



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

NetZeroCities online course for all cities

September 16th- December 11th 2025





16 October 2025

Module N°3, Spotlight session 1

Measuring What Matters

Strategic Monitoring, Evaluation, and Learning processes for Climate Action Plans





MODULE 1	Core The NetZeroCities program, service offering, systemic approach, what works for Mission Cities	Spotlight 1 NetZeroCities Orientation	Spotlight 2 Shaping Climate Narratives	Spotlight 3 Climate City Contracts		
MODULE 2	Core Developing a transition team, mapping and activating the ecosystem	Spotlight 1 Transition team & climate leadership	Spotlight 2 Engaging the private sector	Spotlight 3 Citizen engagement for systemic climate action		
MODULE 3	Core Developing the city's action plan for climate neutrality	Spotlight 1 Reporting and MEL	Spotlight 2 Co-Designing a Climate Portfolio	Spotlight 3 Using NetZeroPlanner to Support Climate Planning, MEL, and Implementation Management to Achieve Net Zero Goals		
MODULE 4	Core Levers of change: Technical solutions, social innovation and multi-actor collaborations	Spotlight 1 Passive solutions to reduce energy demand in buildings	Spotlight 2 Systemic energy transition at buildings, districts and city level	Spotlight 3 Data-driven approaches to energy transition in buildings and districts	Spotlight 4 Mobility	Spotlight 5 Scope 3 and other emission domains
MODULE 5	Core Increase finance knowledge of the public administration & learn about options to finance projects	Spotlight 1 Preparing a pipeline of projects with necessary data and information	Spotlight 2 Different investor groups and the key priorities and returns profiles for each and instruments	Spotlight 3 Financing the ambition: Learning from Mission Cities		
MODULE 6	Core Multilevel governance, national platforms and policy strategies	Spotlight 1 Policy and regulations innovation	Spotlight 2 Public procurement – national specificities	Spotlight 3 Just transition		





Housekeeping



Stay muted unless you are invited to speak



Use the chat for questions and to introduce yourselves



Raise your hand before speaking



Keep your camera on and participate actively





Participation

This course is intended for all EU (and Horizon affiliated countries) cities with a population above 50.000 that do not yet have a climate Action Plan

- It's open to any municipality as well as to consultants, experts, regional authorities, etc.
- The course guides cities into developing a climate action plan | No funding available for participating cities
- This course is NOT for students
- After each session, facilitators remain online for Q&A

26 online sessions
of which 6 are core
sessions

Tuesday 9.15-11.00 and
Thursday 13.15-15.00

Participation is **free**





Certification

Free

Municipalities that **attend all 6 core sessions** will obtain a certificate of attendance for the city issued by the NetZeroCities project

30€

Participants who **attend all 6 core sessions can obtain** a certificate of attendance issued by **Universidad Politecnica de Madrid**



Online ceremony on December 11th 2025

In-person ceremony at the City Conference in Turin May 2026





Recordings and activities

- All participants who sign up for the program receive an email **after each module with the video recording** of the sessions and additional useful information.
- Before joining each session, you will be requested to agree with the course privacy policy, provide **permission for recording** and details of your municipality or profile to be able to issue the attendance certificates.
- The program is structured into **six modules**, each offering 4-6 hands-on sessions led by expert practitioners and cities. Each session will have an interactive component, in which you can share your questions and experiences.

Q: Can you participate in single sessions?

A: Yes! If you sign up for the course, you will receive communications and links to all the sessions. All sessions are held on Zoom (online). All participants who sign up for the program receive an email after each module with the video recording of the session and additional useful information.

Q: What is the level of English proficiency required?

A: Participants can ask questions in their own (European) language in the chat.

DISCLAIMER: Before joining each session, you will be requested to agree with the course privacy policy, provide **permission for recording** and details of your municipality or profile to be able to issue the attendance certificates.





Sign-up and Portal Group

What should you do now?

There is **no deadline** for applying to the course. All sessions are held on Zoom, and you can join the Zoom meeting through the link provided in this email or in the course program page on the NetZeroCities portal.

1. **[SIGN UP NOW](#)** for Zoom sessions and **ADD** them to your **CALENDAR**
2. Read carefully the [online pages for each session](#) and **register** in advance for each of the sessions on the Zoom platform.
3. Join the dedicated group for this course to interact with other participants: [Design Your City's Net Zero Strategy: Online Planning Lab](#)





Faculty

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Meline González Piloyan



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Apurva Singh



Nupur Prothi



Janne Rinne



Alexandru Buftic



Marcial Silva



Ignatius But





1. Introduction
2. Impact Pathways
3. GHG Accounting
4. Co-benefits and Indicators
5. Workshop Part I: Connecting Action Planning with MEL
6. Mission City's Perspective: Impact Pathways and MEL
7. Workshop Part II: Connecting Action Planning with MEL
8. Closing





Learning objectives for this session

Learn how to:

- Establish a robust Monitoring, Evaluation and Learning (MEL) process
- Track systemic outcomes, GHG reductions and co-benefits achieved as a result of implementing climate actions
- Eventually refine ambition and actions based on evidence





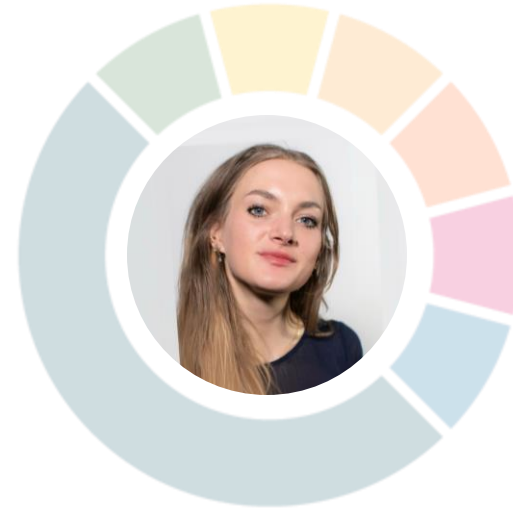
Lecturers



Paul Barton
ICLEI Europe



Nikhil Chaudhary
Climate KIC



Mira Conci
Climate KIC



Katrien Rycken
Leuven 2030



Impact Pathways & MEL Framework

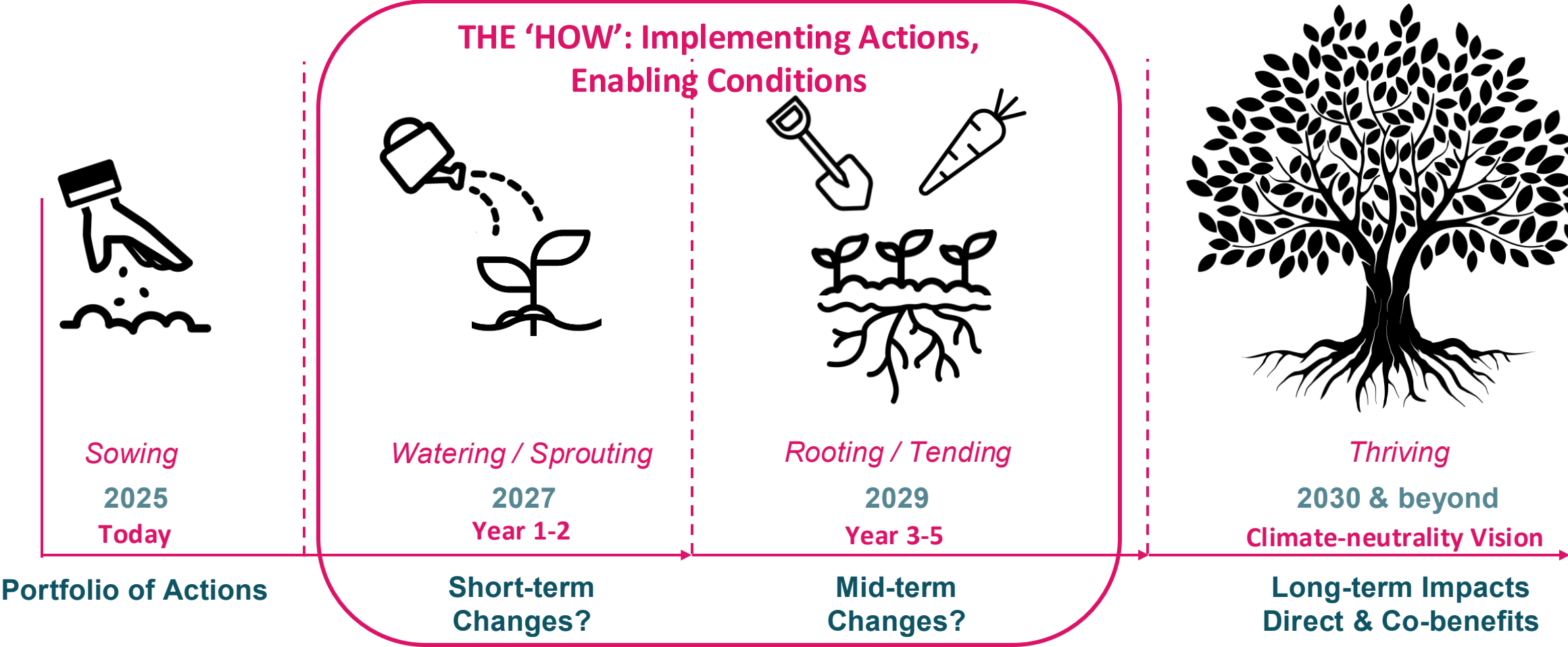
Connecting measurement of change to
strategic planning and continuous improvement





Mission-minded Cities ‘gardening’ for systemic transformation

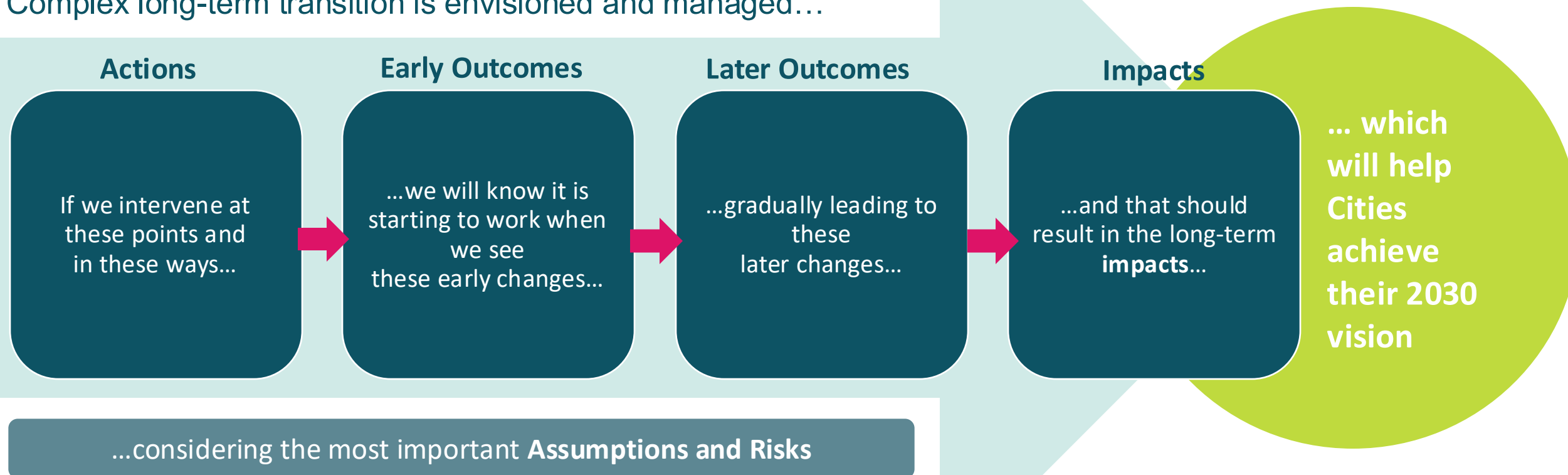
A Timeline for your city’s climate actions





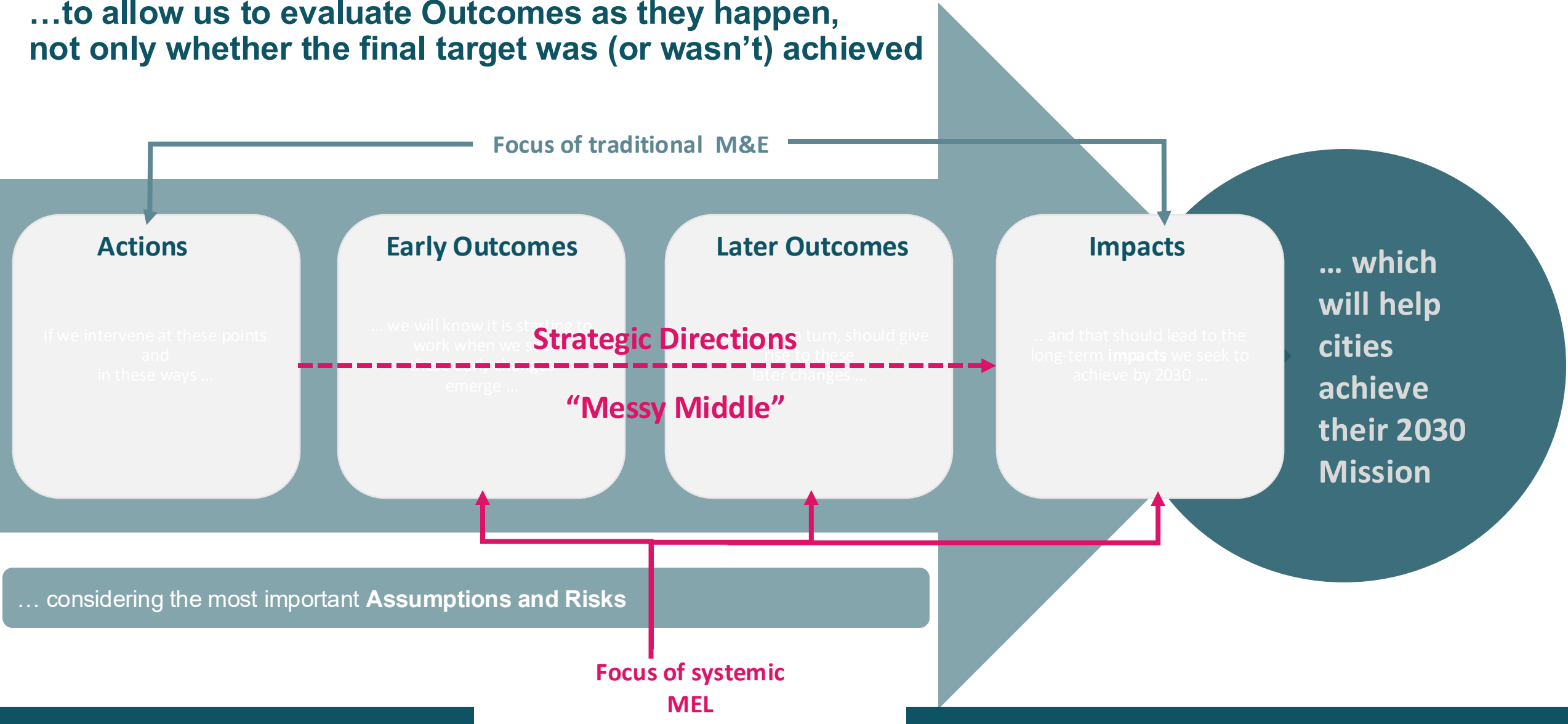
Impact Pathways tell a story about how systemic transformation is expected to unfold

Fundamental and connected mechanisms through which Complex long-term transition is envisioned and managed...

