

The Climate Innovation Readiness Navigator

for cities and local governments



Global Covenant of Mayors

The Global Covenant of Mayors for Climate & Energy (GCoM) is the largest global alliance for city climate leadership, uniting a global coalition of over 13,000 cities and local governments and 100+ supporting partners. The cities and partners of GCoM share a long-term vision of supporting voluntary action to combat climate change and towards a resilient and low-emission society. GCoM serves cities and local governments by mobilizing and supporting ambitious, measurable, planned climate and energy action in their communities by working with city/regional networks, national governments, and other partners to achieve our vision. The coalition comprises cities across 6 continents and 144 countries, representing over 1 billion people or more than 13 percent of the global population.

Innovate4Cities

Innovate4Cities (I4C) is the Global Covenant of Mayors for Climate and Energy (GCoM) city-focused research and innovation initiative. I4C identifies, shares, and generates local knowledge, research, and innovation opportunities – and equips cities and local governments with the spaces, networks, partnerships, and tools needed to accelerate climate ambition and implementation. If addressed, this knowledge would drive science-based, technology-driven, replicable sustainable action and implementation at the scale the world needs and cities demand.

Arup

Dedicated to sustainable development, Arup is a collective of 20,000 designers, advisors and experts working across 140 countries. Founded to strive for humanity and excellence in everything that we do, we collaborate with our clients and partners, using imagination, technology and rigor to shape a better world.

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Contents

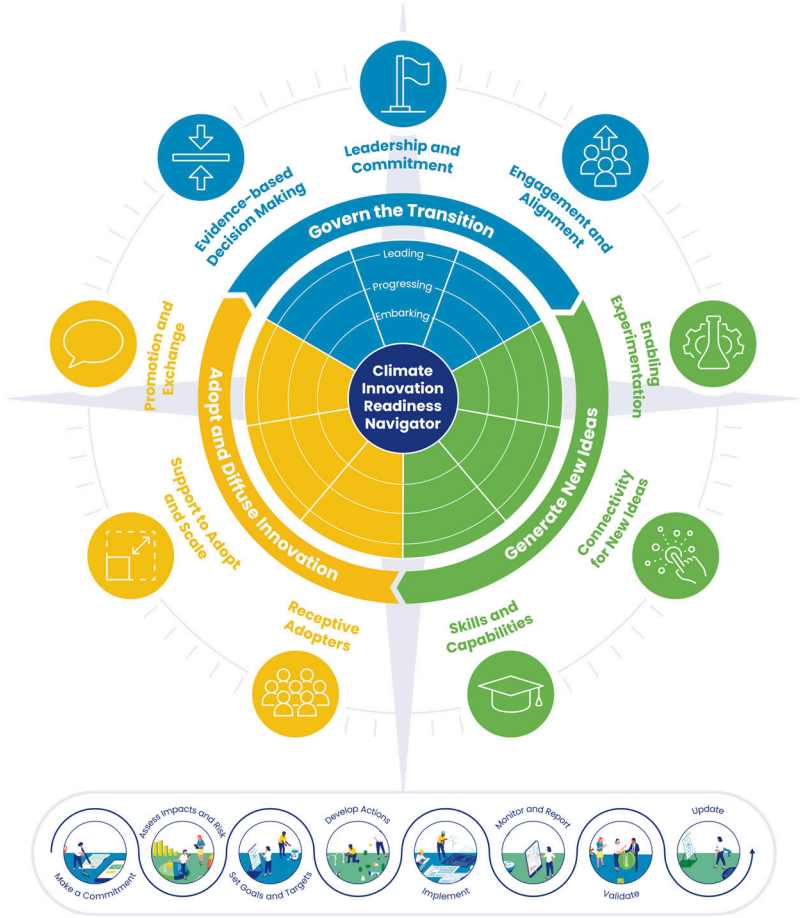
1. Introduction: Navigating a path to urban climate action	2
2. A compass towards urban climate innovation	5
3. Defining urban climate innovation readiness	8
4. The Climate Innovation Readiness Navigator for Cities and Local Governments	14
5. Rolling out the CIRN	27
Endnotes	28



The Climate Innovation Readiness Navigator for Cities and Local Governments

Achieving a net-zero, resilient, safe and just urban future within 1.5°C average global temperature increase requires rapid and transformational climate action. But, just how ready are cities and local governments to engage with and harness the potential benefits of innovative climate action?

The Global Covenant of Mayors, in partnership with Arup, have developed the Climate Innovation Readiness Navigator for Cities and Local Governments (CIRN) to help pinpoint actions and explore collaborations to enhance a city’s ability to engage with climate innovation through a rapid assessment across three key pillars: across three key pillars: govern, generate, and adopt and diffuse.



The Climate Innovation Readiness Navigator



1

Introduction Navigating a path to urban climate action

To avert the worst impacts of climate change requires accelerated and transformative climate action.

As records continue to be broken for both global average temperatures and greenhouse gas (GHG) concentrations,¹ the need for accelerated action is clear. We need to cut emissions to keep in line with the targets set by the landmark Paris Agreement – limiting global temperature rise to 1.5°C above pre-industrial levels, while adapting to the inevitable impacts of climate change that are already being experienced globally. To succeed, we need to rapidly transform our provisioning systems – from our energy and transportation systems to the ways in which we provide for our needs, like housing and nutrition.

