

Design Your City's Net Zero Strategy: Online Planning Lab

NetZeroCities online course for all cities

September 16th - December 11th 2025



ZERC EU MISSION PLATFORM

CLIMATE NEUTRAL AND SMART CITIES





27th November 2025

Module 5 – Spotlight Session 3

Spotlight Session 3 – Financing the Ambition: Learnings from Mission Cities

Increasing financial knowledge and learning about the project financing options





Housekeeping



Stay muted unless you are invited to speak.



Use the chat for questions and to introduce yourself.



Raise your hand before speaking.



Change your Zoom name to include your city.



Stay engaged: We invite you to keep your camera on.



Activate Closed Captions to keep up with the speakers.



Module 5 breakdown

Core session: Introduction to finance: increase finance knowledge of the public administration and learn about options to finance projects (2 hours)

[Tuesday | 18-11-25 | 9:15 - 11:00 CET]

Spotlight session 1 - lead by South Pole Preparing a pipeline of projects for external financing (2 hours) [Thursday | 20-11-25 | 13:15 - 15:00 CET]

Spotlight session 2: <u>Different investor groups and the key priorities and returns profiles for each and instruments</u> (2 hours)

[Tuesday | 25-11-25 | 9:15 - 11:00 CET]

Spotlight session 3: Financing the ambition: Learning from Mission Cities (2 hours) [Today | 27-11-25 | 13:15 - 15:00 CET]





Lecturers



Tommaso Buso Associate – BwB



Àlvar Gener Associate – BwB, CFS



Sustainability Group Manager – Glasgow







Session Agenda

- 1. Introduction & Framing
- City Spotlight 1: Glasgow (PPPs)
- 3. City Spotlight 2: Green Bonds
- 4. Breakout 1
- 5. City Spotlight 3: City Funds
- 6. Breakout 2
- 7. Reflection & Closing



Introduction





Recap Previous Session's Takeaways

Common success factors	Key lessons learnt
Strong political leadership	Start small, scale proven models
Clear financial projections	Build trust through transparency
Community engagement	Allow time for negotiation
Flexible risk allocation	Plan for capacity building





Mission Cities in Action: Supported Projects

City Leap Partnership



City: Bristol

Model: 20-year concession PPP for District Heating expansion (and Net Zero projects)

Result: ~20% emissions reduction, £424 million leveraged new investment (private)

Fluvius DH & area retrofit



City: Antwerp

Model: DH by Fluvius enabled by areabased retrofit, funded through ad-hoc financing facility (banks, guarantee, and property tax exemption)

Result: ~€100 million investment, unlock retrofit

Wind turbines co-development



City: Glasgow

Model: JV with renewables developer to build wind turbines in suburban areas

Result: bulk of feasibility studies funded by developer, city saves the resources for investment







Mission Cities in Action: Portfolios

Marseille green bond issuance



City: Marseille

Model: drafting of a complete sustainable bond framework for a first issuance of ~€10-15 million

Result: reduced rates conditional of achievement of sustainability targets

Leuven Climate City fund



City: Leuven

Model: City fund started with primarily cityled projects, with 86 locally driven "breakthrough projects" showing strong

early pipeline building, aiming at a €50

million first close

Result: systematic tool for investment, cross-subsidise adaptation projects

Bristol's Green Growth West Impact Fund



City: Bristol

Model: fund cornerstoned by Regional authority (WECA) with experienced fund manager

Result: £100 million to be raised for investments both city-led and commercial (primarily debt)









Which financing approach do you find most promising for your city?

Green bonds / City funds / PPPs / Blended finance / Grants

Interactive Activity: Please respond using the Wooclap open question feature. Your insights will help shape our discussion.



City Spotlight 1: Glasgow (PPPs)





Keynote Remarks – Charlotte Wallace



Charlotte Wallace

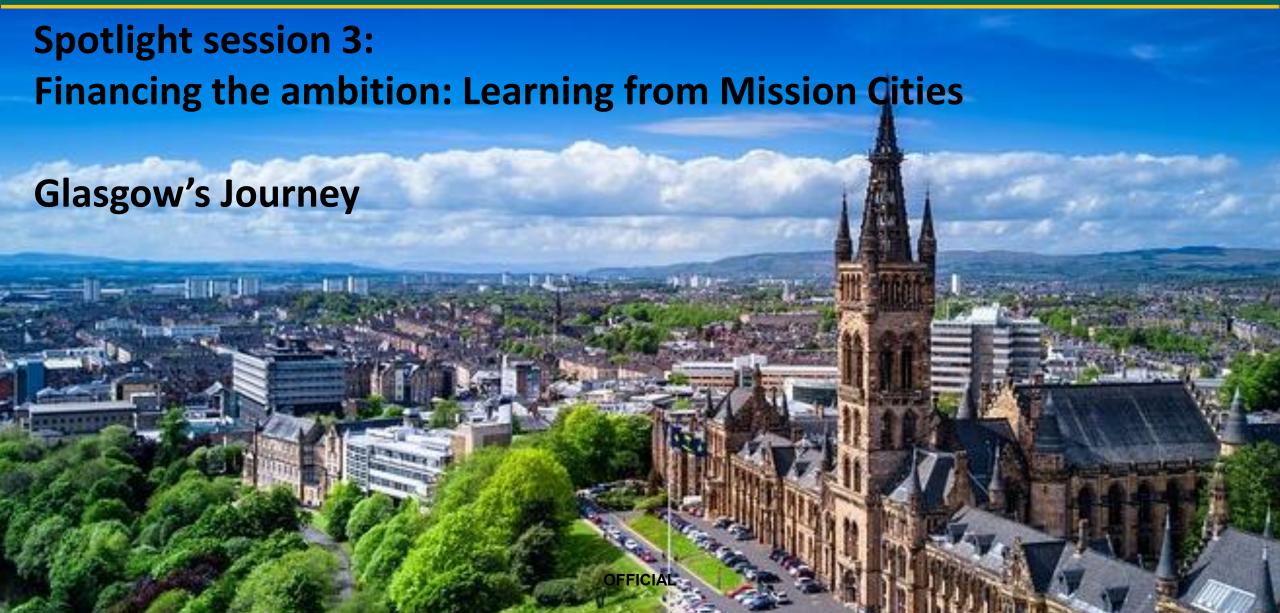
Sustainability Group Manager – Glasgow City Council

- Glasgow's NZ Routemap and project prioritisation strategy
- Learnings from the Capital Hub support: scaling up wind power in suburban Glasgow
- The Council's different catalytic roles



