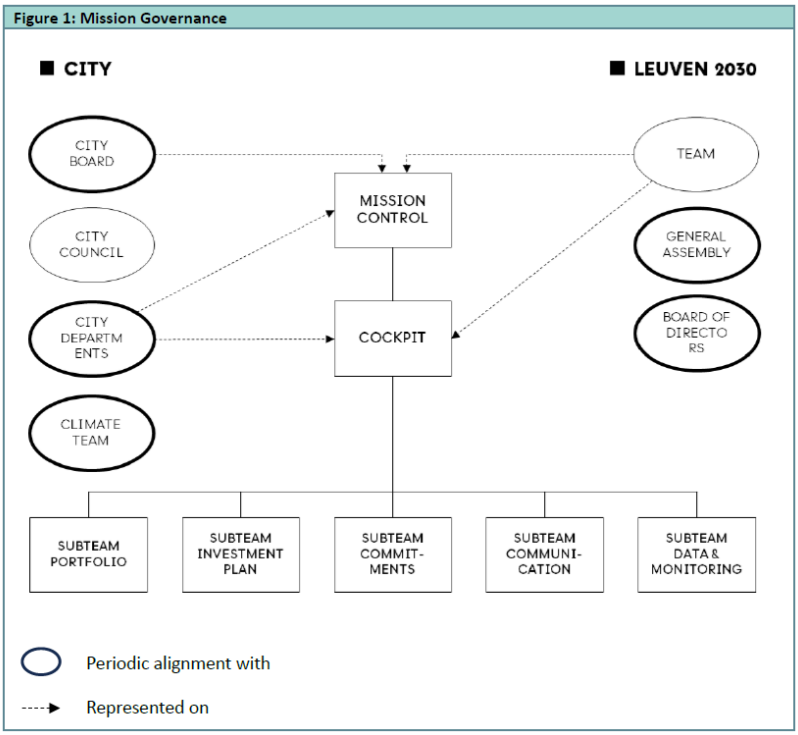

Figure 5 - Roles of the City of Leuven and Leuven2030 in Cities Mission governance (source: CCC action plan, City of Leuven, 2023).

Leuven 2030 is an independent, membership-based non-profit organisation that facilitates collaboration between companies, the municipality, knowledge institutions, and citizens to accelerate climate action in Leuven. Although it works closely with the municipality, the city is only one member among roughly 400, which allows Leuven 2030 to act as a neutral intermediary that connects actors across sectors. In addition to its role as convenor, it monitors commitments related to the CCC, which includes climate actions and breakthrough projects across several emission domains.

"The city of Leuven is a lot of silos working next to each other, and Leuven 2030 can go over those silos." (Interview #4)

Emissions profile and decarbonisation strategy

"From 457,000 tonnes down to 79,000 tonnes of CO2 emissions a year by 2030. An 80% reduction. That is the ambition of the Leuven Climate City Contract."* (City of Leuven, 2024)

Leuven's 2019 baseline emissions amount to 457,000 tCO_2-eq, with buildings dominating at nearly 314,000 tCO_2-eq (69% of total emissions), followed by transport (14%) and waste (10%). The challenge is stark: energy use in buildings - residential, tertiary, and public - is the primary source of

emissions, compounded by the dominance of gas and fuel oil. The impact of transport remains significant, even excluding highway emissions outside local control. Scope 3 emissions from materials and food are substantial and expected to be more fully integrated in later iterations of Leuven's climate action planning. Emissions are still increasing due to population and business growth, despite efficiency improvements. The municipality directly controls <2% of emissions.

The city aims for at least 80% reduction by 2030, focusing on: accelerated renovation of buildings and fossil-free heating, rapid expansion of local renewable energy decarbonizing industry, modal shift and logistics reform, development of circular material flows, and climate resilience of the built environment. Social justice is a core principle in the city's climate transition, with explicit attention to vulnerable groups.

CCC commitments and governance processes

Leuven's CCC brings together over 30 key actors and 86 breakthrough projects. Leuven2030, businesses, knowledge institutions, civil society, and municipal entities all contribute commitments linked to action portfolio items. Commitment areas typically include: renewable energy deployment, renovation and circular construction, mobility policy alignment, nature-based solutions, social justice in the transition, and financial innovation. Importantly, commitments are not static: Leuven employs a portfolio management cycle that updates actions, monitors indicators, and revises strategies every two years. Private sector engagement is primarily structured around collective green heat, large-scale building renovation, circular construction, and sustainable mobility.

4.2.2 Leuven's approach to private sector engagement

The city and Leuven2030 approach climate neutrality as a shared societal project requiring joint action across six stakeholder groups; companies, ranging from large anchor institutions to SMEs and social-economy organisations, are therefore woven structurally into the governance, co-creation processes, and project portfolio.

Private-sector actors are engaged through a dual narrative: as major emitters and system-shapers who must reduce their direct and indirect emissions, and as innovation partners, capable of piloting new energy, mobility, circularity, and heat-system solutions. Strategic documents emphasise collaboration not only for decarbonisation but also for building resilient local ecosystems, stimulating technological experimentation, mobilising investment, and strengthening local employment - particularly through social-economy partners.

Anchor firms such as imec, KU Leuven/UZ Leuven, AB InBev, and large engineering consultancies are expected to lead by example, while cooperatives and smaller companies play key roles in implementation and local capacity-building. The Mission architecture treats businesses not as stakeholders to be consulted, but as co-owners of Leuven's transition pathway.

Leuven's approach to private-sector engagement centres strongly on breakthrough projects and thematic clusters. Key initiatives include:

Collective renovation and green heat programmes, targeting large building owners (companies, institutions, social housing providers) to renovate and connect to district heat networks.

Industrial decarbonisation pilots, such as Net-Zero Brewing (AB InBev), process heat optimisation (imec, BENEO), and residual heat exchange across industrial clusters (e.g., Haasrode Research Park).

Materials Bank and Urban Resource Centre, where circular construction stakeholders (EcoWerf, Vites, KU Leuven, UZ Leuven, imec) collaborate to reclaim, sort, and reuse materials at scale.

Urban logistics coordination, where companies pool freight flows, electrify fleets, and participate in regional distribution hubs.

Energy communities and third-party financing mechanisms, enabling shared solar, heat exchange, and citizen or cooperative investment (ECoOB).

A plan to create a Leuven Climate Fund for non-profitable but socially valuable projects (e.g., climate adaptation, nature-based solutions).

(City of Leuven & Leuven2030, 2023)

Evolution, phases and milestones

Key milestones in the development of the city's approach to private sector engagement in climate planning, action and financing include the establishment of Leuven 2030 - many years prior to the city's participation in the EU's 100 Climate Neutral Cities Mission -, its Roadmap Climate Neutrality, Leuvens selection for the EU Cities Mission, and the establishment of the CCC comprising stakeholder commitments towards climate neutrality in 2030 (which builds on the Roadmap).

The evolution of Leuven2030, which was initially a small, volunteer-driven network, into a central governance actor for climate neutrality illustrates how local partnerships can become the backbone of an ambitious city-wide mission. Across this trajectory, the city and its partners have incrementally deepened the role of private-sector actors, shifting from informal collaboration to structured commitments, project-based cooperation, and shared governance.

Leuven2030 emerged from a set of informal collaborations among urban planners, mobility experts, researchers, and civil society organisations working with the city on sustainability and spatial topics. At this early stage, the organisation was small and primarily focused on communication, awareness-raising, and agenda-setting. Engagement from private companies occurred mainly through individual champions rather than through structural participation. Nevertheless, this period laid the groundwork for a shared understanding that climate action required cross-sectoral cooperation and that no single actor could drive transition alone.

Between 2015 and 2019, Leuven2030 became more formalised and ambitious. A key milestone was the development of the first Roadmap to Climate Neutrality, co-created with input from experts, citizens, companies, and public institutions. This process brought in a wider range of stakeholders and established the distinctive Leuven2030 governance model, with six stakeholder categories each represented on a shared board.

Private-sector involvement broadened during this phase, especially as larger employers and research institutions - such as KU Leuven, UZ Leuven, and imec - recognised that Leuven2030 offered a neutral and credible platform for aligning corporate sustainability strategies with citywide ambitions.

The years leading up to the Cities Mission saw Leuven's climate governance expand substantially. The municipality adopted new thematic strategies, such as a multi-pillar circularity programme, while Leuven2030 strengthened its operational and technical capacity. The organisation secured major European projects that enabled more targeted work and provided legitimacy and resources for deepening partnerships.

Private-sector engagement became more structured, especially around emerging projects on solar energy, heat networks, energy flexibility, and reuse streams. This period marked a shift: companies were no longer merely observers but began shaping and testing concrete transition pathways, by co-developing experiments and pilot initiatives.

Leuven's selection for the Cities Mission catalysed a reorganisation of its climate governance. The city and Leuven2030 jointly created a multi-tiered Mission architecture (see Section 1). This governance

design institutionalised cross-departmental collaboration within the city administration and cemented Leuven2030's role as a strategic implementation partner.

The heart of this Mission phase was the development of Leuven's CCC and the accompanying portfolio of 86 projects. To prepare these, Leuven2030 and the city engaged 25-30 organisations through bilateral conversations, ultimately securing formal commitments from 20-25 stakeholders. This way, private-sector participation became linked to explicit project-level commitments and guiding principles.

By 2025, the Leuven ecosystem began orienting towards systemic levers: blended finance mechanisms, regional and national policy alignment, more rigorous monitoring and learning practices, and deeper engagement with anchor institutions. Leuven2030's work on a climate fund, supported by in-house financial expertise, illustrates the shift from project facilitation to enabling investment pipelines.

Engagement processes and practices

The main engagement modalities include bilateral meetings, multi-actor roundtables, matchmaking between firms, communication through newsletters and the website, ad-hoc meetings, thematic working groups, and informal exchanges. Engagement has been strongest with large and well-organised companies, many of which are co-founders and represented in the Leuven 2030 governance, while SMEs are less involved due to capacity constraints and are often approached collectively through business clusters. The CCC functions as a key governance and engagement tool, developed in collaboration with the municipality, formalising commitments within a wider open membership structure rather than replacing existing engagement practices.

Trust-building appears to rely on long-standing relationships: one industry representative explains that Leuven2030 can draw on their experts, because "*if we wouldn't have known each other, we wouldn't have gotten that far*" (Interview #2). Another states: "*I was co-founder of Leuven 2030 as well. So we go way back*." (Interview #3).

The kinds of engagement differs per stakeholder type. For instance, a large engineering consultancy has contributed to specific projects linked to the city's climate transition, such as mobility plans, infrastructure projects, and the development of the CCC. Some of this work was done through formal consultancy contracts, while additional contributions were provided voluntarily as part of the partnership with Leuven 2030.

Governance structures and roles

Leuven 2030 is not part of the municipality, but a membership-based organisation collaborating closely with the city. So while the city remains responsible for its climate actions and is the formal CCC signatory, Leuven2030 provides continuity beyond political cycles.

Leuven 2030 acts as the principal civic and private-sector convenor, with six stakeholder groups formally represented: citizens, civil society, companies, knowledge institutions, municipal institutions, and public/semi-public bodies. This structure is essential for private-sector engagement, as it embeds firms and institutions directly into decision-making processes.

Leuven2030 is a VZW (*vereniging zonder winstoogmerk*, or non-profit), with around 10 core staff members, governed by a board of 18 people, representing the six stakeholder groups - three representatives per group, elected for 4 years. In this governance structure, Leuven2030 has gone through four 4-year cycles. Over these cycles, the chairmanship rotated across public, civil and private actors. Leuven2030 has board meetings every two months. The organisation is funded by a mix of membership fees and EU and local government subsidies.

Large companies often play a prominent role and are represented in the organisation's board of directors, contributing to governance and strategic direction. Rather than directly funding projects, Leuven 2030 focuses on creating partnerships, enabling joint initiatives, and encouraging companies to follow through on their climate commitments, while also developing tools to assess the impact of these actions on carbon emissions.

"We bring parties together… for instance we join them around the table to find out whether or not they can collaborate on a heat district project." (Interview #1).

Governance tools and collaboration mechanisms

Collaboration between Leuven 2030 and private-sector actors is supported through several governance tools and coordination mechanisms that help structure cooperation and translate commitments into action. The CCC is mentioned as a main instrument, building on Leuven's Climate Neutrality Roadmap 2025 predating it a few years, outlining climate commitments and breakthrough projects across key emission domains and providing a framework for monitoring progress.

Operational collaboration is further enabled through bilateral engagement processes, project-level templates, and participation in Leuven2030's multi-stakeholder governance structure. These mechanisms serve as lightweight agreements that help co-define project ownership, technical feasibility, and implementation needs. SMEs and cooperatives highlighted Leuven2030's matchmaking, facilitation, and problem-solving role as a practical tool in its own right, often necessary to overcome regulatory or administrative barriers.

All tools mentioned are non-binding, relying on moral commitment and collective ownership rather than contractual enforceability. Their strengths lie in providing strategic clarity, enabling cross-sector alignment, and offering a shared reference for accountability. They have facilitated concrete collaborations, including district-heat pilots, solar-roof campaigns, repair-service offerings, and circular-materials initiatives.

Onboarding, inclusion and representation

Companies and other stakeholders are brought into the Leuven 2030 process mainly through targeted outreach and the organisation's broad membership network. The organisation actively identifies and approaches companies that have a significant impact on carbon emissions or that play an important role in the local economy, inviting them to join the network and participate in climate initiatives. Leuven 2030 emphasises inclusion by maintaining an open membership structure and bringing together actors from different sectors in collaborative forums, allowing them to exchange knowledge and participate in joint initiatives. Companies can join the initiative relatively easily by becoming members and signing on to its commitments.

Most engaged companies tend to be larger, professionally organised firms that already have sustainability teams or clear climate strategies, while smaller companies are often approached indirectly through business clusters or collective organisations due to limited capacity for individual engagement. The organisation tailors its support where possible to the actors it works with. At the same time, the organisation recognises that engagement levels vary and that encouraging companies to participate in collective climate action remains a challenge, as businesses often prioritise individual decision-making and investment strategies.

However, the process does not strongly focus on expanding membership; instead, the emphasis has been on working with a smaller group of already engaged organisations. Companies that are members of Leuven 2030 vote for a few representatives who participate in the board and contribute to strategic discussions. The current group of participating companies mostly consists of organisations that are already motivated to engage with climate transition, while reaching the much larger group of

companies that are not yet involved remains a challenge. Possible future strategies include working through intermediary organisations or economic networks to connect with a broader range of businesses and bring new actors into the process.

"*The interesting group is the hundreds of companies that are not members yet and we should find a way to reach them*." (Interview #3)

However, an energy cooperative involved in Leuven2030 praises its attention to smaller non-profits and small companies too, providing platforms that give visibility and access to actors who might otherwise be excluded.

"*Without Leuven 2030, smaller non-profit and profit companies would be forgotten*." (Interview #4)

Municipal powers, enabling roles and support

When it comes to private-sector engagement, the municipality plays an important but largely enabling and indirect role. The city's main contributions here lie in setting the strategic narrative (e.g., committing to 2030 neutrality), providing institutional legitimacy and access, and embedding climate priorities into spatial and regulatory decisions, while Leuven2030 handles most of the operational matchmaking. Companies repeatedly note that the municipality's presence in joint meetings lends legitimacy and helps overcome barriers such as siloed internal structures or lack of coordination between services.

The municipality provides technical input, mainly through its Sustainability Department. It contributes data for emissions inventories, participates in feasibility discussions (e.g., heat networks), and was instrumental in drafting Leuven's circularity strategy. In permitting-intensive domains such as energy and infrastructure, municipal departments perform essential planning and regulatory functions, determining what is permissible and where. Larger companies interact with multiple municipal services - e.g., for noise, heritage, spatial planning and environment - reflecting the city's role as a gatekeeper for major investments.

"*They try to facilitate as much as possible, but cooperating does not mean that you will eventually get more flexible boundaries. [...] You very quickly find yourself facing certain legal frameworks.*" (Interview #2)

Interviewees indicate limited dedicated municipal funding for Cities Mission activities. The newly created Mission Manager reportedly has no budget of their own, and stakeholders see insufficient municipal resources as a barrier. Grants or co-funding instruments are not highlighted, though the city supports some EU-funded projects and contracts consultants for investment planning. Companies emphasise that the city cannot finance the transition alone and must rely on blended finance mechanisms being developed by Leuven2030.

The city plays a symbolic and communicative role by publicly endorsing climate neutrality, participating in Cities Mission events and co-signing the CCC. Its involvement signals political commitment, though it is Leuven2030 rather than the municipality that more visibly leads campaigns, events and stakeholder communication around climate neutrality.

Private sector commitments, collaboration and outcomes

The commitments made through the CCC and accompanying project portfolio function as voluntary but structured agreements that help steer companies toward concrete contributions. The interviews consistently show that the real function of these written commitments is not to bind companies legally, but to create shared direction, clarify roles, and trigger bilateral follow-up after the CCC's publication.

The translation from commitment to action typically unfolds in three steps. First, companies express interest or intent during the co-design phase. These intentions are captured in the CCC as

involvement in specific portfolio actions. Second, Leuven2030 and the municipality organise bilateral sessions to turn these indicative commitments into feasible propositions: clarifying the problem, identifying barriers, and determining the type of contribution expected. Finally, implementation progresses through iterative negotiation, drawing on Leuven2030's convening and problem-solving role and the municipality's technical and regulatory functions. The result is a form of collaborative implementation rather than compliance-based delivery.

Two examples illustrate how this mechanism produces tangible outcomes. The emerging district heat pilots originated from commitments by ECoOB, the city and several real estate actors to explore decentralised heat loops. What began as indicative commitments in the CCC evolved - through bilateral feasibility studies and municipal planning support - into the first concrete pilots now under development. Similarly, commitments around circular materials management led Werecircle, KU Leuven, UZ Leuven and social-economy partners to establish coordinated repair and reuse services. The CCC provided the shared strategic framing; the operative collaboration was shaped afterwards through iterative negotiation and capability-building among the involved actors.

Overall, Leuven's commitment framework enables action not because commitments are binding, but because they institutionalise expectations, create visibility for priority projects, and mobilise follow-up processes that anchor collaborations in day-to-day practice.