Innovative responses to climate change are growing, but we still face an action implementation gap.

While the required transition is daunting, the past two decades have witnessed an encouraging rise in innovative solutions. Illustratively, global patents for technologies that support mitigation of and adaptation to climate change have expanded over the past 20 years, more than doubling between 2000 and 2012.² Such advances in climate innovation have enabled the wider-scale distribution and uptake of technologies. For example, advances in solar photovoltaic (PV) technologies have seen the cost of the technology decrease to now be less expensive than fossil fuel-based technologies (such as across Seoul’s solar city).³

A fast and successful transition globally is not solely reliant on the development of new, cheaper, and greener technologies, but is equally dependent on innovations to the supporting systems and structures that enable action to be taken and scaled;⁴ collaboration and decision-making (citizens’ assembly in Salvador), and business models and behaviors (Seoul’s sharing city initiative).

Cities and local governments are uniquely positioned at the front line of this transition.

Tackling the climate crisis requires action in urban areas.⁵ Cities are responsible for close to 70% of global greenhouse gas (GHG) emissions,⁶ and urban populations – which are estimated to make up 68% of global population by 2050 – will acutely feel the impacts of increasingly severe climate hazards, from extreme rainfall and flooding to droughts and heatwaves.⁷

Yet, cities can also be positioned to offer the solutions to these challenges. Cities are melting pots of creativity and new ideas, generating over 80% of global GDP.⁸ With their proximity to local populations, cities and local governments are often best placed to identify local needs and priorities; serving as testbeds for innovative ideas and approaches which can spur wider change.

Recognizing this opportunity, more than 13,000 cities and local governments have committed to taking ambitious climate and energy action through the Global Covenant of Mayors – signaling the political willingness to respond to the climate crisis.

How ready are cities and local governments for climate innovation?

Across the world, progress towards climate action is not uniform. The uptake of innovative approaches to climate action across cities can vary greatly; not just between national contexts, but within a country itself.

If we are to accelerate uptake of climate innovation globally, we need to help all cities and municipalities to learn from each other and better nurture the conditions to harness climate action and innovation.⁹ This requires an understanding of the factors that determine the ability of a municipality to not only enable the generation of new ideas and facilitate their adoption at scale, but also the ability to bring together and govern diverse stakeholders towards a low-carbon and resilient future.

The Navigator helps define climate innovation readiness at local level, illustrates influencing factors, and highlights where local governments are already making their action journeys more innovative.

A practical approach to help cities and local governments to navigate innovative climate action.

Through Innovate4Cities¹⁰ (I4C) –an initiative created to accelerate city climate action through research and innovation– the Global Covenant of Mayors (GCoM) alliance recognizes the need to further support cities to take innovative actions; to understand city-level readiness to engage with innovative climate action and help cities find effective partners through I4C for identified climate action priorities.

The Climate Innovation Readiness Navigator for Cities and Local Governments (CIRN) will help leaders across GCoM Regional and National Covenants to:

- **Rapidly assess readiness for innovative urban climate solutions** | helping to establish a baseline for strengths and opportunities, prioritize targeted interventions to improve readiness, and tailor solutions.
- **Understand priorities to fast-track climate innovation** | acting as a practical guide for cities to understand priority focus areas and pinpoint where additional attention is required to prepare the city to adopt innovative climate actions, allowing strategic allocation of resources.
- **Accelerate action through cross-sector partnership** | highlighting where government, research, business, and civil society stakeholders can collaborate to unlock innovation potential, both locally and globally.

2

A compass towards urban climate innovation

The CIRN has been developed to provide a rapid assessment approach for cities and local governments to understand and advance their ability to accelerate innovative solutions. It can help to serve as a compass within a city's climate journey by directing attention towards unlocking barriers to innovation and progress.

The CIRN allows benchmarking of the relative performance of a city across different factors influencing innovation readiness. Importantly, it does not provide a single overall score to rank cities but provides a common lens of assessment to facilitate engagement and discourse between stakeholders within and across cities.

Who is the CIRN for?

With their influential position within urban systems and ability to set the agenda for climate and urban innovation, the CIRN has been developed to support local governments and their partners to develop a shared understanding of the level of readiness for climate innovation, and to pinpoint opportunities for a stronger approach across government, business, academia, and civil society. This can serve both climate and innovation policy officers in local governments, as well as the myriad other departments affected by climate change, such as community engagement, housing, economic development.

With its diverse set of indicators, the CIRN sparks collaboration between local knowledge holders, supporting the rapid assessment. In particular, it is envisaged that universities or research institutions will collaborate with local governments in the delivery of a CIRN assessment and help to interpret the findings. Through the assessment of a cohort of cities by a single research partner, insights can be generated at a regional scale with best practices and common challenges identified, contextualized, and shared.

Taking a collective view across multiple cities, the insights generated by the CIRN can be explored by other stakeholders such as state governments and multilateral actors, enabling the development of supportive programs and investments that build regional readiness for innovation.

How has the CIRN been developed?

