

CO4CITIES

THIRD TRANSNATIONAL MEETING

25-26 November 2021

100 Climate-Neutral and Smart Cities by
2030: the Climate City Contract as legal co-
governance tool



European Union
European Regional Development Fund



Bridging the Gap between UC and the 2021-2027 EU Innovation policy goals



Service and business models and therefore **governance, legal, and financial tools** implement **urban co-governance** when they are designed to enable **community stewardship on urban commons**. The recognition of community stewardship over these resources/assets could be more or less powerful. We can cluster three main incremental **city-communities cooperative service and business models** as forms of “co-governance”:

1. **Community Access**
2. **Community Management**
3. **Community Ownership**



Bridging the Gap between UC and the 2021-2027 EU Innovation policy goals



1. The EU has launched an Horizon Europe **Cities Mission**: 100 climate-neutral and smart cities by 2030
2. The implementation plan foresees as a delivery mechanism a governance tool called the **climate city contract** which is essentially an investment plan towards climate-neutrality
3. Climate city contracts are perfect examples of the different possible investment plans and governance tools: they have to rely heavily on **citizen engagement**



Key Points



2. "Planning for net zero emissions " - Integrated approach
3. "Key sectors and Strategies" - Where to focus on (i.e. buildings, mobility, energy, waste)
4. "Energy production and Renewable Energy Sources" – Supply side
5. "Transforming sectors for reducing emissions (land use, spatial planning, buildings and transport in energy systems)
7. "The role of smart and digital solutions" - Digital solutions
8. "Citizens as key drivers of the transition" - Co-creating the city
9. "And who will pay for all this?" - Financing

Info Kit for Cities



Supporting cities

October 29, 2021

The EU Commission has published the Info Kit for Cities with comprehensive information about the Mission “100 Climate-Neutral and Smart Cities by 2030”. It can be found at https://ec.europa.eu/info/news/mission-climate-neutral-and-smart-cities-info-kit-cities-now-available-2021-oct-29_en

Part I

Part I (“Understanding the Cities Mission”) is a practical guide to help cities prepare for the Call for Expression of Interest, which is planned to be launched in the second half of November.

Part II

Part II (“A short guide to urban climate neutrality”) offers resources and strategies towards climate neutrality at city level. Part II is intended as guidance throughout the implementation of the Mission, and cities are not expected to have addressed the various aspects highlighted in this part of the document at the stage of expressing their interest.



CO4CITIES - Third Transnational Meeting

2. Planning for net zero emissions

2.1 Building Blocks



Cities are the places where we assist to impacts of the climate change are perceived the most and where solutions to the environmental challenges are experimented. In addition, a one-size-fits-all model is not realistic.

Therefore, 6 main principles (6 building blocks for the integrated approach) are established.



2. Planning for net zero emissions

2.1 Building Blocks

Strategic dimension

place-based perspective (Barca Report 2009) and emphasis on synergies among regional and national programmes and local initiatives, as well as in the coordination of policy frameworks

Effective monitoring

quantifications and measurable indicators. universities and knowledge institutions shall provide the necessary competences for the analysis.

Multiplicity of funding sources

besides European Funding and National Funding, projects ought to be "bankable". Crowdsourcing can be a way to reinforce the community through responsibilities and direct financial engagement.