Monitoring, reporting and accountability

Monitoring and accountability in Leuven's climate collaboration process are primarily linked to the commitments made under Leuven's CCC. Leuven 2030 keeps track of the engagements made by participating organisations and regularly follows up with companies to discuss their progress and identify whether actions are on track. This monitoring is done through direct meetings with companies, where commitments and developments are reviewed and discussed.

"On a regular basis we confronted them with the engagements they took up, in order to make up a status report… we remind them constantly, because there are hundreds of engagements, and it's our job to remind constantly that these things exist." (Interview #1)

In addition, Leuven 2030 is working with analytical tools to assess the impact of different climate measures on carbon emissions, allowing the organisation to estimate whether actions are contributing to overall emission reductions.

"*We try to measure the impact with an assessment tool to estimate the consequences of certain measures on carbon emissions*." (Interview #1)

While accountability relies largely on transparency, dialogue, and peer visibility rather than strict enforcement, the organisation also communicates companies' initiatives through newsletters and other channels, which helps maintain public visibility and encourages continued engagement and progress.

While monitoring is one of Leuven2030's activities, its members help by sharing their data. Imec, for instance has an advanced internal monitoring system. One interviewee notes that the city tends to struggle with data availability compared to companies, for which the scope of what to measure is much smaller and less fragmented. Another interviewee suggests that monitoring and accountability mechanisms within Leuven 2030 are still developing and remain relatively limited. There have been attempts to introduce stronger accountability by asking organisations represented in the Leuven 2030 board to develop and submit climate action plans, but the quality and ambition of these plans varied significantly, and the initiative was not consistently enforced. As a result, systematic monitoring of individual company commitments is not yet fully established. Future efforts may focus more on tracking the climate actions of participating organisations and strengthening accountability mechanisms to ensure that both collective initiatives and individual commitments contribute more effectively to the city's climate goals.

"*I think we should not only focus on the collective efforts but also on the individual engagements of the organisations*." (Interview #3)

Motivations, incentives and value proposition

Companies engage with Leuven 2030 primarily because the organisation offers access to a strong local network, opportunities for collaboration, and a platform to address complex sustainability challenges that would be difficult to solve individually (including access to experts). Participation allows companies to connect with other businesses, knowledge institutions, and public actors to exchange knowledge or explore joint solutions for issues such as energy systems or sustainable transport. Leuven 2030 also actively communicates the value of engagement by highlighting benefits, such as risk reduction, strategic autonomy in energy systems, increased visibility within the local community, and opportunities to collaborate on innovative projects. Rather than relying on financial incentives, the organisation motivates companies by demonstrating the broader strategic advantages of climate action and by facilitating partnerships that can help companies implement sustainability measures more effectively and efficiently.

"*What they expect from us is that we facilitate complex processes that are not easy for them to organise themselves."* (Interview #1)

A clear differentiation in value propositions has emerged:

Large companies participate to maintain local legitimacy and embeddedness, align with the city's long-term planning environment, as well as for strategic positioning and due to societal responsibility.

SMEs, cooperatives, and social-economy organisations depend on Leuven2030 for access to networks, project opportunities, practical support, and visibility.

The city administration benefits from Leuven2030's capacity to bridge departmental silos and sustain long-term, cross-sectoral relationships.

"*For us it was important that people in the company could see that we were not only working on commercial things but also contributing to societal movements*." (Interview #3)

4.2.3 Outlook

Challenges and barriers

Barriers to private sector engagement and CCC implementation are both structural and actor-specific, with clear differences between city-side and company-side constraints.

On the company side, a central barrier to get engaged in climate action is capacity (or lack thereof) and prioritisation, especially for SMEs and social-economy actors. Many smaller organisations operate with limited staff time and lack dedicated sustainability expertise. Climate action competes with short-term operational pressures, making engagement incidental rather than strategic. Even when interest is high, companies often struggle to translate ambitions into concrete projects because of knowledge gaps (e.g. understanding emissions scopes, circular business models, or regulatory requirements) and insufficient project development capacity. Funding is another recurring obstacle: feasibility studies, pilots, and early-stage investments are difficult to finance, particularly where business cases are uncertain or benefits accrue beyond the firm itself.

Another major barrier is that many companies still lack awareness, expertise, or motivation to actively work on climate action, which makes it difficult to mobilize them beyond the already actively engaged group of companies that participate in Leuven 2030. In addition, local authorities have limited

regulatory power over companies, since most climate-related requirements are defined at the national or European level.

Collaboration between companies on decarbonization projects is also still limited, as many firms focus primarily on their own climate goals rather than joint initiatives. Differences in investment cycles, priorities, and internal planning among companies can also hinder collaboration, even when organisations operate in the same area or sector.

"*Companies are used to making individual decisions; they are not used to collective action*." (Interview #1)

Sector-specific barriers are, among other things, a structural mismatch between local, small-scale initiatives and industrial-scale systems; for instance, local circularity hubs and reuse initiatives operate at volumes that do not easily align with existing waste and materials markets, which are optimised for large, centralised flows. In energy and buildings, split incentives (owners vs. users), long asset lifetimes, and technical complexity slow decision-making. For knowledge-intensive organisations, climate action is constrained less by motivation than by stringent regulatory frameworks (permitting, environmental thresholds) that limit flexibility in e.g., infrastructure improvements.

On the city side, the most salient barrier is institutional fragmentation. Municipal departments often operate in silos, each bound by its own mandates, legal responsibilities, and risk logics. This makes it difficult to respond coherently to cross-cutting climate projects proposed by companies or intermediaries. Capacity constraints within the municipality - limited staff time, limited discretionary budgets, and limited room for experimentation - further restrict proactive engagement. Data gaps, e.g. emissions data, or the monitoring of impact for climate interventions, are also limiting effective action.

Several interviews highlight that cities can articulate ambitious visions, but struggle to consistently translate them into enabling conditions "on the ground," especially when national or regional regulations dominate key levers (policy, funding). Many of the most binding rules affecting companies (permitting, environmental norms, funding frameworks) sit at regional or national level, beyond the direct control of the city. This weakens the city's ability to remove barriers on its own, even when political support for climate action is strong.

Finally, the voluntary nature of the main collaborative tools (mainly the CCC) has its weaknesses: some commitments remain conservative, ownership is uneven across actors, and limited municipal resources constrain follow-through. Several interviewees noted that without Leuven2030's active facilitation, tools risk underperforming due to administrative bottlenecks or insufficient engagement depth.

Enablers and success factors

Despite these constraints, the interviewees point to a set of enablers that make collaboration possible and effective.

The existence of Leuven2030 itself is consistently named the most important enabler: the presence of a trusted intermediary network organisation helps build relationships between different societal groups and encourages companies to go beyond minimum regulatory requirements. City and company actors alike emphasise its role as a broker and translator; convening stakeholders, aligning agendas, and lowering transaction costs for collaboration. Leuven2030 enables companies - especially smaller or non-traditional actors - to gain legitimacy, access decision-makers, and connect to partners they would not reach independently.

A second key enabler is the presence of anchor institutions (e.g. university, hospital, large research centres, major employers) as part of this network. Their participation normalises climate engagement, creates demand for innovative solutions, and helps the initiative reach critical mass.

Leadership and long-term commitment also matter. The longevity of Leuven2030, predating the EU Cities Mission, is repeatedly cited as a success factor: trust, shared language, and informal working relationships had already been built before the CCC process. This institutional memory enables faster mobilisation and more candid problem-solving. It also offers continuity across political cycles.

Access to external funding and expertise, particularly through European programmes, is also a crucial enabler. EU projects and mission status provide not only financial resources but also legitimacy, learning opportunities, and space for experimentation that would otherwise be difficult within municipal routines. Future enabling mechanisms may include financial instruments such as climate funds or subsidies for feasibility studies, as well as stronger collaboration with economic networks that can help reach a broader group of companies.

Lessons learned and transferable insights

For Leuven2030, the shift from planning to implementation brought significant learning. Both Leuven2030 and the city recognised that the 86-project portfolio was too large to monitor and support effectively with available resources. This triggered a strategic pivot from broad inclusion to focused depth: instead of continually expanding the coalition, Leuven2030 began concentrating on a smaller group of high-leverage stakeholders and priority projects.

This period also surfaced tensions around resources, role clarity, and the limits of voluntary cooperation. Leuven2030 realised that during the CCC drafting year, it had moved too close to the municipality, blurring roles and reducing its ability to challenge the city where needed. This reflection prompted Leuven2030 to re-examine its governance position and clarify that, as an independent multi-stakeholder organisation, it must balance two functions:

Supporting and enabling stakeholders and the city, especially on implementation (e.g., helping actors deliver on project commitments, convening partners, identifying needs, and providing technical or strategic support).

Acting as a critical guardian of ambition, including holding stakeholders - including the municipality itself - accountable for commitments, ensuring that ambition remains high, and signalling when action lags behind stated goals.

As a result of this reflection, Leuven2030 has begun reconsidering its governance structures and proximity to the city, emphasising a need for more independence so that it could credibly play the “critical friend” role again. Meanwhile, the city faced pressure to align its internal budgets and staffing with the high expectations set through the Cities Mission.

The experience of Leuven 2030 suggests several lessons for engaging the private sector in urban climate transitions. Although perhaps obvious, a key insight is the importance of having an independent intermediary organisation that can bring together actors from different sectors and facilitate collaboration in a neutral environment. Building trust and maintaining long-term relationships with companies is essential, as engagement requires continuous dialogue, persistence, and an understanding of companies’ motivations and constraints. Equal stakeholder weighting as part of the Leuven2030 board maintained trust and avoided dominance.

The Leuven experience also highlights that collective climate action does not emerge automatically; it often requires active facilitation to overcome companies’ tendency toward individual decision-making. Voluntary commitments and collective charters can help mobilise frontrunner companies, but without structured follow-up and monitoring, their impact may remain limited. Private-sector partners displayed wide variation in ownership and readiness. Large institutions were generally committed but operated from established internal sustainability programmes, maintaining engagement mainly for alignment and visibility. Smaller organisations, in contrast, relied heavily on Leuven2030 to navigate municipal structures, unlock funding, and overcome administrative or regulatory barriers. Interviewees noted that

without Leuven2030's convening ability and persistent facilitation, collaborative energy projects or circular pilots would likely stall. So, cooperation must result in real actions, requiring continuous pressure, alignment, and shared ownership. One interviewee also highlights that simply increasing the number of participating companies is less important than creating meaningful engagement and shared learning.

Another important lesson is that companies are more likely to participate when the value of collaboration is clearly articulated, such as opportunities for networking, risk reduction, visibility, or solving complex challenges collectively. Therefore, cities can benefit from creating platforms that encourage interaction, knowledge exchange, and joint initiatives, while consistently reminding actors of their shared commitments and the broader benefits of accelerating the transition.

Conclusion

Leuven2030 is a critical actor underpinning and operationalisings Leuven's path towards climate neutrality. It acts as a neutral, trusted intermediary capable of convening diverse actors around this mission. Its bridging role helps overcome sectoral silos and ensures continuity in engagement, allowing the city to work with a broad ecosystem of anchor institutions, SMEs, cooperatives and social-economy organisations.

Leuven's governance model for private-sector engagement is built on the principle of shared stewardship. Companies are treated as co-owners of the transition, embedded structurally in governance processes rather than approached as external stakeholders to be convinced.

Several success factors underpin this model. First, trust and continuity: long-standing relationships, consistent facilitation, and transparent value propositions create the conditions for companies to engage meaningfully. Second, institutional capacity: Leuven2030's neutrality, resources and convening power enable actors to navigate complexity and co-develop solutions that none could deliver alone. Third, differentiation: tailored engagement for large organisations (seeking legitimacy and planning stability) and smaller actors (needing networks and practical support) ensures relevance across the ecosystem. Finally, iterative learning and persistence - rather than one-off mobilisation - allow Leuven to maintain momentum but also to adapt engagement pathways as opportunities and challenges evolve.

The Leuven2030 initiative demonstrates the critical role of sustained and independent leadership, strategic focus, and, most importantly, a collaborative platform where stakeholders take part on equal footing, in driving urban climate transitions. This case underscores the need for intermediaries who carry out targeted stakeholder engagement as well as structured follow-up to foster meaningful action. While access to funding and expertise remains vital, the success of Leuven2030 ultimately depends on shared ownership, a solid governance structure, and trust built over a long time. These lessons offer valuable guidance for cities seeking to accelerate climate action through inclusive, effective, and resilient partnerships with the private sector.

4.3 Mannheim

4.3.1 City Profile and Mission Context

Geographic, Demographic, Socio-Economic Context

Mannheim is a mid-sized German city with a population of over 332,601 as of December 2024[1], making it Germany's twenty-first largest city overall. It sits at the heart of the Rhine-Neckar Metropolitan Region, one of Germany's most economically significant conurbations, with nearly 2.4 million inhabitants[2].

Historically, Mannheim carries a strong identity as a place of innovation: it claims the invention of the automobile, bicycle, and tractor, earning it the informal title of the "city of inventions." This heritage of industrial ingenuity continues to shape the city's economic character and its self-perception as a forward-looking, innovation-driven urban centre.

Mannheim's political landscape is characterised by a 48-seat city council elected by direct vote every five years. The Mayor serves as head of city council and chairs the Mayors Conference, which plays a central role in the city's climate governance structure.

Mannheim's economy is notably diverse, combining large multinational corporations with a strong fabric of small and medium-sized enterprises (SMEs) across many sectors. Among the most prominent economic activities are mechanical engineering and vehicle and machinery manufacturing - a legacy of the city's automotive heritage. Major industrial actors include Roche, ABB, John Deere, Essity, Siemens, Fuchs Lubricants, and Caterpillar Energy Solutions, among others. The city also hosts Hafen Mannheim, a large inland port hosting approximately 500 enterprises employing over 20,000 people. The handcraft and trades sector ("Handwerk") comprises over 3,000 active firms employing around 29,000 people - one of the city's strongest employment sectors.

Mannheim's private sector faces a conjuncture of pressures and economic headwinds. Germany has experienced two consecutive years of economic contraction - the only G7 economy to do so in 2023 and 2024 - driven by a combination of high energy costs following the loss of cheap Russian gas, a structural shift in demand from its largest export markets, and intensifying global competition in precisely the capital goods and automotive sectors that define Mannheim's industrial base. Companies such as those in machinery manufacturing, automotive supply, and industrial engineering are navigating what many analysts now describe as a potential structural reorganisation of global manufacturing - one that hits German industry harder than most of Europe.

This context is also the lens through which the EU's emerging competitiveness agenda should be read. The Draghi report on the future of European competitiveness, published in September 2024, and the Clean Industrial Deal launched by the European Commission in February 2025, both argue that decarbonisation and industrial competitiveness must be pursued as a single integrated agenda rather than traded off against one another - that the green transition is Europe's best available answer to the competitive pressures it faces, not an obstacle to addressing them. Mannheim's approach to private sector engagement, examined in detail throughout this case study, can be read as an early local

[1] *Statistische Daten Mannheim Nr. 1/2025*, Kommunale Statistikstelle der Stadt Mannheim, März 2025 (data as of 31.12.2024). Available at mannheim.de/statistik.
[2] Metropolregion Rhein-Neckar GmbH, *Daten & Fakten*, m-r-n.com (accessed April 2024).

experiment in precisely that thesis. Section 3 reflects in more detail on what the Draghi agenda implies for the gaps and opportunities in Mannheim's current approach.

Local Governance Setup

Political-Strategic Level

Overall steering of Mannheim's climate work rests with the Office of the First Deputy Mayor. The First Deputy Mayor holds the environmental portfolio, meaning climate responsibility sits at the very top of the executive structure.

The Mission Coordinator - who works directly for the First Deputy Mayor - plays a critical bridging role between the main climate delivery entities described in this case: the Local Green Deal (LGD) team; the Department on Climate, Nature and Environment (Environment Department); and the Climate Action Agency (Klimaschutzagentur Mannheim).

The Transition Team is the overarching coordination structure for Mannheim's Mission strategy. Coordination between the key delivery entities is ensured through regular exchanges between the First Deputy Mayor's office and the leadership of the LGD team, the Climate Action Agency, and the Environment Department. The Economic Development Department, which sits within a different mayoral office, is involved through targeted collaboration on specific projects and initiatives at the working level.

It should also be noted that Mannheim's climate goals are embedded within the broader *Leitbild Mannheim 2030* - the city's overarching Sustainable Development Goal (SDG)-aligned strategic framework, adopted in March 2019 following an extensive participatory process and coordinated under the Mayor's Department of Democracy and Strategy. This framework provides the political and institutional foundation underpinning the city's climate and private sector engagement work described in this case study.

Operational Delivery Level

Day-to-day climate and private sector engagement work is carried out by the following main entities:

- The **First Deputy Mayor** with two climate policy advisors
- The **Local Green Deal team (iDEAL for Mannheim)**, with its thematic affiliation to the First Deputy Mayor but administrative affiliation to the Lord Mayor. The department consists of seven “Managers” (clean energy, sustainable economy, climate friendly mobility, building for the future, sustainable food systems, natural diversity, environmental protection), and a total of 11 staff members, or 9.5 full-time equivalents (FTEs).
- The **Climate, Nature and Environment Department** (Environment Department), which manages the Climate Protection Alliance and co-steers the Heat Transition Academy. The staff includes approximately 6.5 full-time equivalents currently working on climate action and climate adaptation.
- The **Climate Action Agency**, a non-profit with its own governance structure, managing the network KLIMANetz and co-steering the Heat Transition Academy. The Agency has been operational since 2010 and includes a staff of 14 in total, with approximately 10.4 FTEs. The agency is co-funded by the City of Mannheim (51%), MVV Energie AG (40%), and GBG (municipal) housing company (9%).
- The **Economic Development Department**, which leads the Initiative Industriestandort Mannheim (I2M) and the Green Industry Cluster. The department has about two members of

its team focused on private sector engagement, while many others from the department are contributing.