The CIRN has been developed through a desktop study to understand the factors that influence the readiness of a city to take innovative climate action. The research spanned (urban) innovation studies as well as studies focused on the implementation of urban climate actions and has taken inspiration from other indices such as the International Energy Agency's Clean Energy Transition indicators,¹¹ as well as urban scale indices including NESTA's CITIE¹² and Arup/The Rockefeller Foundation's City Resilience Index.¹³

To shape and refine the content and framing towards a global audience, a diverse group of stakeholders were engaged through a series of collaborative workshops and interviews. This included local government officials from six countries, and industry experts. Specific pilot and validation exercises were conducted with the Municipalities of Despeñaderos and Montréal to gather insights on the validity and applicability of the indicators and CIRN at large. The CIRN furthermore underwent technical review by five leading academics in the field.

Globally relevant, locally adaptable.

The CIRN has been developed to be globally relevant and applicable. However, we recognize that the lived experiences and realities of cities will vary greatly. Therefore, the pillars, influencing factors and indicators that comprise the CIRN have been selected to be universal, anticipating that the insights used to respond to them will be tailored to the local context.

The CIRN is composed of three tiers that disaggregate the factors that influence the readiness for climate innovation in cities.

1. Pillars

Our research suggests that climate innovation readiness can be demonstrated across three interrelated pillars: the ability to govern the transition, the ability to generate new ideas, and the ability to adopt and diffuse innovation.

2. Influencing Factors

Nine influencing factors underpin the three pillars and represent the factors that influence the readiness of a city to engage with climate innovation.

3. Indicators

36 indicators have been identified through research to be informative in the measurement of the nine factors. The indicators add further detail and definition to the influencing factors. Underpinning each indicator is a series of measurable metrics that enable the rapid assessment.



The Climate Innovation Readiness Navigator

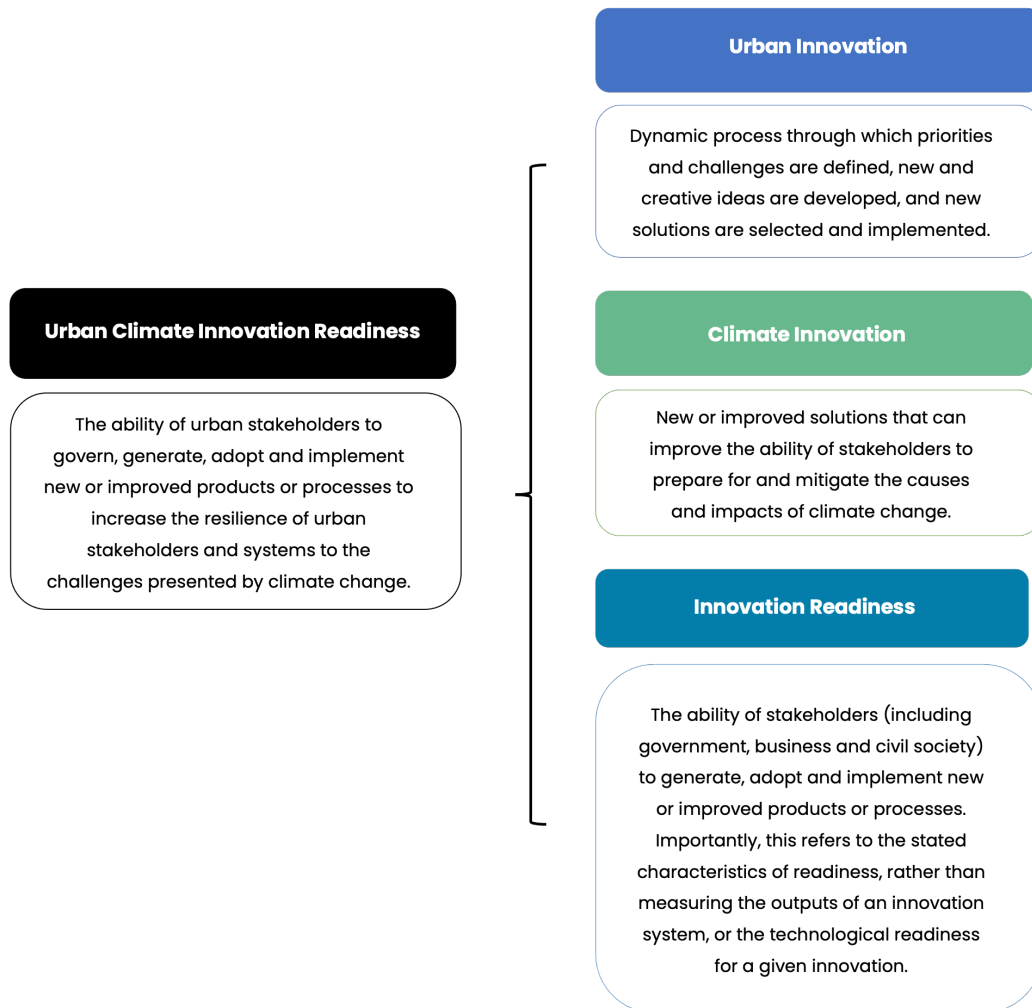
Note: this figure illustrates the pillars and influencing factors (informed by their indicators) that help produce a profile for climate innovation readiness at local level. It does not currently represent the profile of a specific city or region.