Territorial focus

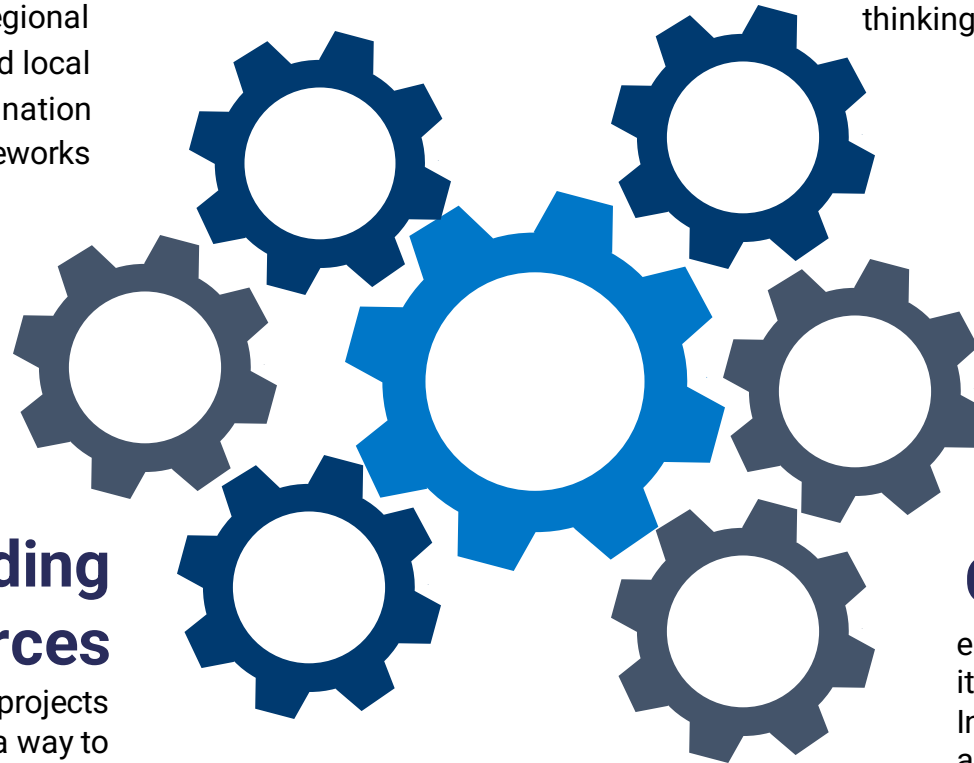
looking through the lenses of Functional Urban Areas, beyond administrative boundaries and including commuter belts with deep socioeconomic links within urban agglomerations ("Territorial thinking")

Good governance

the good management of a strategy, from its planning and financing phases to its final implementation

Cross-sectoral approach

ensure coherence among different policies through all its phases, thus reinforcing the strategic dimension. Invest in capacity building of officials JASPER – Joint assistance to Support Projects in European Regions



2.2 The basic principles of good-governance

Multi-level



coordination
among different
levels of
governments

Multi-stakeholder



inclusion of all relevant actors
throughout the whole policy cycle
(especially non administrative
entities)

Participatory Approach



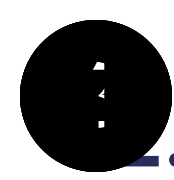
adoption of specific place-based
territorial methods to involve
citizens in citizen-empowering
practices

2.3 Governance and stakeholders engagement

Being complex systems, cities ought to be managed in a collaborative way among all municipal departments, officials and private/public stakeholders, with the help of functional governance structures.

The projects shall identify a **core team** (having overall responsibility over the smooth delivery of the project) and a **steering committee** (providing strategic directions and technical expertise)





2.4 Planning Process



2.5 GHG emission measurement



The Greenhouse gas emission (GHG) record for the climate city contract can be done adopting different methodologies (Eu CoM/SECAP; GCoM Common Reporting Framework; Global Protocol for Community-Scale Greenhouse Gas Emission Inventories) as long as the main sources – stationary energy, transport, waste, IPPU and AFOLU – are taken into account.