Staffing: An Unusual Investment in Human Capacity

What immediately distinguishes Mannheim from most cities its size is not just the ambition of its climate goals, but the sheer institutional infrastructure it has built to pursue them. Across the Local Green Deal (LGD) team, the Climate Action Agency, and the Environment Department alone, the city deploys substantial personnel resources dedicated to climate work - a level of staffing unusual for a city of its size. While some of these roles are sustained through external funding, including EU programmes and national/state-level project support, this investment in human capacity is clearly an important driver of the city's effectiveness in engaging the private sector.

City officials acknowledge that many of these positions were established several years ago when the city was in a stronger financial position and societal support for climate action was broader. In the current political and financial climate, it would be significantly more difficult to create equivalent positions from scratch. The city's current budget pressures mean this staffing base is being maintained rather than expanded - and the risk of losing experienced staff when positions fall vacant is real.

Emissions Profile and Decarbonisation Strategy

The city's central strategy document is the Climate Action Plan 2030 (Klimaschutz-Aktionsplan 2030, or KSAP), which forms the basis of Mannheim's Climate City Contract (CCC) under the EU Mission framework. The KSAP comprises 81 bundles of measures across eight fields of action, of which 34 are identified as top priorities. Notably, it was developed through a robust participatory process in which eight Strategy Groups - including one for Industry led by I2M, and another for Trade, Commerce and Services - co-authored the measures. Several participating companies subsequently signed the CCC, which was approved by the European Commission in January 2024, making Mannheim the first German city to attain the EU "Mission Label".

According to Mannheim's most recent greenhouse gas inventory, prepared by the IFEU[3]-Institut Heidelberg on behalf of the city using the BISKO standard methodology, total emissions in 2022 stood at approximately 2.82 million tonnes CO_2eq, distributed across sectors as follows[4]:

Sector	Share	Million tonnes CO_2
Industry	46%	1.30
Private households	24%	0.67
Transport	22%	0.62
Commerce/trade/services	4%	0.14

[3] Ifeu - Institute for Energy and Environmental Research Heidelberg gGmbH
[4] City of Mannheim, Bericht Treibhausgas-Bilanz 2022 (THG-Bilanz 2022), Informationsvorlage V558/2024, Dezernat V, 23 October 2024. GHG inventory prepared by Ifeu-Institut Heidelberg using the BISKO standard methodology. Available at mannheim.de.

Sector	Share	Million tonnes CO_2
Mannheim Group (municipal companies)	3%	0.11

These 2022 figures represent a reduction of approximately 35 percent from 1990 levels, when total emissions were 4.33 million tonnes CO_2eq. However, the trajectory is not straightforwardly positive: emissions rose by around 4 percent between 2021 and 2022, driven primarily by a worsening emissions factor in Germany's national electricity mix following the energy crisis triggered by Russia's invasion of Ukraine, and by a partial recovery of transport activity toward pre-pandemic levels.

The CCC sets a 93 percent reduction target from the 2020 baseline. However, the CCC is explicit that this goal is *not* achievable through municipal action alone - it requires active participation by all companies, organisations and citizens, as well as changed frameworks at EU, federal and state levels.

The eight KSAP action fields signal where the strategic emphasis lies include:

- Energy production (PV, district heating decarbonisation, geothermal, hydrogen)
- Industry (renewable energy use, circular economy)
- Private households (renovation offensive targeting 4 percent of housing stock per year)
- Mobility (modal shift, electrification)
- Municipal administration
- Trade, commerce and services (SME support)
- Land use
- Green-blue infrastructure

Of particular note is that Industry - responsible for approximately 46 percent of total emissions - is considered the critical sector, and one over which the city has limited regulatory leverage. This makes Mannheim´s private sector engagement work so central to its overall climate strategy.

4.3.2 Private Sector Engagement: Approach, Structures, and Practices

Strategic Logic and Philosophy

Mannheim's approach to private sector engagement on climate is grounded in a multi-layered institutional architecture, combining formal governance structures, bilateral relationship-building, and multi-actor platforms and formal governance structures. The city positions private sector engagement not as a peripheral add-on to its climate strategy, but as integral to achieving its ambitious goal of climate neutrality by 2030.

Across all its engagement mechanisms, Mannheim pursues a consistent strategic logic: businesses are engaged not primarily through regulation or mandates, but through a combination of personal relationship-building, genuine technical support, peer network facilitation, and formalised voluntary commitments. The city positions itself as a trusted partner and as a neutral convenor that creates spaces for businesses to find and develop collaborative relationships with each other.

This approach rests on a deliberate philosophy that the city's Local Green Deal Team of the city articulates as "every deal counts" - a low barrier to entry is a feature, not a weakness. The rationale is that actions should inspire citizens and other companies, and that visibility and momentum matter as much as the scale of any individual commitment.

This is also, on the evidence gathered, a system that works through people. The LGD Managers and the Climate Action Agency consultant are not bureaucratic intermediaries - they are described by companies as genuine sparring partners who provide real value. The quality of those individual relationships is a critically important driver of the system's effectiveness.

The Engagement Architecture: Mechanisms in Overview

The Environment Department, Local Green Deal Team, Climate Action Agency, and Economic Development Department have created several key modalities of engagement with the private sector in Mannheim:

- The **Local Green Deal (LGD)** platform of more than 280 concrete, publicly visible commitments and actions by businesses and organisations.
- The **Climate Action Agency** advisory support: The Agency's energy consultant provides free, ongoing technical advisory support - a long-term "sparring partner" relationship - on energy efficiency and renewables, and support accessing related funding.
- **KLIMAnetz**: A structured, fee-based peer learning network of 10 companies over a 2.5-year cycle, facilitated by the Climate Action Agency, with collective emissions commitments and at least nine on-site workshops.
- **Climate Protection Alliance**: A voluntary platform of 17 large businesses that meets in biannual plenary meetings focused on knowledge-sharing and progress review.
- **Initiative Industriestandort Mannheim (I2M)**: Eight thematic consortia of large industrial companies on transformation topics including hydrogen and circular economy.
- **Green Industry Cluster**: Networking, matchmaking, funding advice, and knowledge transfer to build a new GreenTech ecosystem across Mannheim and the Rhine-Neckar region, with a focus on startups, SMEs, and research institutions.
- **Heat Transition Academy**: Free, multi-day practical training for Handwerk tradespeople on heat pump installation and district heating, delivered by a broad multi-stakeholder alliance.
- The **Environment Department** also maintains bilateral relationships with businesses.

Evolution and Key Milestones

Mannheim's approach has developed progressively over the past decade:

- 2009: Establishment of the Climate Action Agency
- 2015: Launch of the Climate Protection Alliance
- 2019: Launch of Mannheim's Mission Statement (Leitbild) and a Climate Urgency Plan, with the goal to become climate neutral before 2050
- 2021: Launch of the Local Green Deal program and application to the EU Mission to become climate neutral by 2030
- 2022 (April): Selection as one of the 100 EU Mission Climate Neutral and Smart Cities.

- 2022 (November): Formal adoption of the KSAP 2030 by City Council.
- 2023: Local Green Deal structure takes effect
- 2023/24: Approval of the city´s Climate City Contract/KSAP by the European Commission, earning Mannheim the "Mission Label".
- 2024: Creation of a Climate Fund
- 2025: Opening of the Heat Transition Academy

Engagement Processes and Practices

Mannheim engages the private sector on climate through a combination of bilateral and multi-actor modalities.

Bilateral Engagement

The **Local Green Deal** is the central innovation in the city's engagement toolkit. A "deal" is a concrete, voluntary, publicly acknowledged commitment to action, which goes beyond legal requirements, by an individual organisation or a combination of organisations. Deals range from installation of a photovoltaic system to complex multi-party infrastructure investments.

LGD Managers in Mannheim reach out to companies (and other organizations), have a series of discussions around potential actions, agree on a concrete commitment, and formalise it on the iDEAL for Mannheim platform. The Deal Box mechanism - a curated set of about 130 suggested measures with best practices and funding information - allows managers to proactively identify opportunities businesses may not have recognised themselves.

The LGD Managers play a distinctive role in this process. Each Manager has expertise in their respective EU Green Deal action field and is positioned as a trusted advisor rather than a compliance officer. Their placement between the Mayor's Office and First Deputy Mayor's Office means they can credibly serve as an important point of contact for businesses navigating the municipal administration - a function that companies have reported as genuinely valuable.

To date, more than 280 signed deals have been signed, and these deals are distributed across the LGD program´s eight action fields. Of these, more than 60 deals are with private companies - including small and medium sized enterprises (SMEs) as well as large companies like ABB, BASF, Deutsche Bahn, Essity, Freudenberg Group, Fuchs Lubricants, IKEA, John Deere, Kyocera, Pepperl+Fuchs, Roche, Sax + Klee, Siemens, Sparkasse Rhein Neckar Nord, TIB Chemicals, and VR Bank Mannheim. The remaining deals involve governmental actors and civic/other organisations.

An important operational detail, confirmed in all company interviews, is that many but not all LGDs formalise actions that companies had already planned or are already doing. However, to be a “deal” these commitments must be above and beyond regulatory requirements and, if they are completed projects, cannot be older than 2021. The logic of including existing projects is that these projects deserve recognition, that the bar to participation should be relatively low, and that company climate actions recognised on the LGD platforms will inspire others and generate momentum. Moreover, as the programme has grown, companies increasingly approach the city proactively to be included in the programme and make their actions visible on the website.

The **Climate Action Agency** delivers advisory support on energy efficiency, renewables, and building retrofits; and facilitates access to funding. In 2025 alone, the agency conducted over 100 consultations with more than 30 companies. The most common topics were heating systems, energy efficiency, funding access, and photovoltaics. The agency currently has one consultant dedicated to company support, who also facilitates the KLIMAnetz network.

In addition to the consultant supporting companies, the Climate Action Agency also has three consultants providing similar services to citizens. Taking into account both the support to businesses and to citizens, the agency's track record is substantial: between 2009 and 2024, it carried out over 42,000 energy consultations and promoted over 5,000 energy efficiency measures, was involved in over 800 lectures and events with more than 31,000 participants, and subsidised the installation of PV systems with nearly 10,000 kWp in Mannheim.[5]

Multi-Actor Engagement Formats

KLIMAnetz

The Climate Action Agency manages KLIMAnetz, which is a structured, fee-based peer learning network of 10 companies, partly motivated by the European CSRD compliance requirements that pushed businesses to get serious about emissions accounting. Participating companies began the 2.5-year cycle with individual GHG inventories. Based on these inventories, they committed collectively to defined energy savings and emissions reduction targets, which are reviewed and published annually. The network also organizes at least nine on-site workshops whose topics are entirely determined by the participating companies.

The network is supported by the Climate Action Agency's dedicated energy consultant and an external engineering firm, providing both a trusted long-term relationship and additional technical depth. The companies pay a modest participation fee for the programme.

The preliminary collective goals for the participating companies have been set for year-end 2026 and include energy savings of at least 2,400,000 kWh/year; CO_2 reduction of at least 1,200 tonnes/year; and an increase in renewable capacity of at least 1,700 kWp. The network is currently running behind its collective targets, primarily due to the difficult broader economic climate and the relaxation of EU CSRD obligations.

There are several data points that demonstrate the success of the KLIMAnetz network. There are the investments being made by the companies. Three examples so far include ES Electrotechnik halving its electricity consumption since the project launch; Sax + Klee installing a green façade with city subsidies; and Haag Streit installing a new PV system on a listed building. Another encouraging sign of the network's maturity is that companies are beginning to exchange information independently among themselves without consultant mediation - a marker of genuine peer learning culture taking root.

What stands out about KLIMAnetz, on the evidence from interviews, is the genuine appreciation participants express for its usefulness: Company B described it as "very different from similar networks," pointing to the combination of expert input on member-chosen topics, active peer sharing of company emission solutions, and a group small enough to foster genuine trust. When senior management from Company B attended sessions, they were "excited by the opportunity" in a way that exceeded their expectations - a reaction that signals something qualitatively different from the typical multi-stakeholder spaces.

Climate Protection Alliance

[5] CoLAB Project Team, The House of Change: An Action-Packed Story Told by CoLAB (Mannheim: Klimaschutzagentur Mannheim, May 2025). Published under the NetZeroCities Pilot Cities Programme, funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101036519.

While KLIMAnetz focuses on smaller and medium sized businesses, the Climate Protection Alliance brings together large companies through biannual plenary meetings. Formed in 2015 by the Environment Department, the Alliance involved members formally committed to meeting specific climate goals, maintaining company greenhouse gas (GHG) inventories, implementing carbon emission reducing measures, and ensuring transparency of their energy data.

Like KLIMAnetz, the Alliance has a deliberately closed membership model - no new members are generally admitted - because the platform is built on trust and confidentiality. Membership currently stands at 17 companies including ABB, BASF, Roche, Daimler Truck AG, Mercedes-Benz Werk Mannheim, EvoBus, MVV Energie AG, GBG, John Deere, and Rhein-Neckar-Verkehr, among others.

The Alliance has been less active in recent years due to municipal capacity constraints. However, what distinguished the Alliance at its most active was the care the city invested in making those meetings genuinely useful. Rather than setting agendas top-down, the city consulted member companies in advance to identify topics of interest and surface presenters from within the group. It also sometimes hosted meetings at company facilities.

Initiative Industriestandort Mannheim (I2M)

The Economic Development Department orchestrates I2M which, like the Climate Protection Alliance, focuses specifically on large industrial companies. During the development of the city´s climate plan (KSAP), I2M served as the Strategy Group for Industry. Large industries self-organised into eight thematic consortia: circular economy; local energy supply; mobility and logistics infrastructure; digital process chains; transformation of the automotive industry; availability of industrial land; hydrogen; and recruitment of skilled workers. Companies include John Deere, BASF, Roche, Hitachi Energy, Daimler-EvoBus, MVV, the Port of Mannheim, Caterpillar Energy Solutions, ABB, Pepperl+Fuchs, Essity, and Fuchs Lubricants, as well as trade unions, employer associations, and the Chamber of Industry and Commerce.

Green Industry Cluster

Since spring 2022, the Economic Development Department has been establishing the Green Industry Cluster to strengthen the city´s GreenTech focus. The Cluster targets seven key markets: environmentally friendly energy generation, storage, and distribution; energy efficiency; resource and material efficiency; sustainable mobility; circular economy; sustainable water management; and sustainable agriculture and forestry. The Cluster offers networking and matchmaking, workshops and training, funding advice, administrative support, and knowledge transfer between members. A physical hub - the Green Tech Innovation Center - is being established.

The Green Industry Cluster is distinct from I2M in an important way: I2M is about transforming the existing large industrial base; the Green Industry Cluster is about building a new GreenTech ecosystem and connecting startups and SMEs with established players and research institutions. Both are run by the Economic Development Department, but they serve fundamentally different parts of the business community.

Heat Transition Academy

The Environment Department and the Climate Action Agency together steer the Heat Transition Academy, which represents a different kind of engagement logic - one directed not at motivating companies to act, but at removing a practical bottleneck that was preventing action from happening. With Mannheim's municipal heat planning complete and the technical roadmap in place, the binding constraint on implementation was not ambition or funding but the shortage of tradespeople with the skills to install heat pumps and connect customers to district heating.

The Academy, which opened in January 2025, offers free multi-day training courses in theory and practice at the premises of Beegy GmbH. The Academy is supported by a broad multi-stakeholder alliance: the City of Mannheim, the Climate Action Agency, MVV Energie, Beegy GmbH, the Rhine-Neckar Chamber of Industry and Commerce, the Mannheim Rhine-Neckar-Odenwald Chamber of

Skilled Crafts, and the Rhine-Neckar Sanitary, Heating and Air Conditioning Guild. Companies that complete the training are listed in a publicly accessible directory, giving participants both skills and visibility.

The Academy is a concrete example of a multi-actor approach that directly addresses a supply-side constraint on decarbonisation - and a model of the city convening partners around a shared problem rather than engaging businesses one by one.

Networking

A notable dynamic running across all formats is that companies seek peer connections. As just described above, the multi-actor spaces (KLIMAnetz, Climate Protection Alliance, I2M, Green Industry Cluster, and Heat Transition Academy) all have as a central tenet company networking and spaces for companies to learn from each other.

However, even the bilateral modalities of engagement like the Local Green Deals have created demand for networking. The city explicitly cultivates this by making all deals publicly visible on the iDEAL portal. The city also intentionally plays the role of strategically connecting companies with similar interests or complementary capabilities. As one data point, Company B described being contacted by another company wanting to learn how they carried out one of their projects after seeing the deal on the iDEAL website.

The LGD team has recognised the appetite for even wider networking among companies with deals and is actively investing more in connection-making. They organized the first dedicated LGD networking event in March 2026, and intend to further strengthen the community of deal partners and collaborations in the period ahead.

Trust-Building and Relationship Management

Another notable feature of Mannheim's approach is its emphasis on trust as the foundation for engagement. The LGD Managers' positioning as advisors - rather than inspectors or enforcers - is central. By providing genuine value (suggesting ideas through the Deal Box, identifying funding, making connections, navigating bureaucracy), the team builds credibility that facilitates more ambitious future commitments. Managers tend to engage at a technical or middle-management level appropriate for building working relationships.

The Climate Action Agency consultant's approach also builds trust through what he describes as "open and honest communication - no lecturing or patronising." Standard consultations are free of charge.

Trust-building is also facilitated by the city's role as a neutral convenor in the multi-actor networks. The Climate Protection Alliance's deliberately closed membership model reflects a conscious trade-off: limiting scale to protect the quality and confidentiality of relationships and data-sharing. The fee-based KLIMAnetz network has a similar structure - closed membership for a relatively small number of companies has resulted in deep learning and networking among its members.

Company Differentiation and Tailored Practices

While all types of companies are supported and engaged through the Local Green Deal team, Mannheim's other private sector engagement has some nuance in its approach to different types of companies. Large companies are primarily engaged through the Climate Protection Alliance and I2M consortia, where formal commitments, GHG inventories, and data transparency are required. SMEs are primarily served through the Climate Action Agency's advisory services, KLIMAnetz, and the Heat Transition Academy.