3

Defining urban climate innovation readiness

Accelerated and innovative climate action holds great potential for cities to nurture a net-zero, resilient, safe, and just future. However, delivering innovation can be a complex journey. To identify the key steps in a city's climate action journey, it is first important to establish a shared understanding of urban climate innovation readiness.

Urban climate innovation readiness incorporates several key concepts. In this section, we unpack these key concepts further, which have been used to determine and refine the CIRN.



Defining Urban Climate Innovation Readiness

Urban Innovation

Urban innovation is a dynamic process through which public problems and challenges in urban environments are defined, new and creative ideas are developed, and solutions are selected and implemented.

Importantly, urban innovation is not a product of one stakeholder, but rather formed through collaborations and interactions between local governments, companies, non-government organizations (NGOs), citizens, research institutes, and various other actors.

Local governments hold an important position within cities. They can play a leading role in shaping the agenda and help to create conducive conditions for the generation, adoption, and scaling of innovation. However, local governments do not exist in isolation and can be enabled through their interactions with stakeholders at local, national, and global scales.

Recognizing the diverse landscape of stakeholders involved in urban innovation, the CIRN has been developed to capture perspectives and interactions between actors.



Climate Innovation

The challenges presented by our changing climate are complex and diverse, cutting across sectors and cascading through physical, social and economic networks. Likewise, the solutions to climate change are as broad as the challenges they aim to address. They require joined-up efforts by multiple actors to address both climate change adaptation and mitigation – as well as energy access and poverty – in a fair and equitable way.

Often, climate innovation is discussed in relation to technological innovation, including solutions such as increasingly efficient solar PV cells, zero emissions vehicles, and carbon capture, utilization and storage (CCUS). However, addressing climate change requires new and novel approaches across all systems, including policy and processes, collaboration and partnerships, social enterprise, business models and financing.

By climate innovation, we refer broadly to new or improved products and/or processes that enhance the mitigation of and adaptation to the causes and impacts of climate change.



Technology Innovation – Solar PV networks at scale across Seoul

The Solar City Seoul plan aims to deploy 243 MW of solar power on public buildings by 2022. This initiative, driven by the Seoul Metropolitan Government (SMG), includes incentives, subsidies, and community programs, showcasing a pioneering approach to urban energy transformation and sustainability. SMG further plans to create solar energy landmarks and solar energy districts to be marketed as tourist attractions.



Collaborative adaptation – Participatory tree planting in Freetown

Freetown the Treetown is a collaborative, grassroots, initiative in Sierra Leone's capital, which pays residents to plant and monitor trees, tracked through an online platform. The city council engages with, and educates, the local community on deforestation and the negative effects from the loss of critical ecosystems. This initiative exemplifies how community engagement and innovative digital tools can effectively achieve adaptation.



Social innovation – Citizens' assembly for climate change in Salvador, Brazil

The Assembleia Cidadã do Clima de Salvador is an initiative where 40 randomly selected residents participated in a series of meetings to prioritize climate actions for the Municipal Climate Mitigation and Adaptation Plan (PMAMC). The initiative demonstrates commitment to engaging citizens in decision-making and ensuring diverse and representative opinions in the city's climate plan.



Policy innovation – Oslo's Climate Budget

Oslo's decision to fully integrate carbon emissions tracking into the city's financial budgeting process sends a strong signal of commitment to achieve their climate target. The city aims to reduce emissions by 95% by 2030, and the climate budgeting approach appears to be successful, as the city's emissions are declining relative to its growth.

“Innovative” to whom?

What is considered “climate innovation” may vary significantly according to geographic, demographic, and economic conditions. What may be considered innovative in one city may already be commonplace in another. While certain innovations are appropriate to some, they may not be appropriate for all.

For cities, there is no one-size-fits-all approach to addressing climate change. Cities and local governments are often well positioned with a deep understanding of local priorities to determine appropriate solutions. An acknowledgement of this diversity is captured in the way the CIRN has been shaped and presented, enabling an understanding of *the ability of the city to determine for itself which innovative approaches may be most relevant to local challenges, rather than to determine which types of climate innovation are most appropriate.*