Neighbourhoods, Regeneration and Sustainability





Neighbourhoods, Regeneration and Sustainability



Climate action is a journey...... But where did Glasgow start

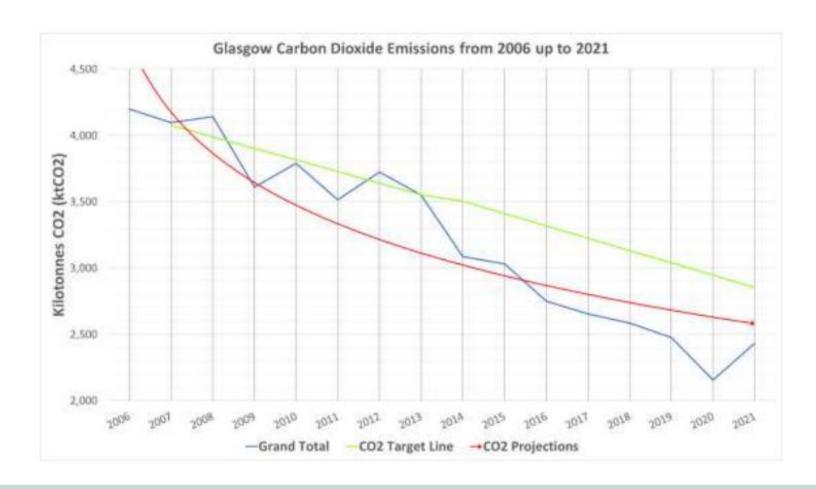
- Sustainable Glasgow established in 2010
- Sustainable Glasgow report published
- ■Target set to reduce CO₂ emissions by 30%
- 33 Actions set out
- Predicted to cost the city in excess of £1B
- Climate Change Scotland Act requirement to make statutory reports



Neighbourhoods, Regeneration and Sustainability

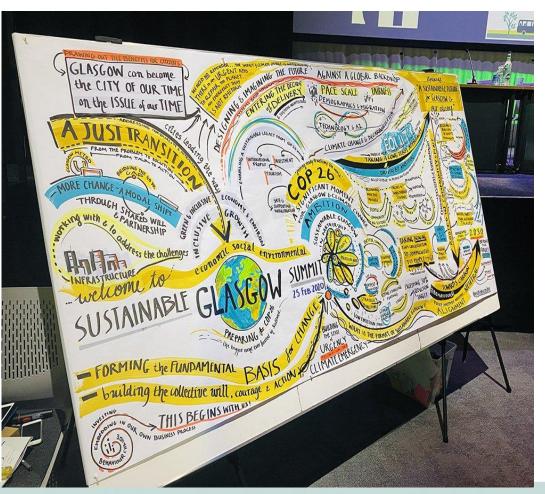


2021 - How did we do?





Net Zero Carbon by 2030



- In 2019 GCC declared a state Climate and Ecological Emergency
- Recommended 60 actions across 5 thematic areas.
- Sustainability, wellbeing and social justice at the heart of its delivery.
- In 2021 recommendations translated in Glasgow's Climate Plan alongside over 50 Adaptation Plan actions
- Delivery of a Net Zero action plan one of the core actions

Neighbourhoods, Regeneration and Sustainability



Where are we now......



A world class city with a thriving and inclusive economy where everyone can flourish and benefit from the city's success.

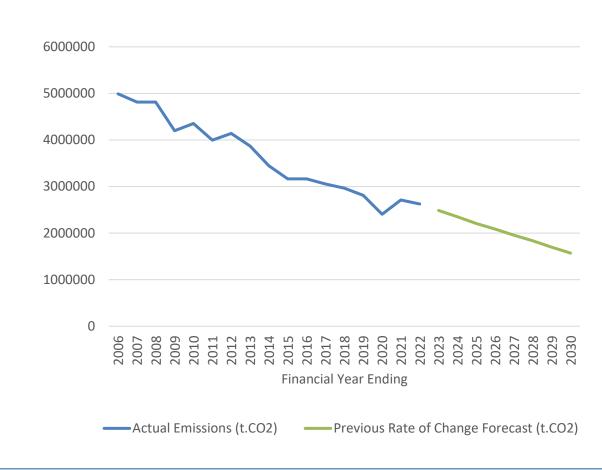
OFFICIAL



Development of an Integrated Net Zero Routemap (INZR) for Glasgow

- The INZR was commissioned to:
- ✓ Provide a multi-vector, whole-city collaborative appraisal of the existing strategies, and support GCC in identifying additional needs and interactive interventions that will help meet 2030 goals
- ✓ Help identify and deliver Science Based Targets initiative (SBTi) targets for Net Zero (2030) outcomes
- ✓ Identify priority interventions and clear future engagement requirements to continually develop and refine solutions to support an interconnected pathway to Net Zero
- ✓ Provide Rough Order of Magnitude Costs to inform future funding

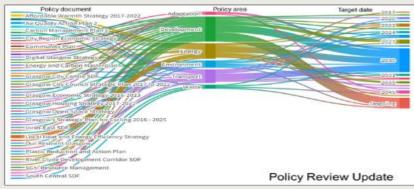
^{*} The focus of the INZR is on Scope 1 and 2 emissions - Scope 3 emissions are excluded at this time

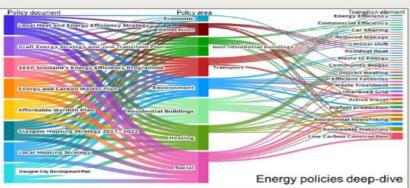


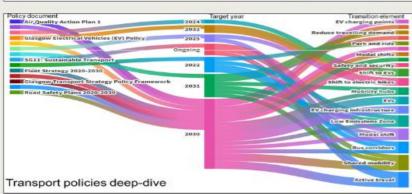
Policy Review Findings

- A high-level existing policy review has been undertaken
- Numerous policies interface, however a variance in carbon reduction and ultimate Net Zero target dates are identified
- Significant detailed proposals for Transport and Heat – Varying levels of 'action planning'
- A 2030 Net Zero outcome is a significant challenge based on current policy ambition (RAG Reviewed)
- Council driving policy and strategy Wider/3rd party 2030 city and obligations are limited