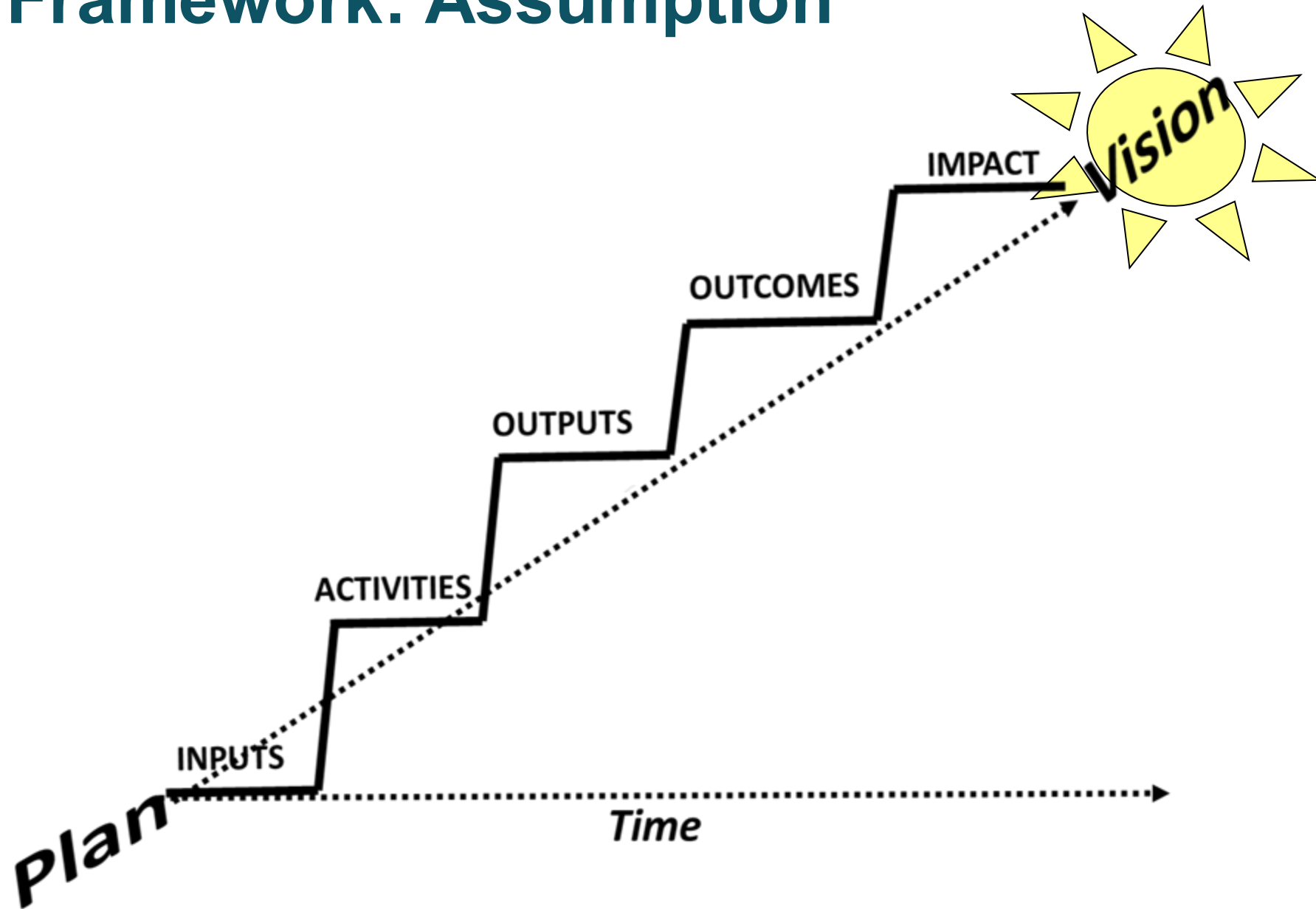




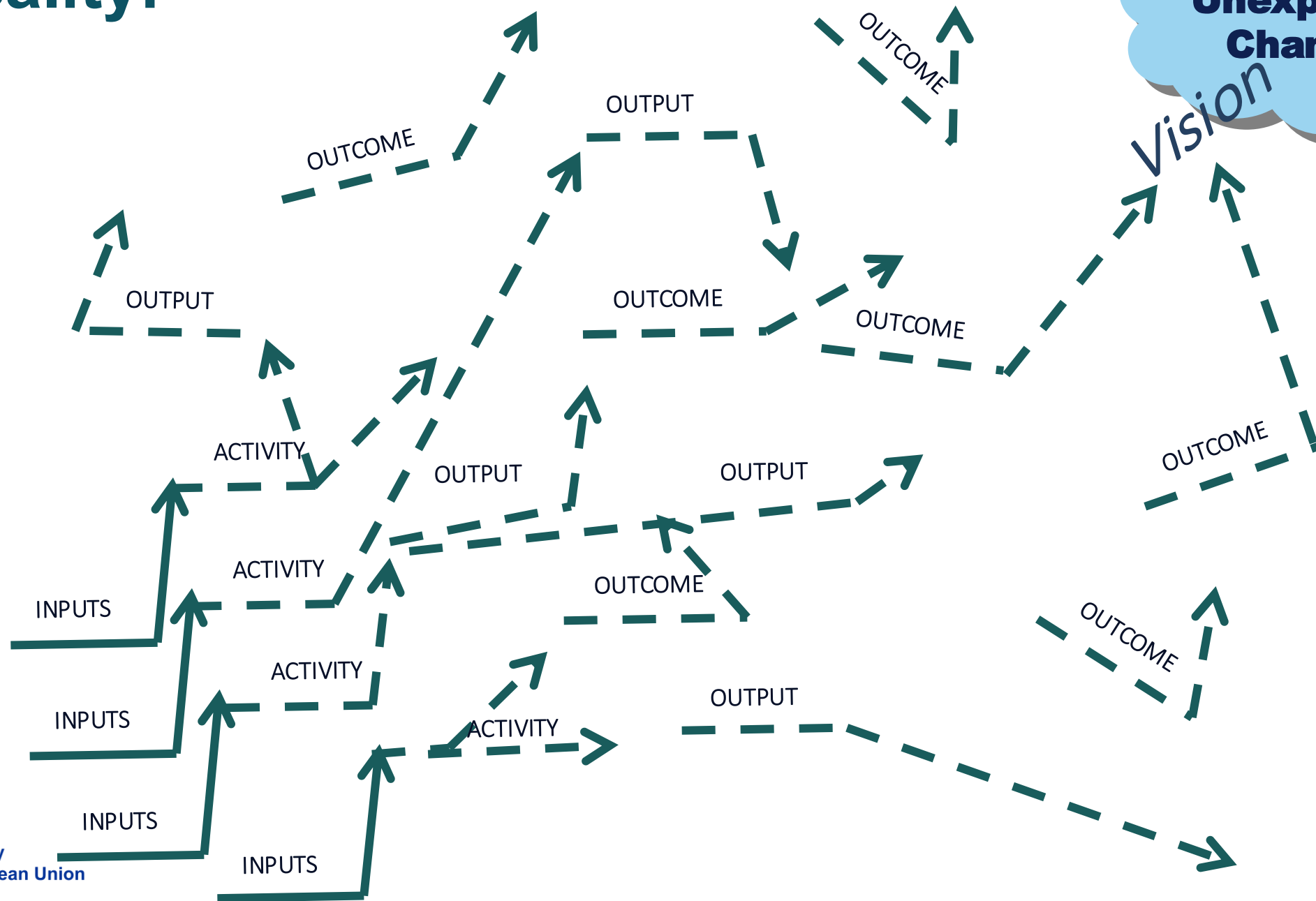
...to allow us to evaluate Outcomes as they happen,
not only whether the final target was (or wasn't) achieved



Impact Framework: Assumption



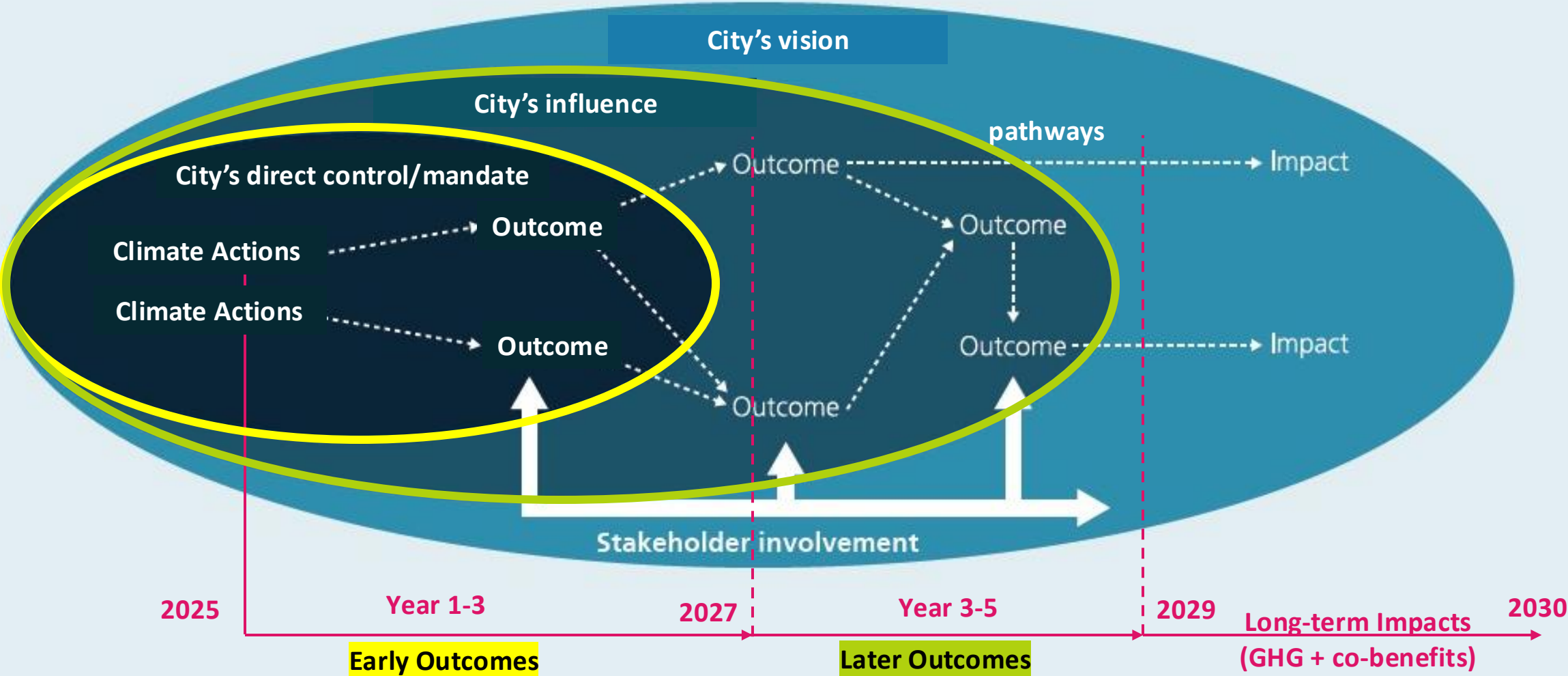
In reality:



Funded by
the European Union



Think of your city's contribution to long-term change



So, what does it mean for MEL?



LOOKING UNDER THE LAMPOST

EVIDENCE

LOST YOUR
KEYS?

YEAH,
I LOST THEM OVER
THERE BUT THE
LIGHT'S BETTER HERE

DATA

IMPACT





A mix of evidence for MEL

Mixed Method Diagnostic Evidence

**Qualitative
Evidence**

- Medical history
- Current symptoms
- Scans
- Biopsies
- Other qualitative diagnostics

**Quantitative
Evidence**

- Blood & urine tests
- Blood pressure
- Other quantitative diagnostics

Synthesis & Diagnostic Interpretation

Clinical
judgement:

Synthesis &
interpretation of
the qualitative &
quantitative
evidence
as a set
for each health
condition



Plan for treatment & progress tracking
(relative to initial diagnostic baselines)

**... to measure & learn from
what matters the most**





Qualitative Outcomes

Shared understanding of success

How is change happening now?

Short-term / medium-term

Strategy: How / Who / Where / Why?

Manage risks / uncertainty

Backstories

Improve and adapt

Qualitative insights



Learning & Sensemaking

Improve & Adapt

Quantitative Impacts

Objective targets of success

Measure change after

Long-term

Indicators: What?