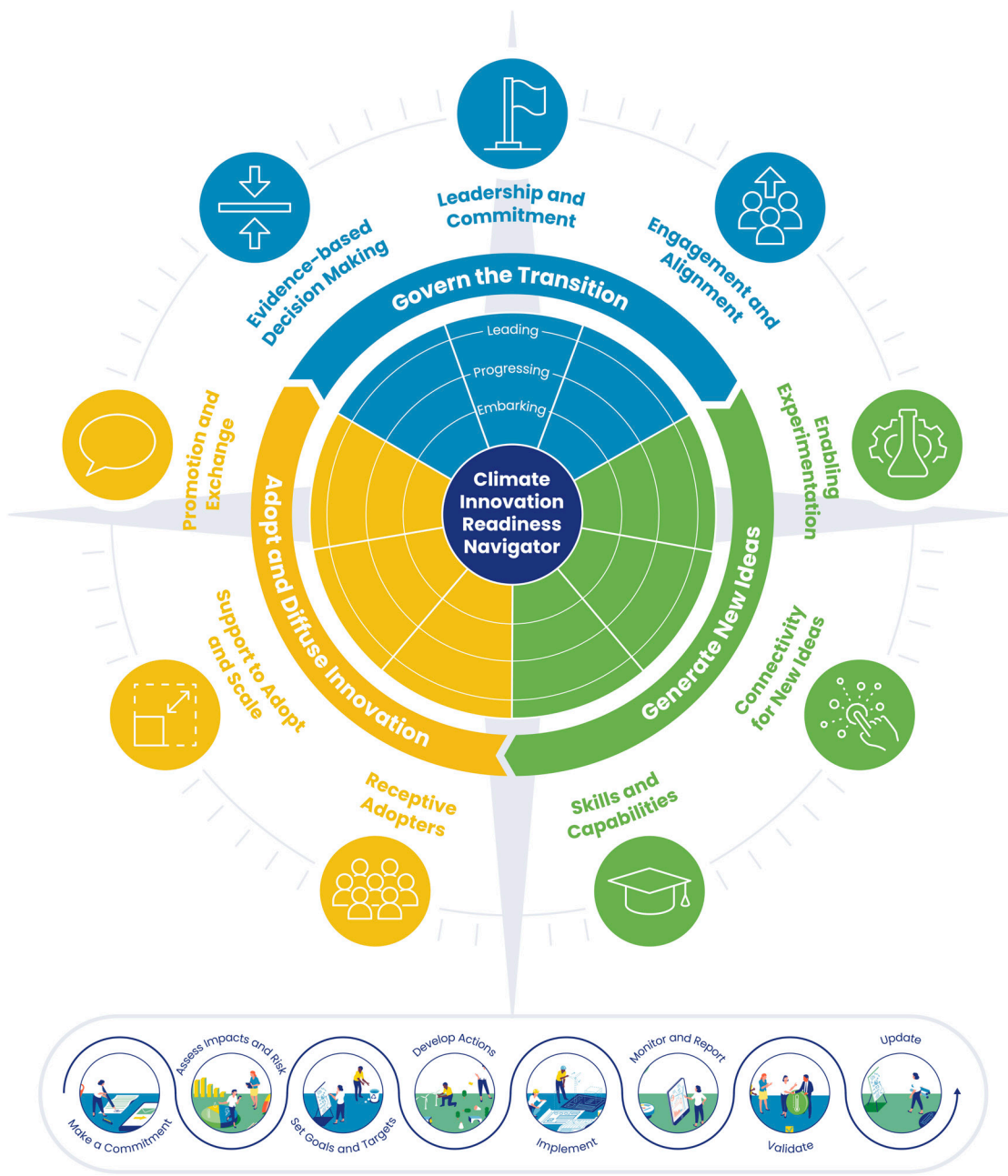
Innovation Readiness

While there is enormous potential for urban innovation to help solve the pressing climate challenges of cities, what determines the readiness of a city to engage with and harness the potential benefits of innovative climate action?

Innovation readiness is concerned with the ability of a city to effectively and collectively define and govern the climate priorities for which innovation can provide a solution, as well as with the ability of a city to generate new ideas, and adopt and scale these approaches to realize their benefits.

A city that is more ready for climate innovation is more likely to respond successfully to the causes, risks and impacts of climate change and realize the potential benefits of climate action. Readiness for climate innovation is not an end point but is an evolving state over time. Understanding a city’s strengths and weaknesses across the diverse factors that influence readiness can help to focus improvements.

Being a dynamic process, the level of readiness within a city can vary across the stages of an innovation cycle. Yet to realize the full potential of climate action, cities need to be ready to engage effectively throughout the process. Therefore, the CIRN has been established across these three equal pillars; the readiness to Govern the transition, the readiness to Generate new ideas, and the readiness to Adopt and Diffuse innovation.



City Journey (GCoM)

The Climate Innovation Readiness Navigator

4

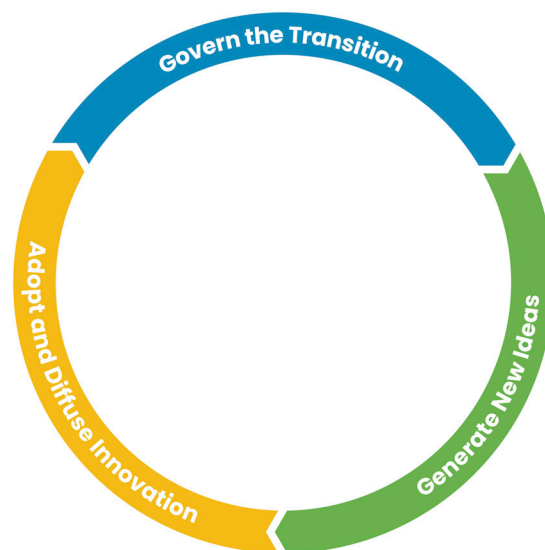
The Climate Innovation Readiness Navigator for Cities and Local Governments

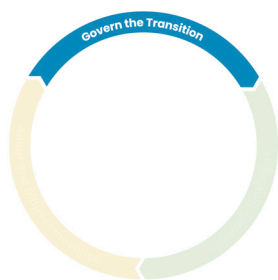
The CIRN is organized under three pillars, comprising nine influencing factors, 36 indicators and a comprehensive set of nested metrics that break down the indicators into measurable units (not presented in this document).