Glasgow City Council Policy Landscape



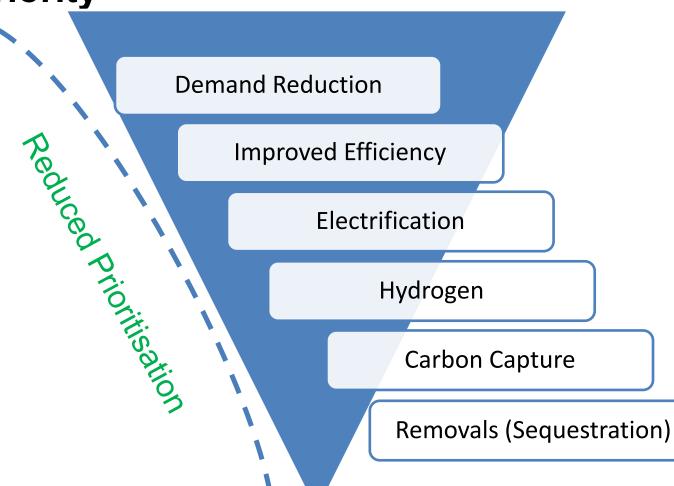






Intervention Hierarchy and Priority

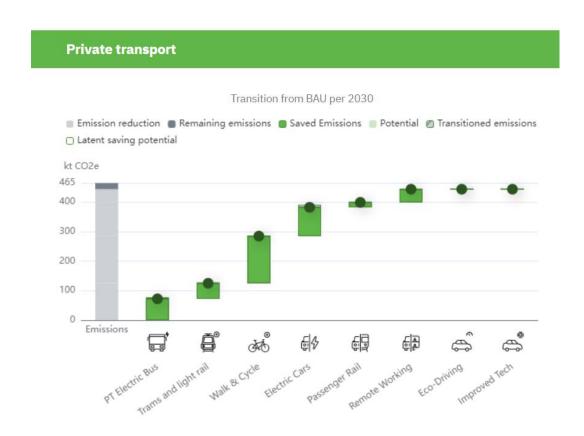
- Selection and ambition of Transition Elements appraised using the Committee for Climate Change Mitigation Option hierarchy
- Priority focus on reducing demand and shifting demand towards low to net zero carbon technologies
- Carbon capture and removals (such as sequestration) initially modelled as a 'last resort'



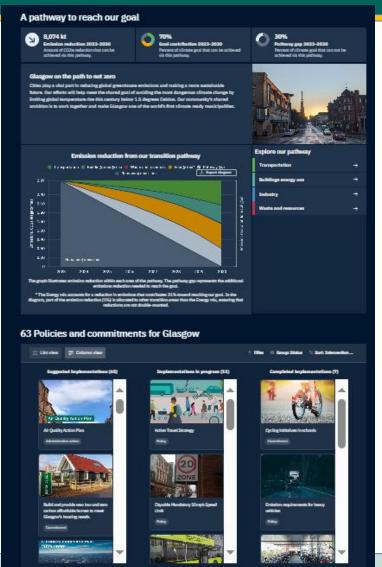


Emissions Groups and Transition Element Modelling

- Transition Elements modelled across the following Emissions Groups:
 - Private Transport
 - Freight Transport
 - Residential Heating
 - Non-Residential Heating
 - Energy
- Through workshop engagement two key 'pathways':
- Accelerated Pathway: modelled to meet the Council's 2030 net zero aspirations and core principles of CCC hierarchy, limiting reliance on Carbon Capture and Removals as far as possible (c. 80:20 split)
- Projected Pathway: forecasting emissions on the ambitions of current policy and strategies (including national interim 2030 decarbonisation targets)
- Both pathways are highly ambitious and significant risks and challenges outside of the Council's control exist in their ambitions







Transition to Finance and Delivery

- Have the technical, science-based approach to prioritisation
- Now need to address financing and resourcing
- **Model for Climate Investment** Glasgow specific
- Learning from other Uk based work
- Focus on large-scale, city-wide projects
- Key aspect to addressing the funding gap



Mission City success

- Unlocked different opportunities
- Collaboration and learning
- Policy guidance
- Technical support
- Feasibility studies





NZC Prioritised Project List Summary

- Wind Turbine Feasibility
- Rooftop Solar City Plan
- Model for Climate Investment Critical Friend
- Metro Critical Friend
- Pathways for GCC procurement of renewable energy
- CREF Phase 2
- EV Charging Rollout
- Park Power
- Heat Pumps on Barge

- Procurement Carbon Accounting Methodology
- Adaptation project prioritisation
- Comms and Engagement Strategy
- Community Engagement Actions
- Circular Markets / Reuse Hubs
- Repair Pilot
- Food Growing
- Just Transition
- Waste
- Transport



Wind Turbine Feasibility – Capital Hub Support

Technical and Economic Feasibility on rollout at-scale of wind generation across city including assessment on:

- Financial risks with regards to available budget
- Implications of local constraints eg airport radar mitigation
- Grid capacity
- Joint Venture options





