

Public-Private Collaboration to Accelerate Sustainable Urban Development

A Guide for **Global South** Cities



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Summary

Cities are central to the global response to the climate crisis. Nowhere is this more pressing than in the Global South, where 90% of the world's urban population growth is expected in the next 30 years (O'Sullivan, 2022). But city governments cannot solve urban climate challenges alone.

This guide draws on a set of case studies from 30 cities in the Global South, where innovative collaboration is taking place between cities and businesses to drive sustainable urban development.

These city case studies help illustrate a set of five models of collaboration and the tactics needed to best use these models. From Non-Commercial Convening and Enabling Innovation, to Market-Shaping Policy and Regulation, Public-Private Partnerships (PPPs), and Business-Focused International Partnerships, the scope is intentionally broad, in order to fully capture the breadth of opportunities and complexities of public-private engagement in Africa, Asia and Latin America.

Rather than a blueprint, this guide seeks to provide ideas, inspiration, and tools for city officials in the Global South to explore different ways of collaborating. Depending on the local political, legal, and governance context, some of the models will be more or less appropriate.

The guide was created through UrbanShift - a programme that works with more than 23 cities in Asia, Africa and Latin America on integrated approaches to urban development towards a zero-carbon future. It also develops and connects cities to tools, training, and advocacy to take action.

Funded by the Global Environment Facility, UrbanShift brings together partners including, C40 Cities, the World Resources Institute (WRI), Local Governments for Sustainability (ICLEI), and the United Nations Environment Programme (UNEP).

Many of the case studies in this guide are from cities that are part of the UrbanShift program, while others are members of the C40 Cities network. The case studies explore a wide-ranging set of contexts, sectors, and themes. Through developing the guide, it emerged that many practices are not well documented, particularly in the Global South. This guide is a first attempt at rectifying this.

We invite you to explore, test, and share your experience so that this repository of practical examples of collaboration grows as we work together towards a better future for people and planet.

Acknowledgments

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The Global Environment Facility (GEF) is a family of funds dedicated to confronting biodiversity loss, climate change, pollution, and strains on land and ocean health. Over the past three decades, the GEF has provided more than \$22 billion and mobilized \$120 billion in co-financing for more than 5,000 national and regional projects. The GEF Sustainable Cities Program has to-date engaged a total of 50 cities, including 23 that are covered by UrbanShift. It promotes an integrated approach in developing impactful and innovative sustainability solutions and strengthening institutional capacity, to move towards a net-zero carbon, nature-positive, inclusive, and resilient urban future.

URBAN SH/FT

UrbanShift supports cities around the world to adopt integrated approaches to urban development, building an equitable, zero-carbon future where both people and planet can thrive. Funded by the Global Environment Facility, UrbanShift brings together partners including, C40 Cities, the World Resources Institute (WRI), Local Governments for Sustainability (ICLEI), and the United Nations Environment Programme (UNEP). UrbanShift is collaborating with more than 23 cities in Asia, Africa and Latin America on a range of cross-sectoral strategies, reducing carbon emissions and conserving biodiversity while fostering sustainable, equitable growth. UrbanShift is also building a knowledge and learning platform that connects cities worldwide with the tools, training and advocacy they need to put these strategies into action.



C40 is a network of nearly 100 mayors of the world's leading cities who are working to deliver the urgent action needed right now to confront the climate crisis and create a future where everyone, everywhere, can thrive. Mayors of C40 cities are committed to using a science-based and people-focused approach to help the world limit global heating to 1.5°C and build healthy, equitable and resilient communities. Through a Global Green New Deal, mayors are working alongside a broad coalition of representatives from labour, business, the youth climate movement and civil society to go further and faster than ever before. The current Chair of C40 is Mayor of London Sadiq Khan; and three-term Mayor of New York City Michael R. Bloomberg serves as President of the Board. C40's work is made possible by our three strategic funders: Bloomberg Philanthropies, Children's Investment Fund Foundation (CIFF), and Realdania.

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Foreword from the
Global Environment Facility
Carlos Manuel Rodriguez
CEO & Chair

Sustainable urban development is central to achieving the climate-neutral, nature-positive targets of this decade. The Global Environment Facility (GEF) is supporting this effort through its Sustainable Cities program, providing catalytic support to Global South cities for advancing integrated solutions to climate change, pollution, biodiversity loss and interconnected urban issues.

However, cities can't deliver this on their own. I am absolutely certain we need to engage diverse actors especially the private sector to support cities on their sustainability ambitions. Cities are already hubs of innovation and investment, driven by the strong presence of the private sector at multiple levels and scales. Private sector is an integral part of the urban fabric, and can offer through collaborative engagement with local governments, opportunities to ideate and scale up sustainability solutions in cities. UrbanShift embodies this approach as a key strategy to maximizing potential for multiple global environmental and development benefits in 50+ cities.

The scope for city-level public-private partnership is limitless in Global South cities across areas such as low carbon infrastructure, nature conservation, financing, and citizen engagement. It can take many forms and can provide multiple unexpected benefits to all parties involved. This Guide showcases real-world success stories and best practices from cities, where innovative partnerships between governments, businesses, and communities have not only reduced emissions and conserved nature but also improved the lives of urban residents.

I hope that city leaders will be inspired by the successes shown in these case studies and feel empowered to adopt some of these approaches as appropriate and relevant to their local context. I also hope this report encourages private sector to become an integral part of the sustainability pathways of cities. The GEF remains committed to creating enabling environment for public-private partnership in cities, accelerating the shift from the 'business as usual' path towards a sustainable urban transformation.



Foreword from **C40 Cities**
Mark Watts
Executive Director

Cities are the epicentre of climate action because that's where half of humanity lives, and because city leaders have created effective models of local leadership and global collaboration. Urban climate policy is about much more than reducing emissions; it is a catalyst for innovation and employment and an opportunity to boost the economy and improve equity and quality of life for people.

At C40, we recognise that Global South cities, while confronted with severe climate impacts, their mould-breaking development could also hold the keys to everyone's future. Within this publication, we celebrate the pivotal role of public-private collaboration in turning ambition into effective action. You'll find compelling examples of governments, businesses, and communities coming together to reduce emissions and enhance urban life.

This Guide offers city staff, urban planners and economic development specialists an holistic guide on how cities and businesses can collaborate to drive sustainable development. Based on the experiences of 30 Global South cities, the Guide suggests 5 models which cities can adopt to address the climate crisis, reduce inequality and generate good green jobs through public-private collaboration.

1. Introduction to City-Business Collaboration in Global South Cities

1.1 How to use this guide

The guide is a reference that you can keep coming back to. It doesn't need to be read from cover to cover. Choose the sections, cases, and issues that will be most helpful to you at any given time.

Part 1 outlines the context and opportunities of public-private collaboration in sustainable development. It unpacks key questions about the kinds of powers available to cities, the actors involved, and the spectrum of collaboration.

Part 2 dives into five broad models of public-private collaboration, articulating them through the components of form, roles, resources, and actions.

Part 3 explains the main tactics you can use that emerged from the city case studies. They apply to all the models, but you can decide on the priority or appropriateness of each tactic based on your own context.

The foundation of this guide are the 30 city case studies developed in close collaboration with cities part of the UrbanShift programme and the C40 Cities network. You can find the full case study bank [here](#).

Models of public - private collaboration



1. **Non-Commercial Convening:** Cities bring public and private stakeholders together without the intention to make profit, through networks and alliances, non-profit entities with private and public governance, and membership-based organisations or associations. 
2. **Enabling Innovation:** Cities encourage the private sector through an enabling role, such as hosting innovation competitions or incubator programmes. 
3. **Market-Shaping Policy and Regulation:** Cities use policy-making to support urban sustainability priorities and foster sustainable markets. 
4. **Public-Private Partnerships (PPP):** Cities and the private sector form contractual partnerships to deliver projects or services. 
5. **Business-Focused International Partnerships:** Cities broker international partnerships that enable public-private collaboration on city climate action projects. 

Find your way around the guide



What do we mean by the “private sector” and “city-business collaboration”?

- The **private sector** is the part of the economy run by individuals and companies for profit and that is not owned or operated by the government. These may be for example, large companies, social enterprises, small businesses, startups, or business associations. They can be formal or informal.

- **Public-private collaboration** or **city-business collaboration** is the cooperation between city governments and businesses through a variety of formal and informal mechanisms towards common objectives. As you will see, this includes a broad range of partnerships, relationships, and entities.

1.2 Sustainability in the Global South

1.2.1

Cities and the climate crisis

The climate crisis is visible in every city and community across the world. From extreme weather events and rising temperatures, to large-scale biodiversity loss, we need to make profound changes to the ways our cities operate within the next decade (Daring Cities, 2022).



55%
OF GLOBAL POPULATION
LIVES IN CITIES



RISE TO
68%
BY 2050
(UN DESA, 2018).



80%
OF WORLD'S GDP
COMES FROM CITIES
(UN Habitat, 2020)



30%
MORE GREEN JOBS
WITH CLIMATE ACTION
COMPARED TO BUSINESS AS USUAL



CITIES USE
2/3
OF GLOBAL ENERGY
(UN Habitat, 2020)



CITIES PRODUCE
70% OF CO₂
GLOBAL EMISSIONS



4 million hectares
OF TREE COVER WAS LOST
OVER THE PAST 20 YEARS
DUE TO URBANIZATION
(UrbanShift, 2022)

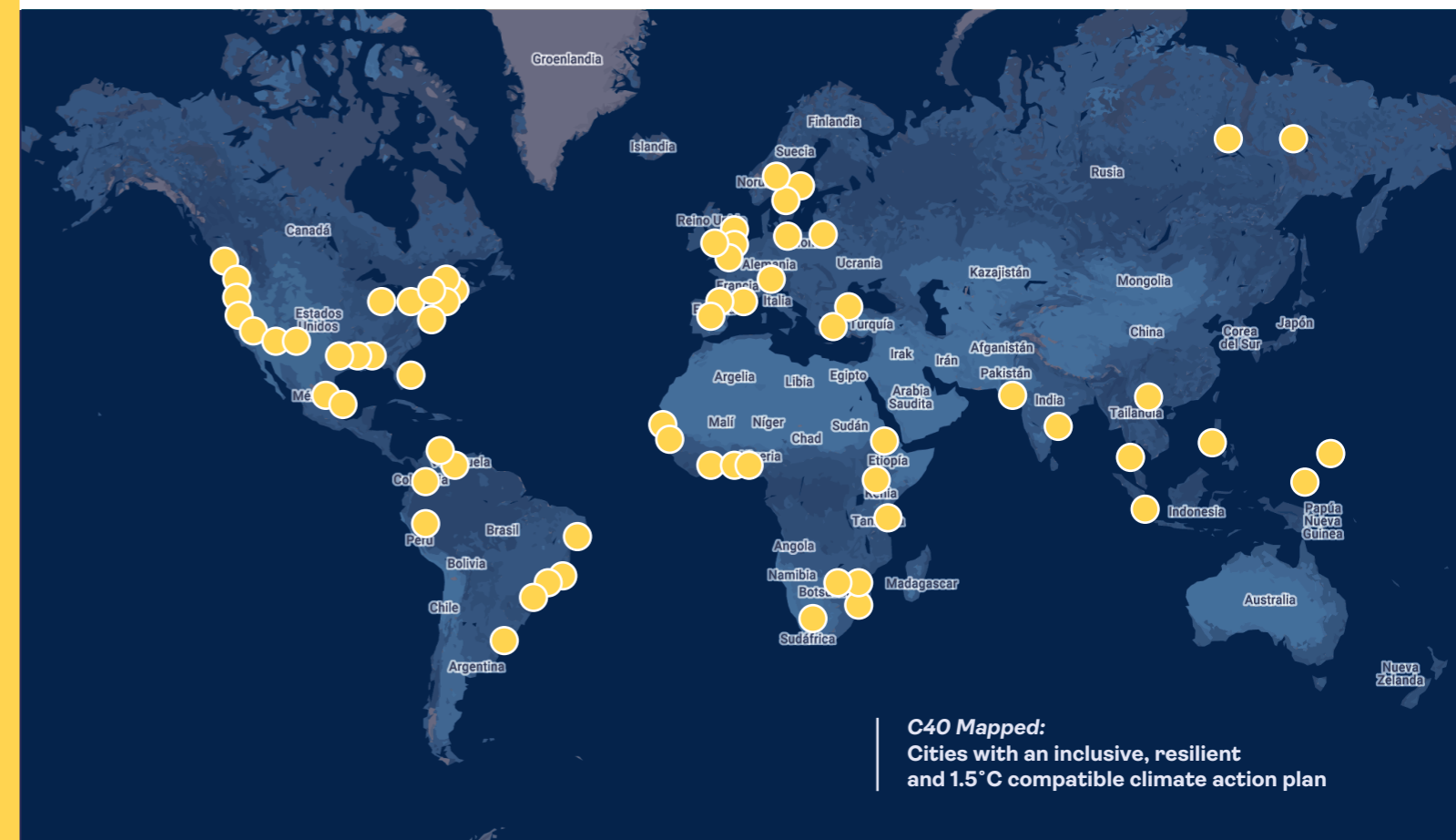


MORE THAN HALF
THE LAND AREA OF
SIERRA LEONE
40,000km²
(World Bank, n.d.).

1.2.2

The leading of role cities

Cities are leading the way on climate action. By mid-2023 over 1,000 cities were signatories to the UN's Race to Zero campaign, and more than 60 C40 cities had 1.5 degree-aligned Climate Action Plans compatible with the Paris Agreement (Race to Zero, 2023).



C40 Mapped:
Cities with an inclusive, resilient
and 1.5°C compatible climate action plan

The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Working Group III report notes that cities are important actors in combating the climate crisis - they "are able to experiment with climate solutions; and they can forge partnerships with the private sector and internationally to leverage enhanced climate action" (IPCC et al., 2022).

Indeed, cities are using local action to reduce per capita emissions rates, for example through setting reduction targets, capturing emissions inventories, enabling mixed land use, passing climate regulation, and implementing climate solutions that restore and protect the ecosystems on which we depend (UN Habitat, 2020).



What is the 'just transition'?

The climate crisis is not going to be experienced in the same way in all places. People facing **social, economic, political or geographical exclusion** will be most impacted, even as they are least responsible for emissions (Atteridge & et al, 2022).

This has led to a consensus that we need a 'just transition' - **a move towards a non-polluting economy that acknowledges these inequalities and leaves no-one behind** (C40 Cities, 2023).

The move to a non-polluting economy is urgent, but it also needs to be fair and inclusive (UNDP, 2022), incorporating measures that deal with the impacts of transition on communities, jobs and livelihoods.

Established by labour unions and environmental justice groups, the **Just Transition is a vision and framework for social change that builds economic and political power to shift from an extractive economy to a regenerative economy while providing just pathways for workers to transition to quality jobs**. Its principles, processes and practices may apply to a sector, city, region or economy.

[For more information, read C40's Just Transition Toolkit](#)

1.2.3 The uneven impacts of climate change

The Global Climate Risk Index 2021 showed that most of the worst weather-related loss events during the period 2000-2019 took place in the Global South (Eckstein et al., 2021).

The impacts of climate change, inequality, resource constraints, and exclusion all reinforce each other (IPCC et al., 2022). Simply put, the climate crisis is a threat-multiplier.

This is visible for example with informal housing. The climate crisis is increasing the frequency and intensity of natural disasters such as floods, and is worsened by the conditions present in many informal settlements such as inadequate housing or limited access to clean water. Similarly, limited resources make it harder for such communities to take steps to adapt (Cities Alliance, 2021).

Over one billion people live in informal settlements or housing globally; with 85% of these found within Asia and Africa (United Nations, 2023). Over 60% of households in urban areas in Africa were already located in informal settlements with limited access to basic services by 2020 (UN Habitat, 2020).

Furthermore, more than half the urban workforce in Global South countries work in informal employment; the proportions are particularly high in South Asia (82% in informal employment) and sub-Saharan Africa (66% in informal employment) (IPCC, 2022). Therefore, the inclusion of the informal sector in public-private engagement around sustainable urban development and good, green jobs is essential to ensure a Just Transition and buy-in from all involved.

Almost all of the urban growth that will occur between 2018 and 2050 is expected

to take place in South and East Asia, and Africa (UN Habitat, 2020). The perspectives and experiences of Global South cities are critical to drive the innovation needed to face the global climate crisis and achieve a Just Transition (Nagendra et al., 2018).