Accountability / Compliance

Success stories

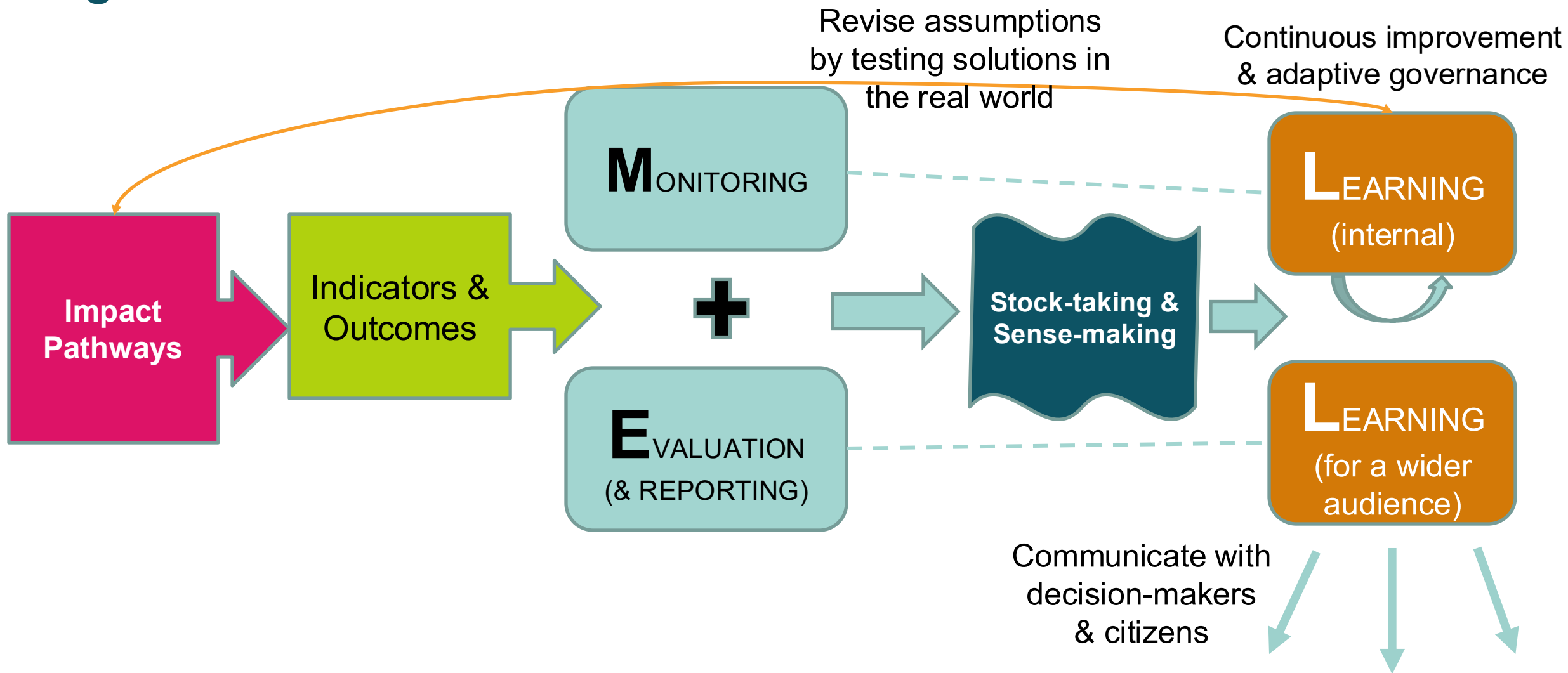
Build evidence / report results

Quantitative data





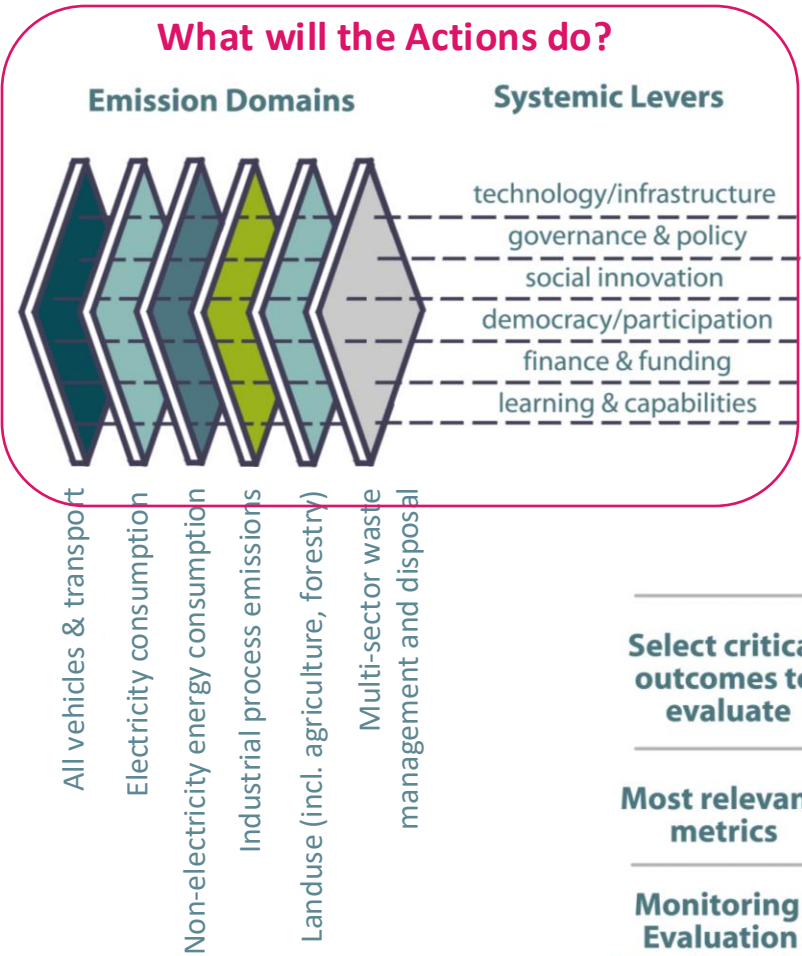
Integrated MEL Framework





NetZeroCities Impact Framework

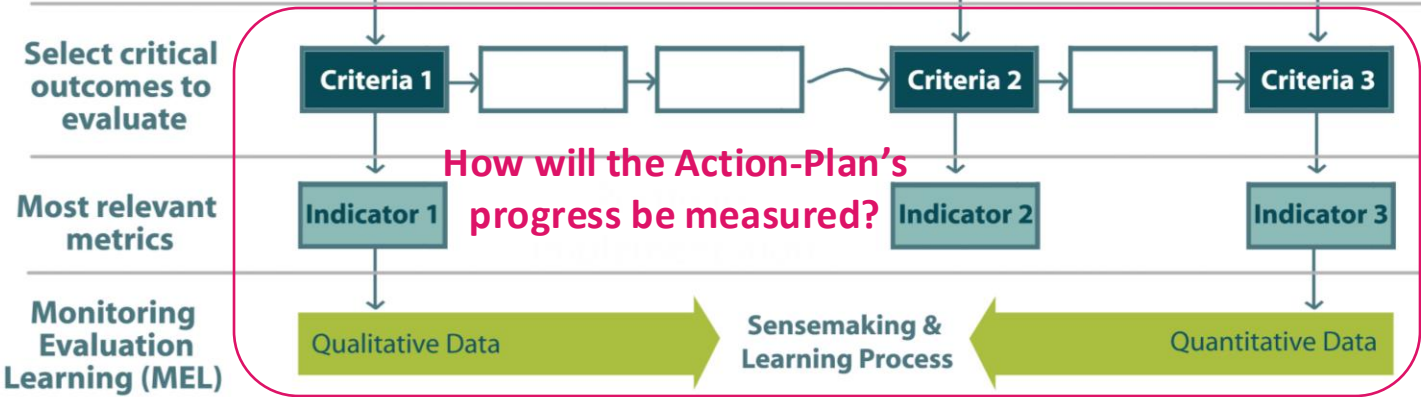
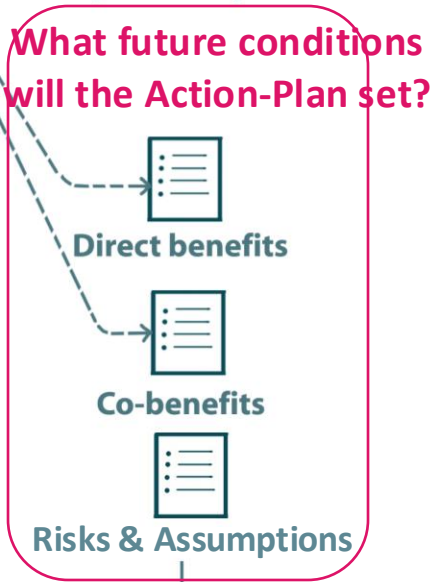
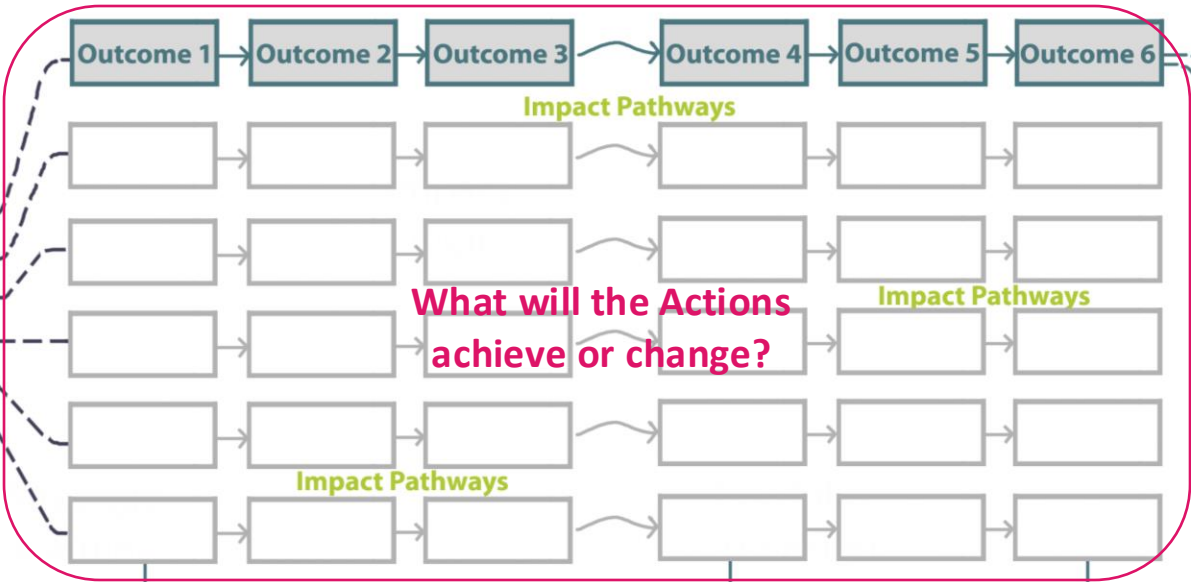
Portfolio of Actions



Early Changes (1-2 years)

Later Outcomes (3-4 years)

Long-term Impacts (5+ years)

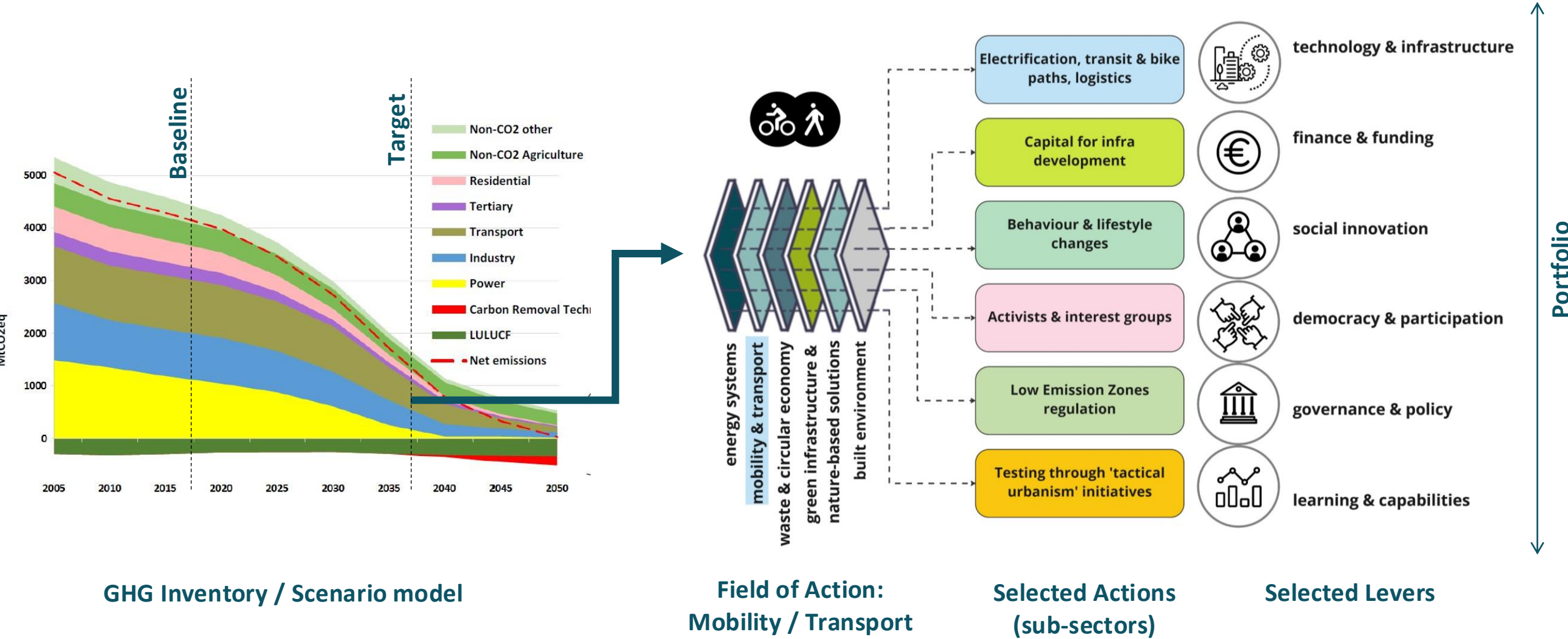


Measurement & Monitoring



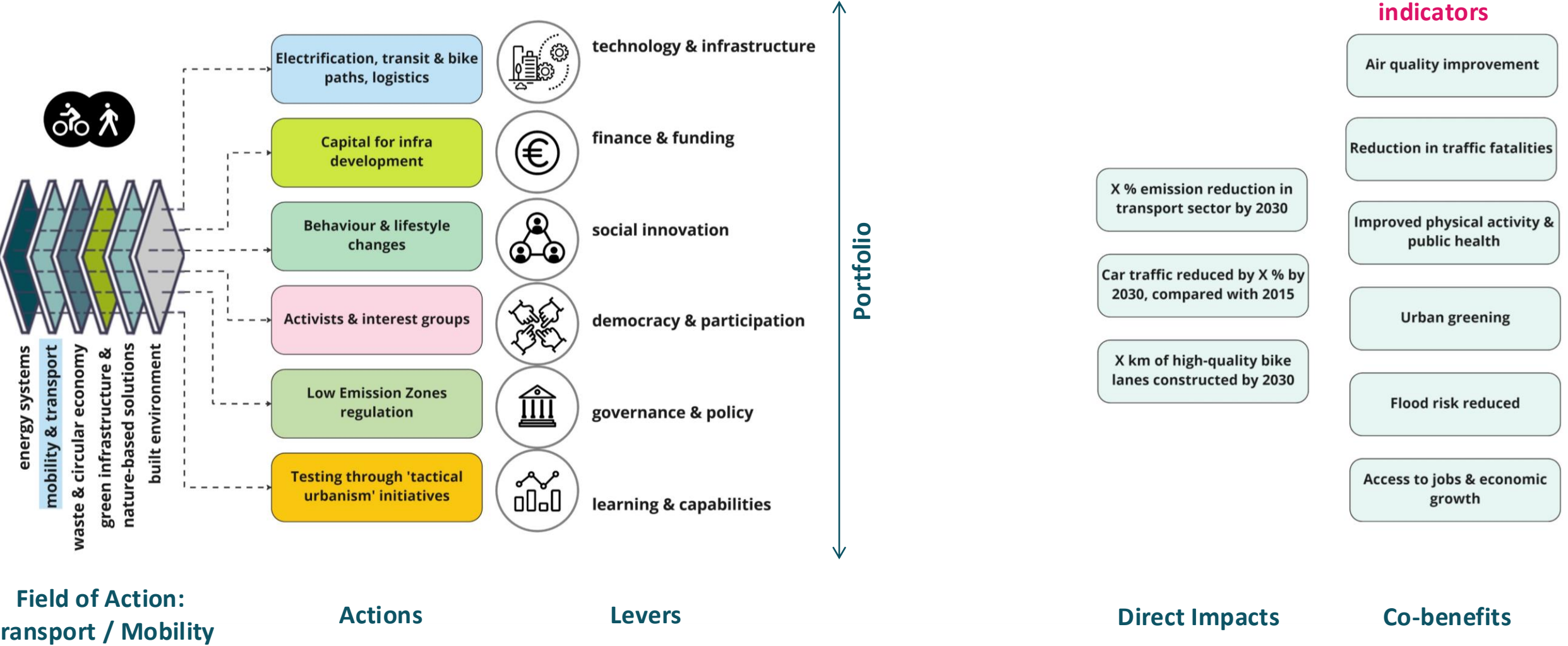


Practical example: What's a good way to start?

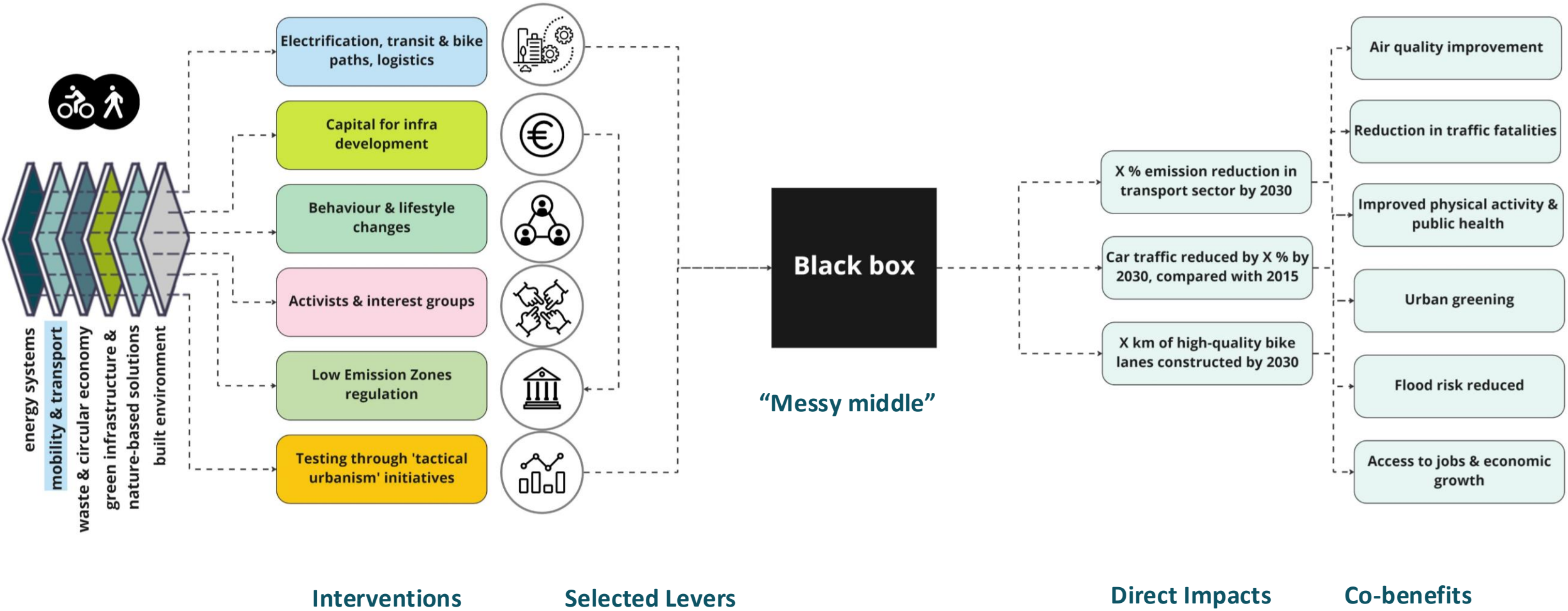




Systemic levers as an entry points towards transformation



Opening the black box for strategic planning





What are the Early Outcomes?



Electrification, transit & bike paths, logistics



Capital for infra development



Behaviour & lifestyle changes



Activists & interest groups



Low Emission Zones regulation



Testing of built environment & digital solutions



Customisation of technological solutions

Test-bed or district selection

Understanding of capital needs & landscape

Grassroots networks strengthened

Social entrepreneurship thro' accelerators

Tactical Urbanism interventions

?

?

?

?

?

?

?

?

Actions:
Mobility & transport

Early Outcomes
(1-2 years)

What are the next milestones?

Direct Impacts

Co-benefits

X % emission reduction in transport sector by 2030

Car traffic reduced by X % by 2030, compared with 2015

X km of high-quality bike lanes constructed by 2030

Air quality improvement

Reduction in traffic fatalities

Improved physical activity & public health

Urban greening

Flood risk reduced

Access to jobs & economic growth

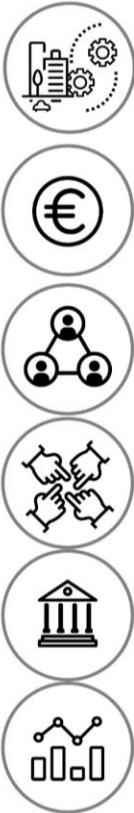




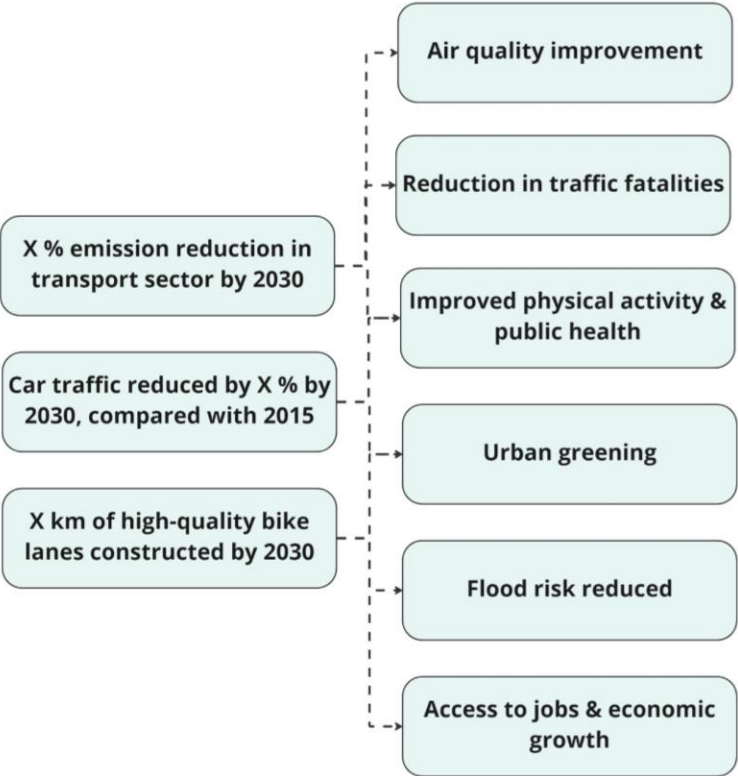
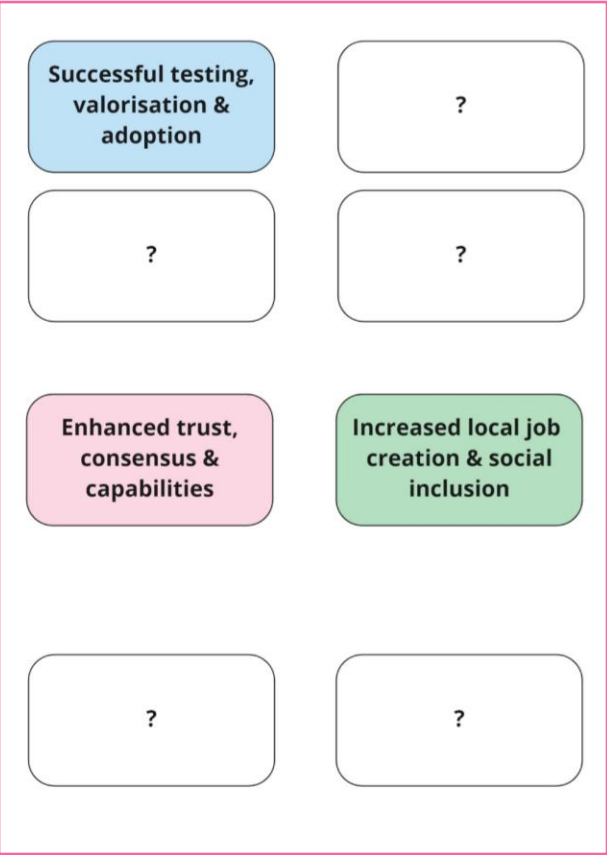
What are the Later Outcomes?