A comparison of two of the companies interviewed is instructive:

Company B is a medium-sized enterprise. They began their sustainability work in earnest primarily in response to regulatory pressure - the EU´s Corporate Sustainability Reporting Directive (CSRD) and

requests for sustainability data from customers and banks. The company joined the KLIMAnetz network to address these regulatory requirements and also signed multiple “deals”. As an anecdote from the interview, they reflected on the experience of driving climate action in the company and shared that they find it easier to work with various company departments on measures that are both good for the environment and the bottom line, rather than creating one consolidated climate plan.

Company C is a large global manufacturer who has also signed multiple deals. The company is already equipped with its own sophisticated global sustainability strategy and 2030 reduction targets. They engage with the city primarily to align global goals with local conditions, reduce uncertainty around local policy, and find partners for practical solutions on shared infrastructure challenges such as energy supply and mobility.

Across all company sizes, the primary incentives for engaging in climate action are, in the Climate Action Agency consultant's view: regulatory pressure, customer enquiries, and energy prices. The clearest enabler of action is financial viability. As the consultant notes "if it is economically viable, they want to implement it - regardless of the size of the company. Combating climate change is rarely the reason….it usually comes down to economic KPIs".

However, as is the case in all cities, SMEs in Mannheim are more challenging to engage on climate than larger companies. The experience of the Climate Action Agency is that SMEs often lack internal capacity to work on climate, awareness of where their biggest emissions occur, and resources to act without dedicated support. The current economic downturn in Germany has exacerbated these barriers.

Municipal Governance Structures

Coordination Across Entities

While there are many initiatives and many departments involved, the municipality ensures its work is well integrated and coordinated.

As described in section 1.2, overall steering of Mannheim's climate work rests with the Office of the First Deputy Mayor. The First Deputy Mayor, who is supported by two climate policy advisors, holds the environmental portfolio, meaning climate responsibility sits at the very top of the executive structure.

Operational coordination of the city´s climate work across the various delivery entities is structured through the **Transition Team**, Mannheim's overarching governance mechanism for its climate neutrality mission. Its purpose is precisely to ensure that the LGD team, the Climate Action Agency, and the Environment Department operate as a coherent system.

The **Environment Department** also plays a central coordinating role within Mannheim's private sector engagement architecture. It manages the Climate Protection Alliance.

The **Local Green Deal team**, which began as a project structure, has been formalised into a permanent matrix structure within city administration. Administratively, the team sits in the Lord Mayor´s Office, but it is technically led by the First Deputy Mayor. The Local Green Deal Managers also sit with the relevant departments (e.g., the Sustainable Economy Manager sits in the Economic Development Department). This gives the team, on the one hand, political authority and, on the other hand, the ability to credibly serve as a bridge across the city administration.

The **Climate Action Agency,** a dedicated non-profit organisation, is led by two CEOs: one from within the Agency, and one from the City of Mannheim, who also serves as the City Coordinator for the EU Mission and climate policy advisor to the First Deputy Mayor. The Agency is integrated within the

Transition Team structure, ensuring that its advisory work is connected to the city's strategic governance.

This design reflects a deliberate effort to avoid the fragmentation that can emerge when climate functions are siloed in a single department. Mannheim has created a governance architecture in which climate considerations influence decisions across the full breadth of city operations.

Onboarding

Onboarding into the Mission and CCC

As noted earlier, the KSAP was developed through a robust participatory process in which eight Strategy Groups co-authored the measures. Dedicated groups were formed for Industry (led by I2M) and for Trade, Commerce and Services to involve private sector actors in co-designing the strategy. Several Climate Protection Alliance companies subsequently signed the CCC. These Alliance companies are considered part of the "Mission Group": the inner circle of already-committed stakeholders.

Ongoing Onboarding

For the LGD mechanism, the door is open: LGD Managers proactively reach out to companies and respond to inbound interest, and any organisation can apply to make a deal.

The same is true for the technical support from the Climate Action Agency. The consultant continuously provides bilateral support to companies interested in energy efficiency investments, renewable energy installation, and related funding.

The multi-actor networks described above (KLIMAnetz, the Climate Alliance, and I2M) are not open to new participants mid-cycle in order to maintain cohesion. A second cycle of KLIMAnetz would open to a new cohort of companies, if there is enough demand from companies. However, with the relaxing of EU CSRD reporting requirements in 2025 for companies with less than 1,000 employees, there has thus far been less demand for a second KLIMAnetz cohort.

Municipal Powers, Enabling Roles, and Structures

The City's Roles in Practice

Across the Environment Department, the LGD team, the Climate Action Agency, and the Economic Development Department, the city plays several distinct roles in its private sector engagement:

- Convenor and facilitator: creating platforms and events where companies can connect and share.
- Matchmaker and connector: connecting deal-partners with each other and organizing networking events.
- Technical advisor: providing advisory support and support in developing deals.
- Relationship broker and city administration navigator: helping companies navigate the different departments of the city administration. Company C specifically highlighted this as valuable - engagement helps accelerate discussions with the city and reduces uncertainty around local policy directions.
- Recogniser: creating visibility of companies´ climate work through websites, awards, press releases, and local media coverage.

Private Sector Commitments, Collaboration, and Outcomes

Commitments by Scale and Sector

The experience of the companies interviewed in this case study provides a nuanced understanding of commitments made by different sized companies under the various modalities described in this case study:

Company A's commitments illustrate the scale of what large industrial actors can deliver: a steam storage system expected to save over 10,000 tonnes of CO_2 per year; a multi-million euro flue gas cleaning system that will halve particulate matter and SO_2 emissions; and a recycling service which recycles hundreds tonnes of paper towels in Mannheim in 2023, reducing the CO_2 footprint of that used paper by around 40 percent compared to conventional disposal.

Company B's commitments illustrate what is accessible to a medium-sized enterprise: a green façade on their office building extension and mobile photovoltaic systems for construction containers as a sustainable alternative to diesel generators.

Company C, the largest of the three companies interviewed, has signed three LGD Deals at its Mannheim production facility: a sustainable mobility that involves fleet electrification, installation of hundreds of EV charging points, train tickets for employees, and a company bike programme; waste reduction and recycling targets; and a new operational building with PVs, heat pumps, and fully automated robotic machinery that reduces material consumption.

Inter-Company and Multi-Actor Collaboration

The experience of the companies interviewed in this case study also provide insight into where company networking has evolved into substantive collaborative projects:

- Company A described a vivid example: at a Bundesgartenschau event, where Company A, a facility service company, and a waste handler were all present, a chance encounter led to an ongoing three-way collaboration on sustainable building practices. The three companies are now working together on waste management and resource efficiency for new buildings.
- As described earlier, Company B had a similar experience: another company contacted them after seeing their deal on the iDEAL website, wanting advice on implementing something similar.
- Company C collaborated with a local energy supplier on early-stage e-vehicle charging infrastructure.

Monitoring, Reporting, and Accountability

The City of Mannheim, through the Environment Department, monitors its overall progress toward climate neutrality through municipal greenhouse gas (GHG) inventories. In addition, the city has established a dedicated monitoring system for its Climate Action Plan, covering more than 300 concrete measures. This information is publicly available on the platform ClimateView Mannheim, which is managed by the Environment Department. The platform enables everyone to explore Mannheim's climate mitigation and climate adaptation measures in a transparent and accessible way.

The LGD mechanism's primary monitoring is that most deals are for completed or active projects that companies are taking. Therefore, the evidence for completion typically exists at the time of signing the deals, and further monitoring is not necessary. However, as more companies sign deals, the nature of deals may change to more prospective, planned projects. In this case, a more robust monitoring system may be needed. Currently, the team is working on a methodology to measure CO2-emission reduction of deals.

Among the modalities of *private sector commitments* described in this case study, KLIMAnetz has the most structured monitoring. Companies' collective targets are published and reviewed annually, and individual company progress is tracked by the energy consultant.

The actions taken as a result of Climate Action Agency support have a similar dynamic. The consultant´s support in developing renewable and energy efficiency projects is free to companies, but no funding is provided by the Agency to implement the measures. Companies generally move forward with the renewables and energy efficiency projects developed during the support. However, following through on the projects is not a requirement and there is currently no systematic process in place to verify that companies implement the projects.

Motivations, Incentives, and Value Proposition

From the three companies interviewed, the value proposition of and incentives for engaging with the city of Mannheim on climate can be summarised as:

- **Reputational benefit**: Public visibility on the iDEAL platform, recognition at annual events and through Environment Awards, press coverage through the Agency and communication of company actions on climate through the city social media posts, press releases, and local publications.
- **Networking and connection-making**: Access to peer companies working on similar challenges - through LGD events, KLIMAnetz, Climate Protection Alliance, I2M, Green Industry Cluster, the Heat Academy, and the organic connections the ecosystem generates.
- **Technical support and knowledge**: This includes free advisory support from the Climate Action Agency consultant, expert technical input through KLIMAnetz, and Deal Box suggestions from LGD Managers.
- **Funding access:** Some help connecting to the Climate Fund and state/federal programmes.
- **Assistance navigating the city administration:** LGD Managers and the Climate Action Agency consultant as key points of contact for navigating the city administration.
- **Participation in policy dialogue:** Early understanding of local policy directions, and improved communication with authorities on climate protection and biodiversity projects.

Company A's motivations were primarily driven by already-existing corporate sustainability goals, a sense of local responsibility, and the desire to make the collaborative nature of their climate work visible. They describe LGD participation as "doing two things at the same time" - continuing work they were already doing while gaining reputational advantage and networking value.

Company B's motivations began with regulatory pressure (CSRD, EU taxonomy) and demands for sustainability reporting from customers and banks. Their LGD engagement was also driven by the opportunity to formalise existing work and access the city's subsidy for the green façade. The deepest value for them has been through the KLIMAnetz network.

Company C frames climate action as both a responsibility and a strategic opportunity - not just corporate social responsibility. The company explicitly identifies the transition to a low-carbon economy as a significant strategic opportunity, and notes the risk that not transitioning to lower-emission technologies poses to revenue and market share. For Company C, engaging with the city helps align global sustainability targets with local conditions while contributing industrial expertise to practical solutions, and strengthening long-term business resilience.

4.3.3 Outlook

Challenges, Barriers, and Enablers

Mannheim presents a case of a city taking strong, diversified action to engage the private sector in the climate transition. Their strong track record presents several enablers off which they can further build. However, like all cities trying to do so, there are also challenges and barriers that they are facing or will face in the near future.

Enablers and Success Factors

Perhap's the most distinctive feature of Mannheim's approach is the degree to which its private sector engagement work is integrated into the political and administrative core of the city. As described in section 1.2, the placement of climate work within the First Deputy Mayor´s portfolio, the Mission Coordinator bridging the various climate entities, the Transition Team creating an overarching coordination structure, the Environment Department playing a central role in the climate work, and all the climate work being embedded in the broader Leitbild Mannheim 2030 framework, gives climate work an institutional authority and cross-departmental reach that is unusual in comparative perspective.

Mannheim has built a layered approach to engaging the private sector on climate that differentiates engagement based on company type and scale. Large industrial companies are engaged through tailored platforms like the Climate Protection Alliance and I2M. SMEs are supported through the Climate Agency, the KLIMAnetz network, and the Local Green Deal team. The Heat Transition Academy addresses the supply-side constraint on labor for the heat transition. The Green Industry Cluster builds the future GreenTech ecosystem. Taken together, this nuanced approach reflects a sophisticated understanding that different types of companies need different things from the city administration.

Several further enablers stand out:

- The quality of specific individuals: LGD Managers and the Agency consultant are described by companies as genuinely knowledgeable, trustworthy, and valuable. The system works in large part because these people are good at their jobs and stay in their roles long enough to build real relationships. This is an enabler but also a vulnerability.
- The KLIMAnetz model: This is a good practice in building a diverse yet cohesive , peer-sharing network. It is expert-supported and yet tailored to the needs of the cohort of companies. It is highly effective at generating genuine learning and trust. Company B described it as qualitatively different from other networks. This model has strong replication potential.
- The Heat Transition Academy: By providing free skills training to skilled trade people and SMEs, the city addresses the supply-side constraint on heat transition implementation.
- Climate as strategic business priority: Company C's framing - that a city's credible climate commitment de-risks their own investments - suggests that cities that establish genuine long-term policy stability can create conditions in which large companies find it commercially rational to engage deeply.

Cutting across these enablers is a consistent pattern: the most effective elements of Mannheim's approach combine a direct, personal, high-quality human relationship, with technical support and with a structured space for peer interaction. No element alone is sufficient, but taken together they create a strong environment for encouraging private sector action on climate.

Barriers to Engagement and Action

Like all cities working to engage their private sector in the climate transition, there are barriers and challenges in Mannheim:

- Economic headwinds: The current economic downturn in Germany is a significant barrier, particularly for SMEs. Companies are moving somewhat in the direction of prioritising operational survival over climate investment.
- Scale of SME engagement: The 60 or so private company LGDs are mainly concentrated among larger firms. Scaling engagement with the thousands of SMEs is less consolidated thus far and presents a strong challenge towards the city´s climate goals.
- Regulatory uncertainty: The relaxation of CSRD requirements has removed a key driver that was helping catalyse SME engagement.
- Funding and financing accessibility: Assistance securing subsidies, funding, and financing for climate investments is something that companies in all cities express more support on. All three companies interviewed identified financing as a key challenge and something they would like the city, national, and EU governments to assist companies with more. The city of Mannheim is helping through dedicated funding programmes under its Climate Fund. Funding programmes are managed by the Climate Action Agency.
- Permitting and bureaucracy: Company C specifically identified slow and complex approval procedures at all levels of government, as a barrier to accelerating climate investments.
- Municipal budget pressures: The recent reduction in funds available in the Climate Fund and the risk of not replacing departing staff members risks eroding the personal relationships central to the system's effectiveness.
- Awareness gap: Many companies in Mannheim are doing good sustainability work or would like to do more, but do not know about the LGD programme or the other support available from the city.

Company Suggestions

The main areas where companies see room for improvement:

- Awareness: Companies interviewed felt that many other companies in Mannheim are unaware of the opportunities offered by the city. Company A suggested the city could make greater use of social media and local media beyond its own websites to make more companies aware of the opportunity to formalise their good work as a deal.
- Event frequency: Company A noted that the one recognition event held so far was valuable, but that regular events would be more beneficial.
- Digital tools: Company C suggested structured digital platforms for project matchmaking, data sharing, and tracking joint initiatives as a tool to foster collaboration.

The EU Competitiveness Agenda: Risks and Opportunities

The structural economic pressures described in Sections 1.1 and 3.1 create both a challenge and an opportunity for cities like Mannheim that have invested heavily in private sector climate engagement. The challenge is immediate and visible: when companies are under financial stress, voluntary climate commitments become harder to sustain, funding for co-investment shrinks, and the bandwidth for ambitious climate work narrows. Several dynamics in this case study - the lack of sufficient interest in a second cohort of KLIMAnetz, the reduced municipal allocation to the Climate Fund, and the slowdown in Alliance meetings - reflect this pressure directly.

On the other hand, the opportunity is also important. The Draghi report and the EU's resulting Clean Industrial Deal rest on the argument that decarbonisation, when properly integrated with industrial and competitiveness policy, is a driver of growth rather than a cost. Mannheim's approach already embeds this logic in a couple of ways that deserve recognition. The Green Industry Cluster is explicitly building a new GreenTech economy in seven key markets - clean energy, resource efficiency, sustainable mobility, circular economy - positioning Mannheim as a production and innovation hub for the industries that stand to benefit most from Europe's green transition. The Climate Protection Alliance, the KLIMAnetz, and the I2M business networks are exactly the kind of sector-specific industrial transformation initiatives that Draghi recommends at the EU level but that Mannheim has been pursuing at municipal level for several years.

There are other areas of the Draghi report that are also relevant to Mannheim's private sector support, but were not addressed in the research for this case study.

First, green public procurement. The Clean Industrial Deal places considerable weight on cities and public authorities using their procurement power to create local demand for low-carbon products and services - essentially using public spending to build the market for the transition.

Second, energy costs as a competitiveness lever. Draghi is emphatic that high energy prices are the primary threat to European industrial competitiveness and this has become even more evident following the conflict in Iran in 2026. While not addressed in this case study, Mannheim's MVV district heating decarbonisation and PV offensive are clear areas where the city has taken action.

Third, green skills at scale. Germany's skilled labour shortage is very broad - with over 80 percent of companies reporting labour shortages in 2024, second only to Japan globally, according to ManpowerGroup's annual Global Talent Shortage Survey[6]. Mannheim's Heat Transition Academy addresses a specific and important bottleneck in the transition labour market.

Finally, there is the question of positioning Mannheim's industrial partners to access the new EU financing instruments that the Clean Industrial Deal is in the process of creating - the Industrial Decarbonisation Bank, the Competitiveness Fund within the next Multiannual Financial Framework, expanded Innovation Fund auctions for key industrial processes, the European Investment Bank, and the NetZeroCities Capital Hub.

Transferability and Comparative Insights

The Mannheim case illustrates:

- The LGD mechanism as a transferable model: The combination of bilateral communication and support by LGD Managers, on the one hand, and public visibility and recognition through the iDEAL platform, on the other, is a concrete and replicable approach to encouraging more companies to take action on their emissions. The "every deal counts" philosophy of low barriers to entry is also transferable. Mannheim is a leader in the European Commission's Local Green Deal framework and these learnings provide helpful reflections that can guide the model being applied in other cities.
- The Climate Action Agency as a reproducible model: The Agency´s technical expert both consults companies on energy efficiency and renewables, and assists them in accessing municipal funding programmes. This assistance is especially useful for small and medium

[6] ManpowerGroup, *2024 Global Talent Shortage*, ManpowerGroup, 2024 (survey of 40,077 employers in 41 countries, fielded October 2023). Available at go.manpowergroup.com/talent-shortage-2024.

sized businesses because it addresses time and technical knowledge gaps that these businesses often have related to climate investments.