1.2.4. Cities can work with the private sector to solve urban climate challenges

Collaboration provides opportunities for cities to make efficient use of the already constrained public purse, reduce emissions whilst delivering on key infrastructure and services, increase urban resilience, and build more integrated, inclusive, and prosperous communities.

Private sector engagement in sustainability policy is often criticised. This is partly due to lobbying by powerful industry groups against progressive regulation, as well as the private sector's current and historical role in generating emissions (Hestad, 2021).

However, the existential threat of the climate crisis means it has never been more important for cities to leverage the agility, intellect, and resources of the private sector to help solve urban climate challenges.

Why engage with businesses?

- No single actor can solve urban sustainability problems alone: In many cities, governments directly control only 4% of citywide emissions (CDP, 2019). The complexities and urgency of the climate crisis require all stakeholders to get involved.
- The private sector is innovative and diverse: As noted in the 2030 Agenda for Sustainable Development, these features make the private sector integral to implementing the Sustainable Development Goals (SDGs) (United Nations, 2015).
- Businesses contribute directly to climate-resilient development outcomes: These include creating good green jobs, driving green innovation, or contributing to nature restoration (Hestad, 2021). Through collaboration, these can support poverty alleviation and urban resilience.
- Companies are central to mobilising climate finance: Achieving the SDGs will require an estimated US\$5-7 trillion per year; in the Global South, the investment gap is roughly US\$2.5 trillion. However, as UNDP notes, achieving the Sustainable Development Goals could be achieved by "mobilising just 7.76%—\$6 trillion—of the global assets under management each year" (UNDP, n.d.).



What is a good, green job?

According to the International Labour Organisation, good, green jobs are "decent jobs in any economic sector which contribute to preserving, restoring and enhancing environmental quality, be they in traditional sectors such as manufacturing and construction, or in new, emerging green sectors such as renewable energy and energy efficiency" (ILO, 2016).

What is climate finance?

The UNFCCC explains climate finance as "local, national or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change (UNFCCC, n.d.)."

1.2.5.

**Private sector actions
for sustainability**

In recent years, there has been a rapid growth in business interest and action on sustainability. UNDP's Business Call to Action initiative recognises private sector engagement as a key enabler of the 2030 Agenda for Sustainable Development (UNDP, 2022).

The We Mean Business Coalition confirms that in 2022 alone there was a "more than 80% (4,481) increase in companies making ambitious climate commitments (We Mean Business Coalition, 2023)." Despite this, fewer than 1 in 200 companies that report to CDP have credible climate transition plans. This shows that there is still a large gap between business sustainability ambition and action. To address this, greater collaboration between the public and private sector is needed.

As you will see from the case studies in this guide, many businesses are already laying a strong foundation for dynamic collaborations in the Global South through:

- **Developing sustainability plans:** Businesses increasingly acknowledge climate risks and the impacts these have on their own businesses (Hamann et al., 2020). They are seeing sustainable urban development as a core part of their survival internally and purpose externally (Hestad, 2021). This, coupled with the global push for Environmental Social and Governance (ESG) reporting and standards, is leading businesses to make their own business practices and supply chains more sustainable (Greenstone, 2023).

- **Securing sustainability credentials** and joining climate certification bodies. Certifications such as green building standards, B Corp Certification and Science Based Targets (SBTs) are giving businesses a competitive edge in a climate-sensitive market.
- **Forming local and global alliances.** In 2022 at COP27 for example, leaders from 56 companies across the African continent formed the Africa Business Leaders Coalition (ABLC) and released a joint statement committing the private sector to work towards a just transition.
- **Actively working in partnership with cities.** The private sector is a key player in the emerging multi-stakeholder partnerships that enhance sustainable development outcomes.

In reality not all businesses have credible transition plans and there is a pressing need for this to change. Businesses can also do more to divest funds from fossil fuels and decarbonise their supply chains.

Cities with clear Climate Action Plans provide the opportunities and frameworks for local businesses to make the necessary shifts.

1.3 Getting started

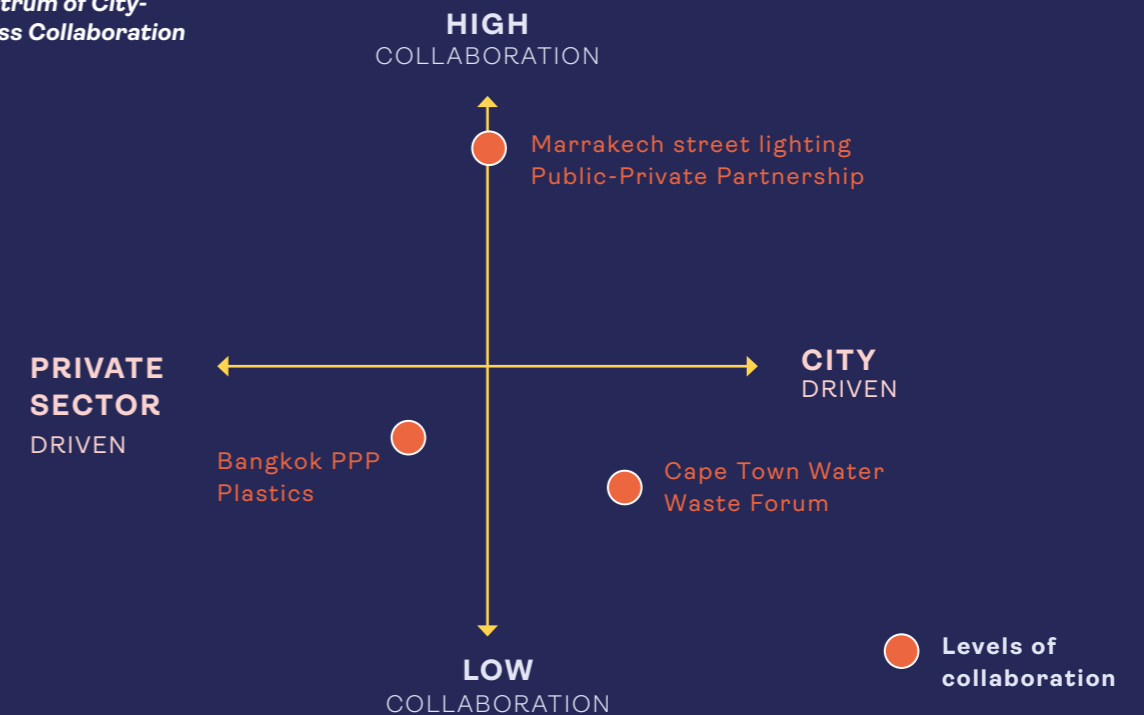
While there is growing agreement around the importance of city-business collaboration to create urban climate solutions, there is no simple formula on how to do this.

1.3.1

**A wide spectrum
of collaboration is possible**

Collaboration can range greatly. In some cases, cities may be the drivers, while in others, cities can support initiatives led by the private sector. Similarly, there may be close partnerships or non-binding alliances.

A Spectrum of City-
Business Collaboration



As shown in the graphic above, city-business collaboration can go from low to high forms of collaboration, and lean more towards city-driven or private-sector-driven initiatives. Some forms are more intensive than others in terms of time, cost and resources.

There is space for all levels of collaboration. The nature of the collaboration will depend on different factors, including the objectives of the initiative, the city's resources, and its relationship with the local private sector. The level of collaboration may also change over the course of the project.

1.3.2

Cities can use both
formal and soft powers

Across this spectrum of collaboration, cities can exert power in different ways. They may have varying levels of influence on different issues, sectors, and processes (C40 Cities, 2022).

Cities have both **formal powers** through direct forms of authority, and **soft powers** that generate influence and facilitate collaboration.



FORMAL POWERS

Give direct authority to city governments along executive, legislative, and fiscal lines.

- Executive & administrative authority
- Laws
- Regulations including building codes
- Fiscal incentives such as green taxes, grants or loans.



SOFT POWERS

Allow cities to create new partnerships, promote multi-stakeholder action, or build support for city initiatives.

- Negotiation
- Coalition- building
- Mayoral leadership skills
- Symbolic and political actions

Cities have different levels of formal power. But limited formal power in one area or sector - for example, a nationally managed public service beyond the city's direct control - does not mean cities cannot act.

Soft powers can often be highly effective at influencing stakeholders or processes. Moreover, using strategic combinations of both forms of power is critical to generating the influence needed to drive powerful climate action. For example, convening businesses to discuss building codes (soft power) before writing them into law (formal power) can generate buy-in.

Depending on your governance and legal context, some approaches might not be relevant or possible. Nevertheless, they might inspire ideas for new ways of engaging the private sector. You can look for the models that work best and also assess whether national governments could play a role by creating a more enabling environment.



2. Models for public-private collaboration

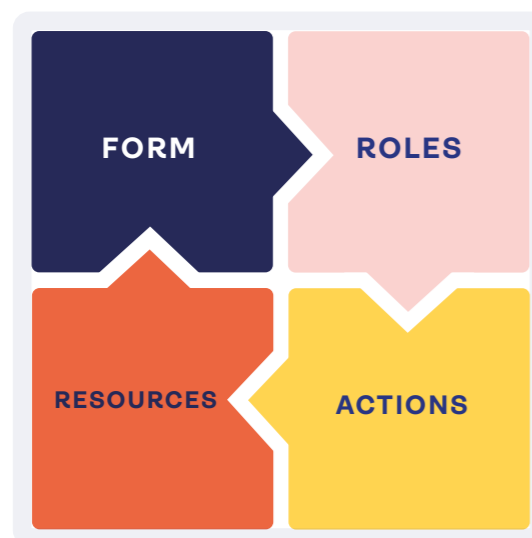
Drawing on the **30 city case studies**, there are five models of public-private collaboration that we will explore in this section:

- Model 1: Non-Commercial Convening**
- Model 2: Enabling Innovation**
- Model 3: Market-Shaping Policy and Regulation**
- Model 4: Public-Private Partnerships (PPPs)**
- Model 5: Business-Focused International Partnerships**

You may notice overlap across the models and some initiatives will have characteristics of more than one model. These are reference points, rather than absolute classifications. Likewise, within the models and case studies, there is a broad spectrum of collaboration, in Part 1 of the guide.

In this section, we outline each model through a set of four components:

- **Forms** the models typically take.
- **Roles** played by public and private actors.
- **Resources** you may need and where they come from.
- **Actions** you typically do in practice.



The four components which make up each model of public-private collaboration

2.1 Model 1: Non-Commercial Convening

The most pressing climate issues require multi-stakeholder solutions. Cities and the private sector can work together in non-transactional ways.

Convening helps cities to:

- Work with a broad range of actors on common objectives.
- Leverage the diverse capacities of different stakeholders.
- Create entry points for the private sector to engage with government.
- Create a neutral space for business competitors to learn from each other and collaborate.
- Position the city as a leader in climate action, while creating broader societal influence towards sustainability.
- Communicate short- and medium-term strategic infrastructure priorities to local businesses so that they can adapt operations and respond appropriately.
- Communicate regulatory framework changes and mainstream these changes into businesses' way of operating.

Non-commercial convening creates a more open space for interaction than what is possible in commercial relationships. It can allow stakeholders to connect on a more personal level, build trust and increase transparency.



Case study examples: Buenos Aires, Cape Town, Medellín, Nairobi, Pune.

In Cape Town, the city needed help to address water, waste and energy crises. They created a city-led forum with a wide business membership. The forum is helping to generate private sector buy-in, while enabling businesses to respond to policy change.



What do we mean by 'non-commercial'?

Non-commercial convening describes an activity where a city brings people together to cooperate without the direct intention of the businesses making a profit or the city receiving a service from the business.

2.1.1 Form

The **most common** forms of non-commercial convening are:



Networks and alliances

These range from highly formalised networks with set membership criteria, to less formal groupings where participants join for specific events or activities.



Non-profit entities with private and public governance

Cities and the private sector can establish an independent entity - for example, a Water Fund - with its own governance and operating model for non-commercial purposes.



Membership-based organisations or associations

There are a multitude of organisations which have public and private members. These organisations are also separate legal entities, for example, green building councils or climate certification bodies.

The objective of a particular project will help determine the form of convening, the type of partners, and how they participate. For instance,



What is a water (or natural resource) fund?

A Water Fund is one of the more common types of non-profit entities where public and private partners can collaborate. These funds work to improve water systems and water security, “through nature-based solutions and sustainable watershed management” as The Nature Conservancy explains (TNC, 2017).

Some companies may get involved through their Corporate Social Responsibility programmes or because it affects them directly. For insurance companies for example, less flooding means fewer insurance claims.

to set up a fund with public and private investment, you will need a separate legal entity with a board of directors. On the other hand, for a city-wide network focused on learning events you will likely house and operate it from within the city, using a membership database.



In Salta, the city encourages hotels to become more sustainable through the Hoteles Más Verdes certification scheme. By partnering with the Argentina Association of Hotels (a national business association), Salta can offer local hotel businesses a clear programme of networking activities and coaching, as well as a sustainable tourism certification.

2.1.2 Roles

The role of the city and private sector partners will normally fall into two categories:

- ▲ **In networks and alliances**, private sector partners will be attendees, members, or participants. You will need to clearly define roles and responsibilities within the city. Some networks for example might need a high level official to give legitimacy at early stages. Others will benefit from a city official who can dedicate a significant amount of time to logistics and communications, and who might remain in that department in the long term. In such alliances, it is possible for private sector members to take a lead on the delivery of certain workstreams.



The Buenos Aires Circular Economy Network was formed by two city departments and includes a broad membership of professional bodies, academia and industry. Its success led to the drafting of a circular economy strategy for the city.

- **In non-profit entities or membership-based organisations and associations**, the city and private sector partners are more likely to both be investors, implementers or hold positions within a governance structure, such as a board of directors.

The City-Business Climate Alliance (CBCA)

CBCA

Established by C40 Cities, CDP, and WBCSD, the **CBCA** is a global alliance helping to forge non-commercial city-business partnerships on climate action. The initiative supported a number of cities to build local city-business alliances. Cities led the local networks, but used the international alliance partners’ expertise and support to design effective structures and engage with business leaders. The CBCA now convenes a wider network of cities and global businesses to share expertise, advocacy and learnings. In doing so, the CBCA drives both concrete city-level action and systemic transformation on a global scale.



In Nairobi, the Kenya Green Building Society uses its independent position to promote and socialise green building principles. It does this with a combination of public and private membership.

2.1.3 Resources

City-hosted networks and alliances will need resources to manage the network and its programmes. These may be human resources, advertising, or event costs such as venues or transport.

The majority of these resources generally come from the city; even if they are mainly limited to city officials' time. For long-term sustainability of these initiatives, a funding strategy is often required to ensure resourcing is sustained.

The private sector resource contribution may be in the form of membership fees, in-kind contributions such as free event space, or technical support.

Non-profit entities or membership-based organisations and associations will require larger amounts of financial resources, especially upfront capital to create these entities.

These resources will likely come from public and private investment, and in some cases, membership fees.

The investment will correspond with the chosen governance and ownership structure. For example, a Water Fund's founding documents and leadership structure will determine its use of resources.






Medellín set up a Water Fund called Cuenca Verde to improve water quality for the municipalities in the Aburrá Valley. It was started with seed capital from local companies who were concerned about the impacts of water insecurity. Its board has representatives from both the public and private sectors.



2.1.4 Actions

City officials have access to wide networks and can tap into them to facilitate conversations with the private sector.

Non-commercial convening includes different types of activities:

ACTIVITIES		
 Networks and alliances	 Non-profit entities with private and public governance	 Membership-based organisations or associations
<ul style="list-style-type: none"> • Forums • Learning events • Site visits • Flagship programs (e.g certification schemes) 	<ul style="list-style-type: none"> • Projects and programmes • Capacity building • Investments • Advocacy and stakeholder engagement 	<ul style="list-style-type: none"> • Policy engagement • Technical support • Certifications • Creating open data platforms

With non-commercial convening, an action-driven approach is particularly important. Businesses remain committed when there are clear outcomes from their participation.

To see whether value is being generated, feedback and evaluation on activities is important. To do this, evaluation forms after engagements, as well as more in-depth monitoring for projects, should be planned for.



In-person or online?

Since the COVID-19 pandemic and the rapid increase of online events and engagement, many cities are looking for the best ways to organise events and activities. Increasingly both in-person and online formats are used depending on the objective of the event.



