



21/10/2025

Module 3: Spotlight Session 2

# Portfolio Co-design

Co-Designing a Climate Portfolio of Actions, Actors and Assets.





# Lecturers



**Maria Klint**

Dark Matter Labs



**Juliet Leonette**

Climate Neutral Lund 2030

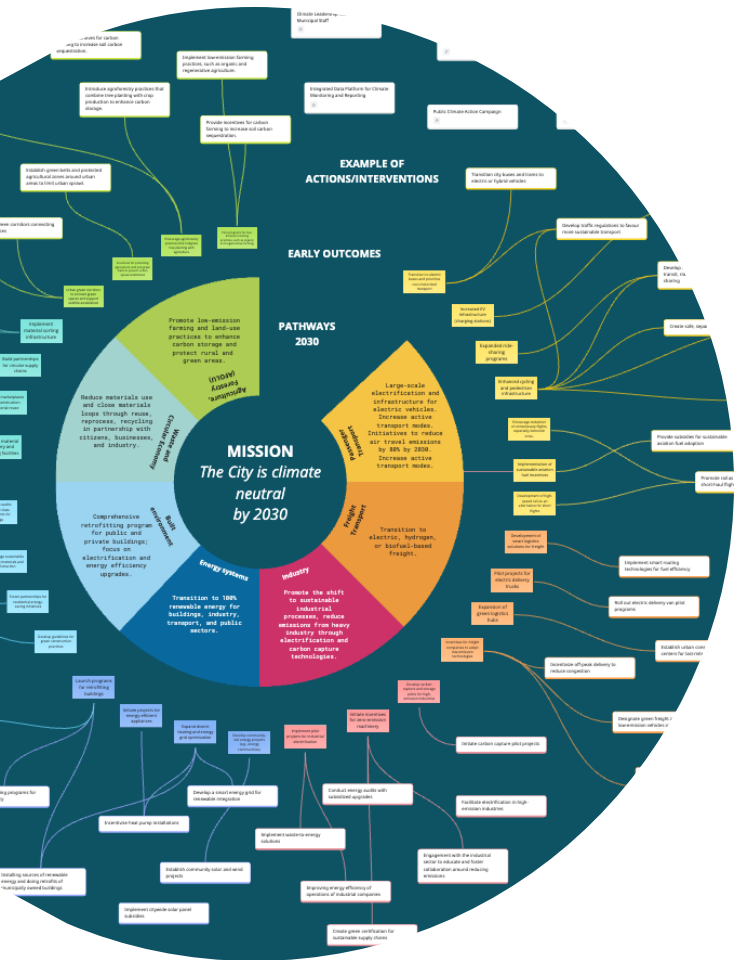




# Learning objectives for this session

- A portfolio is more than a **list of actions** – it includes the **relationships** between actions, actors, and resources.
- The value lies in the **process of co-creating** the portfolio, not in producing a finished document.
- **Collaborative tools** and **visualisations** help make complexity visible, enabling coordination and shared understanding across departments and partners.





1. Welcome & check-in
2. Portfolio Co-design in the NZC context
3. Lund – Backstory
4. Portfolios Thinking
5. Portfolio Mapping  
The basics  
Exercise: Try mapping actions in Miro  
Portfolio mapping guide
6. Lund – How we've used Portfolio Mapping
7. Practicalities
8. Q&A