- The KLIMAnetz model as a replicable format: Small, diverse, expert-led, demand-driven peer networks appear to generate genuine learning and sustained engagement for SMEs. Providing similar affordable networks that create lasting peer relationships, and that are responsive to real company needs rather than city-driven agenda, can have a large impact for SMEs.
- The Heat Transition Academy as a supply-side intervention: The multi-stakeholder skills training model addresses a constraint - skilled-trades capacity - relevant to many cities pursuing heat transition goals.
- Institutional placement matters: Overall steering of Mannheim's climate work has high-level political commitment, is coordinated through a dedicated Transition Team, and is rooted in an overarching city-wide strategic policy framework. This is a transferable model, not a unique accident of local politics. Cities considering replication should think carefully about where in their governance structure an equivalent function would sit.
- Personal relationships as the real infrastructure: The quality of specific individuals is an important driver of effectiveness. Not easily transferable as a formal model, but a lesson about the importance of investing in the human dimension of climate engagement.
- The inspiration effect is undervalued: The organic connection-making and peer inspiration that emerges from the visibility of deals and the sharing of experiences at events may be one of the most valuable outputs of the LGD, KLIMAnetz, Climate Protection Alliance, and other ecosystems created in Mannheim- and one that is not directly designed or measured. Cities replicating the models should invest in creating regular opportunities for companies to meet and learn from each other.
- Large companies need the city as a regulatory and process enabler: For sophisticated industrial actors, the city's most valuable role is often not technical advice but regulatory navigation and policy credibility. Cities seeking to engage large industry should invest in these enabling functions alongside outreach and network-building

Appendix

This case study incorporates input from interviews with Mannheim city climate officials Eileen Roth (Climate Policy Advisor to the First Deputy Mayor and Head of the Climate Action Agency), Ellen Röck (Local Green Deal, COLL€CTProject), Dr. Philipp Boura Kadel (Local Green Deal Manager for Sustainable Mobility), Michael Kolb (Climate Action Agency, energy consultant), and Dominik Stroh (Department of Climate, Nature and Environment official).

Interviews were also conducted with representatives from three private companies in Mannheim. Company A is a large multinational hygiene and health products company whose Mannheim location is its largest European production site. Company B is a medium-sized family-owned building services and technical installation contractor. Company C is a large global equipment manufacturer with a major production facility in Mannheim, employing several thousand people worldwide.

4.4 Milan

4.4.1 City Profile & Mission Context

Milan serves as a major economic and administrative hub in northern Italy. The municipality has a diverse population of over 3 million people in the metropolitan area. Socio-economically, Milan functions as a centre for finance, design, and innovation. Yet, the municipality exhibits marked spatial inequalities, with disparities in income, housing affordability, and access to services throughout different urban districts.

Local governance setup

Milan's decision to design the Climate City Contract was not solely based on climate ambition, but also an opportunity to start a discussion with a wider group of stakeholders and to initiate active stakeholder engagement.

At first, these local stakeholders have been identified on the basis of a "molecular strategy", a territorial approach according to which some portions of the city - "molecules" - concentrate innovations and synergies leading to the acceleration of decarbonisation. Progressively, a larger group of local stakeholders were selected for their high potential to contribute to emission reductions and/or their ability to propose enabling strategies aimed at promoting behavioral change and raising awareness among citizens and specific groups. This resulted in the engagement of 25 signatories for the first edition of Milan's Climate City Contract (2024) from the public sector, municipal companies, utilities, universities, financial institutions, developers, housing providers and civil society.

The Municipality has then engaged in an iteration of its Climate City Contract for 2026, to integrate new signatories and new actions, and strengthen the Molecular Approach developed in 2024 through the development of a new technical annex to the Climate City Contract.

The Molecular Approach serves as a strategy to engage new signatories for the Climate City Contract: because it is a place-based approach to decarbonisation acting across multiple sectors (e.g buildings, mobility, green areas) and at an intermediate scale, it has the capacity to mobilize diverse interventions and local stakeholders.

At the basis of this Molecular Model are the urban molecules ("molecole" in italian), which act as portions of the city large enough to generate significant effects on the decarbonization process while remaining manageable for measurement, monitoring, and evaluation of impacts and transformations.

The Model's added value also lies in its capacity to bridge the gap between planning and implementation: it operationalises climate neutrality through measurable spatial units, fosters collaboration across sectors and governance levels, and mobilises innovative finance to make decarbonisation investable and replicable.

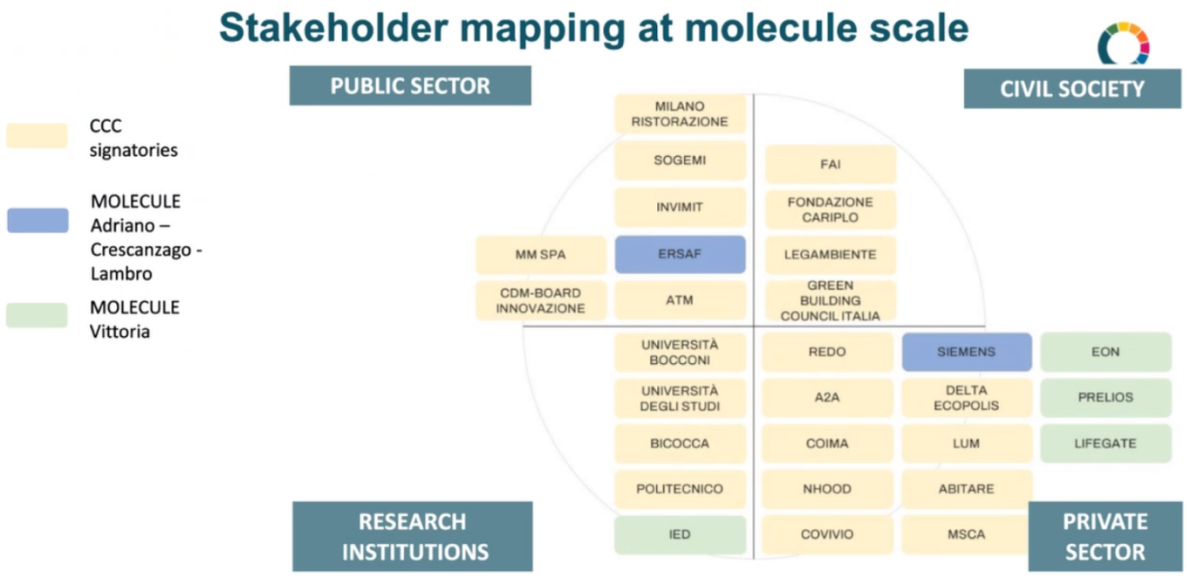

Figure 6 - Stakeholder Mapping at Molecule Scale (diagram shared by the city during a workshop in December 2025).

Molecules create an integrated way of working across silos, which proposes a territorial and cartographical approach. New maps have been created, which also allow the stakeholders to understand how different decarbonization activities may be integrated.

Three potential molecules have been identified as potential living test-bed areas, with activities and research conducted more specifically on the Adriano-Crescenzago-Lambro Molecule, and the Vittoria Molecule. Within this framework, **study visits and co-design workshops** have been organised for the two pilot molecules with CCC signatories and locally relevant actors. The objective was double: on the one hand, to ground the decarbonisation scenarios in real urban conditions, by collectively observing transformation sites, infrastructure and constraints; on the other, to **activate territorial**

alliances, linking ongoing public and private investments to the city's climate-neutrality pathway and identifying additional stakeholders to be involved in the Climate City Contract.

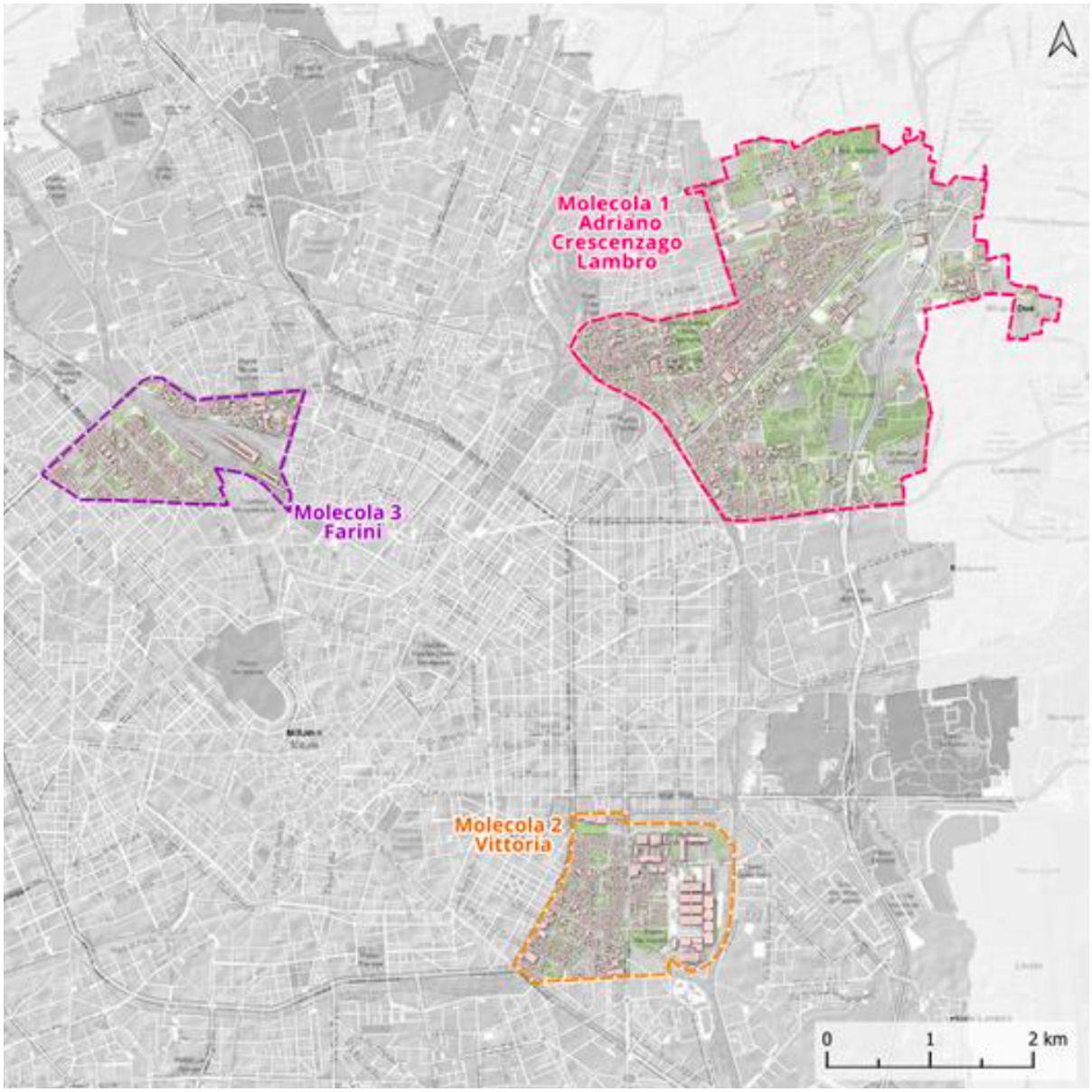

Figure 7 - Boundaries of the selected urban molecules of Milan (D2.2 - Report on Milanese Stakeholders' Engagement for Financing Instruments' Validation).

Milan views these molecules as an "intermediate scale" which are not as small as neighbourhoods but not the size of a whole city. It is something in the middle. This stemmed from their understanding that there were already ambitious urban regeneration projects in specific parts of the city, and that these could be considered actors that could be leveraged to engage others and create new dynamics. This quickly developed into a highly technical approach because they developed scenarios starting at a baseline, which is calculated for the specific areas. In this way, they are attempting to test the governance proposed by the European Commission. They are practicing horizontal governance, in which the city plays a pivotal role but depends on the engagement of a diverse group of actors.

This urban molecule approach has begun a discussion about how to collect data and connect the existing Milan Urban Master Plan with the new layer of decarbonisation knowledge. The CLIMB (CLimate-neutrality through Integrated Molecular model for urBan regeneration with sustainable finance) project, funded by the ECT (Enabling City Transformation) call of the European Horizon

Europe programme, is led by the Municipality of Milan's Urban Resilience Department in partnership with the Sustainable Urban Lab at Bocconi University. Participants are involved in the energy renovation of social housing to tackle energy poverty, brownfield development that embeds zero-carbon principles, expansion of sustainable mobility options such as bike lanes and electric charging points, innovative housing complexes that use digital tools to encourage energy-saving behaviours, and new green spaces that combine biodiversity, climate resilience, and wellbeing in dense urban areas.

Goals of the CLIMB Project:

- Implement a molecular model for decarbonization and urban regeneration
- Test decarbonization scenarios in "urban molecules" through building energy retrofits, renewable energy integration, sustainable mobility initiatives, and NBS (nature-based solutions)
- Design sustainable finance tools
- Promote collaborative governance among different municipal departments
- Facilitate knowledge exchange with other cities (NetZeroCities)

As mentioned previously, in their upcoming iteration of the CCC, Milan is including a masterplan of the decarbonisation included in the annexes, which integrates the input of new stakeholders. A municipal project manager commented that *"this process is also a kind of co-production because we are discussing continuously with them [...] this is another element of governance that maybe could be considered."*

Emissions profile & decarbonization strategy

Milan's emissions are primarily concentrated in buildings and stationary energy use, which together account for the largest share, followed by transport and mobility. Residential buildings are aged and inefficient, particularly those constructed between the post-war period and the 1970s, and certain parts of the city continue to depend on private vehicles to connect to the city centre. At the molecular scale of the Crescenzago-Adriano-Lambro area, a significant portion of buildings exhibit low energy performance and high energy consumption, while mobility patterns are uneven, with fragmented cycling infrastructure and reliance on cars in less-connected zones.

Milan's decarbonization is strategically focused on three interconnected domains: buildings, energy systems, sustainable mobility, and urban regeneration with nature-based solutions. The Climate City Contract and associated plans identify as a key priority the retrofit of large-scale buildings, the electrification of heating systems (e.g., heat pumps), and the expansion of renewable energy production (e.g., photovoltaics and energy communities). A combination of transport improvements, fleet electrification, and the expansion of active mobility infrastructure (e.g., cycling networks) contributes to the city's advancement towards low-emission mobility. The molecular approach and activities of the CLIMB project further merge these priorities by linking interventions across the three interconnected domains within coordinated decarbonization scenarios extending to 2035 and 2050.

The Climate City Contract journey helped addressing some challenges faced in terms of climate ambition, project integration, policy alignment, and stakeholder engagement. To address this, the municipality is attempting to reduce project fragmentation by fostering interconnectivity between energy, mobility, and green infrastructure through the design of innovative, scalable carbon-neutral regeneration projects. Policy harmonization is ensured by strengthening urban planning tools for mitigation and adaptation, which increase coherence between the air and climate plan, the territorial government plan, and other strategies; and they involve a wide and diverse group of city actors (utilities, universities, service providers, developers, innovators, civil society, foundations) in a shared vision and commitment. Milan's strategy shows a systemic, place-based approach, advancing

decarbonization through the integration of technical and spatial interventions, with a strong reliance on multi-actor collaboration to deliver impact at scale.

Focal initiative & thematic case for private sector engagement

Private sector signatories to Milan's Climate City Contract embed climate neutrality as a core operational and investment priority, rather than treating it as a peripheral sustainability consideration. This research highlights A2A and NEAR as key partners demonstrating strong strategic alignment with long-term decarbonisation objectives, particularly through integrated, system-level approaches in Milan and selected cities in Northern Italy. A2A has institutionalised this commitment through a structured transition pathway supported by clearly defined, measurable interim targets, and NEAR has positioned itself within the real estate and housing sector as a driver of climate-neutral urban development, concentrated on sustainable housing models, energy efficiency, and embedding environmental and social impact into its investment strategies.

A2A Multi-Utility Services

A2A is one of Italy's largest multi-utility companies in the energy, environmental, and water sectors. The company was formed from a merger of the utilities of Milan and Brescia in 2008, and remains based in northern Italy but has expanded to serve Bergamo, Como, Lodi, Cremona, Piedmont, Veneto, Emilia-Romagna, and some central regions, such as Tuscany, Marche, and Lazio. A2A places strong emphasis on sustainability and the circular economy, and has become a leading national force and point of reference for ecological transitions. To establish an ethos of sustainability through hosting multi-stakeholder events, education initiatives, training programmes, and project development, all of which help enable constructive dialogue with the communities they serve and include everyone in the ecological transitions.

NEAR

Near is a benefit company operating in northern Italy and positioned as a key actor in sustainable housing and urban regeneration. This company was established to drive a structural transformation in how cities are inhabited, financed, and redeveloped, with the ambition to become a national reference point for "responsible living." NEAR is particularly active in affordable housing, build-to-rent models, and student accommodation, while promoting projects that balance financial viability with measurable social and environmental impact. Its activities are concentrated in the Milan metropolitan area and Lombardy, where it contributes to urban regeneration initiatives and aims to attract institutional capital toward sustainable residential development, with long-term objectives to achieve a climate-neutral housing portfolio.

CCC commitments & governance processes

The signatories of the first edition of Milan's Climate City Contract include municipal and public companies, universities, urban regeneration operators, housing services and cooperatives, foundations, environmental associations, business associations, think tanks, and innovation boards. 25 actors from different backgrounds represent these different fields. Milan is currently experimenting to determine whether the Climate City Contract could be an activator that enables new projects and initiatives, rather than merely enforcing the implementation of the Climate Action Plan.