Cape Town for example now use in-person events for smaller, more targeted engagements such as site visits. However, for larger dialogues, many businesses prefer to attend if they are online, which limits the amount of time away from the work day and maximises resources.

*Model 1: Non - commercial convening***CHEAT SHEET****FORM**

- Will the initiative be led by the city or an external partner?
- Can it be managed internally by the city or does it require an intermediary body?

ROLES

- Who will lead this initiative at the city level? Can one person in your department be tasked with the running of activities, and do they have significant capacity to maintain this?
- Do you want businesses to be an audience, or active delivery partners?
- Are there academic institutions or non-profit organisations active in the sector?

RESOURCES

- What can be provided in-kind and by whom?
- Will you need seed capital and who will you approach for this?
- How do your actions link to existing platforms outside the city?

ACTIONS

- Which of your planned activities will work best online or in-person?
- Do you have a plan to ensure that participants attend your activity?
- What questions will you ask participants in order to measure whether they are getting value from their engagement?

2.2 Model 2:**Enabling Innovation**

Cities can encourage and enable their local business ecosystems to develop innovative solutions to urban climate challenges. Nurturing the environment for innovation to thrive, and removing barriers to participation, are particularly important for smaller or new businesses.

Enabling innovation helps cities to:

- Generate the resources, capacity, knowledge, and tools that support dynamic solutions to urban sustainability problems.
- Initiate or strengthen innovation ecosystems and sectors.
- Promote a sustainability agenda through public platforms.
- Support small businesses and startups working at the forefront of sustainability solutions.
- Get youth involved in addressing climate challenges and inspire and nurture an entrepreneurial spirit.

2.2.1**Form**

The most **common forms** of convening tend to be:

- **Training:** Cities offer training and capacity building, or upskilling programs to private sector stakeholders.
- **Competitions:** Cities hold competition programs where private sector stakeholders can submit and show

their innovations. Typically there are a range of categories and either financial or non-financial awards.

- **Incubators:** Often linked to competitions, cities host companies for a set period to develop their innovations. Usually there is technical support, physical space provided, and where appropriate, financial support.
- **Urban labs:** Usually based within the city administration, cities host labs where officials can work with private sector stakeholders to test and pilot innovations.



Case study examples:
Balikpapan, eThekweni,
Mendoza, Mexico City, Rio de
Janeiro, Surat.

In Rio de Janeiro, the Operations and Resilience Center of Rio (COR) set up a two-year incubation programme for startups working on climate action planning and urban resilience. The incubator programme is housed in COR to address specific issues announced in a call for applications. Innovations developed are then used by COR.

2.2.2

Roles

Cities are usually the drivers:

- The city is responsible for designing, hosting, and implementing a particular programme.
- In some cases a programme may be co-hosted with external partners, including private sector partners, and responsibilities may be divided.
- An individual or department will normally have the mandate to coordinate and manage the process transversally within a city.

External stakeholders are active participants:

- Businesses submit innovations and ideas or are invited to participate in labs or training. Those who are selected, participate in a programme for a set period of time.
- In many cases, they will need to finish an innovation or product within the allocated period.
- Other actors such as research institutions may provide capacity and technical assistance or expertise. Larger companies may be interested in funding Enabling Innovation activity programmes.



In Balikpapan, an online portal and competition - My Innovation House - invites submissions and holds annual competitions. Participants receive public recognition locally and sometimes internationally.

2.2.3

Resources

The resources needed will depend on the type and scale of the programme.

- **Non-financial resources** such as expertise and technical support will often be needed to use all forms of Enabling Innovation. This may come from various sources, but universities and non-profit organisations are particularly important and are usually open to such collaborations.
- **Financial resources** are needed to build out a programme. These will likely need to come from the city or private sector partners if the initiative is co-led. In addition to city staff time, the concept may include for example prize money or building an online platform.

It is important to assess early on what combination of financial and non-financial resources is needed to make the concept viable.



City officials in Rio de Janeiro invest in finding the appropriate expertise to guide and support the startups participating in the Operations and Resilience Center Challenge. Moreover, the winning startups have access to city data, a key non-financial resource that allows them to develop their ideas.

2.2.4

Actions

Competitions, incubators, training, and urban labs all require planning from the city side and should deal with a relevant theme that will bring solutions to one of the city's immediate challenges.

Most forms of Enabling Innovation will be based on a particular problem or set of problems that need to be solved, such as a lack of uptake of renewable energy or high levels of marine plastic waste in a city's water systems. Often these themes will be set ahead of time and announced with a call for submissions.

Examples of innovation challenge themes

Past Rio COR challenges

- Identifying **real-time risk** of landslides
- Using **data-science** databases to identify at-risk areas on climate change
- Improving **solid waste disposal** during heavy rain



Mendoza Urban Lab themes

- **Urban development** (public space, mobility, accessibility, land use)
- **Urban ecology** (green spaces, urban micro-climate, density)
- **Active citizenship** (gender & inclusion, governance, public policy)



Balikpapan's My Innovation House categories

- **Sustainable agriculture and food**
- **New and renewable energy**
- **Marine & fisheries**



As far as possible you should aim for **practical end use of innovations, rather than just idea sharing or co-creation**. This is an important part of the process. For example, the innovative ideas created through an incubation programme can be integrated into a city's work.

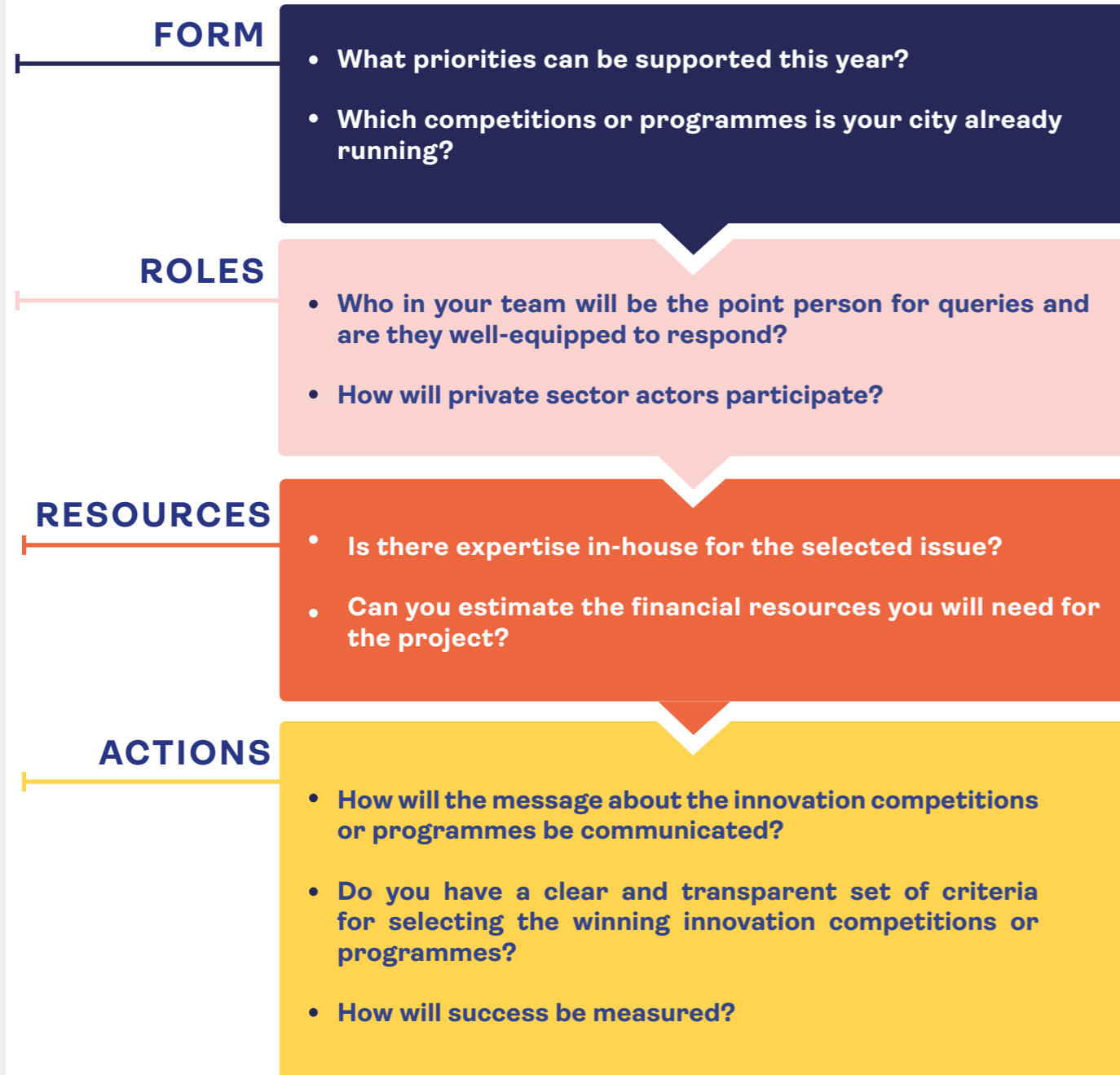
To address the skill gaps required to achieve the Just Transition, where possible, training programmes should try to target low-income workers.



eThekwini hosted the work of a startup that had developed maps with the need and location of residents during severe floods. This helped the municipality to subsequently create a city-wide dashboard on climate preparedness.

Model 2: Enabling Innovation

CHEAT SHEET



2.3 Model 3:

Market-Shaping
Policy and Regulation

Cities can use the power of policy-making and regulation to shape markets towards more sustainable and inclusive outcomes. They can embed sustainable practices within their own policies, and motivate, require or sanction certain actions through broader policy-making. The policy design process can also be a tool to engage community stakeholders with local urban sustainability priorities.

Policy-Making helps cities to:

- Collaborate with the private sector to address sustainability challenges, through for example, uptake of renewable energy or sustainable tourism.
- Use their purchasing power to drive sustainable urban development. Public procurement comprises up to 20% of GDP in many Global South countries, with most of this being spent at sub-national level (GLCN, 2020).
- Drive a Just Transition by generating more good, green jobs and reskilling or upskilling workers through incentive schemes. Policy-Making can play a critical role in the creation of new markets; particularly in sectors where competition is not yet driving market forces (AfDB et al., 2013).
- Cities can exert influence on major industries, reduce their own emissions, create a level playing field for the private sector to compete, and boost the green economy by driving change in markets where voluntary schemes are slow or the cost of sustainability is high (WEF, 2022).



Case study examples: Accra, Bangkok, Florianópolis, Lagos, Mexico City, Puducherry, Salta, Salvador, Shenzhen, Surat.

2.3.1
Form

Policy-Making can take different forms such as:

- **Legislation/regulation:** Cities can establish incentives, disincentives or legal frameworks that enable them to regulate markets or test and create new ones.
- **Urban planning:** Cities can embed sustainability requirements within urban planning policies and building codes to shape urban development.
- **Green Procurement:** Cities can use sustainability criteria within municipal procurement processes to facilitate internal and external shifts towards more sustainable economies.
- **Green budgeting:** Cities can leverage the power of the budget process to include sustainability dimensions linked to overall spending in the city for infrastructure or services.
- **City projects and programmes:** Cities can design specific projects and programmes that promote private sector participation in particular sectors.



What is Green Procurement?

Cities can use their purchasing power to drive sustainability. Green procurement (also known as sustainable procurement) introduces sustainability principles and criteria into public procurement, balancing between social and economic outcomes (Market Links, 2021).

Programmes can include legislating sustainable procurement at city level, introducing sustainability-related specifications in project tenders, or using mechanisms like green budgeting.

Sustainable procurement is also a way to bring in smaller and newer actors into the system, driving inclusion in a way that complements sustainability objectives (UNDP Business Call to Action, 2022).

Read more about [sustainable procurement on the C4O Knowledge Hub](#)

2.3.2

Roles

City governments play a leading role in Policy-Making:

- They may drive policy-making and implementation processes as well as collaboration processes around policy design and programmes. This may be more or less restricted depending on the country's governance.
- Policy development may be managed by different parts of the city. For example, the Mayor's office may lead a specific policy initiative, or a particular department may manage a set of policies relating to Green Procurement.

The private sector plays different roles in this collaboration at different stages:

- They may be consulted and engaged in the drafting process or after adoption as a way of disseminating and socialising the policy.

- They may respond to incentives or disincentives, such as offering green services in response to a tender with these criteria; or become project partners in a policy programme.
- The private sector may promote the policy to other businesses by using its supply chains or through business networks.

Other external actors outside of government can also play a role:

- Academic, technical, and industry groups can provide technical support during the policy process or help broker conversations with the private sector.
- The media can help policy initiatives reach the broader public.
- Dialogues with civil society groups can be a tool used to inform and develop policy.



Lagos engaged the private sector in designing and implementing its Climate Action Plan by convening tailored and topic-specific workshops and engaging particular sectors once the document was publicly released.

2.3.3

Resources

Many policy-making activities will be resourced from within the day-to-day work of a city or in the case of green procurement for example, existing expenditure can be reallocated based on green criteria. In some cases, specific initiatives may require additional allocations from the city's budget depending on the budget system.

There are several sources of other financial and non-financial resources critical to collaboration around policy-making:

- **Private financial resources:** Companies will often invest in city-led programmes and policy initiatives aligned with their priorities.
- **Expertise and technical assistance:** Similar policy initiatives may have been implemented elsewhere and/or could require specialist knowledge. Local research entities are well placed to accompany cities in drafting, testing and implementing and monitoring new policies and programmes.



In Puducherry, green procurement is linked to the budget cycle through a green budgeting program. The government developed the programme with the support of a research institute and a thorough mapping and analysis process of existing green budgeting initiatives in the city.

2.3.4

Actions

What does collaboration in policy-making look like? It usually involves elements such as engagement in policy design, uptake of adopted policy, and programme partnerships.

Forms of market-shaping policy-making and examples of collaboration with the private sector

Form	Examples of collaboration
LEGISLATION AND REGULATION	With the support of industry bodies, a city designs and then legally adopts green building standards.
URBAN PLANNING	A city works with developers to introduce mixed-use zoning to encourage sustainable transportation.
GREEN PROCUREMENT	A city sets out sustainability criteria within tenders, so that sustainable businesses are more likely to be awarded, and market demand is demonstrated.
GREEN BUDGETING	A city works with academic institutions and private actors to allocate a proportion of the city's overall budget for green spending.
CITY PROJECTS AND PROGRAMMES	<ul style="list-style-type: none"> • A pilot programme with businesses to co-develop a city-wide policy on recycling. • Formal consultation meetings with businesses to develop a city climate action plan.



Surat developed a city-wide policy framework involving service providers, an academic institution, and private residents to promote solar panel installations on the city's rooftops. The city facilitated the creation of a market while supporting residents to adopt the technology. Meanwhile, a local technical institute provided training and helped with community engagement.

Model 3: Marketing-Shaping Policy and Regulation

CHEAT SHEET

FORM

- Is this a completely new policy topic? If so, how is it being implemented in other cities?
- Which sectors will be most affected (directly and indirectly) by this policy? Is there an existing relationship? If not, how will these sectors be consulted?

ROLES

- Which city departments are involved in this topic or sector?
- Do you have a landscape analysis of the different partners - academic, think tanks, etc - that you can call upon to support?

RESOURCES

- What is the largest gap in the adoption of this policy?
- What relevant data is available within the city and what is missing?

ACTIONS

- Are you working with a new policy, a policy amendment or an existing policy initiative?
- Are there existing projects or programs that this policy links to that could be leveraged?
- At what stages of the policy development process can you bring in private sector partners?

2.4 Model 4:

Public-Private Partnerships (PPPs)

A PPP is a formal engagement between government and private actors. PPPs usually involve long-term private investment in public infrastructure.

PPPs help cities to:

- Leverage private sector expertise, resources and efficiency to develop and manage large infrastructure projects such as dams, new transport routes or major energy installations.
- Access upfront capital that is often more readily available in the private sector.
- Combine the skills and capacities of both private and public sectors for the public good and in such a way that has commercial benefits for all parties (CAF, 2018).
- Use innovative legal entities such as mixed ownership companies that can effectively drive sustainability projects.
- Distribute risk between public and private stakeholders, while still remaining accountable for delivering a high quality public service.



City examples: Bogotá, Chennai, Dhaka, Jakarta, Kigali, Marrakech, San José, Shenzhen.