Public Private Partnership





Public Sector

Provides regulatory framework, land access, and policy certainty



Private Partner

Delivers capital, technical expertise, and operational efficiency



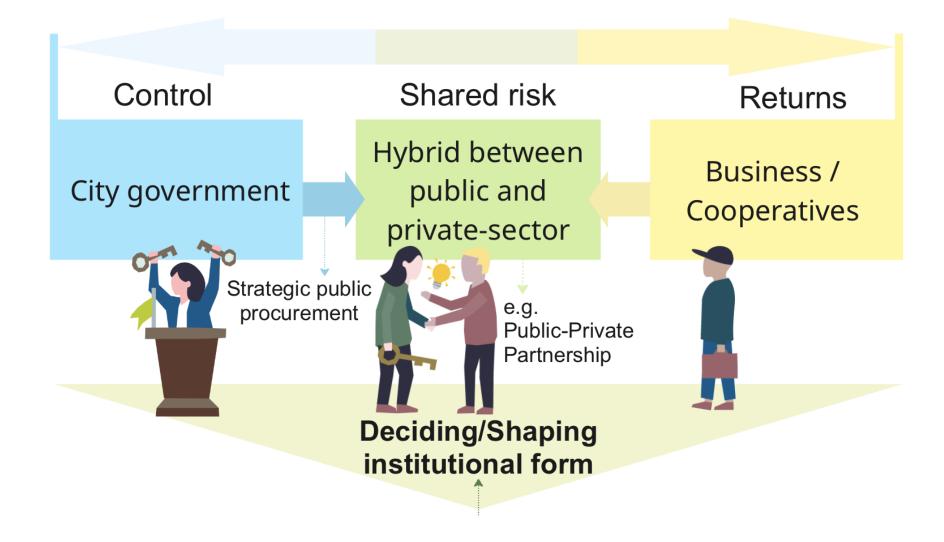
Shared Outcomes

Joint delivery of transport networks, energy systems, and climate infrastructure

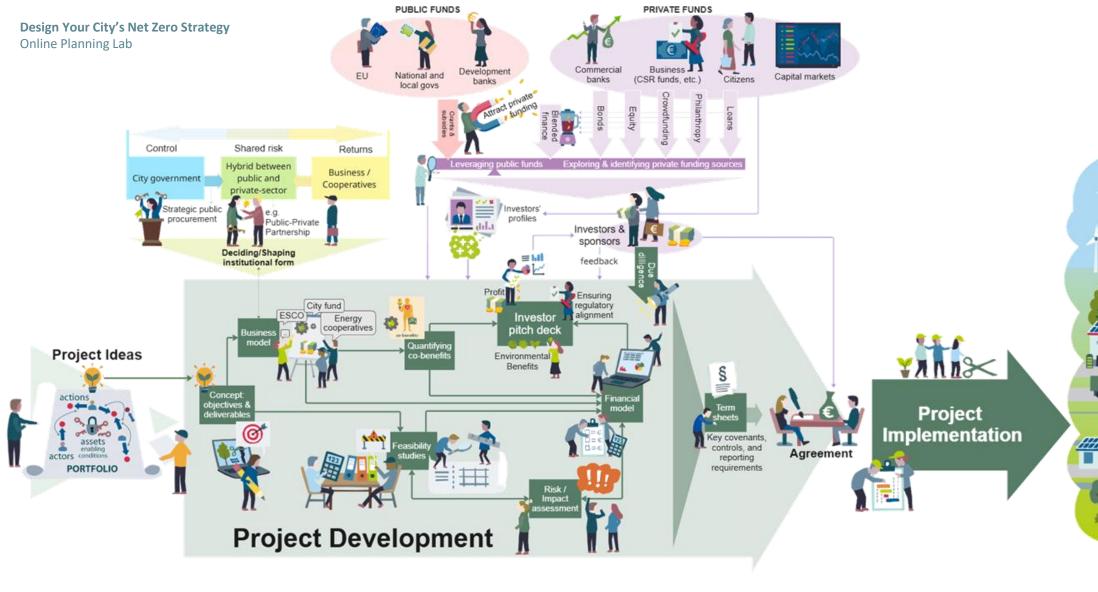
□ **Critical success factor:** Well-structured contracts with clear risk allocation, performance metrics, and governance arrangements are essential for effective PPP delivery.

















Mapping for Public-Private Partnerships (PPPs)



Public-Led Models



Co-led Public-Private Models



Private-Led Models



Ljubljana Energy Retrofitting (EPC)

(~€49 million)



Circular Textile Valley

(~€32 million)



Milan BikeMi Bicycle Sharing

(~ €10-15 million)



- ➤ These case studies illustrate the spectrum of partnership models, ranging from those primarily led and financed majorly by the public sector to co-led public-private initiatives and finally to models predominantly driven by private actors.
- ➤ Each represents a different approach to distributing risk, investment, and implementation responsibility, demonstrating how blended finance can adapt to varying local needs and institutional capacities.





#1 - Energy Retrofitting via Energy Performance Contracting (EPC) – Ljubljana



City role: off taker and building owner

Financing: ESCOs and EU funds provide capital; city repays from guaranteed energy savings

Energy retrofit of public buildings via an Energy Performance Contracting (EPC), led by the city of Ljubljana, where a private Energy Savings COmpany (ESCO) funds upgrades and **recovers costs through energy savings**:

Performance-Linked Financing: EPC tied repayments to verified energy savings, showcasing how outcome-based models can shift costs away from upfront CapEx

Crowding-in of private capital: EPC model + ELENA/Cohesion Fund de-risking mobilize significant ESCO/private investments

Innovation component: Large-scale bundling of 48+ public buildings into one EPC tender with performance guarantees.

Total Investment Size

~ € 49 million

Financing Structure & Key Instruments

Performance-based PPP and EU technical assistance





#2 - Circular Textile Valley, Prato



City role: Municipality coordinates and convenes stakeholders; leads pilots but is not the borrower

Financing: Investments made by SMEs and consortia; city resources go to coordination, infrastructure, and small pilots

Prato's Circular Textile Valley builds on centuries of textile recycling tradition. Since 2018, the municipality has fostered a transition from scrap wool recycling to an integrated system with automated sorting and water reuse.

Blended financing model: EU funds, regional public investment, and private SME cofinancing, with public funding de-risking early stages and private partners driving scale

Crowding-in of private capital: Clear local strategy and EU/national pilots incentivized private firms to invest in recycling and circular tech

Innovation: District-wide textile circularity model linking industrial symbiosis, water reuse, and governance forums

Total Investment Size

~ € 29.5 million (recycling hub)

Financing Structure & Key Instruments

EU Fund, Regional Public Funding, Private SME Co-Financing





#3 - BikeMi Bike Sharing, Milan



City role: City sponsors and integrator of BikeMi into ATM's transport system; private concessionaires operate the service

Financing: Operators finance bikes and docks; city provides subsidies or funds expansion when needed.

BikeMi is Milan's public bike-sharing system offering pedal and electric bikes, designed to support first and last mile travel and reduce car use in the city center.

Private-led financing model: BikeMi operates under a concession model where the private operator funds the system, earning through advertising and user revenues, while the city provides space and regulatory support

Crowding-in of private financing: Public–private concession model attracts operator capital, plus revenues from users, ads, and sponsors

Innovation: Early European bike-share with e-bikes, digitally integrated into Milan's public transport ecosystem

Total Investment Size

~ € 10-15 million

Financing Structure & Key Instruments

Concession model: operator funds, earns ads & user revenues, city provides space







Your city wants to launch a large-scale retrofit programme. Which partnership model would you use?

Options: PPP / Green bond / Direct grant / Blended finance facility

Interactive Activity: Please respond using the Wooclap open question feature. Your insights will help shape our discussion.



City Spotlight 2

Creating a Sustainable Bond framework





Bringing in Capital at Scale through a Portfolio



Green bond issuance



City-led Climate City Fund



City-convened Climate City Fund



Sustainability Bond Issuance

(~€10-15 million)



Leuven Climate City Fund

(~€50 million – €1 billion)



Green Growth West Impact Fund

(~€100-120 million)



- > Cities can fundraise for specific pools or portfolios with different levels of structuring complexity and different mixes of city vs investor involvement
- > By some estimates, around 2/3s of private investment into infrastructure as an asset class flows through fund (LP-GP) structures*
- While a Sustainable Bond simply raises debt for a pool of eligible projects, funds can deploy a whole suite of instruments (including guarantees) and utilise capital allocation strategies to blend public and private funds and capabilities more deeply at both project and portfolio level, hence the interest for this type of structures

*Estimates from figures in Infrastructure Monitor 2024, 2023, Global Infrastructure Hub, World Bank Group



Sustainability Bonds: Capital for Climate Action



Green bonds enable cities to raise debt capital specifically earmarked for climate and environmental projects. These instruments require rigorous project eligibility criteria and transparent reporting on environmental outcomes.