In developing this structure, we have sought to ensure a balanced approach to the three pillars, recognizing that each one is similarly influential in a city's urban climate innovation readiness.

We have also sought to ensure that the indicators and underlying metrics address a city's appetite for innovation, their ability to innovate, and the actions they are already demonstrating that evidence their innovation readiness. This helps to ensure that every city finds itself within the CIRN, regardless of their existing maturity in the innovation readiness cycle.

This section outlines the influencing factors and indicators for each of the three pillars of CIRN: govern the transition, generate new ideas, and adopt and diffuse innovation.





Govern the Transition

This pillar relates to the degree to which a city has a clear approach, a thorough understanding, and a strong commitment to act on climate change priorities. This approach is enhanced by mechanisms that actively engage city stakeholders and local communities, allowing their input to shape climate-related priorities.

By involving businesses, community groups and residents, local governments can ensure a more inclusive, knowledgeable and responsive plan of action. The collection and use of data are vital, enabling informed decision-making that adapts to the city's specific needs and evolving challenges, ensuring ongoing effectiveness of climate action.

Influencing factors



1. Leadership and Commitment

This influencing factor looks at leadership level commitment through what is said and what is done around climate action and innovation. This is not limited to individual leaders, but also includes the strategies put in place and the financial and human resources committed to climate action.

a. Visionary city climate leadership | The presence of commitments and leadership in local government for climate innovation and action. For example, a cross-party and long-term political commitment to achieving city-wide net zero emissions and climate resilience by 2050, and to accelerate transformative action.

b. Integrated climate targets and action plan | The presence of a clear approach and strategy for climate action, including appropriate financial resourcing. For example, a climate action plan is developed and integrated across local government strategy and policy.

c. Dedicated and expert climate and innovation officers | The presence of sufficient human resources within local government with a focus on climate action and innovation. For example, a well-resourced and empowered climate change team/function within city government.



An Ambitious Climate Alliance – Rotterdam, The Netherlands

In 2021, the City of Rotterdam formed one of the most ambitious climate alliances starting with over 100 partner companies and social organizations – a number that continues to rise. In this alliance, the city set up six “Climate Tables” that cover a wide range of climate-related outcomes. 1) Port and Industry, 2) Mobility, 3) Built Environment, 4) Clean Energy, 5) Circularity, and 6) Healthcare.



2. Engagement and alignment

This influencing factor looks at mechanisms and processes to engage with city stakeholders to identify and inform climate-related priorities. These mechanisms and processes are both horizontal (across different departments) and vertical (across higher tiers of government), ensuring the thorough integration of climate priorities into government and alignment with the priorities of urban stakeholders.

a. Effective multi-level governance integration and alignment | The degree of alignment between horizontal and vertical levels of government. For example, proactive engagement with national, regional and sub-local government bodies to create the enabling environment for climate innovation.

b. Productive Government-Business engagement | The presence of mechanisms to foster meaningful engagement and exchange between government and businesses. For example, proactive engagement with service and solution providers and/or investors during climate action planning.

c. Trusted civil society participation | The degree of local government engagement with and trust held by civil society. For example, proactive engagement with civil society in climate action planning, including hard-to-reach groups (capturing lived experiences).



Africa's Green Economy Summit – Cape Town, South Africa

The 2024 African Green Economy Summit was hosted in the city of Cape Town, South Africa. This pioneering event brings together investors, business leaders, and local African governments to catalyze change. The summit aims to drive the continent towards a sustainable and green future, by mobilizing investment for green growth and promoting the cross-exchange of innovative ideas between businesses and governments.



3. Evidence-based decision-making

This influencing factor looks at the collection and use of data to inform decision making processes. This starts from whether carbon and climate data are being collected to inform local action. This factor matures towards the existence of feedback and learning loops whereby data is collected, monitored, evaluated, and used to improve actions related to climate and innovation.

a. Good access to data to support decision-making | The degree to which relevant climate, asset, and service data –including data related to a just climate transition– are collected and available. This can include data collected by residents and supporting the active sharing of climate, asset and service data between government and private partners (business and academia) within safe data sharing protocols.

b. Decision-making driven by comprehensive understanding of data | The degree to which local government decision-making processes utilize comprehensive data to inform and identify priorities. For example, having a well-resourced and empowered data analysis and insights team/function within city government that includes both data and social scientists.

c. Rigorous monitoring, self-evaluation and learning procedures | The presence of processes to adapt and update policies, programs, and priorities through feedback loops. For example, monitoring and evaluation procedures should be in place to track city emissions and climate risks over time.



Waste Management - Da Nang, Viet Nam

Viet Nam has set a recycling target of 15% by 2025. To track progress and accelerate action, the local government must have a thorough understanding of the state of waste management. In Da Nang, this process is largely conducted by informal waste workers, who independently separate out recyclable materials from waste to landfill. These efforts are largely unregulated, leading to a data gap within waste management.



Generate new ideas

This pillar outlines how ready the urban system is to enable the generation of new and novel ideas to address climate challenges. It explores how conducive the conditions are to fostering and developing essential skills and capabilities within the economy; enhancing connectivity between different sectors and stakeholders of the city to foster new ideas; and creating an environment that enables and supports innovative solutions.