2.4.1 Form

PPPs are not the same as contracting external companies or privatisation. Typically, they are defined in terms of the type of contract involved.

The most common PPP forms are:

- Operation and maintenance: The private actor charges a fee to the city for it to operate and/or maintain assets.
- Leases, affermages, management contracts: The private actor charges a fee to the user and usually pays the city through a lease agreement.
- Concession: The private actor receives the right to use public assets and operates, maintains and/or invests in the asset. Usually the private actor charges the user for the service provided, but this may vary.

- Joint ventures/partial divestiture: The public and private actors become shareholders in a joint entity or the private actor buys shares in a public entity.

Read more about PPPs in [Unlocking Public-Private Partnerships: A Toolkit for Local Governments](#) (ICLEI, 2023).



In Chennai, the Tamil Nadu Green Climate Company (TNGCC) was established by the state government and operates as a special purpose vehicle to facilitate sustainability-related partnerships and projects.

2.4.2 Roles

PPPs are typically constructed around a function. The roles of the parties may vary - from designing or building, to financing, operating or maintaining a service (World Bank, 2022).



Semarang set up the West Semarang Water Supply Project through a PPP focused on infrastructural development. The city played the role of contracting agency, while the company is building and operating the project over a 25 year period. After this time, the assets will be transferred to the city.



How do we define a PPP?

The World Bank refers to a PPP as “a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility and remuneration is linked to performance” (World Bank, 2022).

In this sense, public and private actors invest in a project through both financial and non-financial resources, towards fulfilling a combination of societal and commercial objectives (ICLEI, 2023).



What is a Special Purpose Vehicle?

Many PPPs make use of a Special Purpose Vehicle (SPV). The implementing party or parties create an independent PPP company to separate out the assets and liabilities of the project. This creates a legal entity to implement the project and helps reduce the risk for the city (World Bank, 2022). From a city perspective, SPVs can be an attractive mechanism as they may be able to secure their own finance and not be affected by the city's fiscal health.

2.4.3 Resources

Securing significant financial investment from the private sector has been the main driver for PPPs, particularly for infrastructure development. In some cases, cities can enter with almost no initial budget of their own. Other incentives include technical expertise and skills transfer.

However, there are many resources held by cities besides capital that can become part of PPPs. For example, cities can leverage the exclusive use of public space for a private entity to manage and receive income from it; and in return, the company can offer a public service the city needs.

It is critical for cities to ensure they have adequate resources and expertise to plan, design, execute, and oversee a PPP, particularly for major infrastructure projects. A poorly designed PPP can lead to costly legal battles, poor development outcomes, and can lock a city into a contract that may be undesirable in the long term.



In Bogotá, many attempts had been made to set up a shared public bicycle system. In 2022, a company was granted the use of public space to set up the system and received the right to collect advertising revenue and user fees. The city provides support through a team in the transportation department and the company pays the city in-kind, for example through constructing permanent bicycle parking.

2.4.4 Actions

The implementation of PPPs can be understood in terms of three dimensions (World Bank, 2022):

- **Type of asset:** Is it a new asset being built or the transfer of an existing one?
- **Responsibilities of the private actor:** Will they design, build, finance, or operate?
- **Payment mechanism:** Will the company be paid for example by user fees or a government fee?

A PPP will always need to be underpinned by a viable business model that adequately accounts for these three dimensions.

This entails a clear offering of value to the private entity as well as a mechanism to ensure the city benefits from its successful development. Contracts can also be re-negotiated as the context changes (Hunt & Noble, 2020). This can help to deal with risks such as cost increases over time.

In practice, PPPs are often used for - but not limited to - large infrastructure projects based on a contract between the public and private actors. In addition to the management of public space mentioned above, they can be used for example, to install LED lighting or electric conversion of public transport.



What is a mixed ownership company?

A mixed ownership company (also referred to as a joint venture) offers a vehicle for partnership between cities and private companies for particular purposes. It is an independent company created with investment and shareholding from both the city and private company. The mixed ownership company will then become the implementer of a project or set of projects.



Marrakech set up a mixed ownership company which is jointly owned by the city and a private company. The mixed ownership company led the implementation of a city-wide LED lighting network. The city made an upfront investment to show goodwill and incorporated the projected savings from the LED lighting into their financial model.



Model 4: Public-Private Partnership

CHEAT SHEET

FORM

- What are key gaps in infrastructure or service provision? Are there existing PPP examples in the city that could serve as a reference?
- Will the private company plan, finance, build, and operate the asset?
- What PPP model would make most sense for this specific asset?

ROLES

- Who are the leading businesses in this space? Does the city have a track record of working with them? Can other units in the city participate?

RESOURCES

- What resources have been allocated to this project already?
- What is the level of investment available from the companies you want to work with?
- Is there capacity within the city to monitor that the conditions of the PPP contract are being met?
- Through which mechanism do you foresee the company being paid?

ACTIONS

- Does the city have access to sound legal advice on how to structure the contractual agreements so that risks are proportionally distributed and payment is linked to performance?
- Does the business model or contract need to be re-negotiated?

2.5 Model 5:

Business-Focused International Partnerships

Cities can collaborate with a range of international partners to drive sustainable local development.

While international funding may support many of the city-business collaboration models outlined previously, 'Business-Focused International Partnerships' describes how cities can **broker international partnerships that enable public-private collaboration on city climate action projects.**

Multilateral organisations, international non-profit organisations, and national development agencies, are active in partnerships with cities (ICLEI, 2022). Southern-led development and financing institutions such as regional development banks play a strong role too.

Cities can use these international partnerships to enable their work with businesses, particularly where resources and staff time are limited. These partnerships can result in greater private sector engagement, attention, and investment.

Moreover, with the rise of consensus around the Just Transition, as well as the power of south-south cooperation, cities are increasingly using the resources, expertise and public profile of these international bodies to drive their own priorities and attract private sector interest in local climate action projects. (UNOSSC, 2022),



Case study examples:
Curitiba, Dhaka, Freetown,
Quito, Nairobi.

Business-Focused International Partnerships can help cities to:

- Develop innovative ways to crowd in and use international resources in their different forms to drive longer term private sector investment.
- Access technical expertise in emerging fields and concepts.
- Learn about sustainable business solutions in other cities and build their professional network by meeting international private sector players.
- Build internal capacity through sharing skills and knowledge from international actors and other cities that have faced similar challenges.
- Illustrate the financial viability and stability of projects to diverse stakeholders.
- Unlock blended finance by leveraging international financing to attract private sector co-finance.
- Broker the public-private relationship by providing capital, expertise and resources that would not otherwise be available.
- Catalyse innovative projects locally by showing what is possible in similar contexts.

2.5.1

Form

Business-Focused International Partnerships can take different forms such as:

- **Local projects:** Cities lead projects based on international partnerships that enhance the participation of private actors. As part of these, international actors may also provide technical assistance where there are particular gaps in relation to working with the private sector.
- **Multi-city initiatives:** Cities participate in projects and programmes that are implemented in multiple cities. These connect cities to each other, while promoting and supporting city-business collaboration at the local level.

2.5.2

Roles

City governments should play a leading role in determining the nature of the cooperation as well as its implementation. Having clarity over what your city needs to implement a Climate Action Plan is key, so that when opportunities for support come from international actors, city leads are in a position to respond effectively. This can also support cities to proactively seek out donors that may be able to support implementation of local priorities.

International actors play a role that varies from less active support to full participation in projects and programs. For example, an international organisation might help design and implement pilot projects or provide ways for cities and stakeholders to connect.

National government is often involved since international funding for cities may flow through a national entity or the project may be linked to a national policy.

Private actors play various roles. Depending on the project, companies may participate as project partners, invest in an initiative, act as downstream delivery partners, or participate more informally. Cities should carefully consider the role international private actors may play in sustainability projects.



As part of a multi-city initiative, Quito sent a team of transport officials to neighbouring Bogotá to see an ongoing project of electric mobility for light urban freight. This international learning opportunity was decisive in their adoption of a local pilot.



2.5.3

Resources

Financial resources may come from a combination of international and city-based sources. In-kind resourcing from cities is often also needed, for example staff time.

Business-Focused International Partnerships can be used to generate seed funding to get additional private sector investment. It can provide cities with the upfront capital to start projects that can be designed with longer term horizons for collaboration with the private sector.



Freetown leveraged World Bank grant funding to create a mobile application as part of its tree planting program. Businesses could invest in tokens linked to specific trees. The partnership provided the initial capital to launch the programme to then drive private sector investment.

2.5.4

Actions

In practice, local projects and multi-city initiatives can address various issues and sectors. They typically involve engagement with other cities, development of tests and pilot projects, and working with multiple local and international stakeholders. These projects and initiatives may emerge from existing partnerships or develop as a result of new ones.



Examples of Business-Focused International Partnerships

Local projects:

Curitiba worked with international partners on a project that enabled the city to transform a landfill into a solar power field, while creating good, green jobs and local business opportunities.

Multi-city projects:

In Quito, an international funder approached the city to participate in an initiative promoting low-emissions plans being implemented in a number of cities. Through its participation, Quito developed a pilot to incorporate the use of light electric vehicles into business deliveries in the city's historical centre.



*Model 5: Business-Focused International Partnerships***CHEAT SHEET****FORM**

- Are there current calls for applications in this sector from any of the major international institutions and credible development partners?
- Will an international actor be beneficial to the city's relationship with the private sector?

ROLES

- What department is best positioned to take a leadership role?
- How do you want to communicate the involvement of international actors to the public and other spheres of government?
- What existing channels can you use to communicate with, and incorporate feedback from, the business sector?

RESOURCES

- How will the programme continue once the international funds are exhausted?
- Can any existing partnerships with the private sector be expanded with additional funds?

ACTIONS

- Does the city have a pipeline of priority climate-resilient infrastructure projects that can be used to approach some of the development banks and financial institutions?
- How can you best utilise technical assistance offered within a project?
- Have you seen any programmes in other parts of the country or world that could serve as reference to your project idea?



3. Tactics for effective public-private collaboration

Five tactics emerged from the case studies as critical for successful public-private collaboration. Though not an exhaustive list, they are applicable to all the models described in Part 2. Remember, some of these may be more or less appropriate to your context and you will need to check how it can be applied within existing norms and regulations.

1. **Be concrete, pragmatic and transparent**
2. **Leverage both financial and non-financial resources**
3. **Show impact and value**
4. **Prioritise partnerships early in the project design**
5. **Commit over the long-term**

These tactics are action-focused and assume that a vision and set of objectives are broadly in place. If you need support with that, this [C4O guide](#) on inclusive engagement contains a section on vision and objective setting that can help.



3.1 Tactic 1:

Be concrete, pragmatic, and transparent

Concrete initiatives usually have clear activities, outputs, and timeframes. Almost every case study shows that collaborations move forward when stakeholders have practical ways to participate.

HOW ?

3.1.1

Focus on achievable actions with clear timeframes

Try to be realistic and specific when designing an initiative, identifying the key milestones along the way.

It often helps to identify fewer actions that you can implement, as opposed to many actions that are unlikely to happen.

Co-creation is important. If you're looking to establish an effective partnership, then you should anticipate that partners will have actions they want to implement too, and decide these together.



Do:

Identify possible activities based on your city's needs and priorities and discuss these with relevant stakeholders. Take the final activity list and outline possible delivery dates. Prioritise actions and schedule your first activity. Decide how to track implementation.

3.1.2

Use targeted and specific engagements with businesses

Getting the views of businesses will help you develop and structure your plans. However, companies will more likely participate where discussions focus on specific projects and ideas, rather than more abstract engagements.

This also allows for resolving practicalities. For example, if the city needs commercial buildings to decarbonise, bringing together businesses that have a direct role in this to understand the challenges and opportunities can support faster implementation.



Do:

List who should be involved. Set up discussions based on specific projects and ideas. Capture and analyse their views. Use terms that everyone can understand. Make expectations and time commitments clear from the start.

3.1.3

Be transparent

When a city is open about the objectives and process of engaging with the private sector, it leaves little room for claims of nepotism or corruption that can undo strong initiatives. Consistent and clear documentation can increase transparency.

**Do:**

Upload as much information as possible about the project on your online platforms. Make project and financial reports easily available. Invite media partners to activities where appropriate.



In Bangkok, the city and a mixed ownership company, PPP plastics, developed a waste management pilot. This entailed engaging with stakeholders in a particular geographic area to understand and respond to their needs. They developed a 'pay as you throw' strategy to incentivise buildings to increase their recycling efforts and pay less for waste collection.

3.1.4

Provide clear incentives

Incentives promote commitment. A cost-effective concept benefits both partners. A fruitful relationship will result from clarity on the benefits to all parties.

**Do:**

Review what can be valuable incentives for your private sector partners. Where possible, check with experts in the sector before finalising them.



3.2 Tactic 2:

Leverage both financial and non-financial resources

Innovating with limited resources requires considering how to effectively use resources in all their forms to drive collaboration and to generate additional investment.

HOW ?

3.2.1

Use financial resources to catalyse further investment

Check with other city departments for possible existing city funds to engage the private sector that could be aligned with your initiative. For example, if the climate team wants to do something with businesses, and the economy team in the city has existing funding for activities, is there a way to align this funding?

Explore private investment to complement public resources. International climate finance can be a way of seeding initiatives and amplifying local funding sources. Requesting support from international actors can be done directly, or through an application process, such as the [C40 Cities Finance Facility](#). Similarly, international actors may invite cities to develop a project linked to a particular issue for which they have funding available.

**Do:**

Check on available resources with other departments outside your team. Identify private players active in this sector. Check for any international funding available for this sector or department. Consider how these resources could be used to create further investment.

3.2.2

Identify non-financial resources from the city or private

There are many forms of non-financial resources that cities can use to support collaboration.

For example, a city's ability to facilitate a network, offer capacity building, or use its communication platforms are powerful resources for collaboration. Private actors can provide contributions in-kind, while others can give expertise and support.

**Do:**

List what your department can provide to companies (e.g. data or networking opportunities). Ask other departments what they already offer or could in the future. List the non-financial resources that external actors could provide.

Examples of non-financial resources that cities or the private sector can provide

Examples of non-financial resources	
CITY	PRIVATE
<ul style="list-style-type: none"> • Access to public space • Use of city communication channels • Expertise from different departments • City data • Policy input opportunities • Public endorsement 	<ul style="list-style-type: none"> • Expertise and technical assistance • In-kind contributions such as venues • Use of company communication channels • Access to company for site visits • Access to private sector networks

3.2.3 Source the correct expertise or technical assistance

Appropriate support is crucial to developing solutions that are fit for purpose. If not available internally, it can be found externally in universities, non-profit organisations, or businesses.



Do: Identify the skills required. Make a list of who in your department has any of those skills. Based on the gaps, identify who are the leading people or organisations in the sector (including non-profit organisations and universities).

3.2.4 Find mechanisms to scale up or replicate

There are tools that can be used to mainstream or build up a project in a resource-efficient way. Handbooks and guides are easily shareable tools for example, and allow for a high degree of replication across a city.



Do: Allocate time to document the project. Get feedback on the types of tools that are useful or popular. Consider inviting universities or other academic institutions to help produce tools like handbooks, toolkits and stories that can be shared with others.



Bangkok designed a handbook inspired by its Khlong Toei circular economy model to enable other neighbourhoods of the city to adapt the model according to their needs.

3.3 Tactic 3: Show impact and value

Private actors should be able to see the value of their involvement in terms of achieving their company objectives and the broader societal impact. This helps generate buy-in and ensures commitment to the project.

Value comes in different forms. This includes commercial, environmental, social, and public value - where the public can see a project is generating good value for public funds spent.

HOW ?

3.2.1 Measure impact

Measuring impact can take different forms.

First, you can quantify impact through for example calculating the number of interventions in a given sector.

Businesses may want to know how much sustainable infrastructure would be developed through a particular project in relation to the funds invested. You can also reference the creation of good green jobs, and attracting new customers and new talent who value social and environmental commitments.

Second, you can use more qualitative methods such as case studies or storytelling. These allow for in-depth explorations of the impact of a particular initiative.

A series of case studies or stories can explain the positive impact experienced by a set of neighbourhoods, groups, or individuals (see more about storytelling in the section below on communicating success).



Do: Identify the different dimensions of possible value of the project. Have city officials adequately calculate these to produce specific figures. Continue to measure them over the course of the project. Identify project aspects that would be well suited to more qualitative measurement.