GHG can be grouped by source

Buildings and stationary energy

Transport

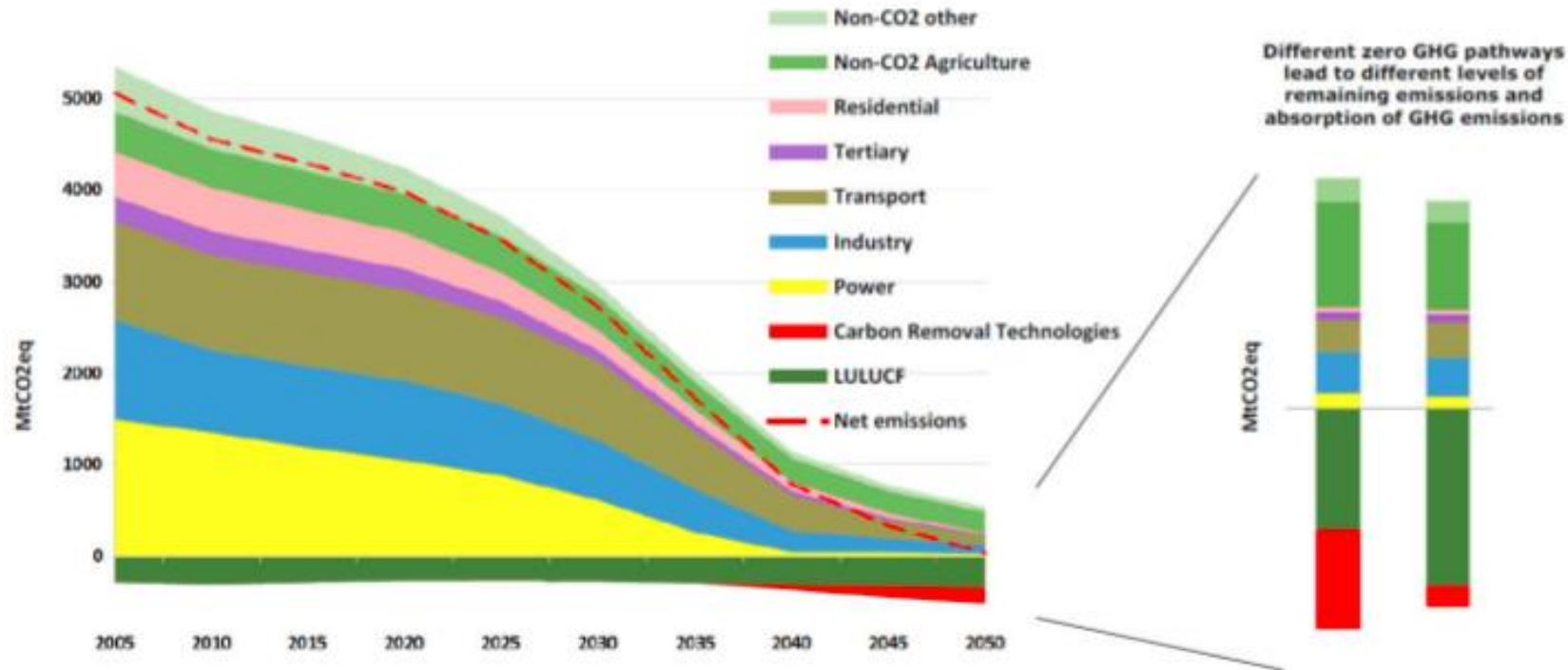
Waste

Industry

In the possibility of technological as well as financial constraints, the city may not be able to tackle direct GHG emissions. Nonetheless, cities can use "carbon sinks", in order to reduce the