Influencing Factors



1. Skills and capabilities for new ideas

This influencing factor looks at the presence of systems, skills and supporting infrastructure within a city that help create new and novel ideas. This includes the existence of a diverse and productive economy, which encourages the generation of new ideas by fostering skills and knowledge.

a. A diverse and productive economic profile | The presence of productive and diverse industries with the skills and resources to generate new ideas, including large enterprises as well as a varied profile of Small and Medium-sized Enterprises. For example, a legacy of generating new and novel business and social enterprise can indicate greater readiness.

b. A productive knowledge economy | The presence of key knowledge institutions within the city, including universities, research institutions and thinktanks. For example, the presence of anchor research institutions such as Universities in the city across both technical and social science disciplines can help to cultivate a diverse range of perspectives and new ideas.

c. Access to expertise | The ability of urban stakeholders to access the necessary skills, expertise and ideas to foster the generation of new and novel ideas. For example, partnerships with multilateral organizations can help to bring and bridge key capacities, providing jobs and skills programs to establish pathways to develop necessary skills.



Bristol Advisory Committee on Climate Change - Bristol, UK

The City of Bristol has cemented their ambition to achieve carbon neutrality and climate resilience by 2030. To achieve this, a range of local stakeholders and actors must collaborate on innovation, policy and initiatives based on sound technical advice. At the request of the Mayor, the Bristol Advisory Committee on Climate Change (BACCC) reviews evidence and provides advice to accelerate actions and meet the 2030 ambition.



Reskilling women for public sector green jobs - Bogotá, Colombia

The importance of minority-inclusive climate innovations manifests in the reskilling of women as electric bus drivers in Bogotá, Colombia. Supported by the Urban Climate Action Program (UCAP), women in the city are provided with the necessary wellbeing resources and skills-related training to retain their jobs as electric bus drivers. This program acknowledges the importance of providing job security through reskilling employees.



2. Connectivity for new ideas

This influencing factor looks at the ability of urban stakeholders to connect and exchange new and novel ideas. This is achieved by ensuring urban environments are open and inclusive both digitally and physically, providing opportunities for different city stakeholders to come together.

a. An open and inclusive environment for ideation and co-creation | The promotion and encouragement of novel ideas to respond to climate challenges. For example, clear mechanisms for business, academia and civil society to help shape the solutions to the city's climate challenges, such as innovation competitions.

b. Physical and digital connectivity | The ability for enterprises and initiatives to connect to exchange ideas. For example, ensuring digital connectivity through affordable and reliable internet networks, and physical connectivity and proximity through strategic zoning and public transport.

c. Knowledge partnerships and programs | Partnership between academia, industry, and government to share and promote the development of novel approaches. For example, established research partnerships between local government, academia and industry to target the exchange of expertise to solve climate challenges.



EPIC Model - Global

The EPIC Model brings together academics to tackle complex challenges faced by local communities. It enables colleges, universities and research institutions to play a role in shaping transformative solutions. In Durban, the eThekweni Municipality is partnering with the University of KwaZulu Natal and the Quarry Road West Informal Settlement community to increase the adaptive capacity and resilience of vulnerable communities to climate change.



3. Enabling experimentation

This influencing factor looks at the ability to pilot new and novel ideas in local and contextualized conditions. It focuses on the availability of necessary resources such as financial support and physical locations, to practically test solutions, as well as the support structures to nurture the development of innovative climate approaches.

a. Innovation accelerators and support programs | The presence of supporting skills and resources to help incubate, grow, and develop new and novel approaches to solve climate challenges. For example, the presence of ‘accelerators’ providing strategic and technical support networks for small- and medium-sized enterprises and social initiatives.

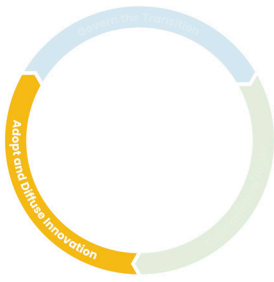
b. Financial support for R&D | The presence of and ability to access financial resources to support the research and development (R&D) of early-stage ideas and novel approaches. For example, local access to research and innovation funds from international, national, and/or regional funders.

c. Access to ‘testbed’ environments | The flexibility to test and experiment with novel approaches through real-world piloting. This includes the presence of ‘testbeds’ or ‘living-labs’ with less stringent regulation, access to equipment and/or locations to encourage and incentivize ‘safe-to-fail’ experimentation.



DOLL Living Lab - Copenhagen, Denmark

In the outskirts of Copenhagen, the DOLL Living Lab presents a ‘test-bed’ for public and private actors to explore innovative smart environmental solutions. Local innovations range from improving air quality through the optimization of traffic flow to solar-powered smart lighting columns. Over 10,000 daily users create a “vibrant physical testing space” where public and private stakeholders engage to drive progress and sustainable outcomes.



Adopt and Diffuse

This pillar looks at the ability of a city to implement and adopt solutions and approaches to climate challenges and support the scaling of such innovations across the city and beyond. These innovations, approaches and initiatives could originate from within the city, or elsewhere, to be adapted and replicated to suit the local context. Readiness to adopt climate innovation is also influenced by the processes and mindsets in place to support implementation and scaling.