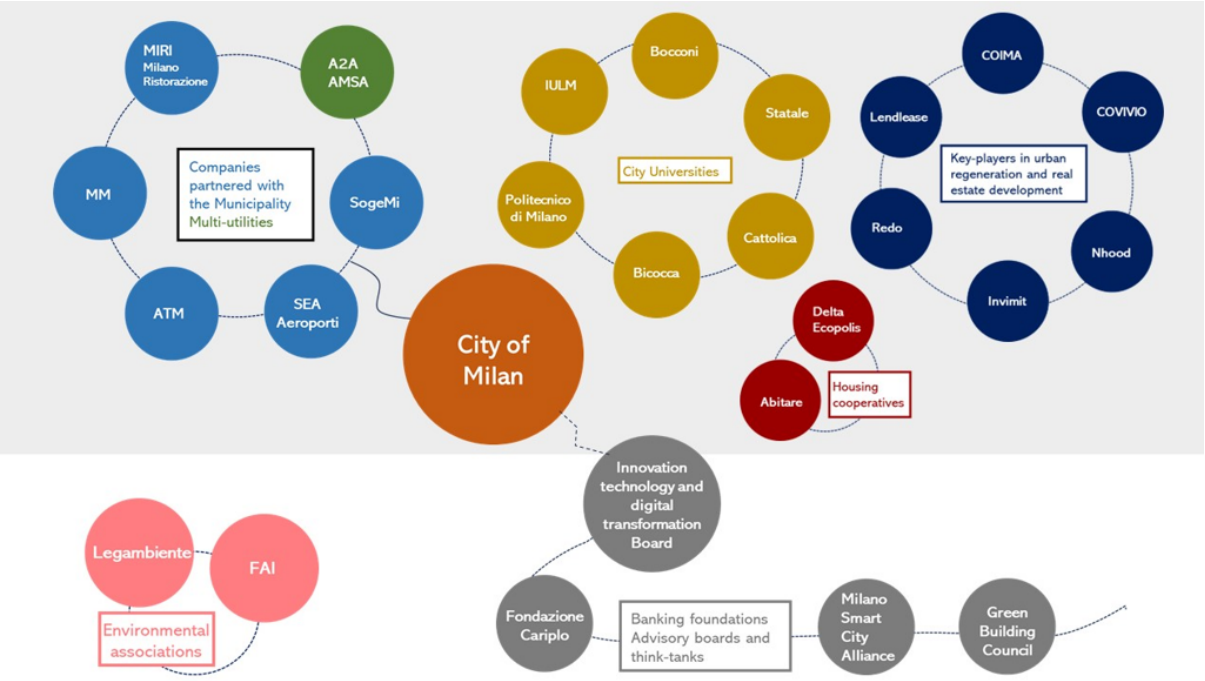

Figure 8 - Map of stakeholders (adapted from Milan's CCC, 2024).

4.4.2 Milan's Approach to Private Sector Engagement

Milan's private sector engagement strategy stresses trust-building and voluntary participation, while anchoring collaboration in specific territories through its molecular model. The Climate City Contract is the central engagement tool that brings together approximately 25 stakeholders. Participation relies on innate motivations such as reputation, access to decision-making processes, and opportunities for future collaboration. Milan's approach to private sector engagement is recognition that achieving climate neutrality depends on collaboration, and this is put into action by involving developers, utilities, financial institutions, and research organisations.

Strategic framing of private sector engagement

Immediately, the cultural context created a barrier to involvement: the word "contract," when translated into Italian, is a highly binding term. They needed to create trust that the Climate City Contract is a shared commitment, not a legally binding document which might ensnare them.

The Climate City Contract explicitly positions climate neutrality as a collective endeavour calling for coordinated action across public institutions, private companies, financial actors, and civil society, rather than a policy agenda driven solely by the municipality. Private sector actors are not treated as external stakeholders to be consulted, but as active co-producers of urban transformation, particularly in contexts where they own, operate, or finance key assets (e.g. buildings, energy systems, mobility services). The CLIMB project further operationalises this tactical framing through a molecular approach, in which companies operating in these spaces are involved in concrete regeneration and investment opportunities.

Evolution, phases, & milestones

The engagement process has evolved through three phases:

- **Co-creation (2023-2024):** Stakeholders contributed to defining the CCC through workshops
- **Maintenance (2025):** Engagement was sustained through events and ad hoc communication.
- **Implementation (2025-2026):** Activities shifted toward territorial and project-based collaboration.

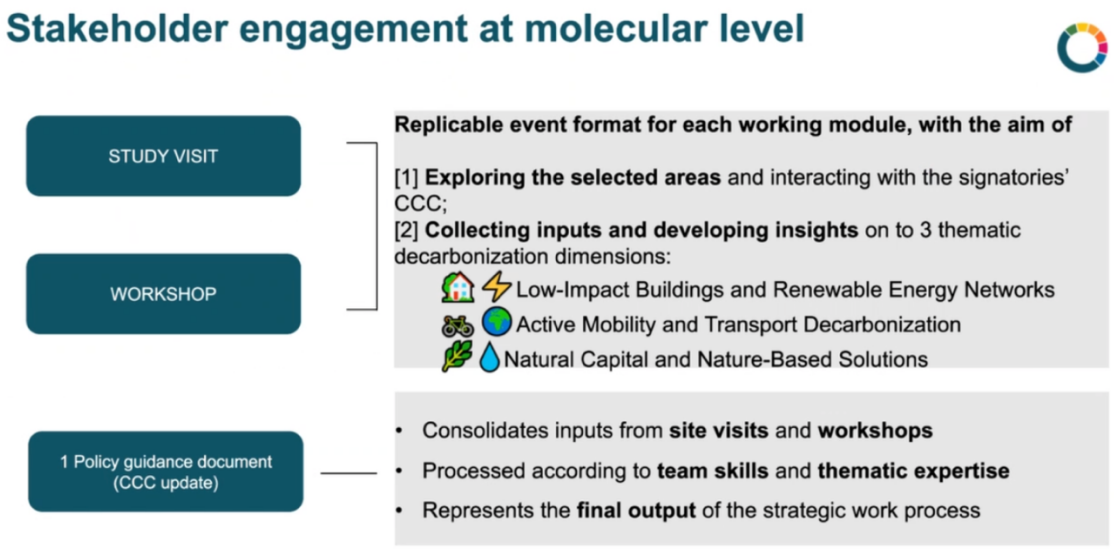

Figure 9 - Stakeholder Mapping at Molecule Scale (diagram shared by the city during a workshop in December 2025).

Types and modalities of engagement

Milan applied a structured and iterative engagement process combining exploration, co-design, and validation. The idea was to engage new and existing stakeholders through the territorial molecules approach, which creates more implications and synergies between the actors involved. This approach was specifically chosen because of its potential to keep these actors engaged.

Figure 10 - Engagement Processes Timeline (slide shared by the city during a workshop in December 2025).

Study Visits4

Study visits allowed stakeholders to directly oversee transformations within the urban molecules. In 2025, study visits and workshops took place in molecule 01 (Adriano-Crescenzago-Lambro) and molecule 2 (Vittoria). These visits focused on mobility systems, building retrofits, and nature-based solutions, and increased the shared understanding of local challenges. The study visits are co-designed with the stakeholders. An intangible result of the study visits is the development of a common vision.

Workshops

Workshops followed the study visits. These were structured into three thematic areas:

- Buildings and energy
- Mobility
- Nature-based solutions

Each workshop followed a three-step methodology:

1. Actor mapping
2. Action identification
3. Tools identification

The workshops produced concrete outputs, including prioritised actions and stakeholder mappings.

World Cafe

The World Cafe methodology was introduced by the municipality to engage stakeholders in discussions on financing instruments. Participants included municipal departments and stakeholders. These workshops explored financing mechanisms, barriers, and opportunities for private sector involvement.

Focus Groups

Focus groups on financial instruments applied to decarbonization scenarios are being held with Climate City Contract stakeholders and potential new signatories.

Trust-building & relationship management

In phase 01, the main goal was to prepare the ground and build real enthusiasm and commitment. The municipality sees private sector engagement here as unique, since it's a voluntary, politically initiated process run at the technical level. They use in-person events to identify and invite new signatories for the next Climate City Contract. This shows that trust-building and relationship management begin before formal engagement.

Private sector stakeholders already knew each other before joining this project. They had met and attended conferences together. The municipality used these connections by selecting ambassadors who grasped the vision and could set the tone, acting as reference points to lend trust.

Governance structures and roles

Milan's governance combines strong municipal coordination with contributions from external actors. The Urban Resilience Department leads strategy and management, while AMAT provides technical analysis, and Bocconi University contributes research expertise.

The Urban Resilience Department plays a central role in enabling and coordinating private sector engagement, working in conjunction with the transition team responsible for the Climate City Contract. Within the department, two primary actors oversee the management of activities and stakeholder interactions, including communication processes conducted via telephone and email.

After the COVID-19 pandemic, the municipality permanently changed their ways of working. The days when they work in person together are usually when they discuss and plan how to manage their stakeholder engagement efforts, with special attention to working across the full portfolio to accelerate progress. They amplify these efforts by working with external support actors, but this creates additional commitments that need to be managed and discussed; for this reason, they are selective about when to externalise support, because it can create as many operational challenges as it solves.

A diverse set of skills within the team can result in a fractured understanding. It is important that they all can "speak the same urban issues language" between architects, urban planners, technical experts, etc. They do this by sharing visual maps, having special data-driven discussions, and opening dialogue. Both internally and externally, these types of tools and languages are important.

Inventory of tools, mechanisms, & instruments for governance and collaboration

Milan uses several tools to support collaboration and implementation:

Italian Pilot Activity: Let'sGov

Due to context-specific challenges which are shared by many Italian cities, nine Italian cities have experimented with a collective multi-level and multi-stakeholder governance to achieve their emission reduction targets. The objective was to reduce energy-related emissions through new forms of energy alliances which unlock financial resources and define the conditions for enhanced multi-level governance. This produced increased data accessibility at the city level, increased overall capacity of all cities, and addressed internal and external governance bottlenecks.

Decarbonization Scenarios

Two types of scenarios are used by the municipality of Milan to guide planning: (1) incremental scenarios targeting 2035, and (2) full decarbonization scenarios targeting 2050. Designed to imagine how the private and public sectors might work together with common goals, these tools support evidence-based decision making and stakeholder dialogue. The output of the decarbonization scenarioscould act as new interpretive layers for municipal plans, which helps inform both the private and public perspectives.

Decarbonization Scenario Development Activities:

- Collection of data on the current state at the molecular level and city level (e.g., built environment, energy demand, green areas) and planning
- Identification of modelling tools (open source) and input data
- Proposal of decarbonisation scenarios for 2030-35 and 2050
- Initial simulation of the decarbonisation scenarios to serve as a working basis for the application of financial instruments
- Identification of applicable financial instruments that are suitable for the implementation of cross-sectoral measures at the molecular and sub-molecular scale, and for engaging private local stakeholders to reduce the financial burden on cities and improve the long-term viability and replicability of decarbonisation investments.
- Defining the conditions for a scalability of the model at the urban level

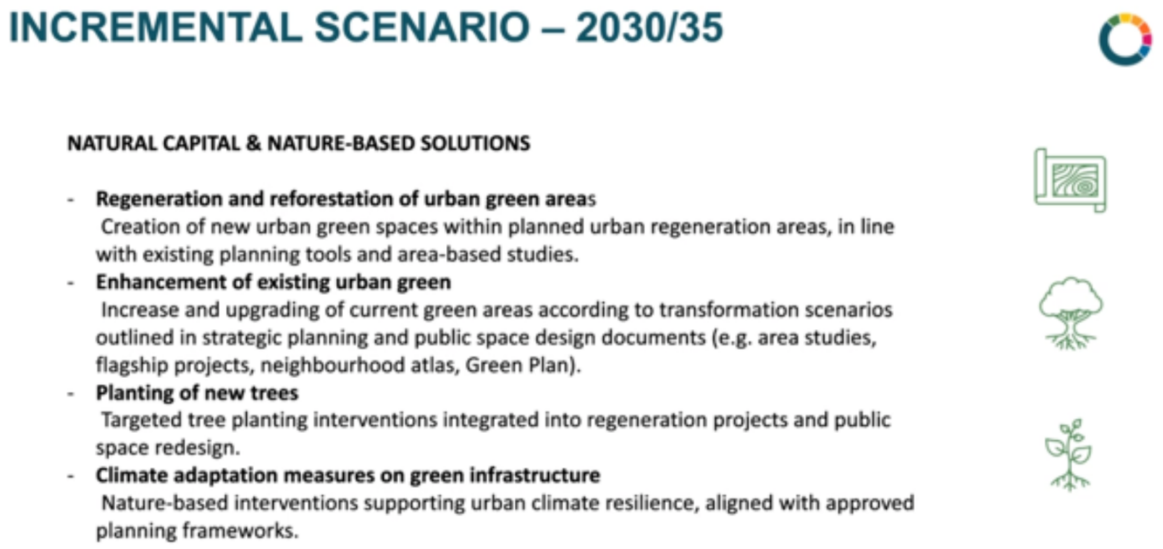

Figure 11 - Example of an Incremental Scenario (slide shared by the city during a workshop in December 2025).

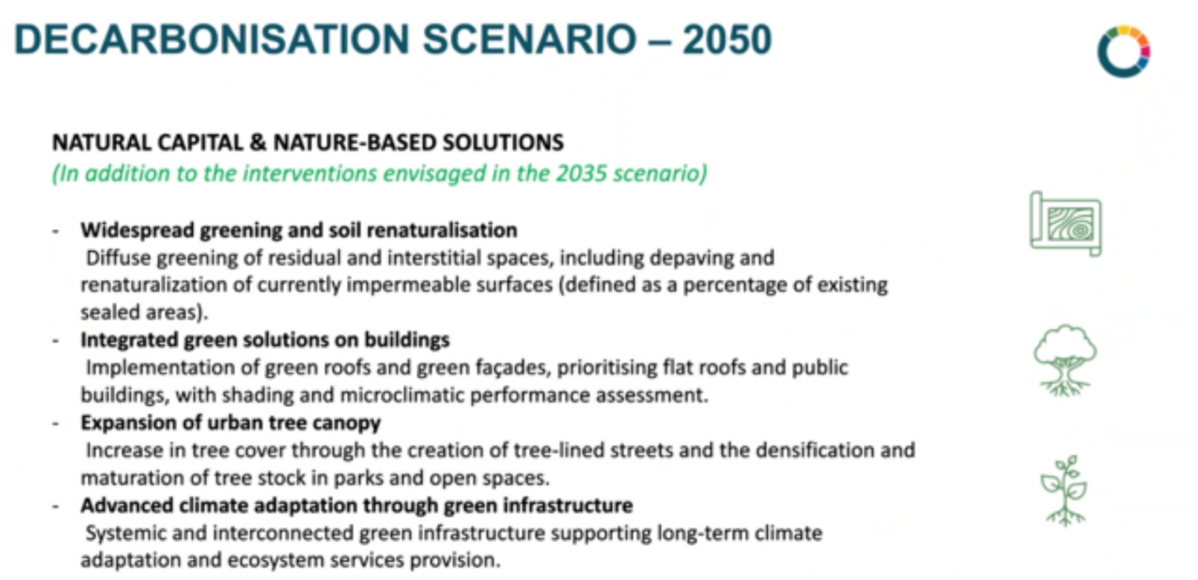

Figure 12 - Example of a Full Decarbonisation Scenario (slide shared by the city during a workshop in December 2025).

Visual Maps and Diagrams

Visual data mapping is an effective tool for reconciling conceptual differences and aligning strategic visions across domains. This approach has proven valuable for both internal coordination and external engagement, supporting functions related to management, strategic development, and planning.

Case Studies

Politecnico di Milano has assisted the municipality in producing a collection of case studies of similar projects conducted by municipalities across Europe, which may serve as inspiration for how local stakeholders might become involved. These cases were shared during stakeholder workshops to build momentum and imagine where the project could go in the coming years.

Onboarding for climate city contract and mission & ongoing evolution

Milan leveraged networks which predate their involvement in the mission. The Climate City Contract acted first as a depository of already financed and secured decarbonisation projects pushed by local stakeholders, gathering not only projects with a direct impact on emission reductions, but also projects that bring indirect impacts and social, environmental and economic co-benefits. The CCC quickly evolved from a mere portfolio to a space of dialogue and co-creation, in which signatories can explore synergies and opportunities of collaboration for decarbonisation at the territorial level. The work conducted on the Molecules acted as an accelerator of this synergical and collaborative approach.

Different segments of private sector stakeholders have evolved along distinct trajectories. Real estate developers, particularly those not previously oriented toward social or environmental goals, have often demonstrated limited initial awareness of the relevance of the process. In contrast, social housing organisations were already well-aligned and institutionally connected, making their rapid onboarding and active participation easily achievable. Universities have also engaged effectively, largely due to their involvement in concrete, project-based initiatives within the molecules. The majority of recruited stakeholders have demonstrated consistent attendance and participation in municipal workshops. However, engagement with certain associations has proven more challenging, despite their alignment

with environmental objectives, as factors such as personnel turnover and organisational restructuring have at times hindered sustained involvement.

Municipal roles, skills, and gaps

Municipal team members use a shared way of discussing these topics and a common professional language, which helps them communicate effectively with stakeholders. The team possesses specific facilitation and stakeholder engagement skills, gained from previous work experience and applied in this context. They describe this as a skill learned through experience: the ability to spark interest and convey the results of technical processes in an evocative way. These soft skills have proved most effective in mobilising companies.

A gap in this team's skill set lies in its financial competencies: there is a limited mastering of such competencies within the municipal team, and therefore, more difficulties to translate the work provided by the project partner Sustainable Urban Regeneration (SUR) Lab (Bocconi University) on financial instruments, into concrete and applicable processes coherent with municipal realities and challenges.

The Municipality has looked the reinforce the team with a profile with expertise in innovative and sustainable public finance, but despite issuing two public recruitment calls, the team has been unable to secure a suitable candidate, leading to the assumption that individuals with the requisite financial expertise may be more inclined toward opportunities in the private sector than in public institutions. No spin-off projects have taken place so far, as the work and research on the Molecular model is still ongoing and find its conclusion in September 2026. A private sector stakeholder proposed that the municipality play a facilitating role in establishing risk management instruments aimed at aligning both public and private investment opportunities. The development of a platform grounded in a. shared methodological framework was identified as a potential mechanism to support such coordination and enhance the effectiveness of cross-sectoral exchange.

Monitoring, Reporting, & Accountability

The municipality retains responsibility for overseeing and validating calculations associated with decarbonization simulations, which contain activities carried out both by public and private actors. An external support agency owned by the municipality operates in close coordination with municipal staff and is effectively integrated into the municipal work structure as a collaborative partner. Analytical outputs, including reports and technical documents, are periodically produced and disseminated to relevant actors. Additional updates are communicated informally by municipal climate action leads via email, ensuring a continuous flow of information among stakeholders. This hybrid communication approach facilitates ongoing engagement and offers opportunities for deeper analysis.