concentration of CO₂ in the air, or "carbon credits", to trade their emission where CO₂ deficits/surpluses exist.

2.6 GHG emission measurement - groups

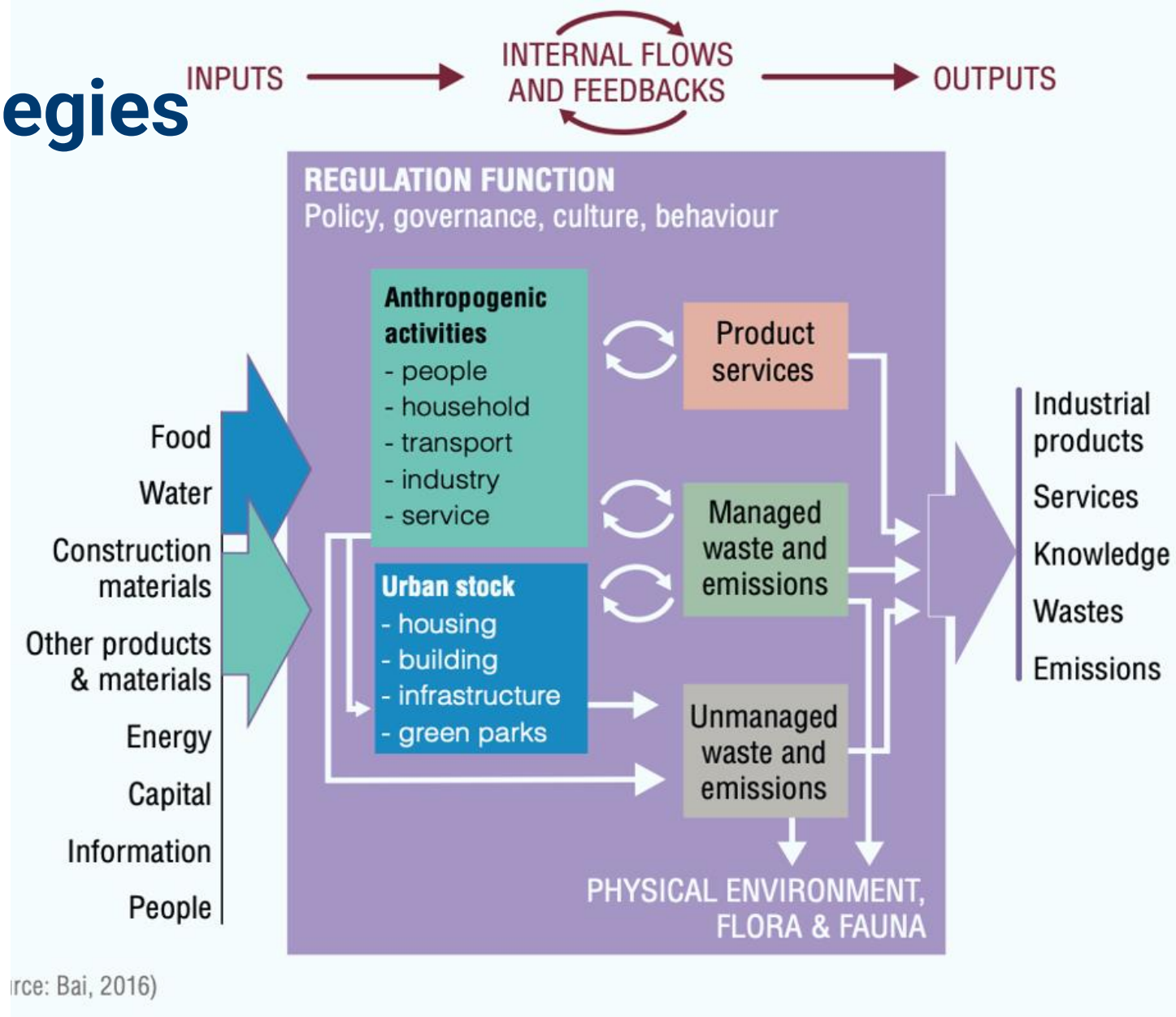
Figure 3. GHG emissions trajectory in a 1.5°C scenario.
Bars represent emissions in the two scenarios reaching net zero emissions in 2050.