Influencing Factors

1. Receptive adopters

This influencing factor looks at the attitudes of urban stakeholders, residents, regulators and the market towards climate innovation, and their readiness to accept, adopt and share new and novel approaches. A supportive and engaged community can bring greater legitimacy in taking climate action.

a. Openness to new and novel solutions | The willingness of urban stakeholders to accept and use new services or infrastructure and incorporate them into daily life. This can include the appetite of local government to take risks in trialing innovative solutions, and the degree of acceptance from local people.

b. Progressive local government procurement | The extent to which local government procurement embraces new and novel solutions. Here, local governments can utilize their purchasing power to stimulate demand for innovative climate approaches. Procurement criteria can be developed to support and social enterprise and climate positive approaches through tenders for goods or services.

c. Empowering national frameworks | The strength of governance frameworks, policy commitments, regulation and financial structures at national and regional levels that enables local climate innovation. For example, adopted (national) policy commitment for climate action (including Nationally Determined Contributions) can provide a mandate and signal for action at the sub-national level.



Cooperation between three spheres of government - Various Cities, South Africa

The South African national government has established an Intergovernmental Committee on Climate Change (IGCCC) to enable vertical cooperation across national, regional, and local governments. This committee represents a strong signal of cooperation to achieve the targets set out in the country's Draft 2021 NDC.



2. Support to adopt and scale

This influencing factor focuses on the presence of supporting systems and infrastructure to help new or small enterprises (both commercial and social) and initiatives to mature. This includes finance and funding systems to implement and scale innovation, regulatory support and physical infrastructure to promote its adoption.

a. Innovative funding and finance mechanisms | The presence of, and ability to absorb funding to facilitate the procurement and deployment of innovative ideas. For example, provision of government-led support (subsidies/incentives) or innovative revenue-raising and financing mechanisms (private, public or public-private).

b. Regulatory support for initiatives | The conduciveness of the regulatory environment to establish and incentivize enterprises, ideas and initiatives. This can relate to, for example, the ease of doing business within a city, and the degree to which local government actively explores policy and regulatory implications of new and novel technologies, systems and services (such as through regulatory sandboxes, etc.).

c. Infrastructure and environment for new initiatives | The availability of supporting environments for the scaling of enterprises and initiatives. For example, the presence of affordable spaces for new enterprises and initiatives to locate and the presence of supportive networks to connect (such as Chambers of Commerce) or mentoring programs for entrepreneurs.



Green Investment Team for Net Zero - Glasgow, UK

Glasgow City Council's commitment to net zero will be accelerated through the newly formed Green Investment Team. This team, approved and supported by a £4m funding award by the City Administration Committee, will be tasked with developing and managing a vehicle for public-private investment into city-wide climate initiatives. These initiatives include accelerating renewable energy decarbonization of transport.



3. Promotion and exchange

This influencing factor focuses on the extent of meaningful two-way engagement and communication to build awareness of urban climate innovation across stakeholders within the city, as well as further afield. Effective communication can help to promote what has been done, what works well, and what could change, and build outside recognition of the city as an attractive space for climate innovation.

a. Widespread promotion of what works | The documentation and sharing of experiences from piloting or adopting climate innovation. For example, active participation in peer or city-networks (such as GCoM, C40, ICLEI) to communicate experiences of impactful solutions and share practice.

b. Proactive local communication | Establishing opportunities for two-way dialog and communication about the need for, and potential impact of, climate innovation. For example, engagement between local communities and local government, with suppliers and service providers to discuss and explore newly implemented solutions.

c. Vibrant city image and perception | How the city is recognized and perceived externally in terms of its efforts and initiatives in climate innovation. This can include establishing and supporting events and shows that showcase local solutions, as well as branding and marketing of the city as an attractive location for urban climate innovation.



Storyteller for Climate Change - Various Cities, Sweden

Transformative change can only occur when awareness is turned into action, and communication strategies are a powerful tool for achieving this. Sweden's Viable Cities program aims to embody communication strategies through a new and innovative position of "Chief Storyteller". This approach allows people to emotionally connect and engage with the actions required from them on a day-to-day basis and envision a net zero future.

5

Rolling out the CIRN

Within this document we have outlined the diverse interconnected factors that influence the readiness of a city to engage with climate innovation, and the structure that forms the CIRN. We have provided a foundation of understanding across the field of climate innovation readiness.

The GCoM Secretariat aims to collaborate with research institutions across Regional and National Covenants to help develop profiles of climate innovation readiness at local level. These profiles will highlight the strengths and opportunities for cross-sector cooperation (and multi-level governance) across each phase of the city climate action journey, and help inform the development of partnerships for long-term collaboration.

Recognizing the need for regionally specific and tailored insights and experiences, we will work with these knowledge partners across key geographies to enable the localized application, interpretation and refinement of the CIRN, acknowledging local challenges and opportunities. The CIRN is designed to respond to regionally relevant metrics and data availabilities, allowing measurement of innovation readiness using best available information in any city context.

We will listen to cities' priorities, actions, and ambitions to enhance urban climate innovation readiness and seek to match sources of support to help cities unleash their innovation potential.

For more information, contact the GCoM Secretariat at info@globalcovenantofmayors.org.

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