- Electrification, transit & bike paths, logistics
- Capital for infra development
- Behaviour & lifestyle changes
- Activists & interest groups
- Low Emission Zones regulation
- Testing of built environment & digital solutions



- Customisation of technological solutions
- Test-bed or district selection
- Understanding of capital cost needs & landscape
- Grassroots networks strengthened
- Social entrepreneurship thro' accelerators
- Tactical Urbanism interventions



Actions:
Mobility & transport

Early Outcomes
(1-2 years)

Late Outcomes
(3-4 years)

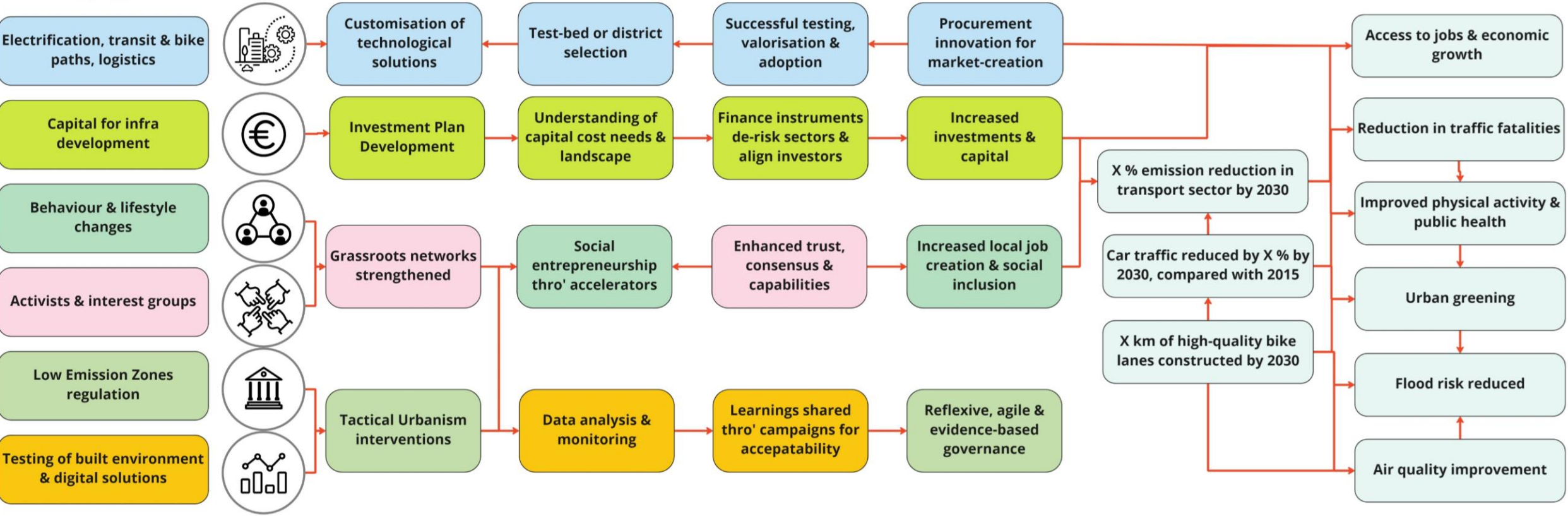
Direct Impacts

Co-benefits





Connections to impacts through pathways



Actions:
Mobility & transport

Early Outcomes
(1-2 years)

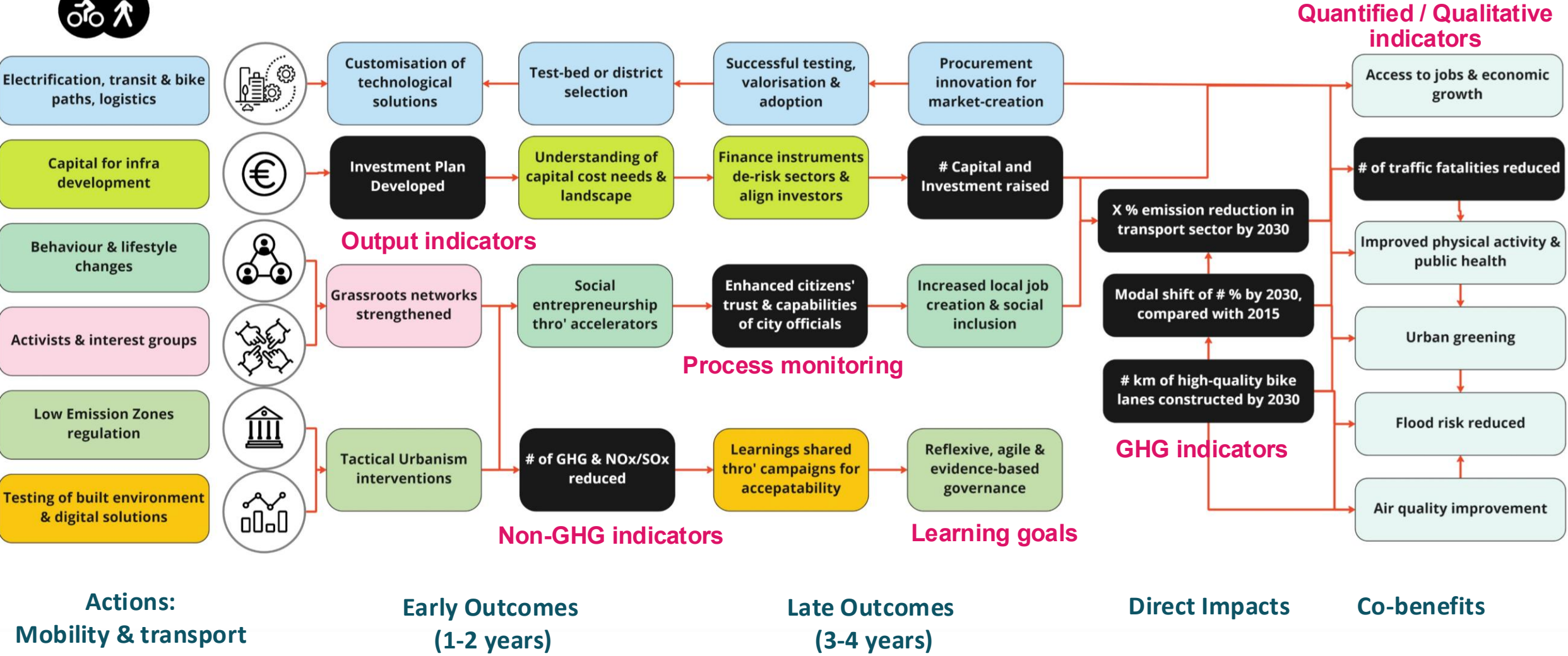
Late Outcomes
(3-4 years)

Direct Impacts

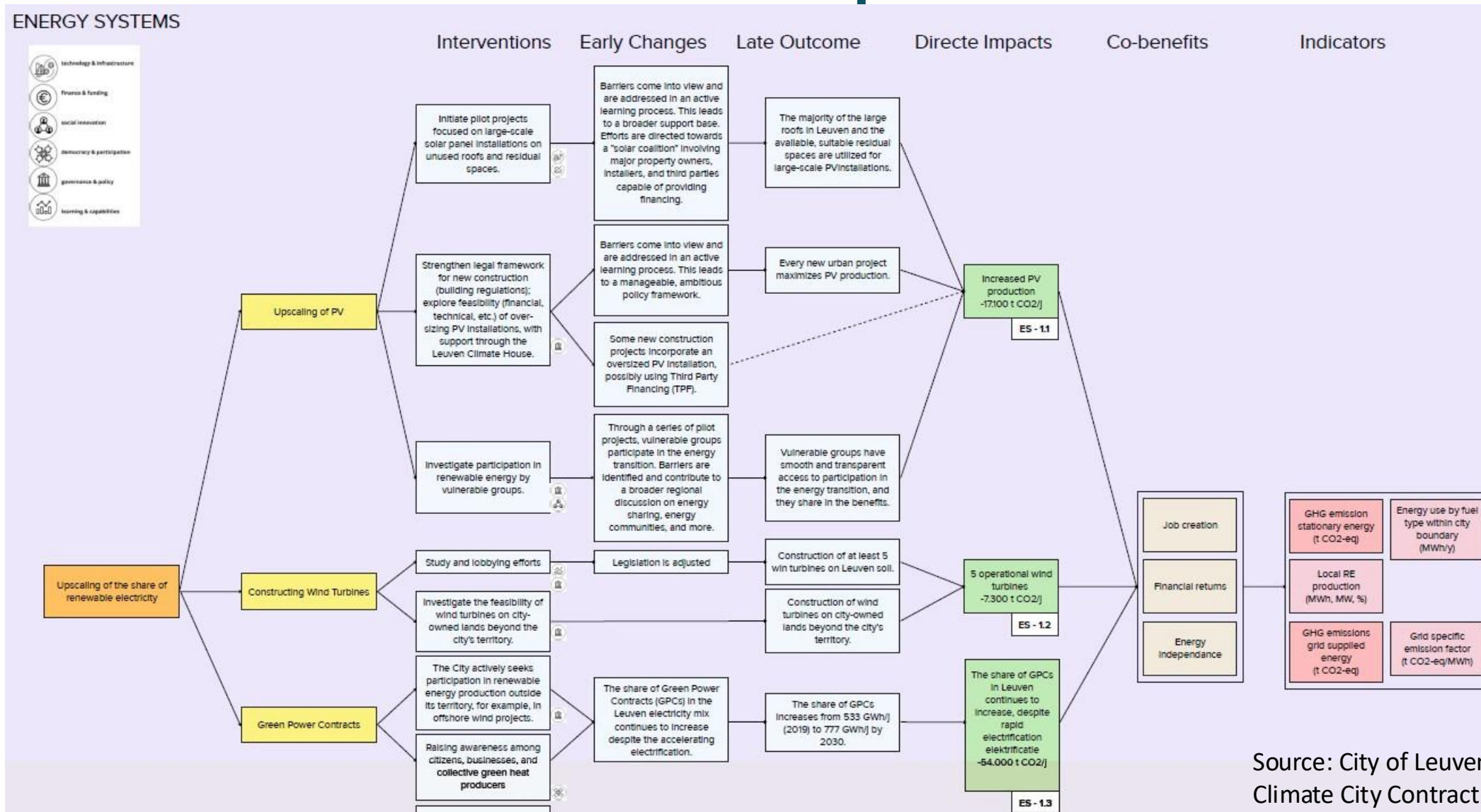
Co-benefits



Measuring progress & building evidence



Visualisation helps!



Source: City of Leuven/Leuven 2030;
Climate City Contract Action Plan



Visualisation helps!

TIMETABLE OF ACTIONS INTERVENTIONS BY SECTOR	2023		2024		2025		2026		2027		2028		2029		2030	
	M1-M6	M7-M12	M1-M6	M7-M12	M1-M6	M7-M12	M1-M6	M7-M12	M1-M6	M7-M12	M1-M6	M7-M12	M1-M6	M7-M12	M1-M6	M7-M12
TRANSPORT SECTOR																
Promoting modal shift in urban transport																
Low Emission Zone (LEZ)																
Development of shared transport solutions																
Decarbonisation of public transport																
Intermodal Logistics Platform (PLIVA)																
Urban distribution of goods																
Training and incentives for sustainable mobility																
BUILDINGS AND HEATING SECTOR																
Development of district heating systems																
Building renovation																
Energy renovation of municipal buildings																
High energy efficiency in new buildings																
Promoting the use of high-efficiency heat pumps																
Sustainable tourism solutions																
Renovation of lighting and household appliances in dwellings																
ELECTRICITY SECTOR																
Energy communities and positive districts																
Renovation of street lighting systems																
OTHER SECTOR: WASTE																
Circular economy strategy																
Optimisation of waste collection management																
Optimisation of the urban water cycle																
OTHER SECTOR: NATURE-BASED SOLUTIONS																
Urban Biodiversity Pathways																
Urban forests and renaturation																
OTHER ACTIONS																
Scope 3 Emissions Analysis Programme (Scope 3)																
Review of the Climate City Contract																

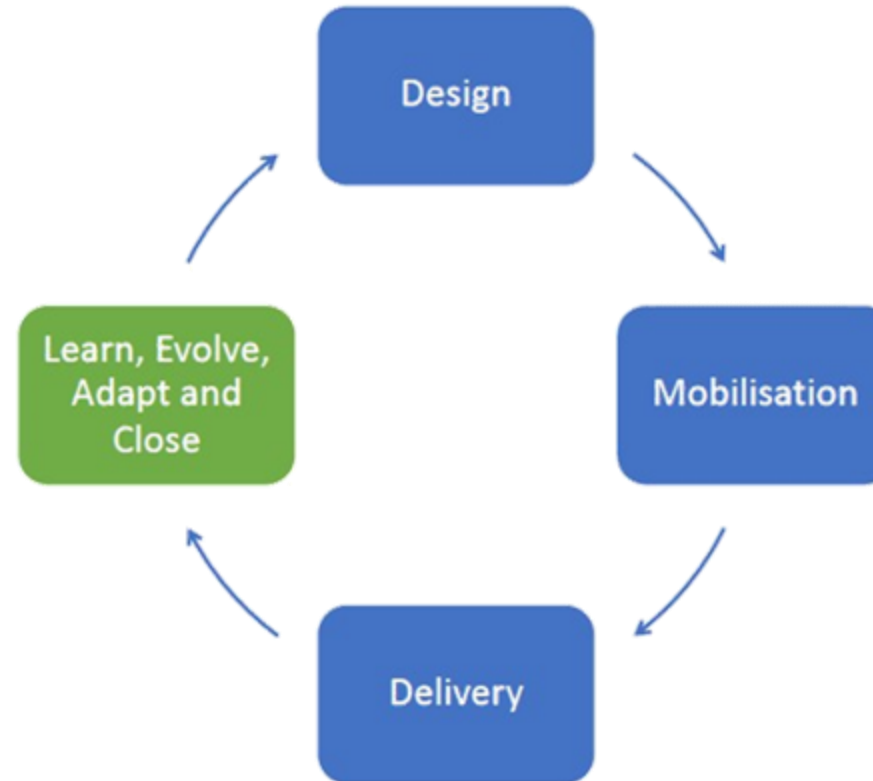
Legend: ■ Planned actions ■ Foreseen actions for scenarios 2030





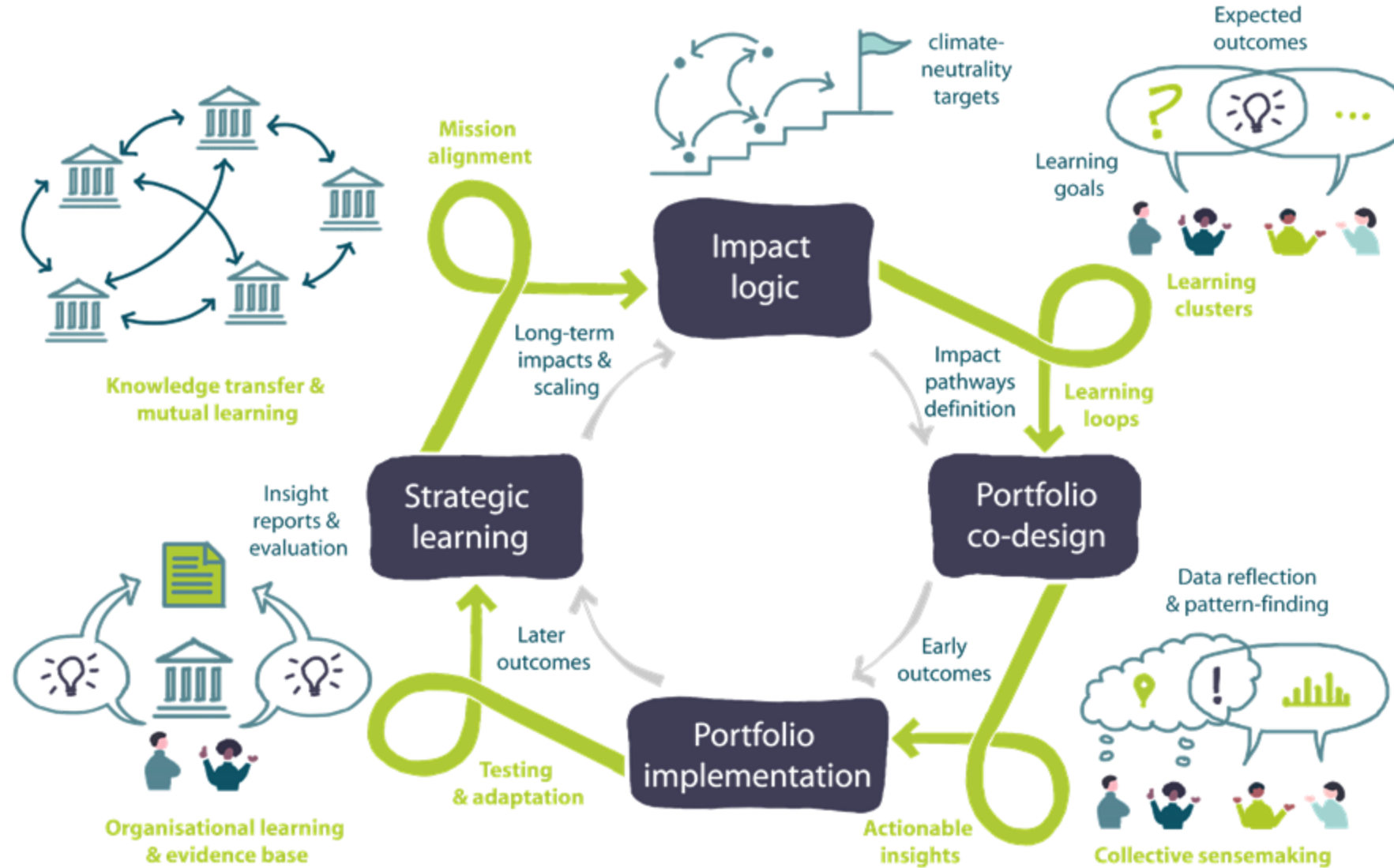
What does this mean for your project management?