# Portfolio Co-design

In theory





# Definitions of Portfolio (noun):

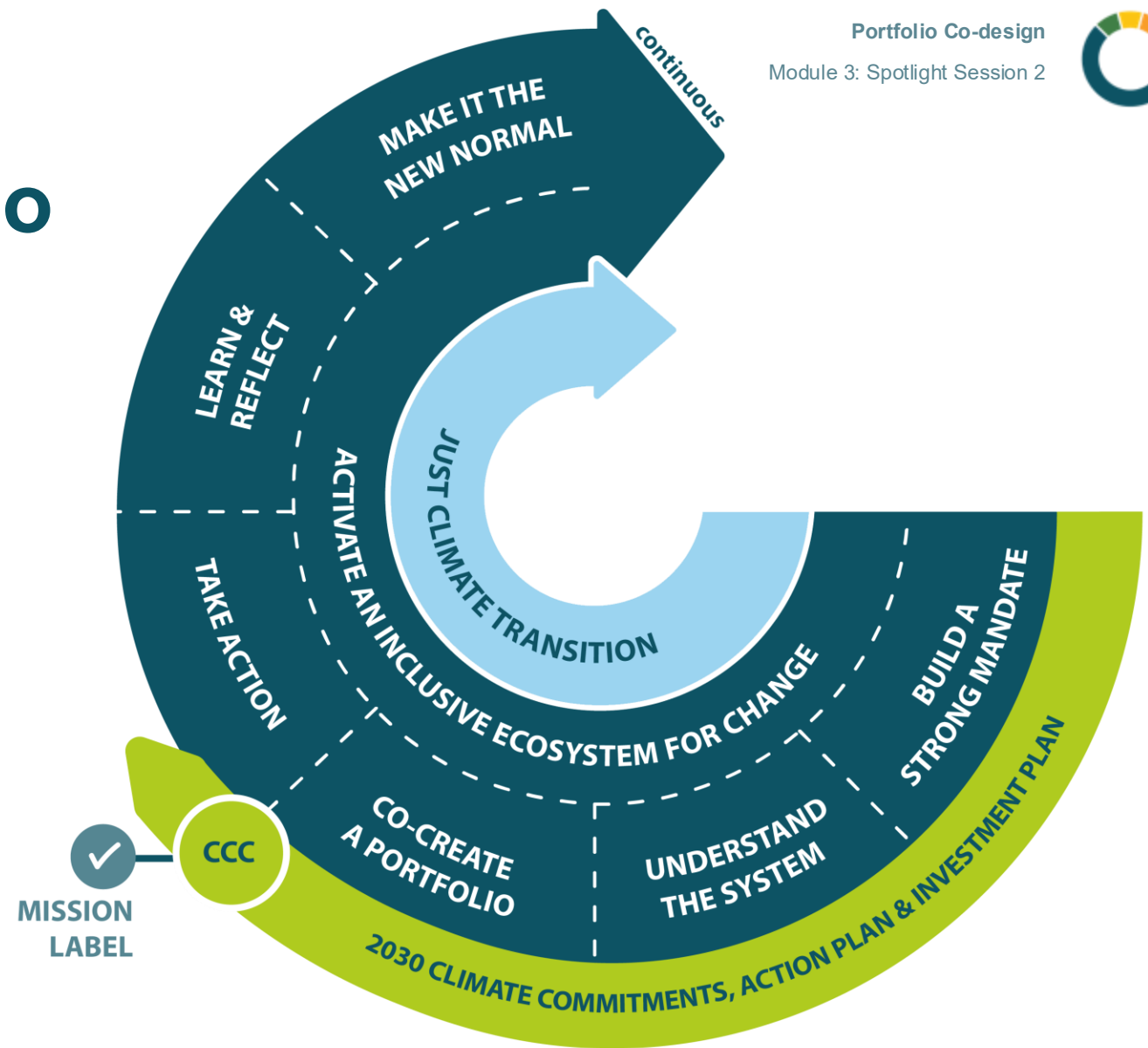
1. A large, **flat case** used for carrying documents.
2. A collection of **investments** held by an individual or organization.
3. A **collection of works or documents** that represents someone's skills, achievements, or professional experience.
4. The **role or responsibilities** of a government minister.
5. A coordinated **set of actions, actors, and enabling conditions** designed to achieve a shared mission.





# Co-creating a Portfolio

The co-creation of a portfolio is an ongoing process.