Motivations, Incentives, & Value Proposition

When the climate city contract development began, it was intentionally designed not to overlap too much with other environmental plans that hold a stronger focus on citizen engagement such as Piano Aria Clima (PAC), . Instead, they used this instrument as an opportunity to target private sector stakeholders who responded positively and were motivated to participate because of the scarcity of similar opportunities for direct contact with the city, as offered by the climate city contract. This was a demographic of stakeholders who were “hungry and genuinely interested” in becoming involved. Milan leveraged this authentic motivation to make the most of the project.

During phase 01, there was noted excitement among private sector stakeholders at the opportunity to be part of the group linked to obtaining the mission label. A mission label can also be promotional, thereby adding value. This makes it worthwhile to invest the time in complex data collection, which was necessary to draft the proposal.

During phase 02, the private sector stakeholders had the privilege of dialoguing with the municipality to express their vision and needs and to lobby for their own ideas. It was a strong incentive.

4.4.3 Outlook

Barriers to engagement & action

The timing of implementation creates pressure on maintaining strong relationships. Expectations and motivations change across implementation phases, posing a challenge for municipalities in maintaining alignment with evolving stakeholder dynamics. This accentuates the significance of continuously managing relational engagement, particularly through strong interpersonal connections. Such considerations are especially pertinent in the Italian cultural context, where relational dynamics play a central role in shaping collaboration and coordination.

Challenges with bureaucracy for municipal implementation. Certain private sector stakeholders in Milan argue that, although Europe has set a very strong and credible pathway towards decarbonization, the European Commission has not sufficiently optimised the law to support implementation at the municipal level. The partner NEAR, for instance, cited a project that received approval only after a seven-year authorisation process. Over this prolonged period, both the contextual conditions and organisational readiness shifted significantly, while the urgency of the climate crisis intensified. They characterised this situation as both “devastating and frustrating,” drawing attention to the need for legislative measures to reduce bureaucratic obstacles.

Enablers & success factors

Concrete plans positively impact engagement and action. Practical, pragmatic proposals can serve as tangible evidence of a municipality’s commitment, enhancing stakeholders’ willingness to engage and facilitate implementation. Open-ended goals offer too many possibilities, whereas targeted initiatives provide clearer direction and incentivise private sector alignment and follow-through.

Relational ties to the city. It is important to recognise that, for some stakeholders, the maintenance of a strong relationship with the municipality is crucial. This can be reinforced through instruments such as the Climate City Contract and initiatives like the CLIMB project.

Internal learning & adaptation

Aligning elevated expectations with private sector engagement realities. During phases of reporting and analysis, expectations tend to be elevated, often driven by enthusiasm and ambition. However, this can result in expectations that exceed what is reasonable or operationally feasible. A key challenge for the municipality is to align these expectations with the capacities and constraints of private sector actors. It is important to acknowledge that the private stakeholders are not formally bound to comply, and excessive demands may hinder their willingness or ability to participate. In such instances, the municipality has recognised the importance of adopting a flexible and understanding approach. Failure to maintain this balance is perceived as a shortcoming in preparatory processes on the part of the municipality. In response, Milan attempts to adopt the perspective of private sector stakeholders with an empathetic intent, thereby facilitating continued collaboration and progress.

Choosing the right moment to engage. The selection of appropriate moments for stakeholder engagement is of critical importance, as it can stimulate more meaningful inquiry and iterative dialogue. Careful, strategic timing considerations can therefore significantly influence the quality of interactions and the overall effectiveness of outcomes.

4.5 Bratislava

The **Bratislava Mayor's Climate Challenge**[7] is a pilot programme launched in November 2024 to establish the first structured municipal framework for private-sector engagement in Bratislava's climate action agenda. Rooted in the city's strategy for transitioning to carbon neutrality, the programme supports the city's Climate City Contract (CCC) under the EU's 100 Climate Neutral and Smart Cities Mission by mobilising companies as active partners in delivering emissions reductions. It brings together multiple stakeholders and projects under a shared governance framework, recognising the private sector as a critical actor in achieving the city's climate objectives.

This case study examines the programme's design and early implementation, with a focus on private-sector engagement, governance arrangements, incentives, and lessons learned. Findings remain provisional, as the first company cohort concluded in April 2026.

4.5.1 City profile and Mission context

Bratislava is the **capital and largest city of Slovakia**, located in the **western part** of the country along the borders with **Austria and Hungary**. As an **inland metropolitan hub**, the city serves as the administrative, economic, political, and cultural centre of both the region and the nation[8]. The city's 2030 climate targets encompass its **entire administrative territory**, which includes all **17 urban districts.**

The city's population was **476,922 residents** according to the 2022 census, and it is projected to grow to approximately **488,000 by 2030**[9] (Bratislava CCC). The city is currently experiencing a trend of an **ageing population**, with the proportion of seniors (18.4%) being higher than that of children (16.9%). Although natural population growth is low, **migration** remains a significant driver of growth, adding 4,208 people to the region in 2023 (Slovak Statistical Office).

Bratislava is the most prosperous and economically productive region in the country, with a **GDP per capita of 45,187 EUR**, which is twice the national average and **116.1% of the EU average**. The economic profile is led by **services, trade, retail, education, healthcare, and public administration**. In 2023, there were **94,900 business entities** operating in the region, with more than half involved in professional, scientific, or administrative services (Slovak Sadistic Office).

Bratislava **targets a 70% modal share for public and active transport by 2030** yet faces stagnant emissions in transport since 2005 and an 80% rise in private vehicle registrations (2005-2021). Additionally, Slovakia's 2023 EV adoption (5.3%) remains significantly below the EU average (22.7%). (Bratislava CCC)[10]

[7] Bratislava Mayor's Climate Challenge
[8] Slovak Statistical Office
[9] Bratislava CCC
[10] Bratislava CCC

Local governance setup

With the backing of **the Mayor** and the **Vice Mayor for Climate**, Bratislava's Climate Office, established in 2023, sits within the Urban Analysis and Strategy Unit of the Mayor's Office. It coordinates

climate priorities across city departments and municipal companies to reduce siloed policymaking. The office played a central role in developing the city's first climate plan, initially through the Sustainable Energy and Climate Action Plan (SECAP) and later through the Climate City Contract (CCC). It now acts as the main municipal contact point for sustainability projects, coordinates departmental implementation, and leads several pilot initiatives, including a new city-level heating strategy.

Bratislava operates under a two-level governance structure with 17 districts and a central administration, supported by key municipal companies **OLO** (waste), **BVS** (water), and **TSB** (public lighting), as well as the Metropolitan Institute of Bratislava for spatial planning.

High **national centralisation**, however, limits the city's regulatory and fiscal autonomy, particularly in areas such as energy and building codes. As a result, Bratislava's climate targets and EU commitments exceed current national frameworks, and the city uses its climate strategy as a tool to advocate for stronger national alignment with its 2030 objectives.

The Mayor´s Climate Challenge

The **Bratislava Mayor's Climate Challenge** [11] is a platform where the city and the private sector collaborate on specific projects to reduce emissions and adapt to climate change. This voluntary program was created to help reach the city's goal of reducing greenhouse gas emissions by 63% by 2030. It focuses on building long-term partnerships with responsible companies to create a healthier and more resilient city.

Participants join the program for **two years** by signing a memorandum of cooperation. For every building or facility involved, companies must select **two specific goals**:

- **Energy:** Projects focused on energy efficiency or installing renewable energy sources.
- **Sustainability:** Companies can choose from areas such as waste and recycling, green infrastructure and water management, sustainable mobility, or neighborhood cooperation.

The **2025 pilot year** involved 10 partner companies, primarily from the grocery retail and large office sectors. This initial group included 12 buildings covering a total area of 243,000 m2. These projects are projected to save more than 3 GWh of energy and add 3,100 kWp of new renewable energy capacity. In **2026**, the challenge expanded to include new partners, including the Bratislava Water Company (BVS). This was the first municipal company to join.

The city provides several incentives to support participating businesses and recognize their efforts:

- **Tailor-made training** and consultations with experts on energy and sustainability topics.
- **Public Recognition** through the city's official communication channels and at a final recognition event hosted by the mayor.

[11] Information based on Bratislava City. (2025). *Bratislava Mayor's Climate Challenge*. https://bratislava.sk/en/enviroment-and-construction/climate/bratislava-mayors-climate-challenge

- **Participants as local leaders**, showing their environmental impact to customers and employees.

Emissions profile and decarbonisation strategy[12]

In 2022, Bratislava's total emissions were **1.67 million** *tCO2e,* which is about 3.51 tCO2e per person. The biggest sources of pollution are as follows: **Buildings** largest sector. Tertiary buildings (offices, shops, and hospitals) 36% of emissions, and residential buildings (homes) cause 31%. Heating is a major source of the city's total emissions and relies heavily on natural gas; **Transport:** both private cars and public transportation; **Waste**: Emissions from municipal waste management.

The city aims to reduce emissions to 2.1 tCO2e per person by 2030, which is a 63% reduction from 2005 levels. The city government only directly controls 11% of total emissions.

Key targets for 2030 include:

- Reducing energy use by 35% in municipal buildings and 23% in private homes.
- Reaching a 70% share for sustainable transport (walking, cycling, and public transit). This includes building 10 km of new tram lines and 42 km of cycling paths.
- Reaching a 65% recycling rate.

Bratislava applies a **climate justice approach,** ensuring that climate action does not increase inequality and instead **contributes to addressing social challenges**. Within the CCC, this is reflected in a focus on vulnerable groups-particularly children, young people, seniors, and people with limited mobility-supported by inclusive governance mechanisms such as the Climate Leaders Forum and the Climate Advisory Committee. Participatory tools, including a Manual of Participatory Planning, are used to ensure citizen involvement in revitalisation projects through workshops and community activities.

CCC commitments and governance processes

Bratislava's climate governance acts as a coordinator and catalyst to build a **"whole-of-society" coalition for climate neutrality.** Because the city government only directly controls about 11% of total emissions, it has embraced a role that focuses on influencing and supporting action by external partners.

Led by the **Vice Mayor for Climate** and the **Climate Office,** this internal effort is supported by **municipal companies**, which were the first formal signatories of the Climate City Contract (CCC).

The key actions by the city and its signatories include modernizing the **Waste-to-Energy (WTE)** facility to recover more heat and electricity and building **10 km of new tram lines** and **42 km of cycling infrastructure**. Additionally, the city is extending its green infrastructure by planting **25,000 new trees and shrubs** by 2030.

[12] Information based on Bratislava *2030 Climate Neutrality Commitments*

To manage these commitments, Bratislava uses a **structured framework:**

- **Climate Office:** Leads strategic coordination, data collection, and regular reporting to the City Council.
- **Climate Advisory Committee:** A small group of experts providing technical and strategic guidance.
- **Climate Leaders Forum:** A broad platform used to gather diverse perspectives and ensure social acceptance of climate measures.
- **Climate Implementation Groups:** Internal teams of professional staff organized around strategic priorities like energy, waste, and transport.
- **Guiding Principles:** All implementation is guided by **Climate Justice** (ensuring no one is left behind), **Multi-level Governance**, and **Co-creation** with citizens and businesses.

The Climate Advisory Committee and Climate Implementation Groups have yet to be effectively established in practice due to capacity reasons.

In addition, the city is working to develop and introduce **voluntary energy and emissions standards for developers**. These standards promote circular construction, the use of low-carbon materials, and the creation of low-carbon neighbourhoods through pilot projects.

Bratislava also maintains **Energy and Utility Partnerships**, working with private district heating operators to transition away from natural gas through the local heating strategy. Finally, community actors are invited to the **Climate Leaders Forum** to co-develop policy and implementation recommendations.

4.5.2 Bratislava's approach to private sector engagement

Historically, cooperation with the private sector had focused largely on fundraising initiatives, such as the "10,000 Trees" campaign implemented several years prior to the city's climate plan. Collaboration between the municipality and companies took place largely on a case-by-case basis, depending on specific projects or workstreams, and the city did not have a formal stakeholder engagement policy to guide cooperation with the private sector.

With the adoption of the Climate Plan and the CCC, the city has moved towards a two-directional partnership model. Bratislava's approach to private sector engagement represents a deliberate **shift from previous, predominantly one-directional forms of cooperation towards more collaborative partnerships with companies.** Under this approach, the municipality makes its own commitments while companies undertake concrete actions that contribute not only to environmental objectives but also to energy efficiency improvements and associated cost savings.

"This is very small programme that is focusing on creating strong partnerships rather than having a hu ge

number of companies." (Interview #1)

Evolution, phases and milestones

The Mayor's Climate Challenge represents Bratislava's first structured approach to engaging the private sector in climate action. The development of the programme was closely linked to the preparation of Bratislava's climate plan followed the logic of the Sustainable Energy and Climate

Action Plan (SECAP), which recognises that emissions reductions require the active involvement of multiple actors beyond the municipality itself. At that time, a key enabling factor was the opportunity to participate in the **NZC Pilot City Programme**, which provided initial funding and made it possible to move from concept to implementation.

In parallel, the municipality benefited from **cooperation with Bloomberg Associates**, a **pro bono** consultancy supporting cities. Bloomberg Associates assisted the city by providing examples of similar programmes implemented elsewhere and by supporting the selection and shaping of an appropriate engagement approach. Together, the municipality and Bloomberg Associates developed a basic proposal for cooperation with companies, which later became the foundation of the Mayor's Climate Challenge.

A clear sector strategy was defined before the official launch of the programme, and approval to join the programme was sought directly from the CEOs of selected companies. This process involved identifying those companies with the greatest potential impact on the city's emissions, asset management and retail sector, and then, listening to their perspectives, and inviting them not only to participate but also to contribute to shaping the programme call.

This was followed by an intensive co-creation phase, during which the programme was jointly shaped with participating companies and business associations. This process helped define what was realistic, identify elements that needed adjustment, and refine the final design of the programme. Once the framework was agreed, an **application process** was then opened, supported by as many bilateral calls as needed to clearly define company commitments and the specific actions to be implemented. Companies that were unable to specify concrete actions were not selected to participate.

Ten companies (IKEA, Lidl, Billa, Kaufland, 365 Invest, HBReavis, Metro, Tesco, Corwin and IAD Investments Management) joined **the first year of the programme**, together covering twelve buildings with a combined area of almost a quarter of a million square metres.

The **second call** in 2025 built on the networks of first-cohort companies while remaining limited in scale due to capacity constraints. All ten partner organisations from the first year continued their participation, and in January 2026 six additional companies joined the programme (ALTO Real Estate, Bratislavská vodárenská spoločnosť, Erste Asset Management, OMV, Tatra Asset Management, and Wood Real Estate).

Between the first and second editions (participants signed on to two years), **the Mayor's Climate Challenge has been used by the municipality to assess options for future scaling and to identify new target groups.** With the pilot year concluding in March, the municipality is now beginning to gather initial learnings to inform potential adjustments and the design of a third cohort. Another key milestone was the inclusion of municipal companies, enabling the city's own entities to lead by example in the decarbonisation process.

As reflected during the final ceremony of the first year, in April 2026, e**ven voluntary cooperation can deliver substantial results**. Companies implemented measures across 12 buildings with a total floor area of approximately 250,000 m². The results include real energy savings of around 1 GWh, investments exceeding €10 million, and photovoltaic installations with a total capacity of 3.5 MWp, which corresponds to the annual electricity consumption of approximately 1,800 households in Slovakia, or the annual carbon sequestration of approximately 65,000 trees. These results are not yet final, as some activities were completed only recently and their impacts can only be fully assessed after a longer period of operational data collection

Engagement processes and practices

The engagement strategy of the programme is framed **around four core objectives:** building long-term partnerships with companies, demonstrating practical and feasible climate solutions,

reducing emissions from existing buildings, and recognising responsible companies and their leadership.

To achieve these objectives, the programme relies on targeted outreach, bilateral consultations with company leadership and sustainability teams, and joint meetings and trainings that bring participating firms together. From the outset, the programme was deliberately designed as a small-scale initiative, prioritising the development of **high-quality partnerships over broad participation**.

Although the programme was publicly open and any company was eligible to apply, the organising team adopted a proactive and tailored outreach approach prior to the open call. **Companies considered particularly relevant to the programme's objectives were contacted directly**, drawing on the professional networks of the Climate Office team and municipal specialists working on corporate social responsibility. This **early engagement** aimed not only to encourage participation but also **to jointly shape the programme** design with selected companies before its formal launch.

Targeted outreach focused on creating **company-specific motivation and positioning the programme as a distinctive opportunity**. Companies operating in similar sectors were engaged together to foster peer dynamics, and a degree of soft peer pressure-supported by the visibility of peer participation and endorsement by trusted institutional actors-played a role in motivating engagement.

Engagement took place primarily through consultations with the programme manager at the Bratislava Climate Office and through joint meetings involving all participating companies.

Initial and ongoing bilateral calls were a key element of the engagement process. These conversations were essential for establishing a shared understanding of the programme's objectives and for adapting the proposed commitments to company needs, within the limits of the programme's scope and capacity. Transparency and the continuous presence of the municipal programme manager-described as "being there"-were central to building trust throughout the process.

All-company meetings supported collective learning, reinforced the programme's visibility and legitimacy, and sustained senior-level engagement, while training workshops enabled peer exchange and problem-solving around implementation challenges.

Overall, this combination of tailored interaction, transparency, and **sustained support underpinned the trust-based nature of engagement** throughout the Mayor's Climate Challenge.

"The main format of engagement consisted of consultations and joint meetings with other participating companies." (Interview #2)

"We mainly exchange experiences (…) The municipality motivates companies to collaborate more closely." (Interview #2)

Governance structure, tools and collaboration mechanisms

The Climate Office holds overall responsibility for the programme and ensures its alignment with the city's climate objectives. This centralised arrangement enables direct and efficient coordination within municipal competences.

Collaboration between Bratislava and private-sector actors is formalised through a **Memorandum of Understanding** (MoU) signed between the city and each participating company. These non-binding agreements define specific actions and targets and rely on mutual trust and transparency rather than legal enforcement. Signed at the start of the programme, the MoU also serves as the framework for subsequent monitoring.