Traditional Project Cycle



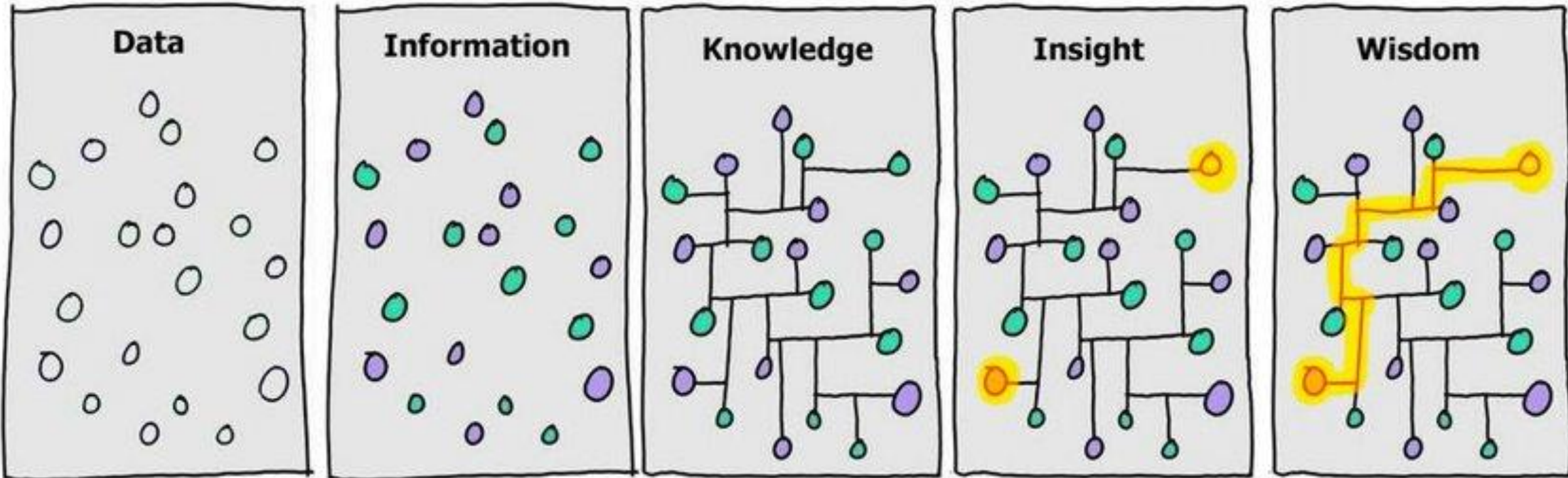


Strategic learning cycle





...to help us move from just data to useable insights and wisdom



Cartoon by David Somerville





Q&A





Greenhouse Gas Emissions Monitoring and Accounting





Why GHG Accounting Matters

- Helps understand where your city's emissions come from
- Provides a baseline to measure progress
- Supports target setting and action planning





Setting Climate Neutrality Targets

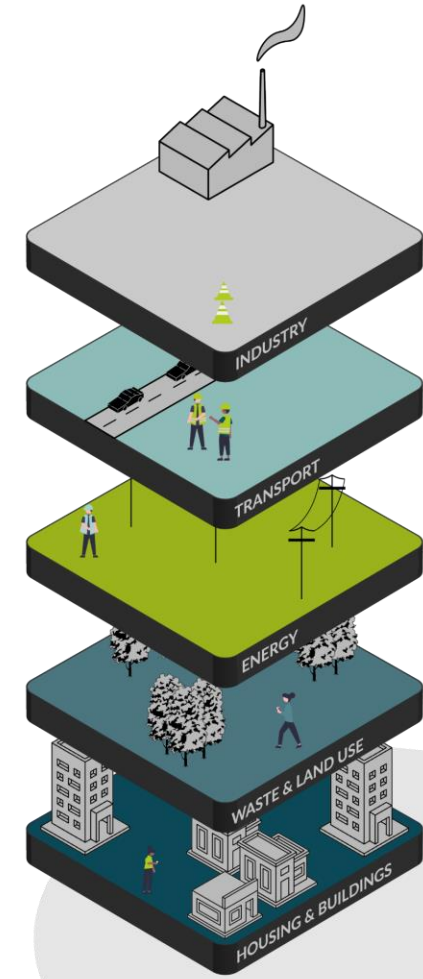
- Start with a baseline year
- Net Zero = Minimum 80% reduction/mitigation with remaining emissions compensated
- Set a target year that aligns with your local/ national/ EU climate goals
- Use this target to guide action planning and investments





Where emissions come from (sectors)

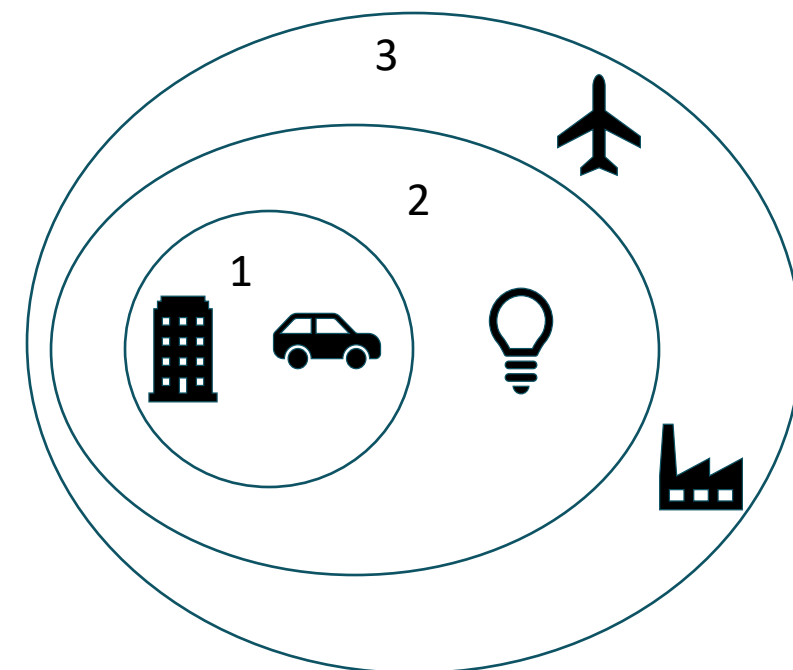
- **Buildings or Stationary Energy:** residential, commercial and industrial buildings as well as municipal buildings and public lighting within the city boundary
- **Transport:** all vehicles and transport within the city boundary
- **Waste:** generated within the city boundary, treated/managed/disposed within or outside the city boundary
- Changes in land use including agriculture, forestry and other land uses (**AFOLU**)
- Chemical processes in industry (collectively referred to as Industrial Process and Product Use or '**IPPU**') within the city boundary





Understanding Scopes of Emissions

- **Scope 1** (direct emissions): GHG emissions produced within the city boundary (e.g. fuel use in buildings, vehicles, industry)
- **Scope 2** (indirect emissions): GHG emissions from grid-supplied electricity or heating/cooling used in the city but generated elsewhere
- **Scope 3** (out-of-boundary emissions): GHG emissions that occur outside the city but are linked to city activities (e.g. waste disposal, air travel, production of goods consumed in the city)





Types of Greenhouse Gases



- **Carbon dioxide (CO₂)**
 - Most common; Global Warming Potential for 100 years- 1
- **Methane (CH₄)**
 - AFOLU, Waste; Global Warming Potential- 30
- **Nitrous oxide (N₂O)**
 - AFOLU, IPPU; Global Warming Potential- 273
- **F-gases:** hydro fluoro carbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆) and nitrogen trifluoride (NF₃)
 - IPPU; Global Warming Potential- 1,000s to 10,000s





Accounting Methodologies

- The Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC)
- The Global Covenant of Mayors Common Reporting Framework / SECAP approach
- National frameworks

GHG Emissions =
Activity Data x
Emissions Factor





Reporting Platforms

- CDP-ICLEI Track
- MyCovenant
- National platforms or European initiatives





Available Tools

- **GHG Calculation and Scenario Planning:** NetZeroPlanner, EU City Calculator, Kausal, ClimateView, SuperUrbanity
- **Emissions and Activity Data:** Google EIE, Electricity Maps, Climate TRACE
- **GHG Calculation:** City Inventory Reporting and Information System (CIRIS), MyCovenant Reporting Template





Residual Emissions & Compensation

- Even with strong action, some emissions will remain ("residuals")
- Options: Carbon Capture and Storage (CCS) Technologies, Natural Sinks, Carbon Removal Credits
- Priority is to reduce first, then compensate the rest to reach climate neutrality





Q&A



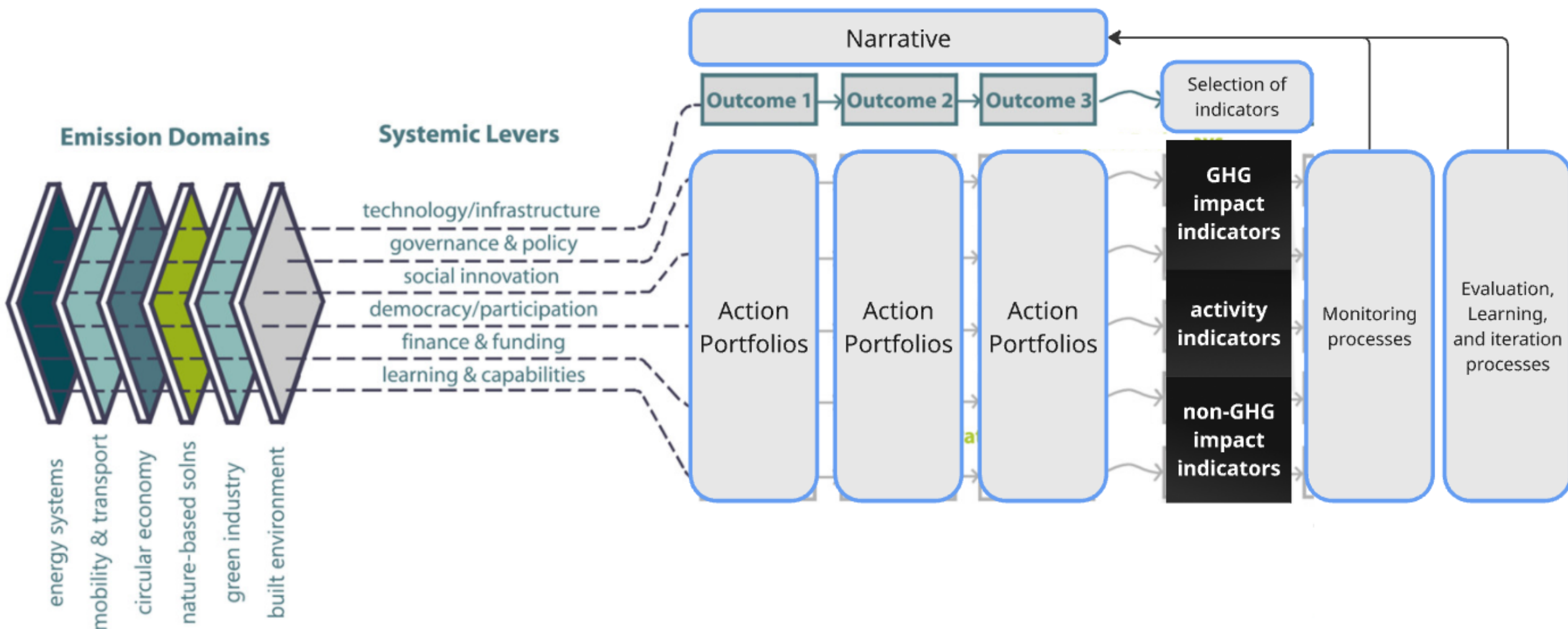


Co-benefits and Indicators





NetZeroCities MEL elements





Why do we need to measure impact?

- Impact indicators provide us with the evidence to **compare, evaluate, learn, and feed back** iterative improvements to the narrative, the objectives, and the action portfolios.
- Reporting can be seen as a cumbersome practice, but in fact, it is an opportunity: Indicators systems can support cities in **engaging stakeholders, governing, and financing the transition.**





Methodological approach

From a methodological approach, we encourage cities to use the new standard [DIN SPEC 91637 Impact measurement of measures for municipal, regional and national climate protection](#)

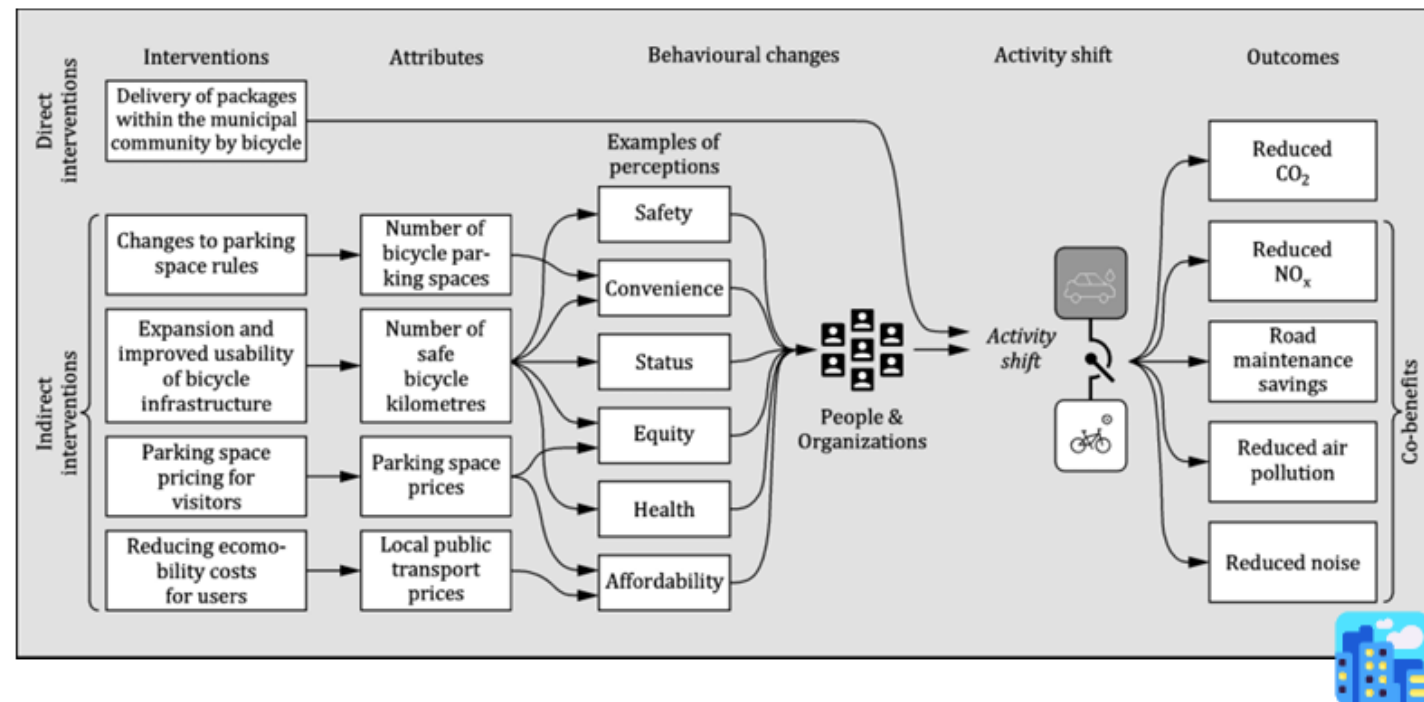


Figure 1 — Outcome logic for outcome-oriented climate change mitigation planning using the example of a shift to bicycle traffic



Building an indicator framework

Who needs to know what, when, and why?