3.3.2 Undertake validation

Validation entails testing to ensure that a project will work and to make adjustments in relation to actual conditions. It is helpful to keep the testing contained and specific. There are different ways to do this, from implementing a smaller-scale version of the whole project in one location, to choosing one full component of a project and testing that.

This validation can be built into the project as one of a series of steps, rather than as a separate process before a project starts.

Some cities also create initiatives specifically to do this type of testing - such as the Urban Labs discussed under the Enabling Innovation model.

Validation shows stakeholders that future investments are sound since they have been tested.



Do:
Test the idea as soon as possible. Consider starting small so you can gradually scale up while incorporating feedback and lessons.



The city of Mendoza created an Urban Lab as a co-creation platform to formulate and test specific urban sustainability projects. Bringing together different stakeholders enables the city to test new initiatives while fostering alliances and relationships.

3.3.3 Communicate success

Effective communication is important. Having a dedicated person to do this consistently can successfully advance projects.

Telling the story well is critical in generating and keeping broad support. This helps all partners to get public recognition.



Do:
Include a communications plan in the project. Keep records from all meetings. Do media monitoring and ensure there is a person responsible for communicating the project. Invite journalists to your activities and events. Identify powerful stories that can be told. Use quotes from the Mayor or other political actors in press releases.



In Curitiba, as part of its Solar Pyramid project, the city shared the compelling stories of five women who had become part of the project and how the creation of good, green jobs was impacting their lives.

Q. What is storytelling?

Storytelling can be a powerful way to show the value of an initiative and invite the audience to engage further (Huerta & Shepard, 2020).

Instead of just describing an initiative or using a report, a story makes things more real for an audience by creating a stronger emotional connection to the subject. Usually this is because stories focus on specific people and follow a narrative trajectory, with a beginning, a middle and an end.

This is why using stories is becoming an increasingly popular way for cities to engage stakeholders and the public (Bloomberg Cities, 2018).

3.4 Tactic 4: Prioritise partnerships early in the project design

Private and public sector actors often have different interests, incentives, and ways of working. You can be intentional about building partnerships, and even do this using the design of a project itself.

HOW ?

3.4.1 Use project structures and institutions to enhance trust

The project should be designed intentionally to bring stakeholders together. For example, governance structures can be used to facilitate partnership. You can include public and private sector representation on a board of directors for instance, so everyone has a seat at the table.



Do:
Build in opportunities for all partners to be represented, they can be formal (e.g. board) or informal (working groups). Keep a list of possible partners, and think of the unusual suspects.

Examples of intentional project designs

- The board of a Fund or Special Purpose Vehicle has public and private representation.
- Network membership is spread across city officials and business representatives.
- A mixed ownership company's share structure is divided between public and private owners.
- A project includes a co-design component as a way for city officials and businesses to engage.

3.4.2 Enhance inclusivity and participation

The project design should aim to use [gender inclusive planning](#) - ensuring that gender is intentionally addressed throughout the process (Colson, 2022).

Similarly, cities can promote [inclusive climate planning and actions](#) by assessing dimensions like age, race, location, and disability, amongst others, while designing processes that cater to small businesses that take into account their specific needs and constraints.

Cities should likewise incorporate low-income workers and the informal economy, an important component of life in Global South cities that is often undervalued or not integrated into city processes (Gustale, 2022). This presents real opportunities for projects to engage constructively with the diverse parts of the informal economy such as [waste management](#).



Do:

Compile data on the relevant dimensions, such as gender, noted above. Establish indicators for inclusivity and equity. Test the tools of this project with people of different ages and backgrounds. Identify underrepresented groups who could participate in the project. Use a gender lens for the project design.

Read more about how to embed equity and inclusivity in climate action planning in this [guide](#) by C40 Cities.

3.5 Tactic 5: Commit over the long term

Uncertainty is a common challenge preventing the private sector from working with governments. This relates to the electoral cycle, but also funding cycles and timeframes used for contracts. This is particularly challenging for smaller companies, who may not have large amounts of upfront capital.

HOW ?

3.5.1 Build on existing plans and programmes

Long-term plans such as city Climate Action Plans or certification schemes help ground projects and initiatives in broader objectives beyond immediate political cycles.

Similarly, legal frameworks can either form a strong foundation for new projects or prevent them from moving forward. For example, a city may need to adjust existing systems to be able to compensate small startups if they are unregistered in a vendor system; or unclear regulations around Special Purpose Vehicles may result in project delays.



Do:

Identify plans or programmes that support the project and create a visible link between the two. Call on your legal team in the early stages of the project to identify legislation that may support or hinder the project.

3.5.2 Use appropriate time-frames for contracts

Contracts signal commitment. A contract or partnership with a timeframe that is appropriate for the level of investment required is one of the clearest ways to facilitate private sector engagement. Contracts can be renegotiated if necessary.



Do:

Communicate your intention to develop a stable programme. Use contracts that are of the appropriate length for the investment.

3.5.3 Involve multiple spheres of government

Intergovernmental coordination provides a degree of stability by reducing risks around city electoral terms and priority shifts.



Do:

Identify departments across spheres of government that can contribute to the success of the project. Where possible include team members that are not likely to change with a new administration.

3.5.4 Secure political backing

Even though change in administration has its challenges with shifting priorities, projects that have a political champion can withstand the pressures of time.



Do:

Make a list of potential champions for your project inside and outside the city. Identify city priorities that could be aligned with your project. Where appropriate work with the Mayor's office on the launch of your project.



Bogotá signed a seven-year contract with the service provider for its shared bicycle scheme. From the city's side, it is managed by the Transport Department; and there is engagement with Urban Planning, Parks and Recreation and the Mayor's office, who play different roles to support the programme.

Conclusion

Cities are facing an unprecedented climate crisis, but also playing a leading role in the response. This is especially the case in the Global South, where the impacts are being felt in ways that leave no city untouched.

But cities cannot address the consequences of the climate crisis alone. The private sector can play a crucial role to accelerate sustainable urban development efforts. Cities and businesses are working together across a broad spectrum of collaboration.

This guide is based on 30 city case studies from Africa, Asia and Latin America that cover a range of themes and sectors. Based on this, we outlined five models of public-private collaboration: Non-commercial convening, Enabling Innovation, Market-Shaping Policy-Making and Regulation, Public-Private Partnerships, and Business-Focused International Partnerships.

Unpacking these models shows how cities can constantly innovate and engage the private sector to tackle some of the most pressing urban issues today.

From how to establish networks and innovation competitions, to mixed ownership companies and policy frameworks that promote collaboration, the breadth of opportunities continues to grow in the Global South.

To truly take advantage of these opportunities, the case studies illustrate five core tactics: **be concrete, pragmatic, and transparent; leverage both financial and non-financial resources; show impact and value; prioritise partnerships early in the project design, and commit over the long term.**

When it comes to collaboration, 'seeing is believing'. Getting started, even in imperfect conditions, is the best way to test, validate and improve any partnership with the private sector.

We hope that if you are reading this, you have by now already joined **the growing number of cities that are pioneering new forms of public-private collaboration.**





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Buenos Aires, Argentina:

The Circular Economy Network

Model: Non-Commercial Convening

The Buenos Aires Circular Economy Network aims to improve the **city's recycling system and encourage industrial material reuse**. It has set a precedent for a form of private sector collaboration that will underpin the city's emerging circular economy strategy.



THE CHALLENGE

While the city had a functional recycling ecosystem, it lacked a **strong legal framework** facilitating broader circular economy practices. The city government needed a mechanism through which to **collaborate with private stakeholders** to strengthen those practices.

HOW IT WORKS

Two city departments – Urban Hygiene and Public Space, and Local Economic Development – initiated the network in 2021. Through sustained and practical discussions, they **co-created it with private businesses, universities, and non-profit organisations**.

Membership gives companies access to sector intelligence, networking, learning opportunities, and entry points to the growing circular economy. The network holds regular discussions as well as site visits to locations like reclaimer cooperatives and recycling centres.

A flagship programme is the network's 'Green Seal', a waste management certification that businesses receive and display, giving them an advantage in the market. The network also facilitates agreements, for example between reclaimers and local businesses.

There is no joining fee and the city covers costs, largely through human resources and communications support. In 2023 the network had over 300 members. More than half of these were from the private sector.

LESSONS

When co-creating a network, dialogue focused on **practical actions and plans** is important. In Buenos Aires, businesses maintained interest as there were clear outcomes from their participation.

Networks also benefit from a **multi-dimensional approach** that includes a combination of activities and events, such as convenings, certification, and learning.

Cape Town, South Africa:

Energy Water Waste Forum

Model: Non-Commercial Convening

Cape Town convenes and funds an Energy Water Waste Forum, which is listed as a sub action in the **city's Climate Action Plan**. Over time, it has become a **'think tank' for constructive discussions** between the city government and businesses on energy, water, and waste.



THE CHALLENGE

In 2009, the city created an energy efficiency forum in response to a national energy crisis. In 2017, as Cape Town faced an **unprecedented drought** and given the lack of public-private engagement on sustainable resource use, they changed it to include water and waste.

HOW IT WORKS

With over **1,000 private sector members**, the forum hosts dialogues on sector-specific innovations and best practices. For example, a recent forum focused on business strategies for harnessing data in their high performance buildings.

Joining is free and the Sustainable Energy Facilitation unit within the city's Sustainable Energy Markets Department coordinates activities.

The forum is a **collaborative space**, even within a competitive environment. Businesses often share their challenges and learn from each other. Site visits take smaller groups to see the technologies discussed.

Since the COVID-19 pandemic, the forum consists of a mix of smaller in person engagements and larger online discussions.

LESSONS

Cities can create and adapt such forums as needed. Cape Town's forum **shifted over time** to include additional sectors as well as different in-person and online engagement modes.

The forum maintains engagement because businesses value the **exchange of knowledge** and the ability to keep up with city regulations and developments. Creating this space requires **active leadership** by people or departments with clearly defined roles and responsibilities.

Lagos, Nigeria:

Climate Action Plan & Private Sector Partnership

Model: Non-Commercial Convening / Market-Shaping Policy

In 2020, Lagos launched its second five-year Climate Action Plan (CAP) 2020-2025. Lagos has taken a **proactive approach** to engaging with the private sector, both in the development and implementation of its CAP.

THE CHALLENGE

Predicted to be the largest city in the world by 2100, Lagos is laying the ground for its development over the **next 30 years**. The environmental threats of this rapid urban transformation underscored the need to **secure resources and buy-in from the private sector**.

HOW IT WORKS

From the outset, Lagos focused on **building relationships** with the private sector by convening three topic-specific workshops for the energy, transport and waste sectors. In the waste sector for instance, major operators were invited along with the Association of Waste Managers of Nigeria, informal waste collectors and non-profit organisations to **share their vision and ideas** for the city. Government officials also made an effort to participate in private sector events to tell the CAP story. This helped them to **build trust**, while establishing relationships and partnerships.

Following the launch of the CAP, engagements continue in a new format. These “Climate Change Business Meetings” provide an opportunity for companies to **explore interventions**, ranging from reforestation to electric vehicles.



LESSONS

The implementation of a CAP is a long-term process and this is why it is particularly important to bring in the private sector.

A CAP also signals the **city’s strategic infrastructure priorities**, thus allowing the private sector to prepare accordingly. For instance, electrification goals will prompt private investment in charging stations and assembly factories.

Designing engagements that are tailored to the specific sector - rather than using standardised meetings or workshops - helps drive private sector engagement. In Lagos, this included carefully considering participants and ensuring meetings were focused on clear **business opportunities**, while not being too long.

Medellín, Colombia:

Cuenca Verde Water Fund

Model: Non-Commercial Convening

CuencaVerde is a Water Fund in Medellín. Within ten years, it achieved **conservation and restoration** actions across 6,500 hectares of land and facilitated over 500 biodiversity multi-stakeholder protection agreements.

THE CHALLENGE

Deforestation, unsustainable farming, and urban encroachment are threats to the region’s water security. Moreover, a lack of **targeted public or private investment** made it difficult for the city government to respond adequately.

HOW IT WORKS

In 2013, Empresas Públicas de Medellín (EPM), a conglomerate of public companies, with the support of the Mayor, the Nature Conservancy, and private companies, established CuencaVerde as a non-profit organisation.

Driven by a business ‘champion’, several companies each provided US\$200,000 as seed capital. By 2022, CuencaVerde had raised US\$9 million, mostly from EPM, as well as **from the city government and various private companies**.

Today CuencaVerde convenes private and government partners to strengthen water and biodiversity governance and management through nature-based solutions.

The Fund runs active programming, including restoration projects with companies, capacity building, and awareness raising - like its community ambassador programme, ‘GuardaCuencas’.



In addition to the city’s leadership role in setting up the initiative - the head of the city’s Environment Department is a member of CuencaVerde’s board and the Mayor approves EPM funding - there is a **working relationship**, in that the Fund participates in city projects and vice versa. Private sector involvement is facilitated through tax incentives for contributions to a non-profit.

LESSONS

Through the establishment of specific funds, cities can create **governance structures** that enable and support multi-stakeholder collaboration to address specific climate issues by crowding in investment and expertise.

CuencaVerde carefully tracks its investments and achievements. Outlining **clear benefits** by quantifying return on investment and impact where possible, helps to drive investment in climate actions.

Nairobi, Kenya:

Green Building Guidelines

Model: Non-Commercial Convening

The Kenya Green Building Society (KGBS) promotes local green building principles and worked with the city of Nairobi to successfully develop green building guidelines.

THE CHALLENGE

Building codes in Nairobi date back to the 1970s, despite the increasing need and market for greener buildings. Nairobi's Climate Action Plan 2020-2050 includes the revision of building codes for improved energy efficiency as one of the plan's supporting actions.

HOW IT WORKS

KGBS convenes over 200 private and public members to promote green building guidelines in collaboration with the government. The CEO is also a special elected member of Nairobi's city council and this helps KGBS navigate government protocols.

In 2019, the city of Nairobi and KGBS partnered on green building guidelines through the World Resources Institute's Building Efficiency Accelerator. Using a series of workshops and training, they co-developed new green building guidelines for the city.

The city then pledged to adopt them in its building approval process. The aim is to phase in compliance starting with 50% of the guidelines.

Nakuru and Laikipia Counties are now also working with KGBS to apply these green building guidelines.

KGBS offers value to the city as an independent actor bridging public and private stakeholders. It also offers support in the form of advocacy and training, as well as intelligence sharing through its Jenga Green Library, a green building materials and services directory.



LESSONS

An independent actor like KGBS can play an important role in building collaboration and consensus around diverse objectives. Having a mixed public and private membership and a clear vision, greatly facilitates this process.

Using workshops and training to mainstream new information - in this case building guidelines - is essential to ensure they are applied on the ground, rather than sit as documents on a shelf.

Pune, India:

Electric Vehicle Cell

Model: Non-Commercial Convening

Pune created India's first Electric Vehicle (EV) Cell in October 2021- a cross-department team aiming to build the EV ecosystem. It has already fast tracked several EV policies and interventions.

THE CHALLENGE

The EV ecosystem consists of multiple city departments and various other stakeholders. Pune needed to fill the gap of effective coordination to become "EV ready" and align with national goals of carbon neutrality.

HOW IT WORKS

The EV Cell formed a monthly steering committee chaired by the Municipal Commissioner, and a working committee supported by a secretary from the environment department. RMI India, a non-profit organisation, provides technical assistance. Other departments involved include Roads, Transport, Electrical, Environment, and Motor Vehicles.

The Cell engages with the private sector and facilitates cross-departmental implementation and policy-making to overcome the challenges identified and support the active participation of the manufacturers and operators in the transition to low-carbon transportation models. For example, the Cell produced the city's first EV Readiness Plan.

The Cell also convened property developer associations to give feedback on a municipal policy requiring charging stations on a percentage of parking bays in new buildings. The Cell engaged with a rickshaw drivers union, banks, and manufacturers to create better financing opportunities for rickshaw electric transitions.



The work of the Cell is increasingly relevant given Pune's ongoing public transport electrification, expected to reach 50% of its bus fleet in 2023.

LESSONS

Convening government departments and private actors is an effective way to strengthen the EV ecosystem. Focusing on both policy and implementation, as the Pune EV Cell is doing, can accelerate this process.

Cities can work with non-governmental partners to bring in expertise and technical support; in this case it also allows Pune to test ideas more freely. For example, the EV Cell convened stakeholders to explore solutions to ongoing challenges in the electrification of rickshaws.