For example, one participating company committed to reducing its energy consumption by 10% and to eliminating gas-based heating in favour of heat pumps, with a total of 22 measures planned over a two-year period. This illustrates how the MoU translates high-level climate intentions into specific, implementable measures at company level.

Beyond the MoUs, the partnership is supported through coordination mechanisms embedded in the programme's simplified governance structure.

The programme includes **two key joint moments involving all participating companies**: the **initial signing of the Memorandum of Understanding** and a final public event at the conclusion of the programme. These moments bring together company teams, with particular emphasis on senior decision-makers and CEOs, **helping to reinforce leadership commitment and sustain high-level engagement**. At the end of the programme, participating companies are awarded a certification during a **public ceremony attended by the Mayor of Bratislava**. This closing event serves both to review achieved results and to publicly recognise company efforts, thereby strengthening the programme's visibility and institutional legitimacy.

The programme also includes **four training sessions for staff** from different departments within participating companies, aimed at building internal capacity and facilitating the exchange of experiences and practical solutions.

A single programme lead within the City Climate Office serves as the primary point of contact for companies, enabling direct and continuous communication, flexible coordination, and trust-based support. Bilateral calls are held throughout the programme, allowing companies to raise implementation challenges at any time; where feasible, the Climate Office supports their resolution directly, facilitates coordination with relevant municipal departments within the limits of municipal comp, and encourages peer exchange between companies facing similar challenges.

Onboarding, inclusion and representation

Participation in the Bratislava Mayor's Climate Challenge is formally open to all companies. However, **the programme prioritises organisations with sufficient internal capacity to define, formalise, and implement concrete actions** using their own financial and operational resources. As a result, most participating companies tend to be larger organisations, while small and medium-sized enterprises (SMEs) are not specifically targeted.

Companies and other stakeholders are brought into the programme primarily through targeted outreach rather than open mass communication. This approach reflects the programme's limited budget and its reliance on intensive interaction, continuous availability, and tailored support, which would not have been sustainable with a larger or more diverse group of participants. In addition, organisations with lower levels of maturity in sustainability practices would have required more extensive capacity-building support than the programme could provide.

Sector selection also plays an important role in the onboarding process. The programme focuses on sectors considered to have a greater potential impact on the city's emissions profile, taking into account the types of companies present in Bratislava. In practice, this has led to a particular focus on **retail and asset management companies.** Bringing together competitors within the same sector was a deliberate choice, as it allows companies to discuss similar challenges, pursue comparable goals, and facilitates more consistent monitoring by the municipality. This sectoral focus also reflects both their potential to drive emissions reductions across their own operations and through influence on suppliers, contractors, customers, and other stakeholders.

Company selection is therefore guided by pragmatic considerations rather than strict formal criteria.

The programme seeks to engage companies that are, or can become, **leaders in sustainability**. This reflects the intention to **showcase concrete solutions** and to enable participating companies to demonstrate their achievements, learn from one another, and **inspire others through peer exchange and visible leadership.**

During the initial phase, the programme did not explicitly address climate justice or just-transition considerations, nor did it prioritise the inclusion of specific organisational types such as SMEs or cooperatives; however, these dimensions are expected to be reviewed in later phases of the programme. In the current phase of the programme, priority is given to long-term sustainability and embedding of the programme in the city's agenda.

Municipal powers, enabling roles and support

Within the Mayor's Climate Challenge, the municipality contributes primarily through technical advice, guidance on administrative procedures, access to municipal land where space constraints exist, and coordination with relevant municipal departments. In addition, the city supports communication and visibility around climate neutrality and participating companies' actions.

The programme has **helped bring companies' sustainability plans to the forefront of internal decision-making**. By translating long-term sustainability existing ambitions into binding one-year commitments, the Mayor's Climate Challenge strengthens the position of ESG teams within companies, enhances internal accountability, and accelerates the implementation of agreed actions.

A central enabling role is played by the City Climate Office. Through this role, the programme helps **align company actions with municipal priorities** set out in the city's climate action plan and supports companies in identifying and assessing sustainability-related solutions and **facilitates direct coordination with relevant municipal departments** when cross-departmental is required. In parallel, the programme has developed **tailor-made pathways to address specific implementation bottlenecks** faced by certain companies but relevant to others in similar situations. One example is the creation of a procedure allowing companies to rent city-owned land when insufficient on-site space prevents the installation of energy-efficient technologies.

"(…) participation in the programme helped us structure and plan the implementation of these measures in a more organised way. Our ambitions were not created by the programme, but the programme supported better planning" (Interview #2)

Finally, the municipality acts as a connector among participating entities. By creating spaces for interaction and exchange, the programme supports peer-to-peer collaboration, knowledge sharing, and the dissemination of practical solutions among companies facing similar challenges. **Capacity-building support** is provided through four training sessions delivered to company staff from different departments.

"Due to limited space around the building, we faced challenges installing heat pumps. (…) The municipality offered a nearby public plot that was suitable for installation. This was a major contribution. (…) They also helped clarify permitting processes and administrative procedures." (Interview #2)

Private sector commitments, collaboration and outcomes

The programme is defined as highly practical, with a strong focus on concrete and clearly specified actions. Private sector commitments within the Mayor's Climate Challenge are voluntary but structured, with a clear focus on energy efficiency, deployment of renewable energy, and other sustainability measures. The central objective of the programme is **to ensure that these**

commitments translate into concrete and implementable actions carried out at specific sites within Bratislava.

If a prospective participant is unable to specify concrete measures, the start of the programme is postponed for that company until the next cohort launches. This requirement ensures that participation is based on readiness to move from ambition to action.

The interviews consistently show that the real function of these written commitments is not to bind companies legally, but to create shared direction, **clarify roles, and trigger bilateral follow-up.**

Monitoring, reporting and accountability

Through the **Memorandum of Understanding**, participating companies commit to achieving a defined reduction in energy consumption and to implementing a set of concrete actions designed to deliver this outcome. At the start of the programme**, companies provide baseline data and agree to share updated information after one year to assess progress**. In the interim, monitoring concentrates on the practical progress in the implementation of the agreed measures, based on the assumption that these actions contribute directly to the targeted reductions in consumption.

As demonstrating emissions reductions within the programme timeframe can sometimes be challenging**, accountability relies largely on transparency, dialogue, and trust rather than strict enforcement.**

Ongoing monitoring is often managed internally by the companies themselves. In several cases, this responsibility is assigned to dedicated professional teams that oversee implementation on a continuous, step-by-step basis. As one interviewee noted: *“We appointed a professional internal team responsible for managing the entire process.”* (Interview #2)

Beyond internal monitoring and data reporting, the programme places strong emphasis on visibility and learning. The programme plans to showcase the results achieved by participating companies to demonstrate the impact of the measures implemented and to highlight the full range of benefits of taking such actions, including not only environmental but also economic gains. This visibility is conceived as **a motivational strategy to influence other companies** in Bratislava and to **encourage further participation** in future editions of the programme.

Motivations, incentives and value proposition

Companies are motivated to engage with Bratislava Mayor´s Challenge by a combination of factors, including alignment with ESG requirements, contribution to the city’s climate objectives, operational cost savings, public visibility, and peer dynamics among competitors.

The programme deliberately emphasised a cost-savings narrative alongside climate objectives, rather than relying solely on a climate-driven framing. This pragmatic approach was intended to support continuity of action, even in periods when the broader political or economic context is less favourable to climate strategies.

"We are focusing on very concrete actions within the climate challenge because most of those actions lead to cost savings." (Interview #1)

The **value proposition is intentionally rooted in pragmatism**, concentrating cooperation in areas where business decisions can lead to real cost savings, improved building operations, and tangible changes within the city.

This practical orientation is also reflected in company perspectives. Among the new partners in the second year of the programme is **Wood Real Estate**, whose representative emphasised that measures implemented by the company must make economic sense and cannot be pursued merely as a public relations exercise[13].

As mentioned before, the programme offers **several non-financial incentives:** partnership approach based on direct communication and the potential for long-term cooperation with the municipality, access to training and peer-to-peer learning spaces that provide communication, inspiration and practical guidance, and external visibility through municipal communication channels, such as showcasing participating companies on dedicated websites.

"We don't have direct financial incentives to offer, but what we can provide is an honest partnership on something that makes sense. We want to build cooperation based on trust and transparency," says Marian Zachar in the article How Bratislava is Turning Business into Partner for Change.

The municipal team has observed that **motivations to join the programme vary depending on the role of the individual within each company:**

For project managers and ESG managers, the programme offers the opportunity to co-shape a municipal initiative, work closely with the municipality, access institutional support, and contribute directly to the city's sustainability agenda.

Programme Incentives	Companies´ Motivations
• **Long-term Municipal Collaboration:** A partnership-based framework for sustained cooperation.	• **ESG Integration & Compliance:** Aligning corporate strategy with international ESG requirements.
• **Sustained Institutional Support:** Ongoing technical assistance and direct access to the Climate Office.	• **Efficiency & Cost Savings:** Reducing energy consumption, carbon footprints, and associated operating costs
• **Technical Capacity Building:** Access to specialized workshops.	• **Contribution to Local Climate Targets:** Supporting Bratislava's transition toward carbon neutrality.
• **Collaborative Learning Space:** Platforms for peer-to-peer knowledge sharing and industry interaction.	• **Institutional Reputation & Visibility:** Gaining public recognition as a leader in urban sustainability.
• **Enhanced Corporate Visibility:** Formal public recognition via municipal dissemination channels.	• **Municipal Programme Engagement:** Opportunity to co-develop and refine a municipal programme.
• **Measurable Impact Assessment:** Verification of individual performance and collective environmental outcomes.	

[13] New Partners, New Projects: The Mayor's Climate Challenge in 2026 - Mesto Bratislava

For senior decision-makers, such as board members and CEOs, motivations include public visibility as leaders on sustainability and recognition through a programme supported by the Bratislava´s Mayor, association with the mayor's public reputation as a supporter of the green transition, and competitive pressure to match or exceed the sustainability performance of peers.

Company interviews indicate that motivations typically include meeting ESG expectations and reducing both costs and emissions. However**, interviews also highlight a more intrinsic motivation: the desire to jointly contribute**, together with the municipality, **to creating a better and healthier city**.

"Our motivations operate on several levels. Firstly, fulfilling commitments toward our tenant. Second, supporting the city's climate efforts as a large company with operational impacts. Third, a pragmatic motivation to reduce energy consumption, lower operating costs, and reduce CO_2 emissions." (Interview #2)

The **credibility and public profile of the Mayor of Bratislava** have played a significant role in reinforcing the legitimacy and perceived relevance of the programme, further encouraging company engagement.

4.5.3 Outlook

Challenges and barriers

The implementation of the Mayor's Climate Challenge faces a range of challenges and barriers on both the municipal and company sides. These relate to institutional constraints, regulatory frameworks, organisational capacity, and the practical complexities of collaboration.

On the municipal side, one of the most significant barriers is **institutional fragmentation**. Several climate-related responsibilities are concentrated at national level, which limits the City of Bratislava's direct regulatory and financial capacity to influence private-sector decarbonisation. The municipality has limited influence over energy regulations and building codes and has restricted financial capacity to directly support decarbonisation actions. In addition, capacity constraints within the municipality-such as limited staff time, limited discretionary budgets, and limited room for experimentation-affect the ability to scale the programme beyond a small number of participants.

Administrative complexity also poses a challenge. Companies frequently requested support to address permitting procedures (which are governed by the state) and master plan modifications, which are often lengthy and complex. However, as these processes are largely regulated at national level, municipal capacity to intervene directly remains limited.

On the company side, barriers include **varying levels of corporate readiness**. Sector-specific challenges also arise. In several cases, participating organisations were tenants rather than building owners, which required **coordination with asset managers or property owners** before actions could be implemented. Where agreement on a feasible and meaningful scope of work could not be reached, participation was postponed. In other cases, the strong climate ambition of tenants served as the main incentive to engage despite these structural constraints.

Collaboration between companies has also proven challenging. Differences in corporate strategies, internal procedures, decision-making processes, and levels of ambition have limited collective action. While the programme encourages peer exchange, deeper operational collaboration remains difficult to achieve in practice.

"*Companies are used to making individual decisions; they are not used to collective action*." (Interview #1)

"The municipality motivates companies to collaborate more closely. However, collaboration is limited by differences in commercial strategies and implementation priorities. The intention is there, but practical coordination is not always easy." (Interview #2)

Finally, **the broader policy and economic context present an additional challenge**. A shifting global environment, with uneven or more cautious political support for climate action in many regions, has made it **more difficult to sustain company motivation over time**. In this context, the programme's emphasis on cost savings and operational benefits is expected to become increasingly important to maintain engagement and ensure continuity.

Looking ahead, **the long-term continuation and scalability of the programme to organisations with lower internal capacity remain a challenge**. Scalation to a larger group or to companies with lower levels of maturity in sustainability practices would require additional resources for more extensive capacity building, implementation support, and outreach. Under current constraints, the programme remains intentionally small-scale, prioritising impact by focusing on large buildings and companies capable of delivering measurable emissions reductions.

Enablers and success factors

Despite the constraints identified, interviewees point to a set of enablers that have made collaboration between the municipality and participating companies both possible and effective.

Nice alignment of the Mayor's Climate Challenge with existing company plans and priorities. For participating companies, engagement was significantly facilitated when programme commitments were consistent with measures that were already being planned or considered internally. This alignment reduced implementation barriers and increased companies' readiness to commit. As one company representative noted,

"It was actually a very positive situation when the municipality approached us, because we already had internal plans in place." (Interview #2)

The trust-based governance and provision of smooth and practical municipal support when it was needed to advance the delivery of company commitments. The continuous availability of the programme manager and the responsive support provided by the Climate Office played a central role in addressing issues as they emerged and in maintaining momentum throughout implementation.

Strong political leadership, particularly the visible backing of the mayor, which reinforced the legitimacy of the initiative.

A clear value proposition centred on feasibility and cost savings. Framing climate action in pragmatic terms helped maintain engagement and supported decision-making within companies.

Lessons learned and transferable insights

Early lessons highlight the value of small-scale, high-intensity engagement; the importance of reputational trust and peer dynamics; and the effectiveness of voluntary, structured commitments as a trigger for action. The programme demonstrates how cities with limited formal powers can still mobilise private actors through facilitation and partnership.

Intentional small-scale design: The programme was deliberately limited in size and financed through NZC Pilot City Projects funding, shaping its scope and participant selection towards companies already on a sustainability transition path with sufficient financial capacity.

Value of small-scale, high-intensity engagement: Targeted, intensive collaboration with a limited number of companies proved effective for mobilising concrete private-sector action.

Role of relational capital: The Programme Manager played a central role in initiating the programme by leveraging personal networks and direct access to senior decision-makers, which was instrumental in forming the first cohort.

Importance of trust and peer dynamics: Reputational trust and peer influence among companies operating in similar sectors played a key role in encouraging participation and sustaining engagement.

Effectiveness of voluntary but structured commitments: Non-binding yet clearly defined commitments acted as effective triggers for implementation, helping translate ambition into action.

Political leadership and legitimacy: The strong public reputation of the Mayor of Bratislava, closely associated with sustainability and green transition, generated trust and reinforced the programme's legitimacy in a politically challenging context.

Strategic sector focus: Given Bratislava's limited manufacturing base, targeting large building owners provided a feasible and high-impact entry point for a programme of this scope.

Institutional sustainability: The modest budget increased the municipality's ability to maintain and potentially replicate the initiative over time within existing resource constraints.

Leadership effect beyond participants: Strengthening sustainability leadership among reference companies helped enhance their potential to influence other firms within their professional and business networks.

Operating within governance constraints: Despite limited municipal competences and regulatory powers at city level, the programme demonstrates that facilitation and partnership-based approaches can deliver progress within existing governance frameworks.

"This is a pilot programme, and both companies and the municipality are learning from it." (Interview #2)

Conclusion

The Bratislava Mayor's Climate Challenge illustrates how targeted, trust-based collaboration with the private sector can support the delivery of urban climate goals. While still experimental, the programme offers practical insights for other cities seeking to move from ad hoc cooperation to more structured public-private climate partnerships.

From the company perspective, the Mayor's Climate Challenge supported planning, coordination and communication rather than triggering new ambitions. Collaboration was described as constructive and supportive.

"From our perspective, collaboration has been constructive, practical, and supportive." (Interview #2)

Bibliography

City of Aachen. (2024). Climate City Contract: Aachen 2030: Action Plan. Aachen: City of Aachen.

City of Aachen. (2024). Climate City Contract: Aachen 2030: Commitments. Aachen: City of Aachen.

City of Bratislava. The Bratislava Mayor's Climate Challenge

City of Bratislava CCC. 2030 Climate Neutrality Action Plan of the City of Bratislava

City of Leuven. (2024). *The first Leuven Climate City Contract*. Leuven: Leuven2030.

City of Leuven & Leuven2030. (2023). *Climate City Contract-Leuven 2030 Climate Neutrality Action Plan*. Leuven: Leuven2030

European Commission. (2021). *100 climate-neutral and smart cities by 2030 - Mission implementation plan*. European Commission, Directorate-General for Research and Innovation. https://research-and-innovation.ec.europa.eu/system/files/2021-09/cities_mission_implementation_plan.pdf

Metso Bratislava. 10 000 adaptation project: 10 000 Trees - Mesto Bratislava and 10000stromov.sk

Mesto Bratislava (2026). New Partners, New Projects: The Mayor's Climate Challenge in 2026 - Mesto Bratislava

NetZeroCities (2025): How Bratislava Is Turning Business into a Partner for Change

NetZeroCities, City of Milan, Bocconi University. (2026). D2.2 - Report on Milanese Stakeholders' Engagement for Financing Instruments' Validation (CLIMB Project, Grant Agreement No. 101121530). European Union Horizon Europe.

Šimkovicova, I. Borska, A. (2025) Fellow City Bratislava launches first year of the Mayor's Climate Challenge - ATELIER.

Vedeld, T. & Hofstad, H. (2022). How to Lead Collaborative Governance for Climate Transformation: A Guide for City Leaders and Decision-makers. *Journal of City Climate Policy and Economy* 2022 1:1, 65-76. https://doi.org/10.3138/jccpe-2022.1.1.0005