- Tailor indicators to audience/stakeholder/use or business cases
- Build and expand on existing frameworks (at local, regional, and wider scale e.g. SECAP, SUMP, SDGs, etc)
- Create and embed reporting and communication systems to go beyond individuals and ensure continuity

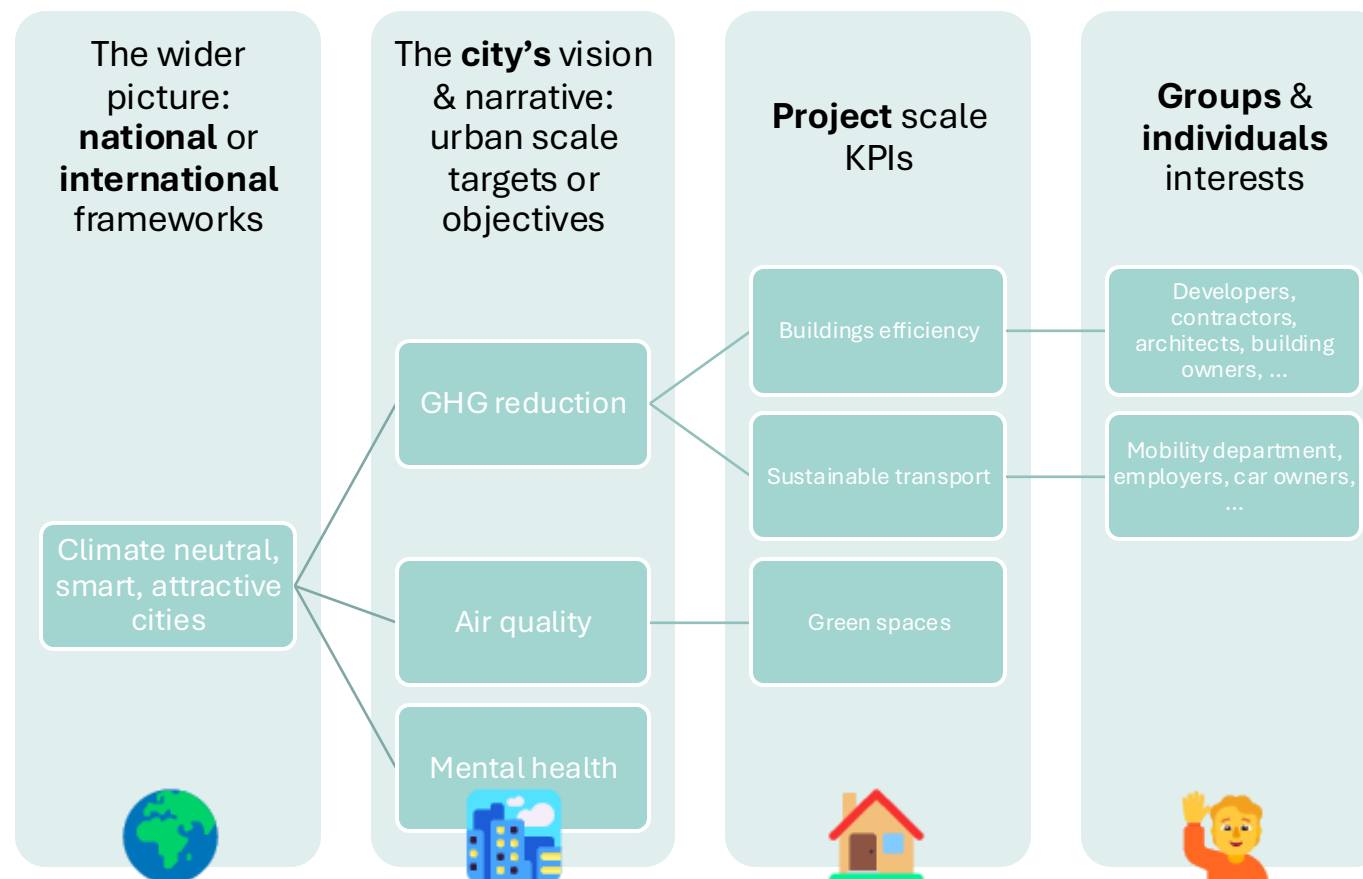




Building an indicators system

Who needs to know what, when, and why?

**Tailor indicators to audience/
stakeholder/
use or business cases**





The wider picture: national or international frameworks

Several cities align their overarching impact indicators with existing frameworks, like the SDGs, or national development plans and roadmaps such as National Energy and Climate Plans.

This is especially important where cities work as national cohorts and for multi-level governance.





The city's vision & narrative: urban scale targets or objectives

At urban scale, cities might want to align indicator systems with their SECAP and SUMP plans, or any other existing roadmap.

As a good practice, cities are encouraged to engage their stakeholders in building a shared vision and narrative around desired change. For this purpose, cities can align with existing co-benefit frameworks, such as:

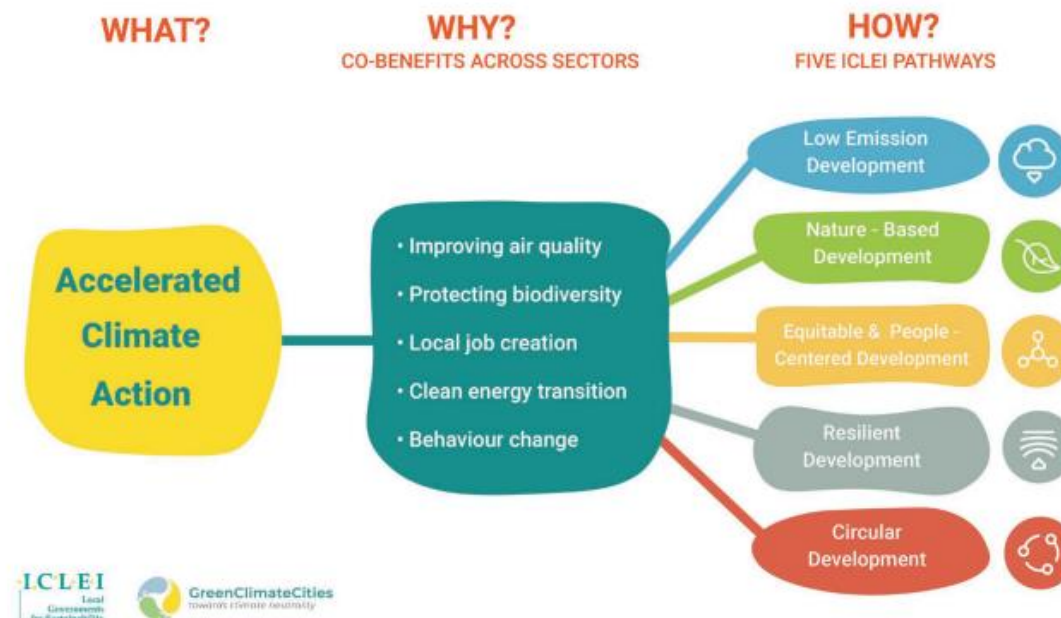
[C40 Cities – Climate Action Benefits Framework](#)

[ICLEI – Co-Benefits of Urban Climate Action](#)

[European Commission – Handbook for Sustainable Urban Development Strategies](#)

[IPCC Special Report on Climate Change and Cities](#)

The NetZeroCities Portal tool [Solution Outliner](#) includes a list of co-benefits of climate action.





Project scale KPIs

At project scale, there are several structured indicators systems across sectors, for example Level(s), the EU Framework for Sustainable Buildings.

Cities can also find inspiration from EU funded projects, for example, the HORIZON project SPARCS has published a [comprehensive set of KPI sets for Positive Energy Districts](#).

Level(s) Key indicators

	1	Green house gas emissions along a building's life cycle	1.1 Use stage energy performance	kilowatt hours per square metre per year [kWh/m²/yr]	1.2 Life cycle Global Warming Potential	kgCO ₂ equivalents per square metre per year					
	2	Resource efficient + circular material	2.1 Bill of quantities	Unit quantities mass + years	2.2 Construction + demolition waste + materials	kg of waste + materials per m²	2.3 Design for adaptability use	Adaptability score	2.4 Design for deconstruction, reuse + recycling	Deconstruction score	
	3	Efficient use of water resources	3.1 Use stage water consumption	m³/yr water per occupant							
	4	Healthy + comfortable spaces	4.1 Indoor air quality	Parameters for ventilation, CO ₂ + humidity	Target list of pollutants: TVOC, formaldehyde, CMR, VOC, LCI ratio, mold, benzene, particulates, radon	4.2 Time outside of thermal comfort range	% of the time out of range during the heating and cooling seasons	4.3 Lighting + visual comfort use	Level 1 check list	4.4 Acoustics + protection against noise	Level 1 checklist
	5	Adaptation + Resilience	5.1 Protection of occupier health + thermal comfort	Projected % time out of range in the years 2030 and 2050 [see also 4.2]	5.2 Increased risk of extreme weather events	Level 1 checklist [under development]	5.3 Increased risk of flood events	Level 1 checklist [under development]			
	6	Optimised life cycle cost and value	6.1 Life cycle costs	Euro per square metre [€/m²/yr]	6.2 Value creation + risk exposure Indoor air quality	Level 1 checklist					



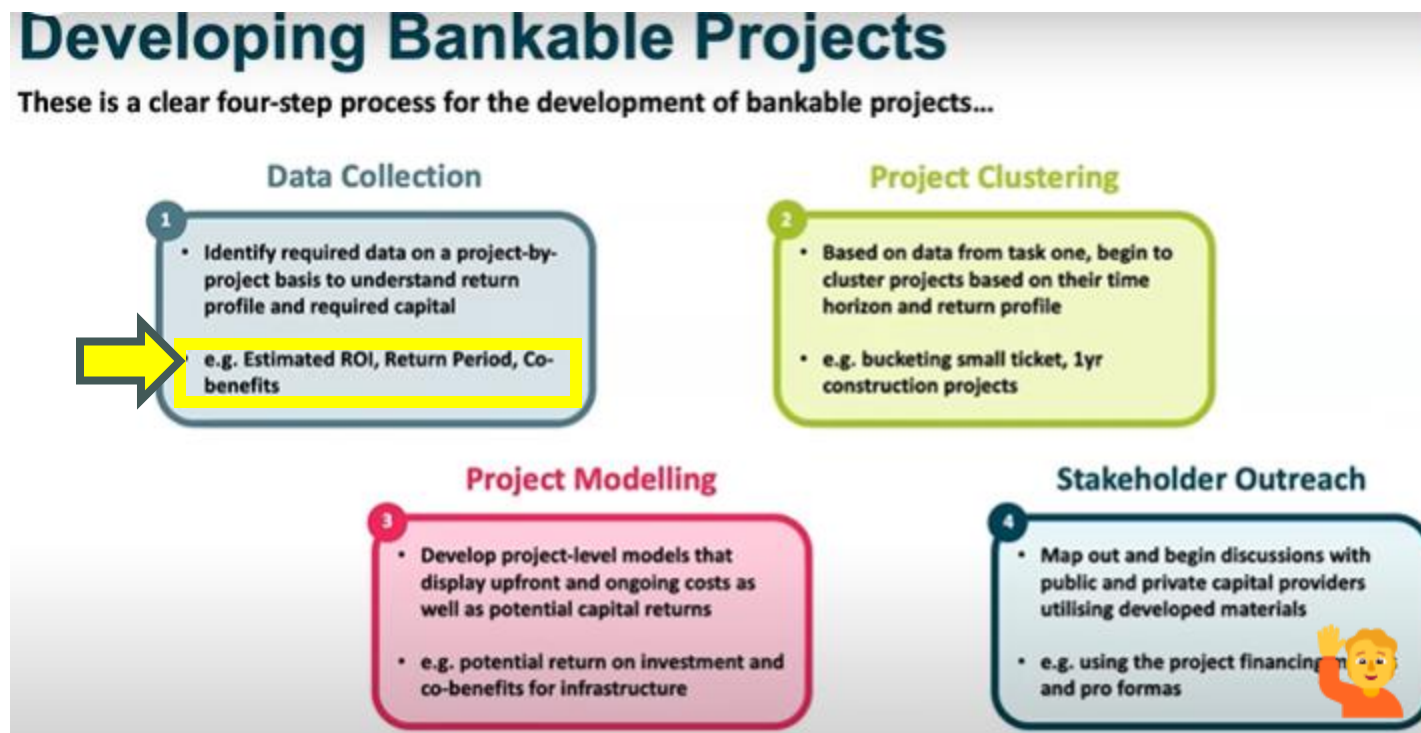


Groups and individuals interests

Aligning urban transition indicators frameworks to companies' ESG reporting can support decision-making towards projects that align with the overall climate action plan of the city.

If urban-scale co-benefits are monetised, blended financing mechanisms can leverage societal impact to co-fund or co-finance private investment. This is possible both at project as well as at portfolio scale. In fact, this type of structures help remove the barrier of allocation and distribution of co-benefits.

Source: [NZC Finance and Funding Tools \(incl. Indicators guidance\)](#)





It's about creating a dialogue ...

Develop engagement, participation, and build capabilities.

Identify and align priorities, support wide-spread collaboration across actors.



Source: City of Kalamata





... a structure ...

As a best practice, indicators should include at least the following **metadata**

- Outcome and co-benefit linked to indicator
- Project(s) and stakeholder(s) responsible
- Baseline, benchmark, and target values
- Reporting frameworks using the indicator and data source
- Link to methodology for calculation
- Frequency of data availability



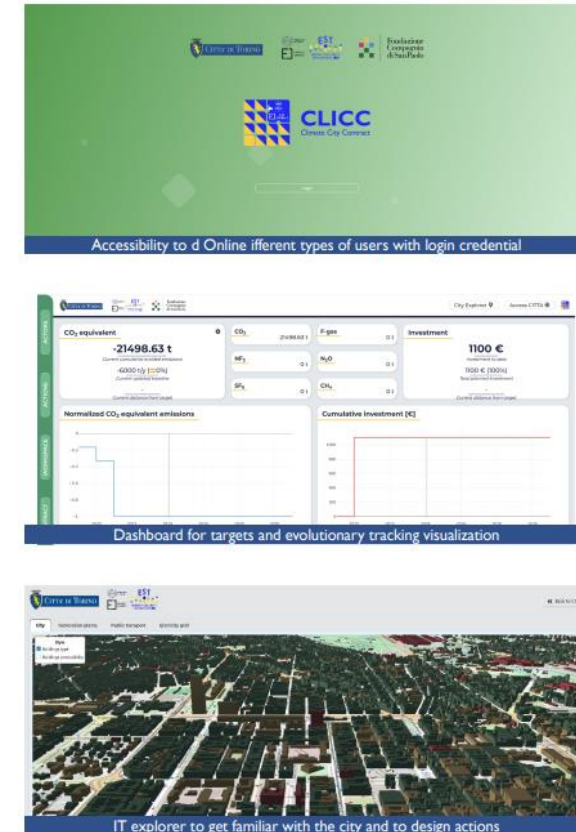
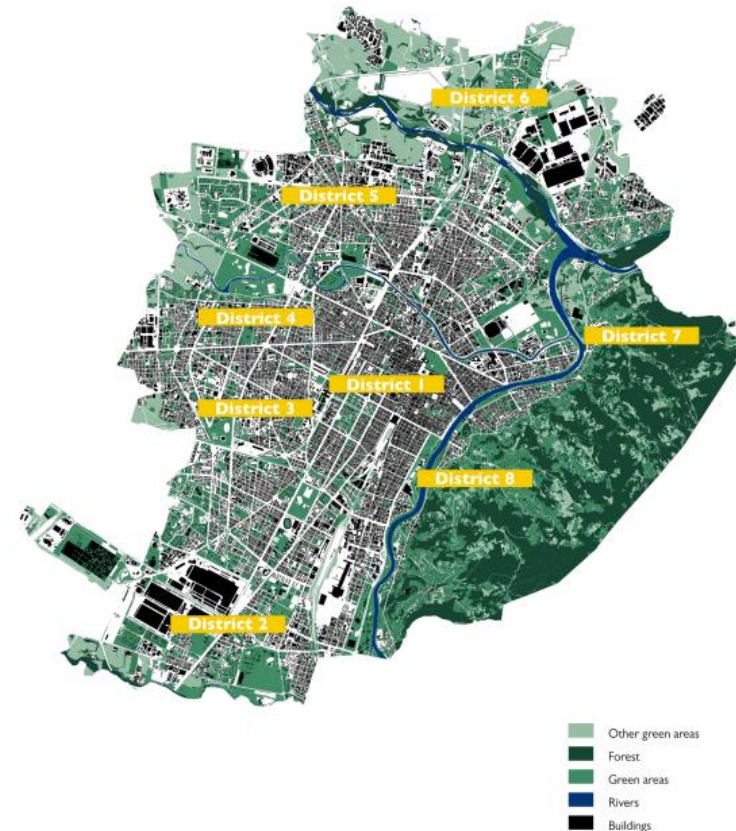


... and a system of governance

These datapoints will provide the traceable, trackable evidence for collaborative learning, sensemaking, and iteratively improving plans as we implement them.

It can be helpful to create reporting templates, processes and structures, and dashboards for centralised data management.

➔ Think about data verification, validation, and communication already at the design stage.



Source: City of Turin





Types of impact indicators

Types of indicators	Example	Potential data source
Direct Impacts (GHGs)	GHG Emissions in tCO ₂ eq/year	Activity data x EF
Activity indicators	New bike lanes in km, Energy use in MWh, kWh/m ² etc.	Contracts, Bill of Materials
Financial indicators	CapEx, OpEx, Emissions return in EUR/tCO ₂ eq avoided	Contracts, statistical data
Co-benefits indicators	Better health through air quality improvement in PM _{2.5} ug/m ³	GIS data, sensors, empirical data (surveys), statistics, databases and indexes, ...
Reflection & learning “indicators”	What went well? What did not go well? Why? What can we do about it?	Sensemaking





Types of impact indicators

Specific 'lenses'	Example	Potential data source
Social / Just Transition	Share of vulnerable population – overlay on any other indicator	Municipal records, EU databases
Climate Risk assessment	Hazard, exposure, vulnerability, and adaptive capacity indicators. E.g. frequency and duration of heatwaves, droughts, floods, etc. Areas and population exposed. Access to and quality of resilience plans.	Earth observation, satellite-based data

NetZeroCities has developed a [Comprehensive Indicator Framework](#) to inspire cities in Indicators selection, covering direct and indirect benefits. See the [Guidance document & Spreadsheet](#)





What are co-benefits?

Co-benefits refer to the **additional and beneficial impacts** that arise from implementing strategies with the primary goal of reducing GHG emissions.

For instance, measures aimed at curbing GHG emissions from burning fossil fuels not only help mitigate global warming but also lead to improved air quality, which in turn fosters better public health.

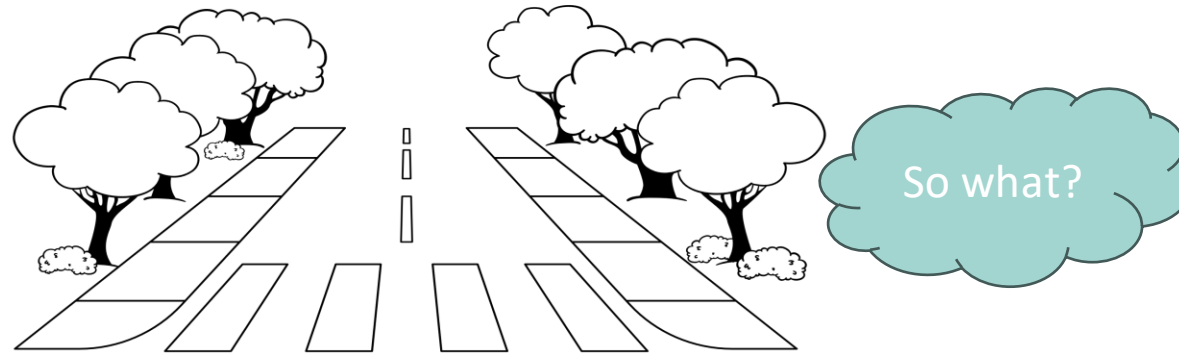
Co-benefits highlight the multifaceted gains that accompany climate action, making them a crucial consideration in environmental **policy and investment decisions**.