Key characteristics:

- Dedicated use of proceeds for verified green projects
- Third-party certification and impact reporting
- Access to sustainability-focused investor market
- Enhanced municipal reputation

Examples of Sustainable Bond Issuance

Gothenburg (€2.1 bn)

Pioneering sustainable transport infrastructure

Warsaw (€70 M)

Financing sustainable transport infrastructure

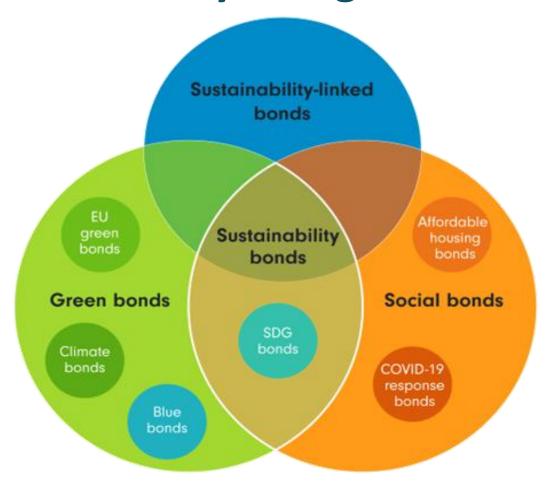
Paris (€300 M)

Supporting renewable energy transition





Sustainability Bonds: Key Categories





Use of Proceed vs Sustainability-Linked Bonds

Use of Proceeds Bonds

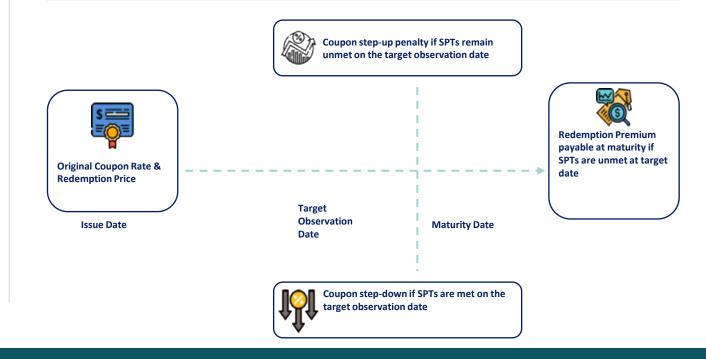
Use of Proceeds bonds are **fixed-income securities** issued to finance **specific investment themes** which **target specific outcomes**



re-finance a combination of projects aligned to Sustainable Development Goals (SDGs).

Sustainability-linked Bonds (SLBs)

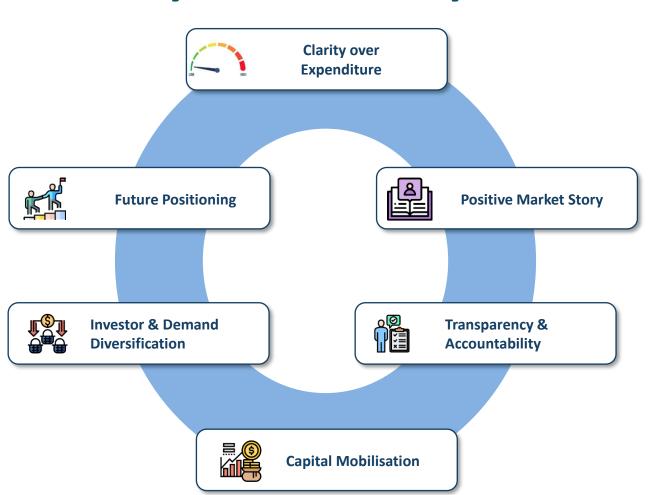
SLBs are **general purpose bonds** where the cost of debt is tied to the issuer's sustainability performance targets. The key feature of SLBs is the **linkage between the bond's financial terms** (such as coupon rate) and predefined Sustainability Performance Targets (SPTs).







Why Sustainability Bonds?





Competitive returns for investors with a potential pricing advantage to issuers





Wider margins of oversubscription compared to traditional bonds

Oversubscription



Some countries provide incentives that support the costs associated with green bond issuance

Policy Incentives





Who Decides which Bonds are Sustainable?

The sustainability bond market has been dominated by the sustainable (green, blue, social, SDG) bond principles and climate bonds (standards).

The veracity of the bonds—green, sustainable or social—are audited formally and informally

by stock exchanges, second opinion providers, and index providers.

Voluntary Principles







Recommends external review

Stock Exchanges



Require independent second opinion

External review



Funds and Indices



Regulatory Bodies





Standards



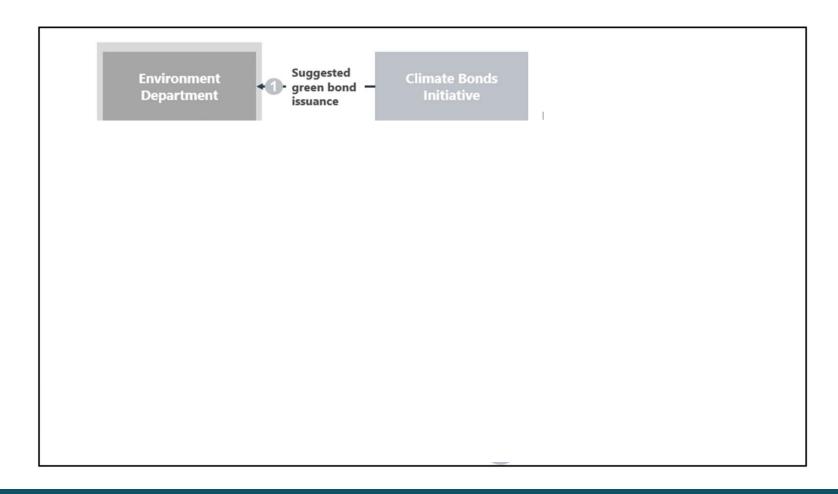






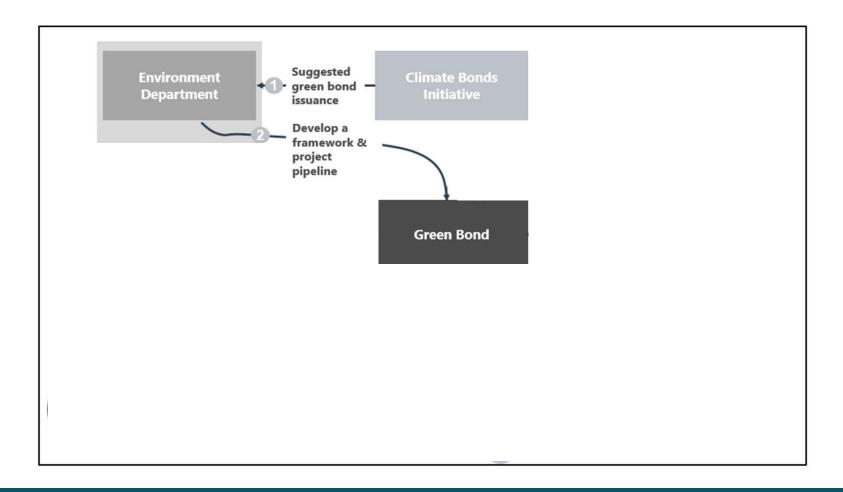


Steps of a Sustainability Bond Issuance (1/10)