3 Key sectors and Strategies

From a demand side, what are the most impactful sectors in the emission of GHGs?

- **Stationary energy** (buildings, equipment, facilities)
- **Transport**
- **Waste**
- **Industrial Processes and Product use (IPPU)**
- **Agriculture, Forestry and Other Land Use (AFOLU)**
- **Circular Economy**



4. Energy Production and Renewable Energy Sources

Utilising renewable energy in cities is a key strategy for reaching climate neutrality. In the limited time to reach this target, upscaling access to renewable energy to meet urban energy demands through local energy generation and supporting system flexibility for allowing much higher shares of renewable energy in the broader energy system becomes a top priority.



Energy communities

RED II - Renewable Energy Directive (EU Directive 2018/2001), which contains the definitions of collective self-consumption and Renewable Energy Community (CER).

IEM - Directive on the internal electricity market (EU Directive 2019/944) which defines the Energy Community of Citizens (CEC).

7. The role of Smart and Digital Solutions

Useful knowledge about the state of the environment and how the economy, society, and the environment interact, can be provided by data, algorithms, and insights.

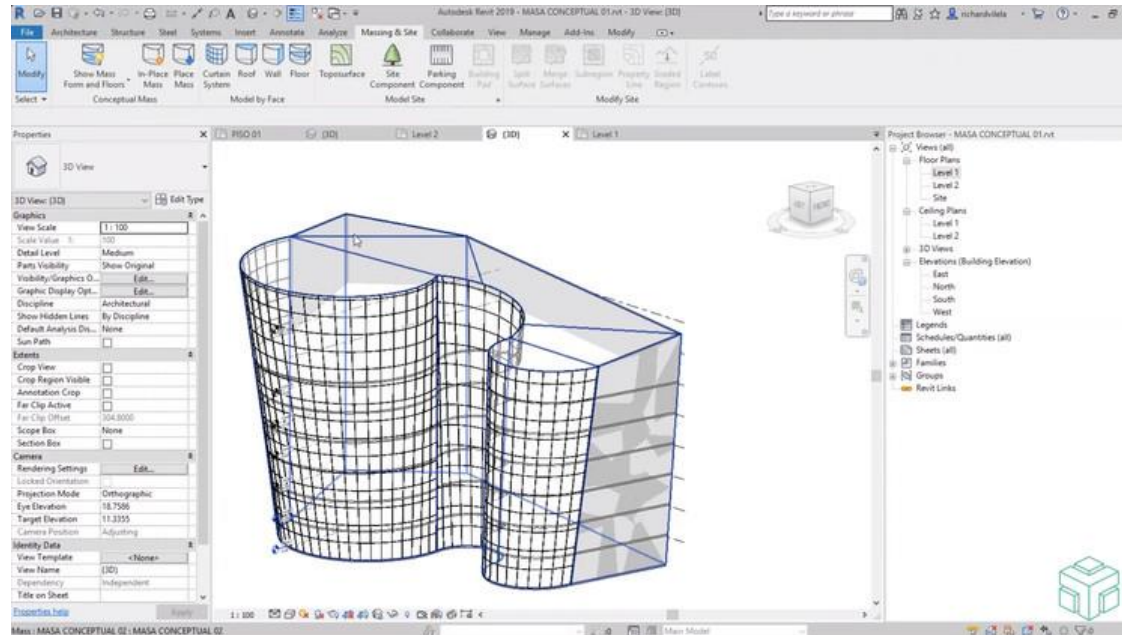
The process of digitalisation, three steps:

- **Improving infrastructure** with technology based systems
- **Connecting data** produced by smart infrastructure
- **Informing** decision-making with data



7.1 The digitalisation process

An example of product of the urban digitalisation process is the «Twin City»



a digital copy of the city is produced through informatic systems (like BIM) and enriched by data gathered by sensors monitoring each infrastructure of the city

7.2 The benefits of digital solutions



Note: Properties in green are well serviced while those in yellow and red are not. Source: JRC
Figure 7.1: Access to education and health for single-parent families and elderly people

1

Improved efficiency of services

2

Creation of economies of scale

3

Creation of new business opportunities

7.3 The benefits of digital solutions

It is crucial that local authorities take into account the potential co-benefits ensuring from the digitalization process for all local stakeholders in the quadruple (or quintuple) helix spectrum:

- Conveying the wide variety of expected spill-overs
- Increasing the chances of gaining economic, political, and capacity support from different actors



7.4 Do not forget city residents

New digital tools can be used to benefit from collective intelligence by enabling ways of understanding citizen needs.



Transparency

Accessibility

experimenting
open innovation
approaches

behavioural
nudging



Citizens engagement

visualization

Citizen Science processes
LivingLabs

7.4 Challenges

The most important challenges to overcome are:

1

Limited operational and financial capacity

2

Alignment of interests and activities among engaged stakeholders

3

Data protection and data legislation



Just city

Data as commons

8. Citizens as key drivers of the transition

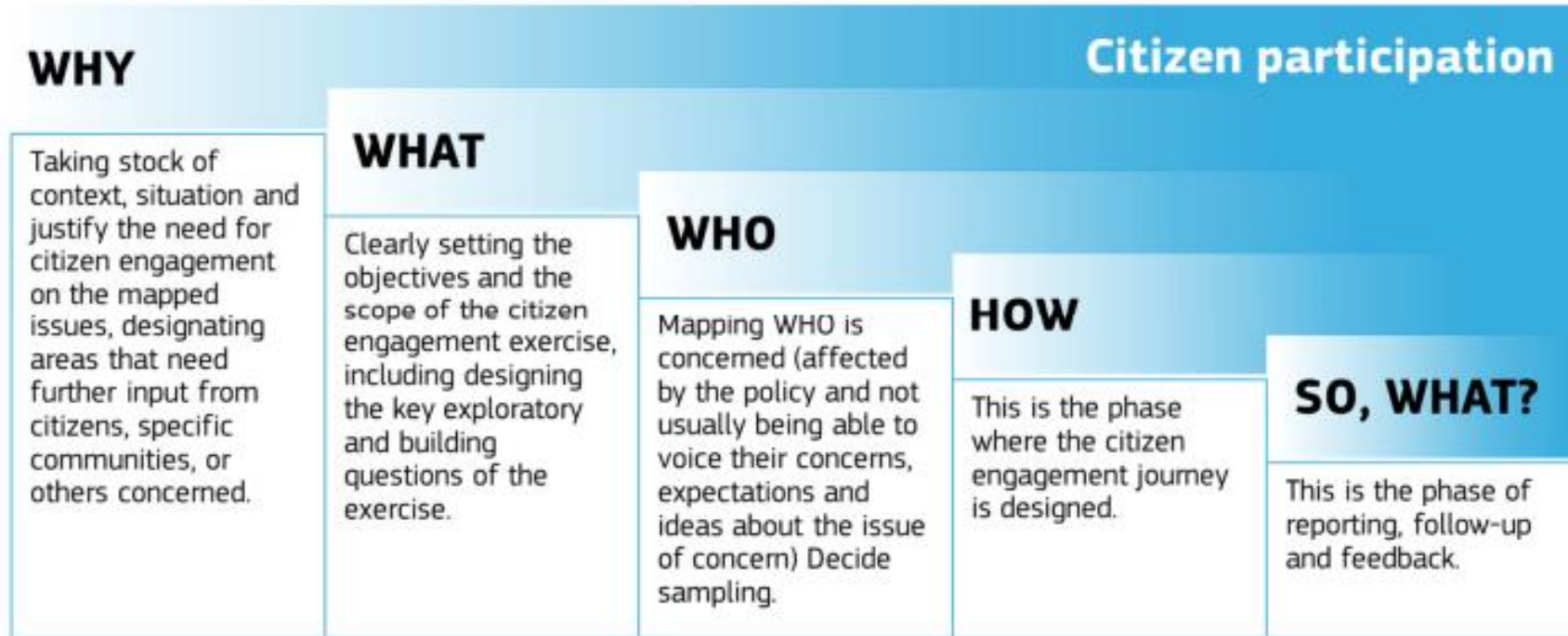
Driving change for
better cities

The section outlines main **governance and policy structures** and strategies that put citizens at the centre to achieve socially robust, sustainable and effective outcomes regarding climate neutrality. These include citizen engagement and co-creation, **social innovation**, and **behaviourally informed planning practices** that bind together bottom-linked, bottom-up, and top-down governance approaches.



8.1 Planning citizen engagement

Figure 12. An interlaced cycle of citizen engagement planning.



8.2 Suggested methodologies

1

Distributed dialogue

2

Future workshops & tours

3

World café

4

Fishbowls

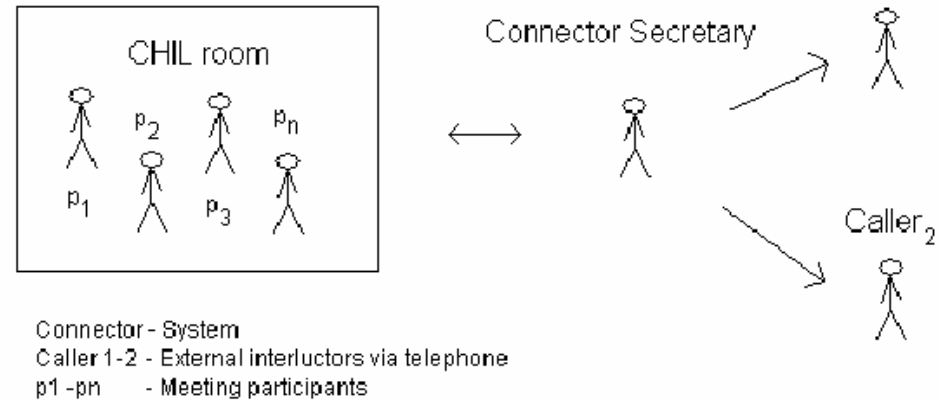


Figure 13. The behavioural design process.



Source: Barrows et al., 2018, p. 28.

8.3 Social innovation



In the context of climate neutrality **Social Innovation** must be perceived both as a process and as a strategy capable of fostering decarbonisation and society's development by matching technological innovation with innovation in social practices and relations. Similarly, **civic engagement** and citizens' participation **is a goal and a result** of social innovations for the climate neutral transition.