Co-benefits manifest across sectors, enhancing the overall appeal of climate action, but this also poses challenges, for example, the **attribution and equal distribution**.





Activity (indicators) vs. Co-Benefits (indicators)



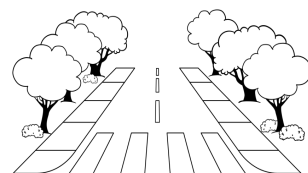
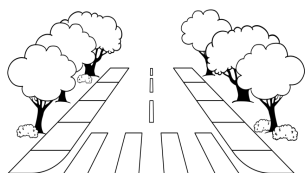
What did we do?



*What changed for
people or the planet
because we did it?*



Illustration



Activity

Extended the bike lanes

- Km new bike lanes
- Total km length of bike lanes (protected, etc)
- % transport budget for bikes
- Etc.

Activity indicator

Co-benefit

- Improved air quality
- Increased physical activity
- Lower noise pollution
- Reduced respiratory and cardiovascular diseases

Co-benefit indicator

- PM2.5 reduction
- % active commute
- Reduction in noise measurements
- Reduction in diagnosed asthma/respiratory diseases among children





ENVIRONMENT

Air pollution in Paris region 'cut in half' over the past 20 years

Air pollution in the Paris region has been cut in half over the past two decades, according to a new study published by Airparif, an independent group that tracks air quality.

Issued on: 09/04/2025 - 14:46 2 min

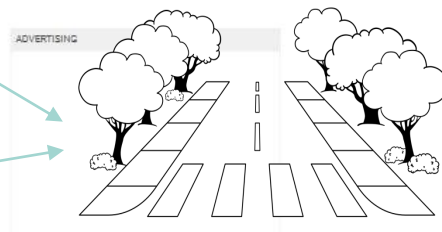


The Eiffel Tower is seen from the Generali balloon, which measures air quality in Paris. AP - Christophe Ena

By: RFI Follow

Between 2005 and 2024, levels of the two most harmful air pollutants – fine particles and nitrogen dioxide – fell by 55 percent and 50 percent respectively, the group said in a report published Wednesday.

The drop is the result of a mix of European, national and local policies, Airparif said, aimed at reducing emissions from road traffic, heating and industry.



Fewer deaths

Airparif said the improved air quality had a real impact on public health.

"The number of premature deaths linked to air pollution has fallen by a third between 2010 and 2019," the study found.

Still, pollution remains a major concern. In 2019, it caused an average loss of about 10 months of life expectancy per adult in the region.

It was also linked to 10 to 20 percent of new cases of chronic respiratory illnesses – including asthma, lung cancer and chronic obstructive pulmonary disease (COPD), a condition that makes it harder to breathe over time – and 5 to 10 percent of cardiovascular and metabolic conditions such as heart attacks, strokes and type 2 diabetes.

Airparif is calling on authorities to keep going. The World Health Organization's recommended air quality limits are still being breached across Île-de-France. Meeting those limits "would prevent 7,900 premature deaths", the report said.



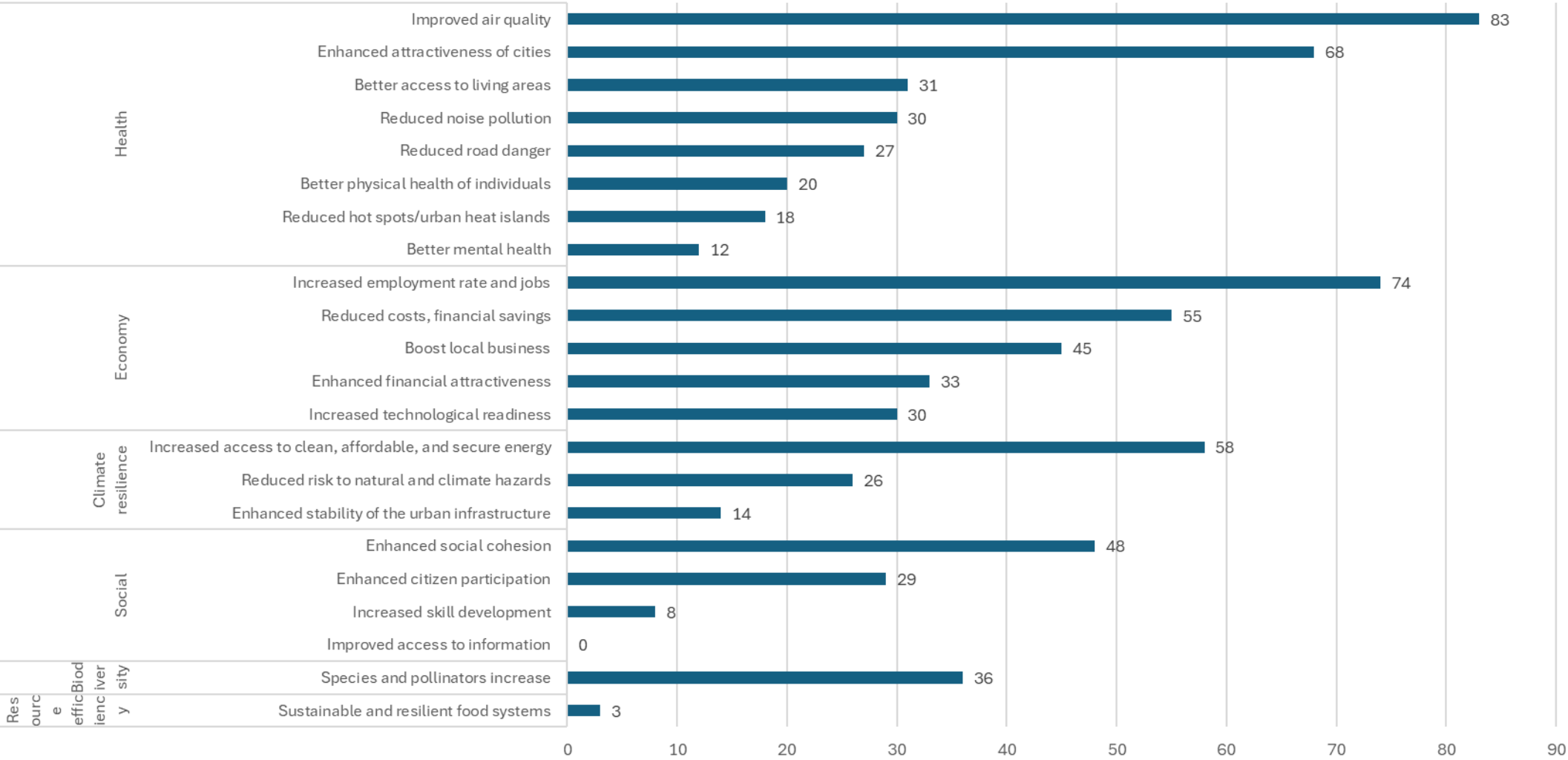
Source: <https://www.rfi.fr/en/france/20250409-air-pollution-in-paris-region-cut-in-half-over-the-past-20-years>



Funded by
the European Union



Co-Benefits in Mission Cities CCC Commitments

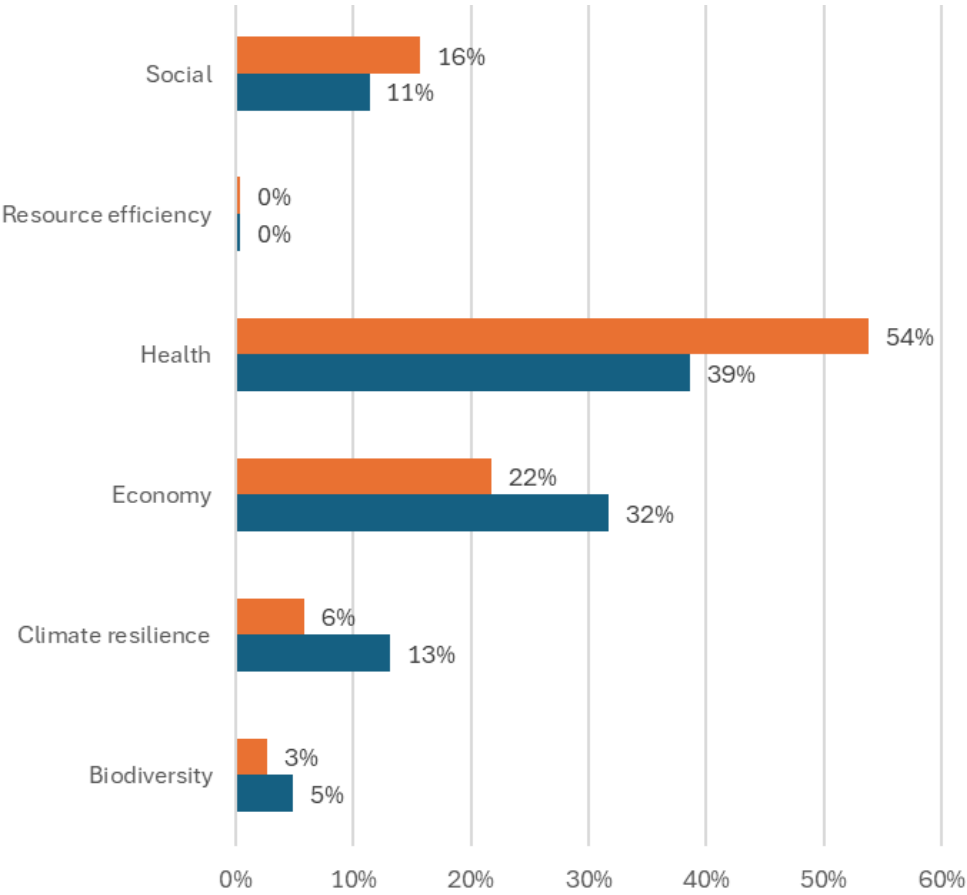


Source: CCCs





Co-Benefits vs. Indicators selection

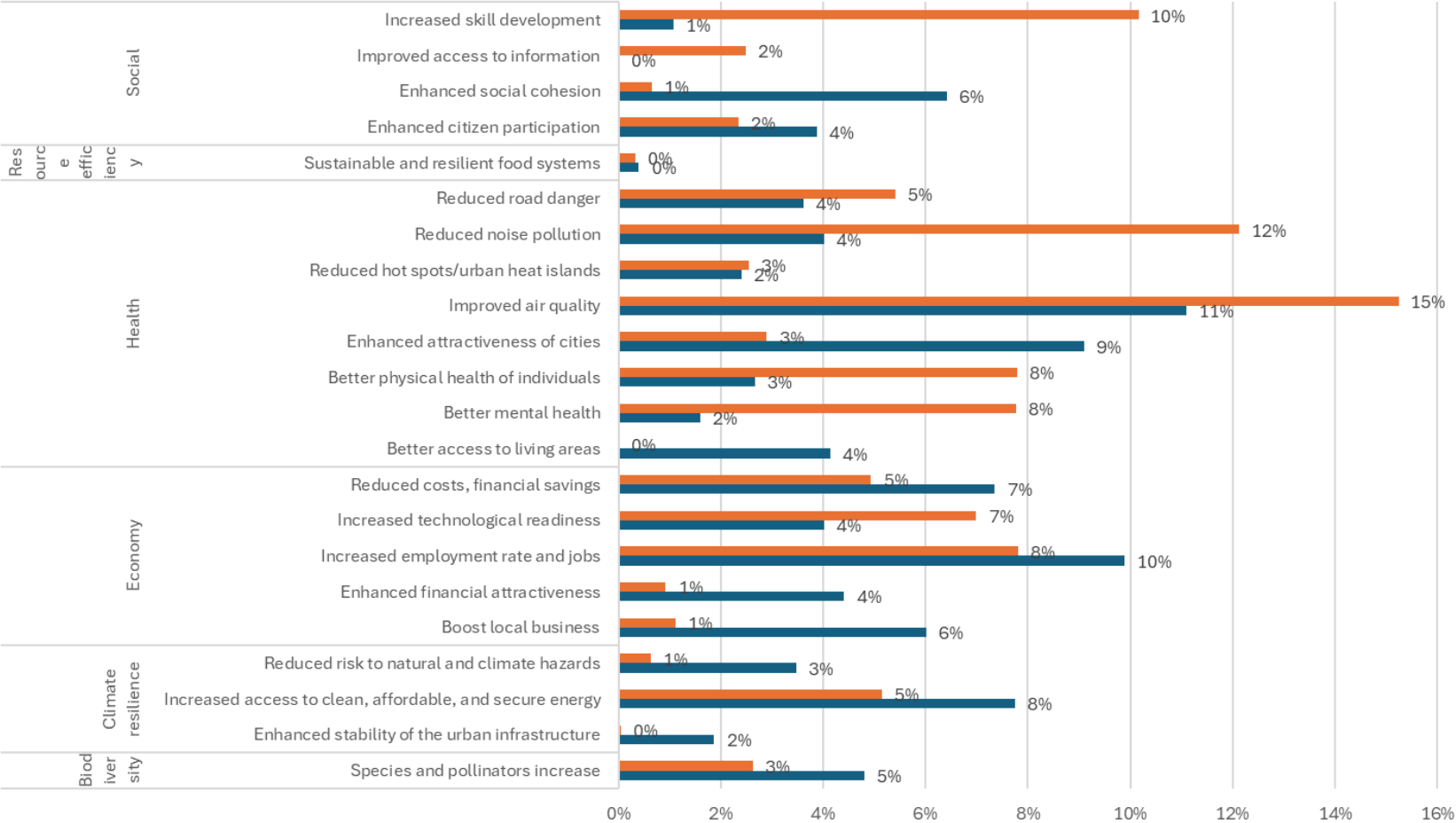


Source: CCCs





But if we drill down ...



Source: CCCs

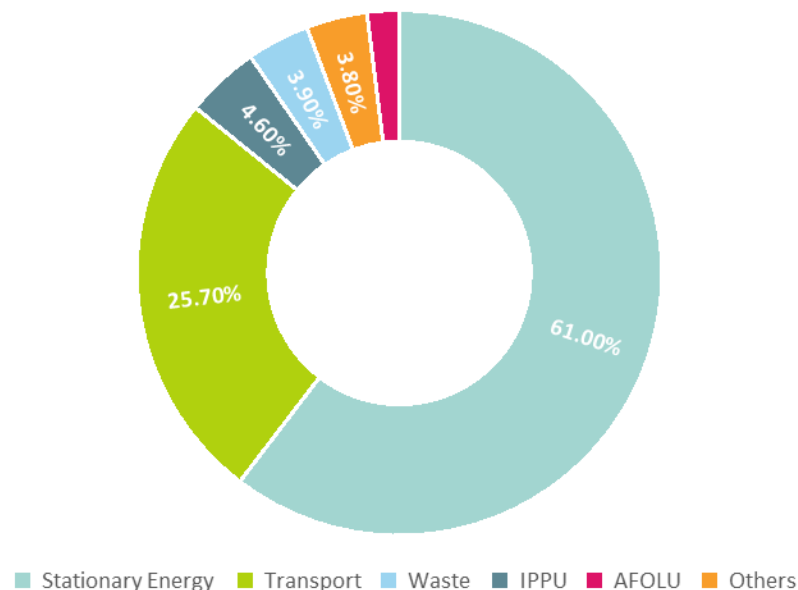




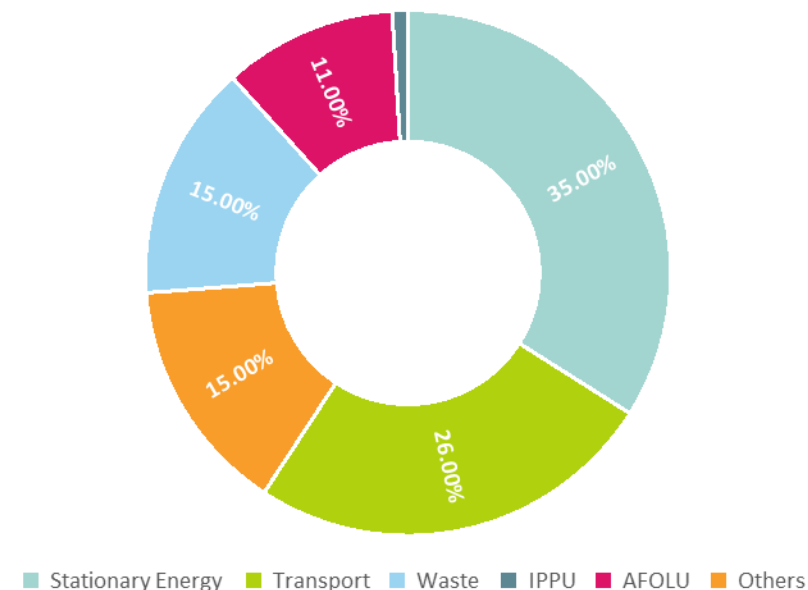
Measuring what matters?

While city action portfolios broadly align with the prioritisation of GHG emissions reductions, the selection of impact indicators often does not. **Many indicators are linked to lower-priority actions**, and this misalignment between action prioritisation and impact reporting can **weaken the case for climate action**, particularly when communicating with funders or the public.