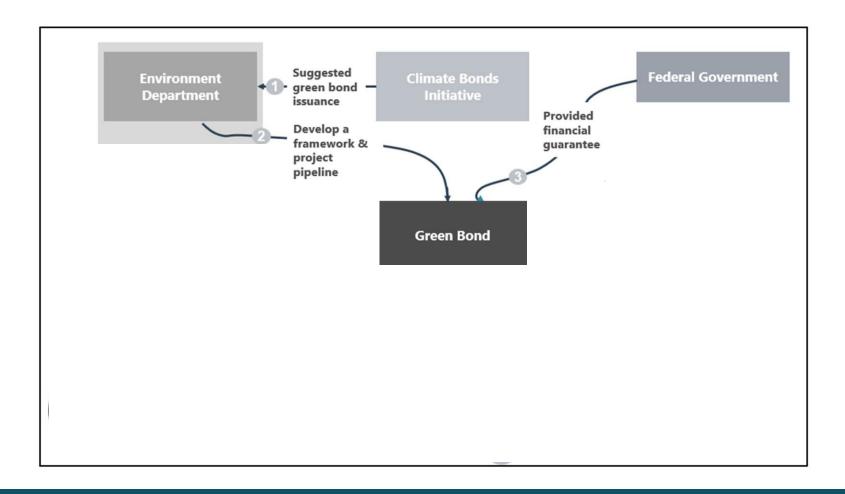


Steps of a Sustainability Bond Issuance (2/10)



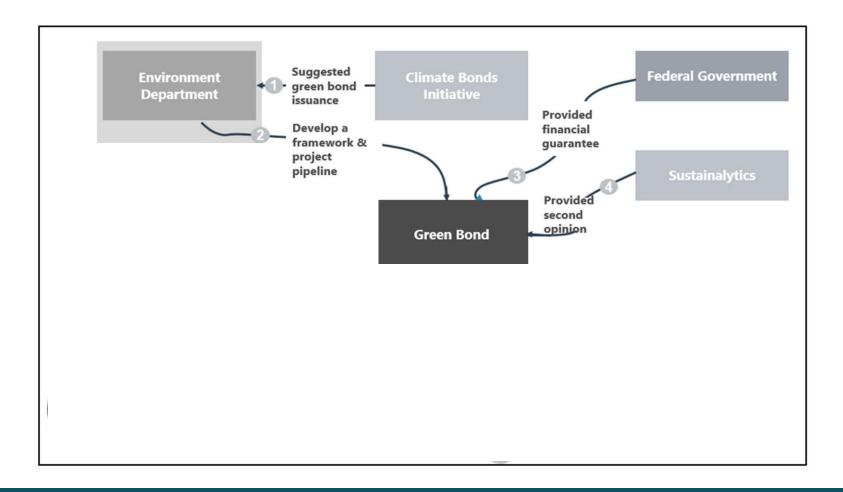


Steps of a Sustainability Bond Issuance (3/10)



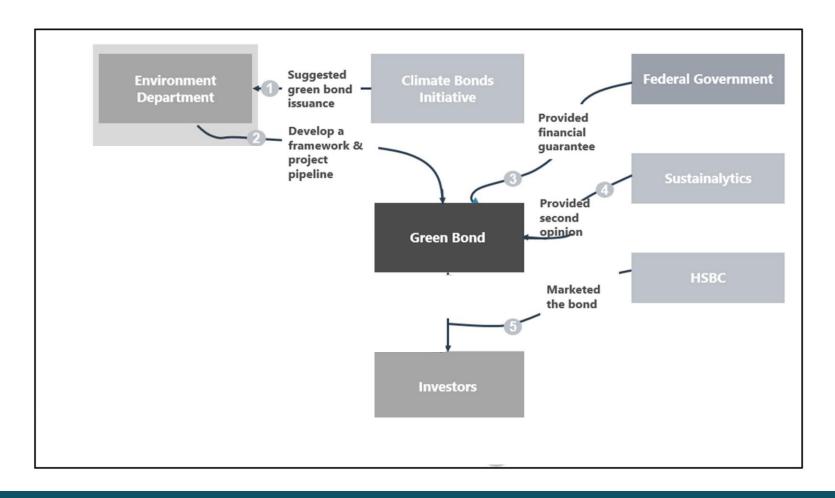


Steps of a Sustainability Bond Issuance (4/10)





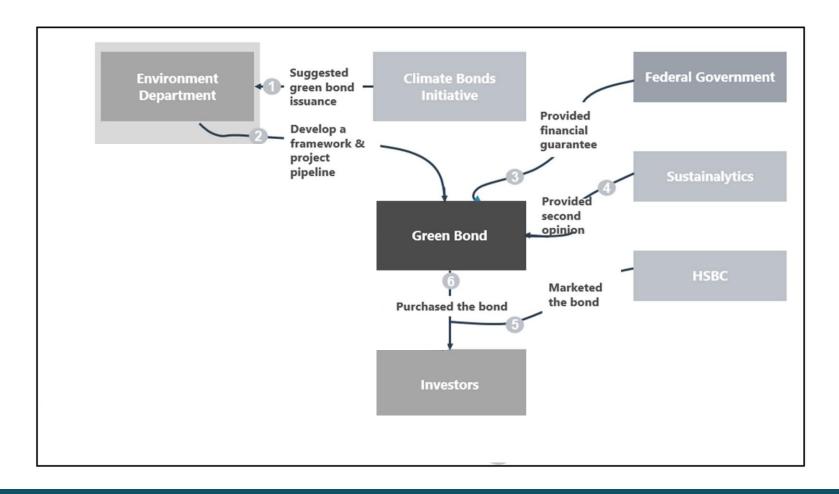
Steps of a Sustainability Bond Issuance (5/10)







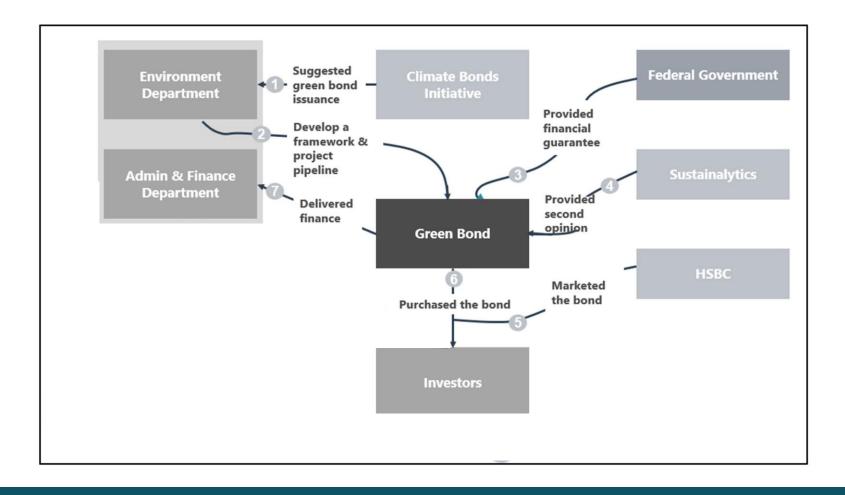
Steps of a Sustainability Bond Issuance (6/10)