# Lund

Backstory and the state in spring 2025



**Juliet Leonette**  
Climate Neutral Lund 2030  
Lund Municipality







# The Process

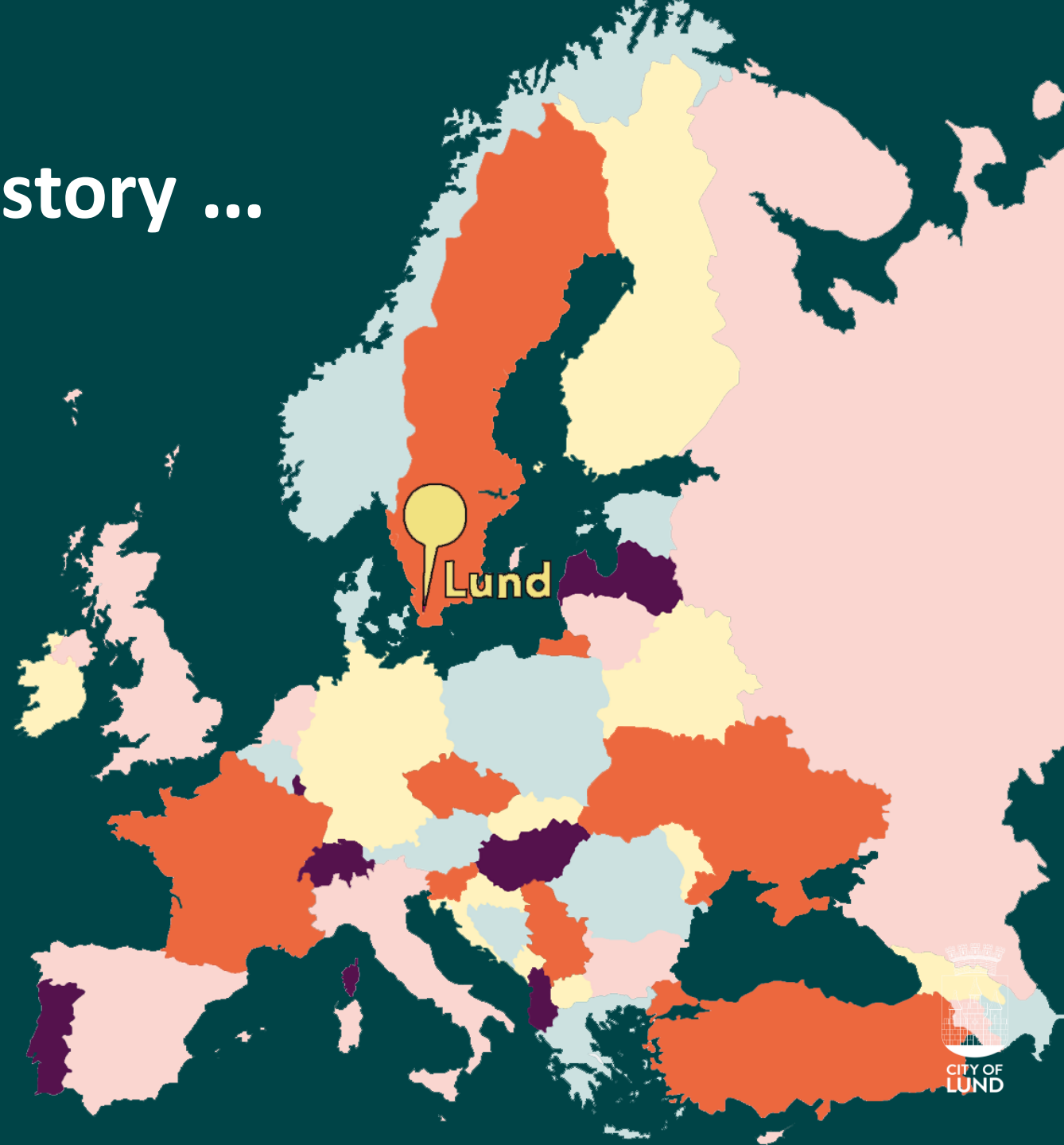
from plans to practice

Climate Neutral Lund 2030



# Lund 1000 years of history ...

- One of the oldest cities in Scandinavia
- Today 130 000 inhabitants
- One of the top-ranking universities in the world
- Part of the Greater Copenhagen area with over 4 million inhabitants