Emissions reduction effort by sector



Co-benefits indicators by sector







Q&A





Mission City's Perspective: Impact Pathways and MEL Strategy

Katrien Rycken

Leuven2030 Director

City of Leuven, Belgium



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the European Union



- NAVIGATING
PERSPECTIVES -
**MONITORING
IMPACT**





building support for the transition
within the financial sector, at the political level, in our communities...

developing the narrative



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the European Union

LEUVEN
CLIMATE
CITY CONTRACT





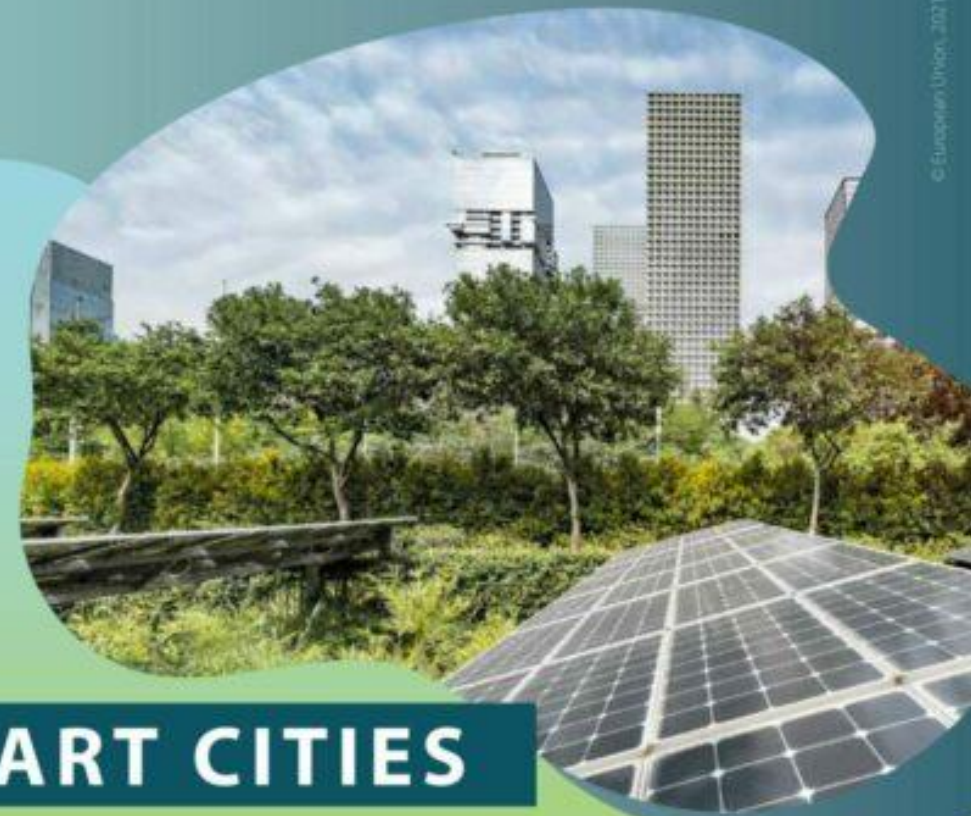
EUROPEAN UNION



EU MISSIONS

CLIMATE-NEUTRAL & SMART CITIES

Concrete solutions for our greatest challenges



#EUmissions #HorizonEU #MissionCities



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5
emission
domains



Gap analysis
&
Impact
pathways

Scientific report KU Leuven;
Calculations by Sweco

PROJECT
DESIGN
PRINCIPLES

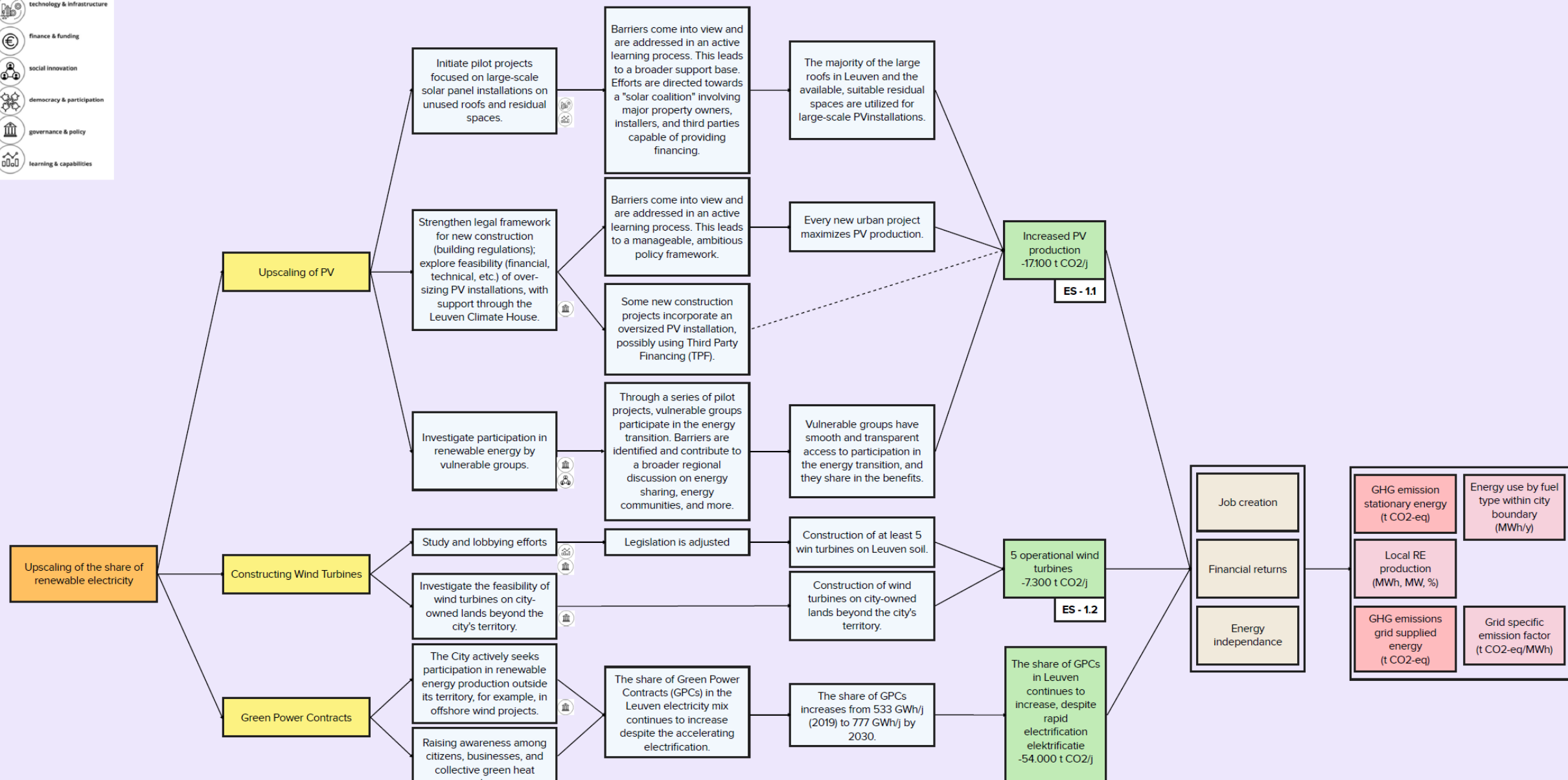


86
breakthrough
projects

Defined on the recurring barriers for a rapid
implementation of the impact pathways

Acceleration and scaling potential
Leverage effect social justice
Social impact
Climate impact







IMPACT FRAMEWORK

- Built on top of identified impact pathways
- Identifies financial highlights, direct impact and co-benefits
- Inspired by existing frameworks such as IRIS+, the NetZeroCities indicator set, research and the Leuven context

breakthrough
project



Financial highlights

- CAPEX
- Type
- IRR
- Risk

Financial highlights

- CAPEX
- Type
- IRR
- Risk

Project KPI's

m₂ PV
green heat connections
trees
charging poles
...

Direct impact

tCO₂₂ reduced

- kWh delivered/produced
- kWh reduced
- # avoided motorised km
- # avoided private cars
- # km driven with green vehicles
- # avoided fossil tonne-km
- m₂ depaved
- m₃ buffering or infiltration
- # new items avoided
- # tonnes reused materials

Financial highlights

- CAPEX
- Type
- IRR
- Risk

Direct impact

tCO₂ reduced

- kWh delivered/produced
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- # avoided motorised km
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- # km driven with green vehicles
- # avoided fossil tonne-km
- m₂ depaved
- m₃ buffering or infiltration
- # items avoided

Co-benefits

Economic

- Job creation
- Worker productivity
- Lower congestion
- Energy independence
- Households financially participating
- Avoided flood damage
- Avoided drought damage
- Value increase in nearby homes

Health

- Improved air quality
- Traffic safety
- Lower noise impact
- Lower heat stress
- Mental health gains green

Social justice

- (vulnerable) Households participating
- Public space projects

Ecological

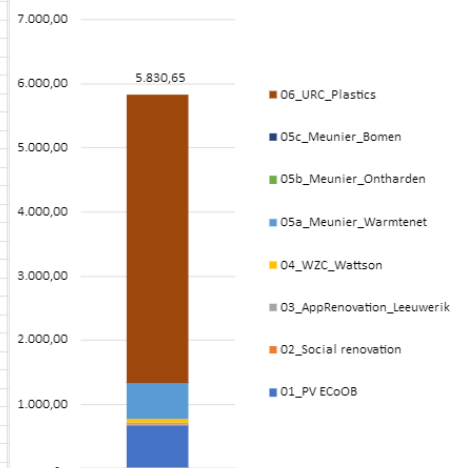
- Improved air quality
- Water savings
- (Hazardous) waste avoided



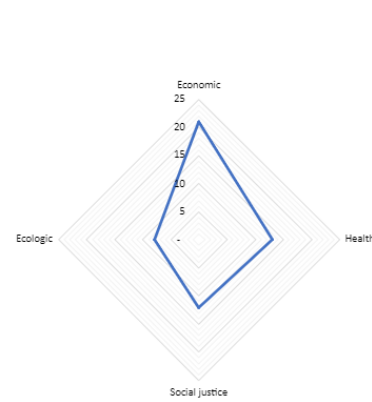
IMPACT FRAMEWORK

Financial highlights						Economic			Health			Social justice			Ecologic		
Project	CAPEX	TYPE	IRR	RISK	CO2-reduction	Number of co-impacts	Temporary FTE (1y)	Permanent FTE	Number of co-impacts	Single monetary return	Yearly monetary return	Number of co-impacts	Number of households	Number of low-income	Number of co-impacts	Single monetary return	Yearly monetary return
01_PV EcoOB	2.500.000,00	debt		4% low	663,00	t CO2/y	3	26,77	-	0 €	- €	1		€	-	0 €	- €
02_Social renovation	476.856,00	debt		4% medium	23,66	t CO2/y	2	4,77	-	2 €	- €	2	5,00	5,00	1 €	- €	59,09
03_AppRenovation_Leeuwerik	2.700.000,00	debt		6% low	21,07	t CO2/y	2	27,00	-	2 €	- €	2	112,00	€	-	1 €	- €
04_WZC_Wattson	176.136,00	debt		6% low	56,82	t CO2/y	2	1,76	-	2 €	- €	2		€	-	1 €	- €
05a_Meunier_Warmtenet	12.480.000,00	equity + debt		6% high	565,60	t CO2/y	3	-	3,00	1 €	- €	2	303,00	€	30,00	1 €	- €
05b_Meunier_Ontharden	7.000,00	no cashflow		0% low	-	t CO2/y	5	-	-	3 €	- €	1		€	-	1 €	- €
05c_Meunier_Bomen	6.600,00	no cashflow		0% low	0,50	t CO2/y	3	-	-	3 €	- €	1		€	-	1 €	- €
06_URC_Plastics	500.000,00	equity + debt		5% high	4.500,00	t CO2/y	1	2,40	-	0 €	- €	1		€	-	2 €	- €
TOTAL	€ 18.846.592,00			5,65%	5.830,65	t CO2/y	21	60,30	5,40	13	- €	105.695,25	420,00	35,00	8,00	- €	16.330,68

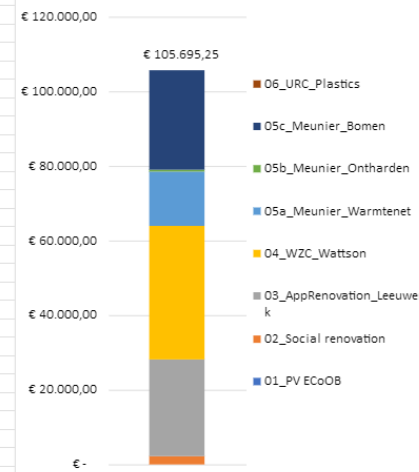
Yearly estimated CO2 reduction (EUR/y)



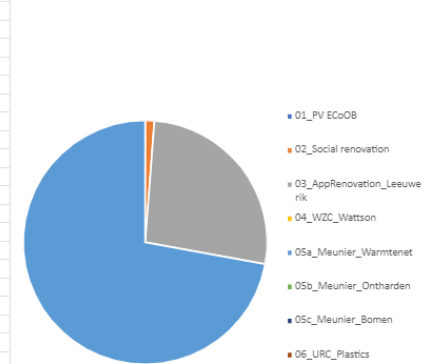
Number of coimpacts in portfolio



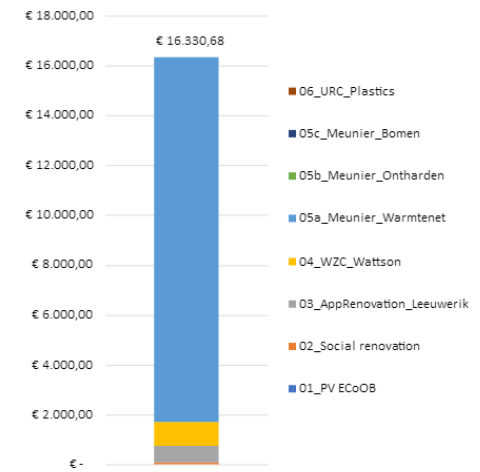
Yearly estimated health benefits (EUR/y)



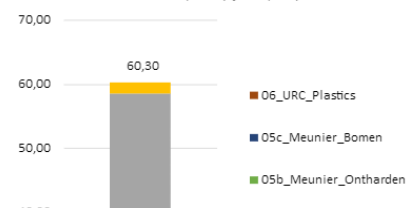
Number of households



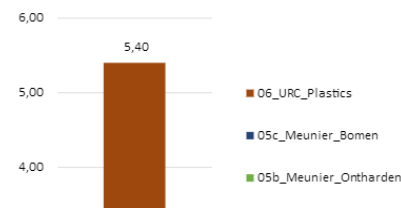
Yearly estimated ecologic benefits (EUR/y)



Temporary jobs (FTE)



Permanent jobs (FTE)



Low-income households





IMPACT FRAMEWORK

- Will develop into scenario building tool for coupling business cases
- Basis for target setting
- Basis for reporting framework
- Basis for developing narratives – sparking conversation

Climate-neutral	tCO ₂				
	Li ₁	Li ₂	Li ₃	Li ₄	Li ₅ Across emission domains
Financially solid	Fi ₁ Fi ₂ Fi ₃				
Socially impactful	Si ₁ Si ₂ Si ₃				



**"Human conversation is the most ancient
and easiest way to cultivate the
conditions for change"**

Margaret Wheatley

An aerial photograph of a city, likely Los Angeles, viewed from a high angle. The city is densely packed with buildings, roads, and green spaces. A large, bright white circle is superimposed over the center of the image, creating a strong contrast with the green-tinted cityscape. The text "CHOOSING OUR FUTURE" is centered within this white circle.

CHOOSING **OUR** FUTURE



Q&A



Related NetZeroCites Portal Groups

[Design Your City's Net Zero Strategy: Online Planning Lab](#)

[Group 02](#)

[Group 03](#)





Next Sessions

<https://netzerocities.app/resource-4501>

MODULE 1	Core The NetZeroCities program, service offering, systemic approach, what works for Mission Cities	Spotlight 1 NetZeroCities Orientation	Spotlight 2 Shaping Climate Narratives	Spotlight 3 Climate City Contracts		
MODULE 2	Core Developing a transition team, mapping and activating the ecosystem	Spotlight 1 Transition team & climate leadership	Spotlight 2 Engaging the private sector	Spotlight 3 Citizen engagement for systemic climate action		
MODULE 3	Core Developing the city's action plan for climate neutrality	Spotlight 1 Reporting and MEL	Spotlight 2 Co-Designing a Climate Portfolio	Spotlight 3 Using NetZeroPlanner to Support Climate Planning, MEL, and Implementation Management to Achieve Net Zero Goals		
MODULE 4	Core Levers of change: Technical solutions, social innovation and multi-actor collaborations	Spotlight 1 Passive solutions to reduce energy demand in buildings	Spotlight 2 Systemic energy transition at buildings, districts and city level	Spotlight 3 Data-driven approaches to energy transition in buildings and districts	Spotlight 4 Mobility	Spotlight 5 Scope 3 and other emission domains
MODULE 5	Core Increase finance knowledge of the public administration & learn about options to finance projects	Spotlight 1 Preparing a pipeline of projects with necessary data and information	Spotlight 2 Different investor groups and the key priorities and returns profiles for each and instruments	Spotlight 3 Financing the ambition: Learning from Mission Cities		
MODULE 6	Core Multilevel governance, national platforms and policy strategies	Spotlight 1 Policy and regulations innovation	Spotlight 2 Public procurement – national specificities	Spotlight 3 Just transition		





Online Planning Lab. Feedback form Module 3 Spotlight 1



Get in touch with NetZeroCities!

NetZeroCities Help Desk: infocities@netzerocities.eu



@NetZeroCitiesEU



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