8.4 Community involvement and ownership

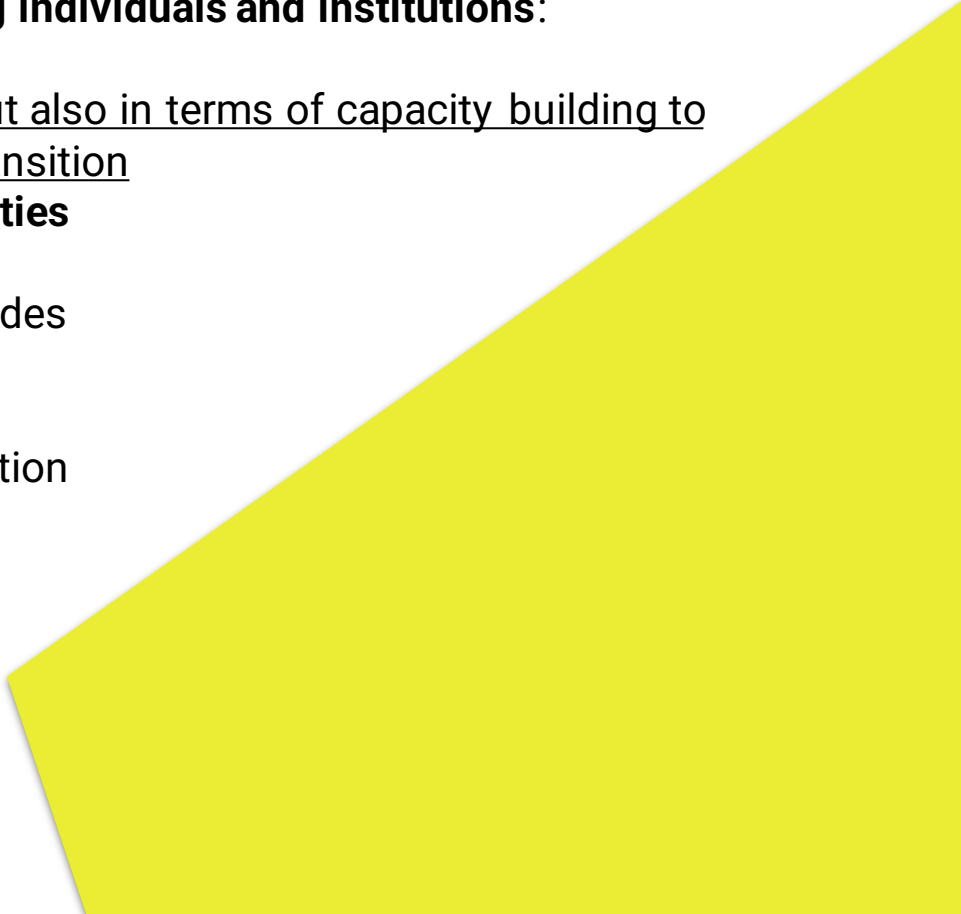
Driving change for
better cities

- Create or sustain the frameworks within which community initiatives operate
- Provide economic, technical, and legal instruments calibrated to fit community needs and assist the projects maturity
- Create a diverse landscape of social policy and action
- Facilitate a permanent dialogue between local initiatives, administrative and government bodies and non-state actors at all levels
- Accept and facilitate a change of social relations and governance dynamics
- Develop advanced communication and collaboration capabilities in a multi-stakeholder setting
- Promote **power sharing and allocation beyond traditional power-holding individuals and institutions:**

8.4 Community involvement and ownership

Driving change for
better cities

- Promote **power sharing and allocation beyond traditional power-holding individuals and institutions**:
 - Empowerment of local communities central and indispensable
 - Empowerment not only in terms of **access** to services and goods but also in terms of capacity building to **self-manage** and **own** the means to achieve wellbeing during the transition
 - Energy domain > set up and organise **open access energy communities**
 - Empower local communities and citizens via
 - Active participation in energy transition and climate neutral modes
 - Direct ownership of RES
 - Reduced cost and even profits from local RES
 - Participation in the energy market and protection from speculation
 - Contributing to energy democracy
 - Empower **vulnerable** social groups
 - by tackling energy poverty through energy communities
 - participation in energy via energy efficiency project



8.5 How can we ensure the transition benefits every citizen?

Equal distribution of the benefits

At the EU and national level

to address the social and distributional impacts on those most vulnerable potentially arising from climate neutrality measures, a Social Climate Fund was created. Additionally, the Just Transition Fund was created as a key tool to support the territories most affected by the transition towards climate neutrality providing them with tailored support.

At the local level

cities must consider the potential harmful impact of national policies as well as the impact of their local policies. For instance, energy access and poverty, gender equality and equal opportunities for all, as well as questions of accessibility for persons with disabilities should be taken into account and promoted throughout the preparation and implementation of every climate action plan to ensure no one is left behind.



8.6 What can cities do to ensure a just transition?

Mapping social vulnerability

Links to existing tools and initiatives.

Integrate justice considerations into energy governance

Integrate equity in policy and programs assessment and monitoring



**JUST
TRANSITION**

Broaden participation of society in decision making processes

9. Financing: and who will pay for all of this?



The climate neutrality objective requires financial mobilisation, embedded into the institutional architecture of a city and looking across national and EU funding, finance, blending and private investment (large scale investors and crowdfunding).



9 Financing: And who will pay for all this?



Achieving the mission of making EU cities climate neutral and smart at the same time requires financial mobilisation.