Balikpapan, Indonesia:

My Innovation House

Model: Enabling Innovation

Balikpapan set up My Innovation House - a platform and contest showcasing **innovative solutions to urban problems**.

THE CHALLENGE

With a high vulnerability to sea level rise, flooding risks, and deforestation, Balikpapan set out to become a **leading Indonesian city in climate innovation**. But the city government lacked a way to gather innovation data or to promote sectors working on climate solutions.

HOW IT WORKS

In 2022, Balikpapan's Development Planning Agency created an **online portal called My Innovation House**. The portal allows users to upload their innovations. They can also submit them to an annual innovation contest.

Themes range from renewable energy and waste to sustainable agriculture and more.

Participants include high school and university students, government departments, and private companies such as Banana & Partners, a waste management start-up that won an award in 2022.

Through My Innovation House, the city government facilitates **access to non-financial opportunities** such as local or international networking and publicity. All submissions are publicly available on the portal.

The city also helps winning companies navigate existing regulations and **fosters relationships** through regular meeting opportunities with the start-ups.



LESSONS

Cities can **embrace local knowledge** to find well-fitting solutions. As in Balikpapan, local actors are often best placed to provide ideas, and the city government found a practical way in the form of an innovation portal to **support and encourage** them.

The portal is also relatively straightforward to use, opening it up to a range of stakeholders. Cities can drive **inclusivity in innovation** through programme design and encouraging participation through competitions.

eThekweni, South Africa:

Open Data Crisis Map

Model: Enabling Innovation

In the midst of extreme flooding, the eThekweni municipality partnered with two local tech start-ups who had created a **digital mapping tool** connecting residents to humanitarian relief resources. With 1,600 daily users at the time, this map helped the **city's crisis response** and contributed towards its climate preparedness efforts.

THE CHALLENGE

In April 2022, unprecedented floods and landslides devastated the municipality area. With this additional pressure, access to **real-time disaster-related information** became challenging.

HOW IT WORKS

Local companies Black Box and Pista Ventures rapidly built a digital map that allowed individuals to log their location and indicate if they needed or could provide aid or assistance.

The municipality had previously worked with these companies and, seeing the map's reach, city officials invited them to join its **'nerve centre'**, made up largely of government agencies. The map provided the real-time data crucial for the municipality's ability to **coordinate its response**.

From within the centre, they worked together to **collate and improve that data**, while identifying gaps and necessary adjustments to the map.

While the companies worked on the disaster response pro-bono, the experience helped them to **start pursuing further private investment** for related projects. Meanwhile, the municipality has since developed various dashboards with current information on climate preparedness, such as flood vulnerability.



LESSONS

During a crisis, local companies can often respond quickly and usually do not have lengthy procurement procedures to follow. **Cities can enable these rapid innovations** through non-financial partnerships and facilitating access to city-based structures that are coordinating responses.

As with eThekweni's subsequent dashboards, these partnerships can also help cities **strengthen their future preparedness**. Such tools can be used for different purposes - real time information about floods, flood relief, violence mapping, or vulnerability mapping, provide a way for cities to **visualise and connect** with challenges on the ground.

Florianópolis, Brazil:

Cultiva Floripa

Model:
Enabling Innovation

In 2017, Florianópolis started its Municipal Urban Agriculture programme - named Cultiva Floripa - to reinvigorate **sustainable agriculture** in the city. By 2023 there were 200 urban food gardens.

THE CHALLENGE

The city's surrounding municipalities supply most of its produce. This creates problems for the city around food transport emissions, waste management, and inaccessible fresh produce.

HOW IT WORKS

Cultiva Floripa aims to strengthen local and **sustainable agricultural practices, increase access to healthy food, and reduce emissions and food waste**, while creating more green spaces and economic opportunities. It was created through a city decree and is led by a team of several city departments.

The city government provides agricultural training to communities in partnership with the Rede Semear agroecology network and the Centre for the Study and Promotion of Group Agriculture, an organisation founded by **small-scale farmers**. Within its first year, the network completed over 50 workshops.

The city created retail spaces such as fairs for small producers to sell directly to the public. They also support local producers through advice on public policies such as the PAA (National Food Acquisition Programme) and PRONAF (National Family Agriculture Programme).

A partnership with CAIXA bank's Socio-Environmental Fund is funding additional city-wide composting services, including homemade vermicompost, decentralised community composting yards, and city-managed composting in apartment blocks.



LESSONS

Cities can turn commitments on sustainable agricultural practices into **workable programmes**. Identifying priority intervention areas and partners is important. Cultiva Floripa's focus on training and creating **clear economic opportunities** was key, as was working with organisations outside of government.

Similar programmes can have positive knock-on climate benefits and cities can play a critical **enabling role** in the process. For example, more urban gardens and composting leads to increased urban greening and healthy food access.

Mendoza, Argentina:

Urban Laboratory of the City of Mendoza

Model: Enabling Innovation

The city of Mendoza's Urban Laboratory is an **experimental space** to innovate on sustainable urban development, urban ecology, and citizen urbanism.

THE CHALLENGE

Facing a rapidly growing urban footprint, the city government lacked the ability to experiment and test projects in a way that would facilitate innovation. In 2021, Mendoza's planning department launched the Laboratory to **deal with this gap**.

HOW IT WORKS

The Laboratory uses a three-pronged methodology.

First, they connect stakeholders and co-create **pilot projects** through workshops with universities, private companies, and civil society.

Second, they **collaborate** with these stakeholders to run the pilots as experimentation.

Third, they **validate and adjust** projects before they are taken forward in the city's programmes or by private actors.

In one project for example, they worked with a professional association of property developers to create a digital map hosted by the city government. The map makes land use information public and free, such as where development is allowed in relation to sustainable development.

In 2022 the Laboratory won the Inter American Development Bank's (IDB) "Cities for All Challenge", which will enable it to test new circular



economy building techniques in the city. With the award, they are co-creating a **community self-construction project** using solid urban waste in Sierras Altas, a low-income neighbourhood of the city.

The Laboratory is led by staff within the planning department, but brings in several city departments.

LESSONS

The Laboratory benefits from a **multi-disciplinary team**. Cities can use such cross-departmental collaboration to strengthen experimentation, innovation, and collaboration, while also maximising resources.

Its work shows the importance of a strong methodology. Apart from setting a good foundation, this ensures that the public sees value and allows for ongoing political backing.

Mexico City, Mexico:

Vallejo-i Industrial Zone and Innovation Centre

Model: Enabling Innovation

Mexico City launched the Vallejo-i programme to transform the industrial zone of Vallejo into a **green business** and sustainable development hub through catalytic infrastructure and investment.



THE CHALLENGE

The industrial zone of Vallejo was established in the 1940s. Following years of declining output, large-scale intervention was needed for it to be productive; and this presented an opportunity to **drive sustainable development**.



HOW IT WORKS

From 2019 to mid-2023, the city invested US\$57 million in infrastructure into the Vallejo area to create higher densities, mixed land use, public spaces, and affordable housing. The investment was based on a **circular economy strategy**, including the installation of renewable energy sources and a sustainable waste management and recycling plant.

Setting a foundation through the infrastructural investment, the city government actively **promoted opportunities** for businesses to invest or relocate to the area. They engaged with roughly 300 companies or business associations through 22 meetings.

By mid-2023, private investment had reached roughly US\$800 million, with both small and large companies moving their operations to Vallejo.

Within Vallejo-i, the city also created a Center for Technological Development and Innovation (CDIT). CDIT supports start-ups, provides training on relevant technology, and provides a platform for the public and private sector to **innovate collaboratively**.



For example, CDIT co-organized an energy transition 'ideathon' in 2023, selecting eight start-ups to join a summer accelerator programme. Similarly, CDIT invested in a joint project with an electric motor company and the National Autonomous University of Mexico on electric truck parts and batteries. This led to the **first electric trucks** produced in Mexico.



LESSONS

Cities can maximise investments through **catalytic programs**. As with Vallejo-i, a city can create the conditions for innovation and broader investment under a common vision.

In that vein, place-making or urban redevelopment can be a great opportunity to **bring businesses together, build trust, and enable innovation**.

The Mayor's expertise on climate change and political will was important in setting the project in motion. Once established, the project's focus on innovation allowed it to address multiple sectors.

Rio de Janeiro, Brazil:

Resilience Challenge Incubator

Model: Enabling Innovation

The Operations and Resilience Center of Rio (COR) created the COR Challenge, an incubation programme for start-ups working on **climate action planning and urban resilience**. By its third edition, it had supported nine start-ups to build solutions used by the city.



THE CHALLENGE

In 2010, city-wide flooding showed the need for a centralised operations centre for city agencies to **coordinate disaster response**. Soon thereafter the Mayor established COR. By 2018, the team realised the need to leverage external innovations.



HOW IT WORKS

For each COR Challenge, the city government identifies a climate-related problem and invites start-ups to propose solutions. COR incubates the winner for two years, offers **mentoring, and provides full access to city data** needed to build the solution.

This endorsement gives legitimacy to the start-ups and helps them to **reach new partners and markets**. In return, COR integrates the solution into their work.

Solutions include an application measuring carbon emissions of the city's bus fleet, and artificial intelligence monitoring cloud direction and possible flooding.

COR partners also include international actors like NASA, Waze, and C40, thus **connecting local and international innovations and companies**.




LESSONS

Successful incubation entails finding the right type of expertise to **ensure robust mentoring, facilitating open data to improve solutions, and having clarity** on the problem the start-ups are expected to solve.

Moreover, implementing solutions incubated within COR makes the programme more impactful. This process is substantially aided by housing the COR Challenge within the centre itself in close proximity to where the work is being done.

Surat, India:

Rooftop Solar Panels

Model: Enabling Innovation

Surat's rooftop solar programme created a **model for solar panel installation** in India. Today there are more than 400 solar panel vendors and 45,000 households with rooftop solar panels installed in the city.

THE CHALLENGE

With the largest diamond polishing industry in the world and one of India's fastest growing cities, Surat needed a way to drive **renewable energy** projects and **energy efficiency** at large scales.

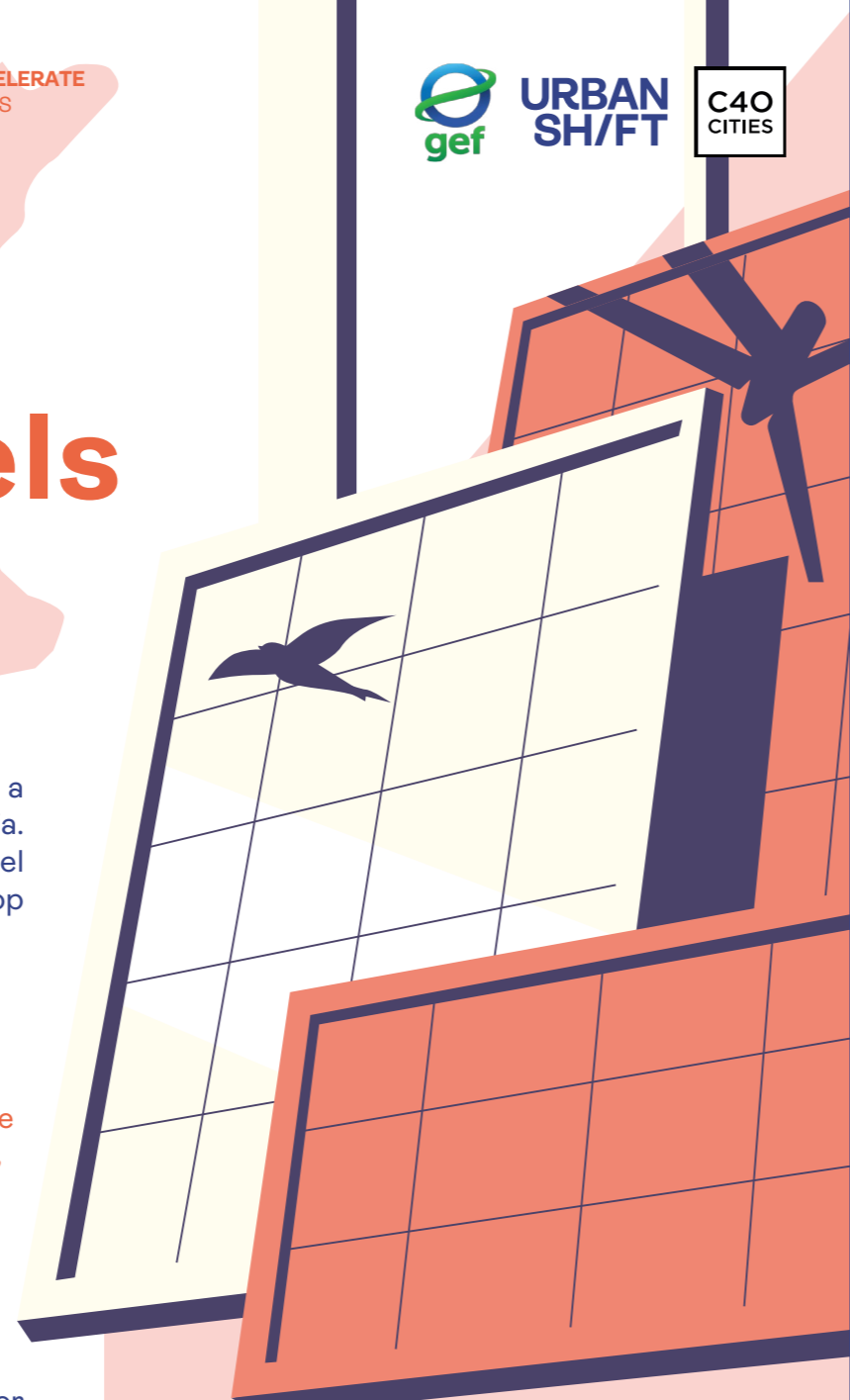
HOW IT WORKS

The city created a web portal and app for households to apply to install rooftop solar panels, and offered them a 30% subsidy.

Meanwhile, potential vendors - from small enterprises to large companies - could apply through simple tenders to join the programme, receive training, and access this market.

Playing the role of a **facilitator** between businesses and households, the city government also **promoted the programme** more broadly, including the training of university students to go door-to-door. The city assisted at least one resident per neighbourhood to install the panels, following a 'seeing is believing' strategy.

The model was so successful that in 2017 the state government of Gujarat adopted Surat's system and began to manage requests across the state.



LESSONS

Cities can drive initiatives by **creating an economy** where businesses and customers can interact. In doing so, tools should be simple and user-friendly. Surat created a favourable enabling environment and streamlined the process for both applicants and vendors.

Creating the system is one part, **awareness raising and broad buy-in** is equally necessary to make it work. Exploring diverse strategies such as door-to-door and neighbourhood showcasing can help in substantially improving new and clean technology adoption.

Bangkok, Thailand:

Khlong Toei Circular Economy Model

Model: Market-Shaping Policy

Bangkok and Thailand's Public Private Partnership for Plastic and Waste Management (PPP Plastic) worked with companies and communities to **develop a dynamic and adaptable circular economy model**.

THE CHALLENGE

Marine plastic pollution is an increasing threat facing Thailand. As its largest city, Bangkok needed to leverage scarce resources to innovate with all stakeholders in the value chain.

HOW IT WORKS

The city and PPP Plastic set up a joint steering committee and began the project in the district of Khlong Toei. PPP Plastic is a mixed-ownership company that **convenes public and private sectors on circular economy systems**.

The team signed MOUs with various large companies and buildings to **co-design functional waste systems**. More efficient waste management for companies would bring a 10-15% reduction in waste collection fees, as well as improved standing with their increasingly climate-conscious consumers and investors.

Working with community groups and consumer behaviour experts, the city and PPP Plastic created an application **connecting buyers and sellers** of recyclable and organic waste materials, undertook **research and awareness campaigns**, and designed easy to use drop-off sites to facilitate pre-sorting of waste.

Through the process, they developed a handbook based on the Khlong Toei model so that it could be replicated or adapted in other parts of the city **without extensive resources**.



LESSONS

Cities can **use pilots and real time validation**, as seen in Khlong Toei, to test and develop commercially viable systems for waste management, with clear benefits to stakeholders.

Solving complex waste management challenges requires expertise from a diverse group of stakeholders on **consumer behaviour and circular economy systems**. PPP Plastic brought industry, academic, and government knowledge together to solve this challenge; **making the sum greater than its parts**.