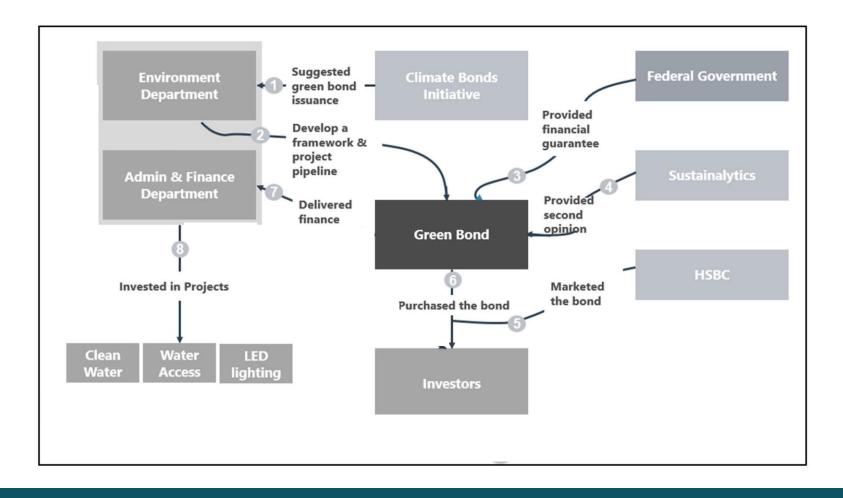
Steps of a Sustainability Bond Issuance (7/10)







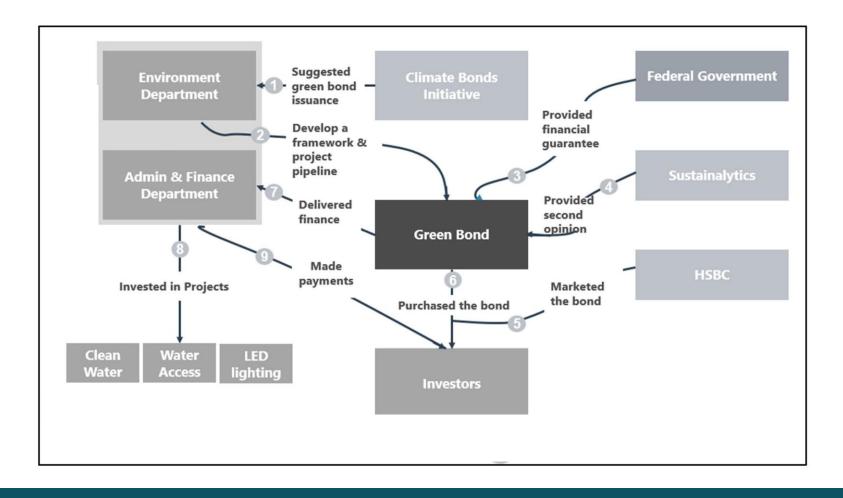
Steps of a Sustainability Bond Issuance (8/10)







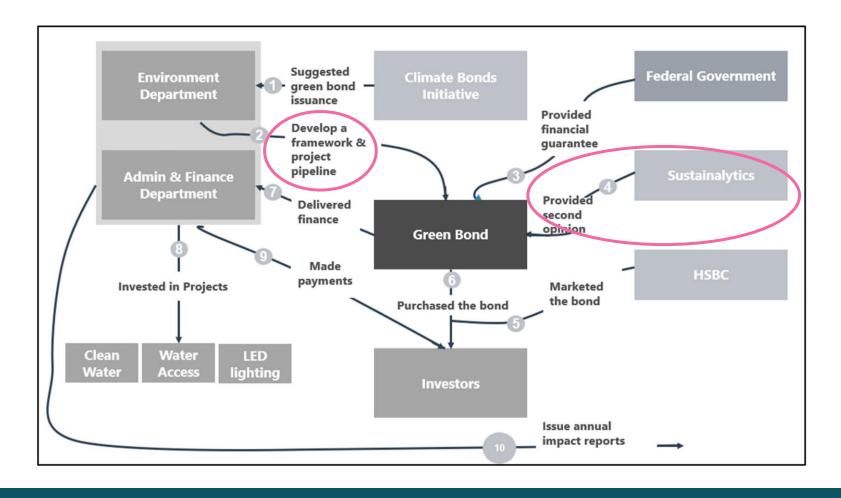
Steps of a Sustainability Bond Issuance (9/10)







Steps of a Sustainability Bond Issuance (10/10)







What should a Bond Framework Contain

GREEN BOND FRAMEWORK

- A statement on the green objectives of the green bond;
- B How the green objectives of the green bond are positioned within the context of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability;
- Confirmation that the bonds that will be issued under the green bond framework are aligned with one or more established approaches to labeling. This may include statements of alignment with applicable standards such as the Green Bond Principles, the Association of Southeast Asian Nations Green Bond Standards, the Climate Bonds Standard, or local or regional regulations or guidelines;
- A summary of the green projects and assets that will be associated with the green bond such as sectors covered or geographic distribution;
 - The list of proposed green projects and assets associated with the green bond (if this is available and/or can be disclosed prior to issuance of the green bond);
- A description of the decision-making process that has been used to select the green projects and assets;
- A summary of the approach to the management of unallocated proceeds from the green bond and the expected timeline for green bond proceeds to be fully allocated;
- An estimate of the share of the green bond proceeds that will be used for financing new green projects and assets and the share used for refinancing existing green projects and assets, including the relevant green projects and assets or investment areas that may be refinanced and how long since those green projects and assets were originally financed; and
- The intended approach to providing update reports while the green bond remains outstanding.





What the Second-Party Opinion (SPO) Looks Like

Ville de Paris

Opinion de seconde partie — Moody's a attribué un score de durabilité de SQS2 au document-cadre des obligations durables

Synthèse

Nous avons attribué un score de durabilité de SQS2 (très satisfaisant) au document-cadre des obligations durables de la ville de Paris daté de février 2024. L'érnetteur a établi son document-cadre basé sur l'utilisation des fonds dans l'objectif de financer des projets relevant de sept catégories, dont quatre catégories vertes et trois catégories sociales. Le document-cadre est aligné sur les quatre composantes fondamentales des Principes applicables aux obligations vertes (« Green Bond Principles » ou GBP) 2021 (y compris l'annexe 1 de juin 2022), des Principes applicables aux obligations sociales (« Social Bond Principles » ou SBP) 2023 et des Lignes directrices applicables aux obligations durables (« Sustainability Bond Guidelines » ou SBG) 2021 de l'International Capital Market Association (ICMA). Le document-cadre fait également preuve d'une contribution élevée au développement durable.