Cities in the EU and other context struggle with financial autonomy. Municipal budget were subject to cuts since the 2008 financial crisis. Creativity and collaboration with a variety of partners is key to ensure that projects are feasible and sustainable.



9.1 Financial products

Blended investments and funding sources



- **Grants, subsidies, and technical assistance**

Subsidies to audits to identify energy efficiency in housing retrofits, grants for buying electric vehicles (including cars, scooters, and bicycles), and feed-in tariffs for renewable energy. They are very common tools but vary according to the national system

- **Loans**

They are widely available for financing energy efficiency retrofits in buildings, industry, and small and medium size enterprises. (ex. Green & Climate Bonds)

- **Credit enhancement tools**

Common credit enhancement tools are guarantees and local currency loans, typically offered by a financial institution. Their goal is to reduce the risk of an investment in contexts where risk perception plays a key role.

- **Private equity funds**

Institutional investment activities in risk capital of unlisted companies with high development potential.

PE Funds are becoming active in investing in Property Assessed Clean Energy (PACE) financing in the residential sector, but are also sensitive to investments in residential, commercial, and industrial buildings that comply with international green credentials).



9.2 Investment readiness assessment



Grid to assess the investment readiness of a City



- 1. Value proposition:** is this service important to achieve the climate neutrality goals as stated in the CCC and if yes how?
- 2. Financial capacity and business model:** how a service or infrastructure can be operated and by whom? Does it create a source of revenue or requires financial transfers? Does the city have the resources to pay for this service? How can the private sector finance and pay for this service?
- 3. Market structure:** is there a market (a demand) for this service or infrastructure, and what are the main features? Are there regulatory constraints?

9.3 Investment readiness assessment



4. **Barriers and gaps** > Is the technology behind a solution proven? Is it necessary to carry out feasibility studies to move forward? Are there private sector operators interested in this business? How does citizen behaviour impact effective implementation?

5. **Management and governance** > does the City has the capacities to manage this service? Who is the decision maker? What is the regulation for using public funds in engaging with the private or social sector? How does the city assure residents' involvement? How is the GHG emissions reduction monitoring, reporting and verification (MRV) performed?

9. EU Tools for investment readiness assessment

The Sustainable Finance Taxonomy (Regulation (EU) 2020/852)

designed to reorient capital flows facilitating cross-border sustainable investment, while also helping in determining whether an economic activity qualifies as environmentally sustainable.

establishes environmental objectives for climate mitigation, adaptation, protection of water and marine resources, circular economy, and pollution prevention.

The EU Taxonomy Compass

helps citizens, investors, and governments in better understanding how activities substantially contribute and what criteria they have to meet to be considered as sustainable investments

The Bankability Checklist (ICLEI TAP, 2021)

developed by ICLEI's Transformative Actions Program, is another tool that can complement the EU Taxonomy Compass, and it is available for cities in assessing their level of investment preparedness including concepts as political commitment, investment maturity, business model, technical, financial, and economic viability, replicability, and scalability, as well as social benefits.

The City Maturity Model for Climate-Smart Urban Infrastructure

Tool developed by the Cities Climate Finance Leadership Alliance to help cities in assessing climate investment preparedness with a holistic view that integrates strategic, regulatory, financial concerns.



9. Engaging with investors and citizens under a common partnership



To manage the costs required to achieve the transition, cities can establish **climate neutrality investment units** where climate action plans can be integrated with other city priorities. A climate neutrality investment unit can be a **public-private partnership** with a mandate for **promoting investment, facilitating access to financing, engaging with citizens, and tracking progress** towards climate goals.

Beyond the investment unit, how can a city facilitate the introduction of climate neutrality in the investment process?

1. Define a Climate neutrality focal point > one-stop shop (LAWG)
2. Prioritise projects to be included in the CCC > baseline/planning
3. Introduce climate-neutrality in your sources of revenues > feed-in tariffs, tourist tax, etc.
4. Reach out to financial institutions > advisory hubs for green loans and bonds
5. Engage with investor community > Reporting / Dashboards
6. Establish market and regulatory mechanisms to earmark funds generated in the city > SPVs
7. Communicate and engage with the public > Monitoring





Thank You!

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www.commoning.city

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For more information on the Cities Mission and the call for interest:
https://ec.europa.eu/info/news/commission-invites-cities-express-their-interest-become-part-european-mission-100-climate-neutral-and-smart-cities-2030-2021-nov-25_en



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