Puducherry, India:

Green Budgeting to Integrate Sustainable Procurement

Model: Market-Shaping Policy

Puducherry is using green budgeting to **integrate and promote** sustainable procurement across the city's spending and initiatives.

THE CHALLENGE

Puducherry recognized the potential impact of climate threats including **extreme weather and coastal erosion** on the city's residents. But it needed a way to **leverage its resources** and initiatives in more coordinated ways and saw an opportunity in the budgeting process.

HOW IT WORKS

Puducherry's green budgeting policy is managed by its Finance Department, and aims at integrating green budgeting across all departments.

The first Green Budget report was released in 2023 with technical assistance from the The Energy and Resources Institute (TERI). It provides a **baseline** of green initiatives and spending by the city on the basis of 29 themes such as climate change mitigation, water quality, or renewable energy.

Puducherry is using **green budgeting** as an innovative way to develop **sustainable procurement practices**. This includes purchasing goods like recycled paper and energy efficient appliances, but also within broader initiatives and service provision. For example the city is procuring renewable solar and wind energy, and granting subsidy assistance to small-scale fisherfolk to acquire more climate-sensitive boats.

By identifying the range of spending and initiatives through green budgeting, the city can more intentionally promote sustainable procurement when working with the private sector across sectors and programmes. Increasing the



allocation of government spending towards green projects **increases opportunities for local sustainable businesses**.

Following the introduction of the Green Budget, sustainability-based budget allocations of the Union Territory increased by 153% for the financial year 2023-24, according to the Green Budget Report. The Electricity Department made up the largest share with 32% of the Green Budget, followed by the Public Works and Agriculture and Farmers Welfare Departments. The green budget percentage of the total budget **increased from 1.66% to 4.17%**.

LESSONS

Green budgeting enables cities to coordinate and plan green spending. Puducherry is showing that it also provides a systematic way to promote sustainable procurement across departments.

Technical assistance is valuable when initiating new processes. Cities can maximise the key role independent experts and organisations play and leverage their expertise to design effective programmes.

Salta, Argentina:

“Hoteles Más Verdes”: Greener Hotels Certification

Model: Market-Shaping Policy

Salta is partnering with the Argentina Association of Hotels (AHT) to mainstream the **Greener Hotels sustainable tourism certification**. The city aims to have the largest number of certified hotels in the country by 2025.

THE CHALLENGE

In 2020, Salta launched several certifications as part of its “Sustainable Salta” programme. As tourism is a significant part of the city's economy - and its Climate Action Plan - they needed a recognized certification tailored to the hotel industry.

HOW IT WORKS

AHT originally developed Greener Hotels to promote sustainable tourism in Latin America. The city government and AHT signed an agreement based on their **common objectives**, and function as a team with flexible roles.

The certification programme includes **public recognition, coaching, and training on social, economic and environmental best practices**. Certification levels are awarded according to levels of climate-sensitive management and social responsibility.

Hotels also receive free renewal of a city-issued mandatory environmental certificate; and benefit from accessing a growing green tourism market.

Hotels pay between 15-20% of the overall certification process cost. The remaining cost is split, with the city paying for activities like coaching, while AHT covers the certification itself.



LESSONS

Certification programmes can have a significant impact with businesses, but these programmes are most effective when **linked to a long-term agenda**. To do this, it helps to design them in ways that go beyond the certification, by including coaching or training.

Using recognized certifications before creating new ones also helps to maximise resources, as it **builds on existing legitimacy** and becomes more appealing to business stakeholders and customers.

Salvador, Brazil:

Sustainable Building Certification and Tax Discounts

Model: Market-Shaping Policy

Salvador's IPTU Verde (IPTU) programme uses tax discounts to incentivise individual, commercial, and industrial property developments to **incorporate sustainable building practices**. The programme is one of the actions listed in the city's Climate Action Plan.

THE CHALLENGE

With a geography of flat areas with steep surrounding slopes and unplanned urbanisation, Salvador is vulnerable to **extreme weather events**, particularly flooding. The city needed ways to promote a more sustainable construction industry.

HOW IT WORKS

The city awards points for sustainable solutions included in a development, for example, water-saving equipment, solar panels, or bicycle racks. Projects are then certified as bronze, silver, or gold - each offering tax discounts of 5, 7, or 10%.

The city also offers a 'Green Grant' - up to a 40% discount on the fees ordinarily payable as developments increase in height. This is a significant saving for companies.

The city government held meetings with groups such as the Union of the Construction Industry of the State of Bahia (SINDUSCON-BA) and the Association of Real Estate Market Executives of Bahia (ADEMI-BA) to jointly **establish industry-informed criteria** for IPTU.

The primary city contribution is **staff time**. The exempted amounts do not impact the overall city budget in terms of its revenue, while Salvador's municipal law allows for the granting of discounts.

Eighty-five developments benefited by mid-2023 and it remains high on the agenda for business groups.



LESSONS

The programme developed **legitimacy and acceptance** by involving the private sector early on and taking their inputs seriously.

Industry expertise was central to formulating **realistic and effective criteria**. When undertaking such a certification, well-defined criteria, where businesses understand the requirements, help to facilitate their investment in sustainable practices.

Accra, Ghana:

Accra Greening and Beautification Project

Model: **Public-Private Partnerships**

As part of Accra's resilience strategy, the city launched its **Greening and Beautification project** in 2018 to green public spaces in collaboration with private companies. Accra's City Hall is one of its best examples, now attracting the broader public to enjoy the space.

THE CHALLENGE

The municipality identified the value in **greening public spaces to improve air quality**, to prevent flooding through more permeable surfaces, and for biodiversity protection. However, the resource constraints in a context of **multiple pressing issues** created a serious challenge to achieve this.

HOW IT WORKS

The Greening and Beautification project was launched with an **"adopt a space"** campaign. This encourages private stakeholders, particularly banks, to submit proposals to 'green' a strategic public space, usually around their place of business.

Once a design is finalised, an MOU is signed between the city and the company. **The companies provide the financing and procure contractors to do the work**. The companies also maintain the space after completion.

This project is helping the city **achieve its sustainability objectives**, while improving the space around the companies' offices. The municipality is now applying similar approaches in **public buildings**, such as rooftop urban farming.

LESSONS

Simple schemes, such as Accra's "adopt a space" campaign, are **highly replicable** and bring nature into cities even when resources are constrained. Greening contributes to **beautifying the city** and these visible results can show concrete ways for the city and the private sector to collaborate. It also helps to **build public support**, which in turn drives more companies to invest.

As is evident in Accra, to do this cities can focus on industries such as banks that have a **vested interest in their corporate social responsibility** and are increasingly concerned about climate impacts on their industry.



Bogotá, Colombia:

Shared Bicycle System

Model: Public-Private Partnerships

IN 2021, Bogotá launched its shared bicycle system in partnership with the company Tembici, with an innovative model utilising public space. As of mid-2023, use of the system **exceeded projections by 30%**, with 2,000 trips made daily.

THE CHALLENGE

While Bogotá is a regional leader in cycling road infrastructure, the city needed a **viable financial model** to attract private resources for a shared bicycle system, in light of its pressing air quality and traffic challenges.

HOW IT WORKS

The city government does not pay Tembici a fee. Instead, a seven-year contract gives the company **exclusive use of selected public space** on which to install and run the programme.

Tembici funds all infrastructure and operations. It then compensates the city for use of this space through **in-kind payment** such as new public bicycle parking and a percentage of advertising earnings.

With nearly 300 stations across the city, and 3,300 bicycles, Tembici's income is made up of user fees and advertising at stations and on bicycles.

Designed for inclusivity, the system offers hand-bikes for riders with special needs, attachable child seats, and electric bikes. The team engaged residents about location and design which helped to improve ownership and awareness about the programme's long-term benefits.



LESSONS

City-owned assets such as public space can **leverage additional value** for local government; as long as the financial model has clear **public benefits**. In Bogotá, the system itself is providing a public good, as are the in-kind payments.

In addition, a contract with an appropriate **timeframe** for the business model provides certainty and value for both the company and the city.

Chennai, India:

Tamil Nadu Green Climate Company's Meendum Manjappai Campaign

Model: Public-Private Partnerships

Chennai is cementing a state-wide single-use plastic ban by linking **small women-led enterprises** and start-ups to create vending machines supplied with sustainable shopping bags.

THE CHALLENGE

The state of Tamil Nadu banned single-use plastics in 2019 due to plastic-related water pollution and plastic burning. Therefore, **an alternative to plastic bags was needed**.

HOW IT WORKS

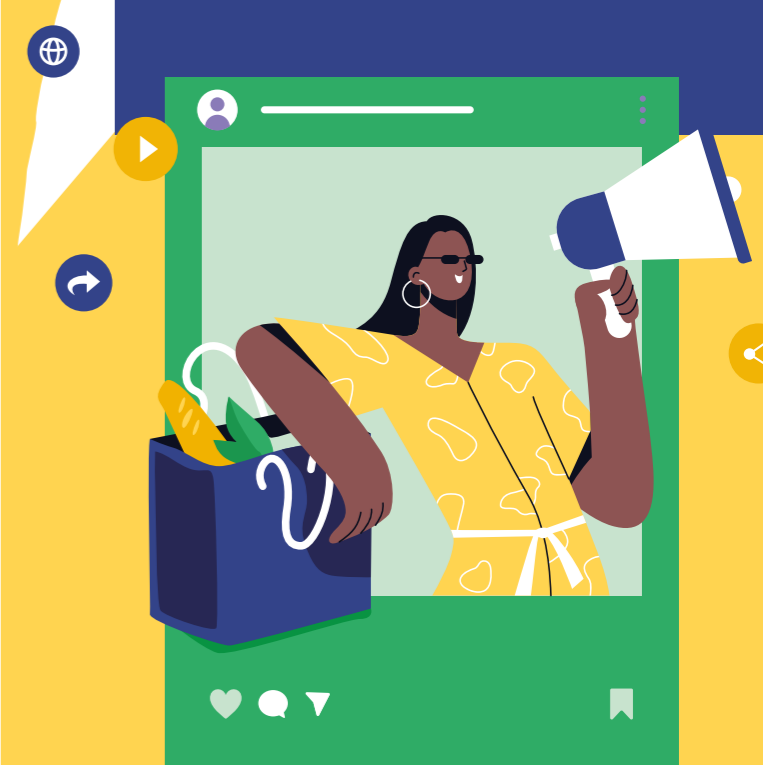
The Tamil Nadu Green Climate Company (TNGCC) started the Meendum Manjappai campaign to make cloth bags available at an affordable price. They are inspired by the South Indian tradition of "manjappai" yellow cloth bags, traditionally given out at ceremonies such as weddings.

The Tamil Nadu state government created TNGCC as a Special Purpose Vehicle to **facilitate sustainability-related partnerships and projects**.

After the campaign started, a TNGCC official saw an unrelated vending machine demonstration and posted the idea of using it for the campaign on social media. Several start-ups responded and then developed self-funded prototypes.

The city of Chennai, TNGCC, and others created a **special task force**. They signed an agreement with the vending machine companies for all bags to be sourced from women's 'self-help groups' to create good, **green job opportunities**.

By 2023, there were roughly 60 vending machines in Chennai, with more planned.



LESSONS

Vending machines were not part of the original plan, but the **team's agility** enabled them to successfully solve the problem of bag distribution. Being **open to the unexpected** can enable innovation.

Likewise, considering the end-user when designing campaigns is key. Plastic is cheap and an alternative must be accessible and affordable to create a viable business model. By **engaging the community**, and creating **good green jobs for women**, the campaign has received a positive response.

Dhaka, Bangladesh:

Mobile Towers with Sustainable Public Infrastructure

Model:
Public-Private Partnerships

Dhaka North is working with telecommunications companies to ensure they include **sustainable public infrastructure** in new telecom towers located on city-owned land.

THE CHALLENGE

Telecommunications companies often need to install infrastructure in public space to grow mobile networks. In Dhaka, they need permission from the city government and pay a rental fee. At the same time, installing new sustainable infrastructure can be prohibitively expensive for cities. **This gap created an opportunity.**

HOW IT WORKS

Through a city-led partnership, an MOU was signed for a private company to install and provide additional public infrastructure as part of the agreement to rent the space. This started with LED lighting, given that many towers were near footpaths, as well as free public WIFI.

Other companies joined the programme and a philanthropic organisation has agreed to help fund air quality sensors. This will give the city much needed data on air pollution.

It took 18 months to launch the programme, primarily to adapt city procedures and engage with all the relevant departments. The Mayor's Office believed that **a public benefit should be derived in exchange for businesses accessing public space.**

LESSONS

Cities can **leverage new contractual agreements to respond to gaps in public services**; particularly with new physical infrastructure as in the case of Dhaka.

Partnerships can snowball and attract additional support. What was initially an agreement with one company led to a complementary set of partnerships.

In a context where shifting mindsets and systems inside government is necessary, **Mayoral commitment**, and taking the necessary time to generate internal buy-in, is key.



Jakarta, Indonesia:

Public Transport Electrification

Model: Public-Private Partnerships

TransJakarta, the public transport authority in the Indonesian capital, launched its roadmap to electrify public transport with a pilot of 100 electric buses that **successfully integrated** a range of operators into the system. Jakarta is aiming for **100% bus electrification by 2030.**

THE CHALLENGE

The roadmap was part of **Jakarta's signing of the C40 Green and Healthy Streets Accelerator.** However, electric buses carry high upfront costs and the public transport system consists of many large and small operators, including thousands of micro-bus operators.

HOW IT WORKS

Starting in 2019, the electric bus pilot public-private partnership (PPP) used a gross cost contract model, also known as a buy-the-service arrangement. The operators procure the buses and the city pays them a fee per kilometre on an exclusive route. TransJakarta receives the income from fares that bus users pay.

Since few companies have enough capital to buy large fleets, TransJakarta also worked on contracts with a **large number of smaller operators.** Out of 22 bus operators involved, close to 50% were small fleet operators organised in co-operatives, with fleets owned by individuals within the co-operatives. The Jakarta governor increased the concession period from seven to ten years, allowing for **better returns** on the investments.

The **roadmap's incremental structure** helped to secure the business model first, while allowing time to integrate new players into the system



prior to their electrification. For example, TransJakarta is bringing in micro-bus operators who will be part of future electrification phases.

Passenger surveys on the electric bus pilot showed very **high levels of satisfaction** across different factors such as on-board environment, noise, and comfort.

LESSONS

TransJakarta's experience shows how important it is to **understand the operating conditions** and get the business model right early on; and to do so in a way that is appropriate for the existing range of operators.

Cities can then also better develop effective incentives, such as **concession length** or more **favourable payment schedules** that can accelerate the deployment of key sustainable infrastructure.

Kigali, Rwanda:

Imbuga City Walk Car-Free Zone:

Model:
Public-Private Partnerships

Imbuga City Walk, a **520 metre corridor**, is Kigali's largest car-free zone. Developed by the city government, and managed by a private company, the street is **breathing life into public space**.

THE CHALLENGE

The city sought to **reduce traffic and emissions** in the city centre by removing vehicles and creating **greener public space**, a scarce commodity in the Rwandan capital.

HOW IT WORKS

Completed in 2021 by the city's Urban Planning Department, Imbuga City Walk has green spaces, event areas, small business kiosks, benches, and other pedestrian-friendly infrastructure.

The city collaborated with the University of Rwanda's School of Architecture on the concept, and then contracted and worked closely with two companies for the design and construction. Using a **participatory approach**, the city sought the inputs and ideas of local businesses and discussed their concerns about the potential impact of reduced street parking on their business.

Once operational, the city formulated an **innovative management contract** with a private company, Mopas, to manage and increase activity in the space, such as concerts.

Mopas does not pay a fee or rental. Rather, the company uses the profits from the space - advertising, events, and rentals - to maintain it. The city expects to receive a percentage of the profits in subsequent years.



LESSONS

Participatory approaches in infrastructure projects not only help to **generate buy-in**, but also **improve design and implementation**. The project ultimately benefits local enterprises since their inputs were heard throughout, while the **increase in pedestrians is good for business**.

An innovative management contract of public space can also allow for all parties to **bring their resources and capacities together** in a way that makes a project viable and impactful.

Marrakech, Morocco:

LED Public Lighting Project

Model:
Public-Private Partnerships

Marrakech and private company Enertika Magreb set up a local development company to **convert the city's public lighting to energy efficient technology**. Marrakech became Morocco's first city with fully equipped LED lighting.