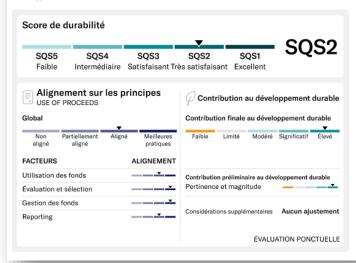


Grenoble Alpes Métropole

Second Party Opinion – Un score de durabilité SQS2 attribué au document cadre des émissions obligataires durables

Sommaire

Nous avons attribué un score de durabilité de SQS2 (très satisfaisant) au document-cadre de financement durable de Grenoble Alpes Métropole (GAM), daté de juillet 2025. L'émetteur a établi son document-cadre en suivant une approche use of proceeds (utilisation des fonds) en vue de financer des projets appartenant à sept catégories vertes et deux sociales. Le document-cadre est aligné sur les quatre composantes fondamentales des principes applicables aux obligations vertes (GBP) 2025, aux obligations sociales (SBP) 2025 et aux lignes directrices applicables aux obligations durables (SBG) 2021 de l'International Capital Market Association (ICMA). Le document-cadre fait également preuve d'une contribution globale élevée au développement durable.





Breakout Session 1

Has your city considered issuing green or impact bonds?

Think about what would be needed in terms of portfolio pipeline and what the barriers might be



City Spotlight 3
City Funds





Bringing in Capital at Scale through a Portfolio





City-led Climate City Fund



Leuven Climate City Fund

(~€50 million – €1 billion)



City-convened Climate City Fund



Green Growth West Impact Fund

(~€100-120 million)



- > Cities can fundraise for specific pools or portfolios with different levels of structuring complexity and different mixes of city vs investor involvement
- While a green bond framework simply raises debt for a pool of eligible projects, funds can deploy a whole suite of instruments (including guarantees) and utilise capital allocation strategies to blend public and private funds and capabilities more deeply at both project and portfolio level, hence the interest for this type of structures





City Funds



A mechanism for crowding-in private capital at scale by combining a portfolio with an adapted fund model of investment and governance

01 Funds crowd-in institutional investors

Around 2/3s of private investment into infrastructure as an asset class flows through fund (LP-GP) structures

02 Systematic investment through fund manager

Cities can adapt this structure, with the city feeding an early portfolio to a fund manager while retaining key governance powers

03 Reinvestment Cycle

Returns can fund new climate initiatives, creating perpetual impact

Energy Efficiency Programmes with Clear Payback Periods

Distributed Renewable Energy Installation Community-scale Climate
Adaptation Measures

Recurring Operational Improvements







Does your city have (or plan) a climate or sustainability fund?

Options: Yes / No / In development

Interactive Activity: Please respond using the Wooclap open question feature. Your insights will help shape our discussion.





#1 – Leuven's Climate City Fund



City role: early pipeline builder and strategist (with extensive CH input)

Strategic questions: Finding a fund manager with good track record that is aligned with the City fund agenda

A City fund targeting **primarily city-led projects**, with city-related specialists (Leuven 2030) envisioned to play significant role in the governance structure, and with an emphasis on combining at least some projects with different returns (first close target Q4 2025-Q1 2026)



Total Investment Size

~ € 50 million first close – € 1 billion

Financing Structure & Key Instruments

Rolling-closed ended fund and guarantee(s)





#1 – Leuven's Climate City Fund (II)



City role: early pipeline builder and strategist (with extensive CH input)

Strategic questions: Finding a fund manager with good track record that is aligned with the City fund agenda

Key takeaways

Pipeline development: 86 locally-driven "breakthrough projects" experience showcase the potential but also challenges of building up the pipeline through collective city action (as opposed to largely delegating to a fund manager): for example, fund now seems likely to target real estate as well

Crowding-in of private capital: need for support from public lenders (EIB), following UK's National Wealth Fund example. Desirability of open-ended stack of guarantees (including financial guarantee to be deployed project by project by fund manager)

Innovation component: First pure-play city fund relying primarily on city-led pipeline

Total Investment Size

~ € 50 million first close – € 1 billion

Financing Structure & Key Instruments

Rolling-closed ended fund and guarantee(s)





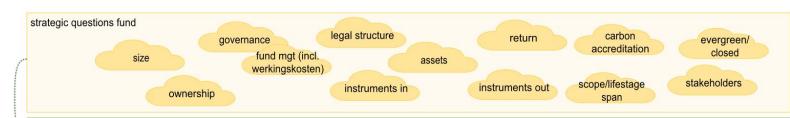
#2 – Bristol's Green Growth West Impact Fund



City role: strong ideation and design role and convener

Strategic questions: How scalable is the pipeline and how much will it align with cities' agenda?

Fund cornerstoned by WECA (Regional authority) with €10 million, targeting a combination of cities-led projects – given the regional scope – and a broader portfolio of impact-driven companies and projects. Amber Infrastructure appointed fund manager in April 2025



Total Investment Size ~ € 100-120 million

Financing Structure & Key Instruments

More typical infrastructure/impact fund using primarily debt





#2 – Bristol's Green Growth West Impact Fund (II)



City role: strong ideation and design role and convener

Strategic questions: How scalable is the pipeline and how much will it align with cities' agenda?

Key Takeaways

Pipeline development: design and early pipeline build by BBRC with a typology of fund manager in mind aligns pipeline to that fund manager, potentially charting a very clear path to pipeline building (more in line with ordinary private funds)

Crowding-in of private capital: National Wealth Fund support, and expected role of fund manager. Role of Council as key derisking party and often counterparty in deals in specific but important areas (energy)

Innovation component: New generation of blended impact/green funds in the UK and beyond, fully utilising fund manager/fund "method"

Total Investment Size

~ € 100-120 million

Financing Structure & Key Instruments

More typical infrastructure/impact fund using primarily debt



Breakout Session 2

Are City funds a good idea and why?

Think about how you would approach a city fund design in your city



Reflections & Takeaways







What will be your city's first action to unlock external finance in 2025?

Interactive Activity: Please respond using the Wooclap open question feature. Your insights will help shape our discussion.





Reflections

- There is a playbook, it must be tailored to each cities' situation Cities need a customised mix of financing instruments and strategies that reflect their governance structures, project pipelines, and risk appetites. The importance of convening the right parties, which is where the hub specialises.
- 2 Start somewhere small, scale up

 The importance of starting with what is doable and achievable, as an organizational strategy but also to bring partners along the way.

 No one city is lacking some more achievable opportunities
- 3 Collaboration Is the Bridge
 Strong partnerships between municipal governments, financial institutions, and private sector actors is an absolute need in order to transform ambitious climate visions into funded reality.



How did we do today? Please let us know!



Direct Link



Get in touch with NetZeroCities!

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