THE CHALLENGE

With a **declining lighting network** in need of constant maintenance, Marrakech's growing and unaffordable energy bill was no longer viable.

HOW IT WORKS

In 2017, the city government and Enertika Magreb contributed **61%**, and **39%** respectively to establish Hadirate Al Anwar as a local development company (LDC) - a type of public-private mixed ownership company that promotes local development. The total investment was roughly US\$60 million.

Due to the efficiency and longer lifespans of LED technology, **the city saves 60% on operating costs and 80% on replacement costs**. Part of the savings funds a fixed fee for the company to do the work. The LDC works through an exclusive implementation contract.

After an assessment of possible implementation challenges was carried out, the LDC became responsible for installing and operating the LED technology, managing a GPS-based information management platform, public reporting of operational issues, and doing energy consumption measurements.

The project successfully rolled out LED lighting to the entire public lighting network.

LESSONS

Marrakech made a large upfront investment to show commitment and to reduce the risk taken on by the private company. Likewise, there was a **solid contract** in place to ensure performance and delivery according to agreed standards.

To complement such investments, cities can also look to **projected savings**. As in the case of Marrakech, and especially for capital-intensive projects, this can help build **viable financial models that benefit both government and the private sector**.



San José, Costa Rica:

Mixed Ownership Companies for Sustainable Development

Model:
Public-Private Partnerships

San José is using **mixed ownership companies** to drive sustainable urban development and create **legal frameworks** that facilitate these partnerships.

THE CHALLENGE

In San José, long-standing urban sprawl has intensified housing and densification needs. Municipal budgets cannot easily absorb these costs. The city needed to **attract private resources** and expertise, particularly for sustainable building, mobility projects, and repopulation of the city centre.

HOW IT WORKS

The Built Environment and Infrastructure company (SPEM SJ) was established in 2020 by the city and San José 2020, a consortium of local companies with a track-record in the construction sector.

SPEM SJ was the first mixed-ownership company in Costa Rica with 51% owned by the city government. Its projects however were temporarily put on hold until budget approval technicalities could be resolved. These stemmed from the limited legal framework for mixed ownership companies. The National Audit Office requested that SPEM SJ's budget be approved within the public budget process since they planned to use public funds.

San José subsequently established a second mixed-ownership company called



"Technological City", to create an innovation district in the city centre to densify and enable more sustainable mobility. This company is using only private financing and will likely bring in public resources once the legal issues are settled.

LESSONS

Where mixed ownership companies are evolving, legal frameworks may lack precision. Cities will need to **test regulatory dynamics**, or as in the case of San José, explore **phased financing**.

Cities can also use the establishment of these companies to propel the creation, or strength, enabling laws and processes.

Shenzhen, China:

Sponge City

Model:
Public-Private Partnerships

Shenzhen is a leading city in China using the "Sponge City" model to **design and engineer with nature**. Using a multi-faceted approach to bring in the private sector, Shenzhen reached over 46% city-wide coverage in 2022.

THE CHALLENGE

Shenzhen's rapid growth led to a **water ecology crisis** and they needed a way to systematically respond. In 2016, the city became part of the second batch of pilot cities for the construction of Sponge Cities, promoted by the State Council, as well as relevant ministries and commissions.

HOW IT WORKS

A Sponge City is an urban development model that allows for the absorption, storage and slow release of rainwater. Using ecological sponge measures such as permeable pavements, rain gardens and grass ditches, rather than traditional grey engineering methods, facilitate rainwater **purification, accumulation, and reuse**.

Many of the 1,000+ Sponge City projects completed are government-implemented, while others are financed through varying large scale and smaller PPP agreements. Companies are incentivized with subsidies and through split investments where the city covers portions of the projects. The role of city government changed from manager to **supervisor and partner**, supplementing public sector capacities to meet the growing demand for local development.

The city also integrated sponge city requirements into local building standards. For instance, a large business, Tencent, recently completed their global headquarters in Shenzhen and integrated rooftop water collection and permeable ground level tiles.



LESSONS

Facilitating multiple projects of different sizes can help cities expand a programme's reach with the private sector. As in Shenzhen, **agreements can be project dependent** rather than one-size-fits all.

PPP models can finance sponge city development for both public projects and private sector developments. But these are strengthened when they form **part of a coherent nature & resilience policy**.

Semarang, Indonesia:

West Semarang Water Supply Project

Model: Public-Private Partnerships

Semarang set up the West Semarang Water Supply Project using a **public-private partnership** (PPP) to treat dam water and help reduce groundwater extraction. Since 2020, the city has received the Regional Development Planning Award from the national government three times for its work.

THE CHALLENGE

Developed along a river catchment, the city faces frequent flooding, a contaminated water supply, and most seriously, land subsidence as groundwater extraction causes land to sink.

HOW IT WORKS

The PPP was established in 2019, primarily for infrastructural development. The city was the contracting agency, using a Build Operate Transfer (BOT) scheme with a 25 year concession, where the company transfers the water treatment facilities and pipeline networks to the city after project completion.

The project had **strong support** from both the Mayor and the national government, as well as from a national PPP unit.

Operational as of 2021, water from the Jatibarang Dam is treated to supply more than 60,000 households with clean water. **The city used this project's infrastructure to address other local needs.** For instance, surrounding communities received business development support through training on sustainable tourism, with a particular focus on **protecting biodiversity, such as the native monkey population.**

The total investment was US\$80 million, of which US\$30 million was private investment. The water system has a capacity of 1,000 litres per second.



Project infrastructure served multiple purposes. In addition to making sure water is affordable to residents, the city created an amphitheatre, built at the dam, which is freely available for residents to use. Given its success in reducing groundwater extraction, the city is in discussions to **replicate the project** in the east of the city.

LESSONS

Cities should, as much as possible, build commitment from **different spheres of government**; in this case, the national government is also one of the funding partners. This helped Semarang **secure private financing** that would cover multiple mayoral terms, giving the private sector **confidence** that the project would continue throughout these political transitions.

Curitiba, Brazil:

Solar Pyramid

Model: Business-Focused International Partnerships

Curitiba built the first solar plant on a landfill in Latin America and the **largest urban solar farm in Brazil.** With an international partnership, the project also incorporated **gender-specific measures** in the tender process to generate good, green jobs for women.

THE CHALLENGE

While the main source of electricity in Curitiba is hydroelectric, recent droughts have increased reliance on gas and coal to make up the shortfall. At the same time, the Caximba landfill on the city's outskirts was active from 1989 to 2010, having filled **12 million tons of waste.**

HOW IT WORKS

Building on the city's renewable energy strategy, "**Curitiba Mais Energia**", the municipality approached the C40 Cities Finance Facility, to form a partnership that would include technical support and additional funding.

With 8,500 solar panels and 8 MW installed capacity, the Solar Pyramid supplies clean energy for public buildings. The energy runs through public energy company COPEL's network and the company then deducts the value of that energy from the city's bill. The project **saves around 30% of the energy bill** of public buildings - US\$500,000 per month that can be used for other public services. Curitiba spent roughly US\$6,000,000 on implementation.

When contracting the solar installation companies, the bidding notice had a particular focus on **employing and training women.** Specifically, it included hiring a gender and race focal point, while encouraging a minimum number of female workers and a company gender equity policy.



In 2020 and 2021 the project also delivered 10 online training modules for the sector and an in-person training programme, supported by a local university.

LESSONS

By **leveraging an international partnership**, Curitiba could use the additional technical support, training, and funding to promote a green economy and encourage sustainable, gender-sensitive business practices through policy-making.

In this regard, a city's procurement process can incorporate specific requirements and measures to **improve gender inclusivity** and develop **good, green jobs.**

The project was successfully implemented because there was strong political will from elected officials, particularly Council and the Mayor.

Freetown, Sierra Leone:

#FreetownTheTreetown

Model: Business-Focused International Partnerships

#FreetownTheTreetown is Freetown's ambitious tree planting programme, through which the city planted over **600,000 trees** between 2018 and 2023. The goal is to reach **1 million by the end of 2023**.

THE CHALLENGE

In 2018, the Mayor launched **#FreetownTheTreetown** to address large-scale tree loss as well as flood and landslide disasters; a result of rapid urbanisation. The question was **how to leverage** World Bank grant funding to raise **longer term private investment**.

HOW IT WORKS

In the programme, a mobile app tracks every tree planted by a community grower. A token gives trees a value and businesses **invest in these tokens as part of their net-zero strategies**.

The city used public awareness campaigns and targeted engagement with businesses to drive investment.

Growers are paid based on the continued growth of the trees. The digital tracking capability allows buyers to follow the trees. The project created over **1,000 green jobs** along the value chain.

The city also partnered with fashion brand, Finor X, to sell t-shirts with QR code prints corresponding to a token. The code attached the tree's value to the garment, which created a **market for environmentally-conscious customers** wanting to buy t-shirts and support the project.



LESSONS

Grant funding and international partnerships can help get projects started. This funding however can be used creatively to **build private sector investment** beyond these grants, rather than relying solely on future grant funding. Impact tokens or "adopt a tree" schemes are simple ways for cities to generate private investment in urban nature.

Freetown also identified the **importance of trust and transparency** when leveraging private sector support. In this case, digital tracking provided both transparency and the basis for creating investment value

Quito, Ecuador:

Low Emissions Last Mile Logistics

Model: Business-Focused International Partnerships

With international partners, start-ups, and a range of private businesses and local communities, the city of Quito set up an **e-mobility hub** focused on last-mile logistics - the final stage in a delivery process.

THE CHALLENGE

Traffic congestion and pollution in the historical city centre have had **significant heritage and environmental impacts** in Quito. Plans to mitigate these impacts did not previously come to fruition.

HOW IT WORKS

The city's Transport and Environment Departments worked on a pilot e-mobility hub with Solutions Plus - an international EU-funded project and consortium of cities and partners.

Co-design workshops involving public and private actors helped to develop plans for the pilot. In November 2022, the first phase began using 10 e-cargo bikes, resulting in 1,071 km travelled, carrying 16 tons of cargo, making 229 deliveries and achieving a reduction in emissions of 491.74 kg CO2e.

With seed funding, three local start-ups built the bikes. Companies then applied to participate. These included restaurants, courier companies, and informal recycler associations, using the e-bikes to do their last mile deliveries.

Solutions Plus covered costs and the city's Environment Fund - a city institution that seeks climate finance - administered the funds. A data analyst from the city provided technical guidance on engaging city focal points and stakeholders, as well as survey methodologies.



The e-mobility hub is part of Quito's Climate Action plan and its Zero Emissions Policy. In 2023, phases two and three of the pilot will include four e-quadracycles and four e-vans.

LESSONS

International and multi-city partnerships can **catalyse innovative projects** and this is most beneficial when external funding complements local priorities and local funding. As in Quito, embedding the pilot in existing plans, policies and international commitments, such as the C40 Green and Healthy Streets Accelerator, was critical.

Real-world testing and validation allows for the involvement of a variety of players, helping to ensure inclusion, such as working with both informal recycler associations and larger courier companies.

Glossary

Circular economy: Economic activity that is decoupled from the consumption of finite resources. A circular economy aims to keep resources in the economic system for as long as possible and phase waste out of the system. Circular economy initiatives can protect natural resources, clean the air that citizens breathe and the water they drink, whilst also making cities more efficient, prosperous and competitive.

Climate Action Plan: A climate action plan is a strategic document (or series of plans and documents) that demonstrates how a city will deliver on its commitment to address climate change.

Climate crisis: A long-term shift in global climate patterns predominantly caused by human activities. Often, climate change refers specifically to the rise in global temperatures from the mid-20th century to present that is attributed to anthropogenic, or human-induced, greenhouse gas emissions.

Community engagement: The practice of including relevant stakeholders and communities, particularly marginalised groups, in the policy-making and urban governance process, in order to ensure a fair policy process with equitable outcomes.

Corporate Social Responsibility (CSR): The mechanism through which many businesses incorporate social and environmental goals into their business model while meeting their shareholders' expectations. Genuine CSR is not philanthropy or charity, but rather a tool for strategic business management (UNIDO, n.d.).

Decarbonisation: The process of reducing embodied or operational GHG emissions. Typically refers to a reduction of the carbon emissions associated with energy consumption, industry and transportation.

Electrification: The process of transitioning away from technologies that use fossil fuels to technologies that use electricity. Electrification of systems paired with a power grid with 100% renewable energy sources can significantly reduce GHG emissions.

Energy efficiency: The use of less energy to provide the same service. A process, building, machine or other energy-consuming object is more energy-efficient if it delivers more functions or services for the same energy input, or the same function or service for less energy input, compared to a conventional process.

Equity: The absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically or geographically. As opposed to the concept of equality where everyone is given equal access, equity provides proportional access to redress historical and current disparities and ensure the same level of opportunity for all.

Global South: A term used to describe the group of primarily low and middle income countries historically referred to as 'developing countries', many of which share a history of being colonised. The Global South broadly comprises countries in Latin America and the Caribbean, Africa and Asia (without Japan and South Korea). The United Nations Finance Center for South-South Cooperation maintains a [list](#) of Global South countries. Please note this term continues to have a fluid definition at a global scale and may be used differently across contexts.

Green Economy: An economy powered by renewable energy sources, where economic production minimises waste and hazardous by-products, improves social equity and prioritises ecological restoration.

Inclusivity: The practice of including relevant stakeholders and communities, particularly marginalised groups, in the policy-making and urban governance process, in order to ensure a fair policy process with equitable outcomes.

Informality status: The relationship of individuals, households, activities or firms to the formal or informal economy, typically with respect to production, employment, consumption, housing or other services.

Just Transition: Established by labour unions and environmental justice groups, the Just Transition is a vision and framework for social change that builds economic and political power to shift from an extractive economy to a regenerative economy while providing just pathways for workers to transition to quality jobs. Its principles, processes and practices may apply to a sector, city, region or economy.

Low-emission zone: Bounded areas designed to address traffic-related pollution. These pre-determined areas are regulated as such to permit only low-emission vehicles, such as hybrid vehicles, alternative fuel vehicles or zero-emission vehicles, as determined by the jurisdictions. LEZs may charge or restrict internal combustion engines during certain times or days of the week, or at all times.

Nature-based solutions: Actions designed to utilise natural systems to address challenges. These solutions often aim to restore ecosystems, address climate change, and provide human health and biodiversity benefits simultaneously. For example, one solution could be to restore wetlands in catchment areas to minimise the impact of flooding and runoff pollution.

Paris Agreement: An agreement reached under the United Nations Framework Convention on Climate Change (UNFCCC), adopted in December 2015 at the Conference of the Parties (COP) to the UNFCCC. The agreement was adopted by 196 signatories that commit to working together to limit the increase of global average temperature well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. In Deadline 2020, science-based targets

were developed for cities that aim to align with the global maximum target of 1.5°C temperature rise. Signatories commit to reducing their GHG emissions through Nationally Determined Contributions (NDCs), including regular reporting of emissions efforts and implementation reports.

Privatisation: Transaction where a government transfers all or part of a state-owned asset or business to one or more private actors, whereby the government's role is substantially reduced or ceases entirely. Privatisation is not a form of PPP, because in a PPP the government continues to play a formal role and typically regains (or maintains) control over assets at different points in time (World Bank, 2020).

Renewable energy: Energy that comes from resources which are naturally replenished on a human timescale, such as sunlight, wind, tides, waves, bioenergy, hydro-power and geothermal. Hydrogen is a renewable energy source when produced through electrolysis powered by renewable electricity.

South-South cooperation: Technical collaboration, knowledge transfer and experience sharing among countries in the Global South (UN DESA, 2019). It is practised by different stakeholders including, national and city governments, international institutions and organisations, civil society organisations, the private sector, and academics.

Sustainable Development Goals (SDG): The 2030 Agenda for Sustainable Development was adopted by the United Nations in 2015, with 17 Sustainable Development Goals agreed upon by all member states as a shared blueprint for sustainable development.

Upskilling: Programmes provided by governments, non-governmental organisations and/or industry that provide training so that employees can modernise their skills in their existing vocations or professions to ensure their ability to compete in a changing economy.

Zero waste: A policy vision for the conservation of all resources by means of responsible production, consumption, reuse and recovery of products, packaging, and materials without burning and with no discharges to land, water or air that threaten the environment or human health.

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