**By 2030 Lund is climate-neutral and fossil-fuel-free  
and the city is adapted to a changing climate.**



# A fossil fuel free organisation



99%





# WWF One Planet City Challenge





**old soul**



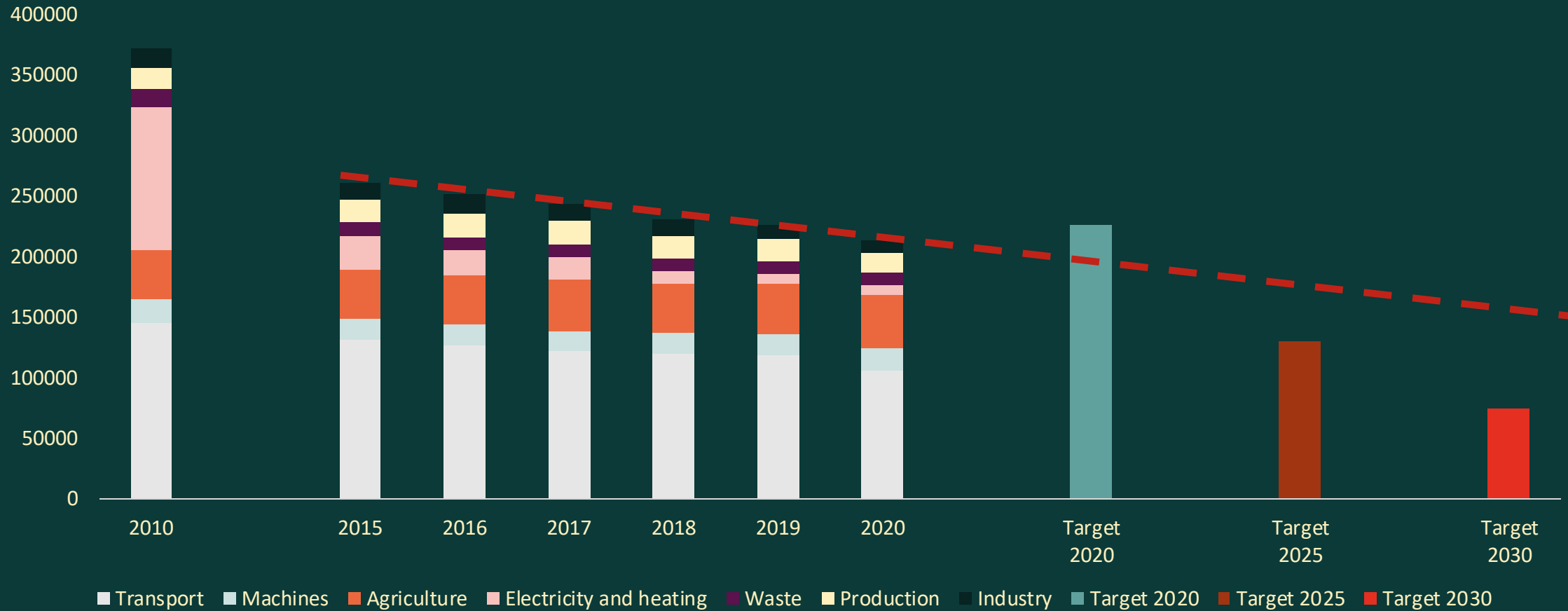
# Lund Innovation District

**clever mind**



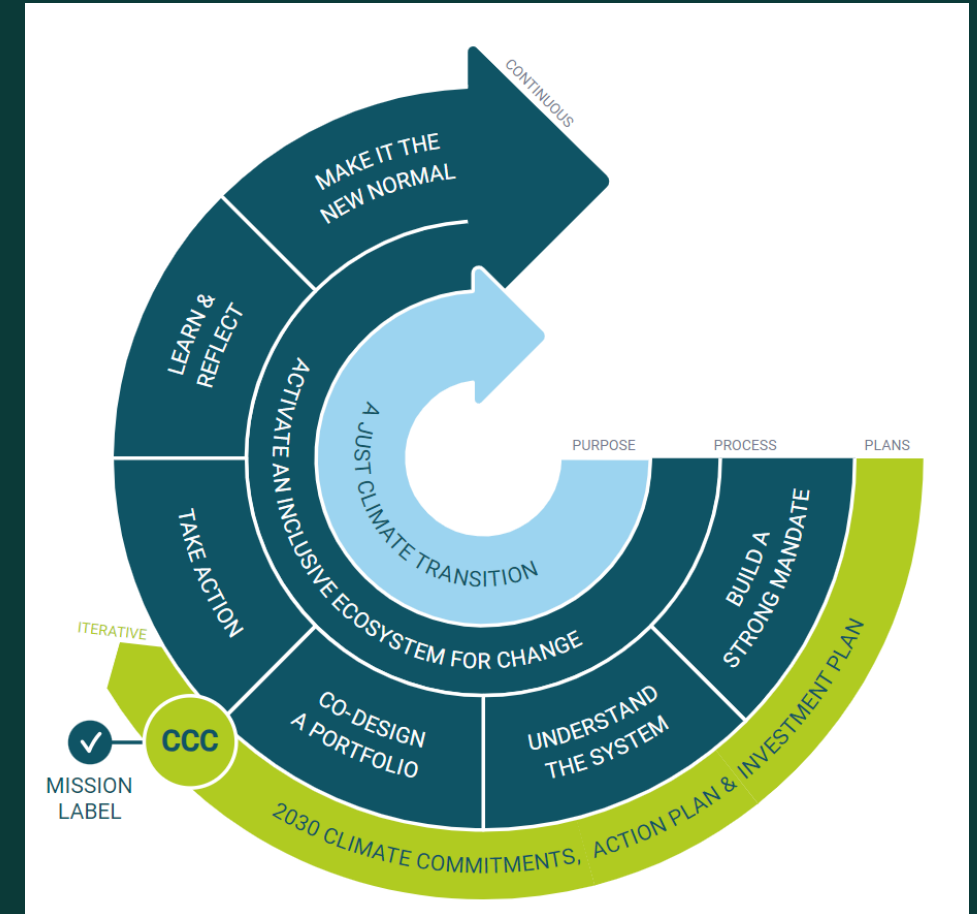
**fertile ground**

# GHG emissions (ton CO2 – e)

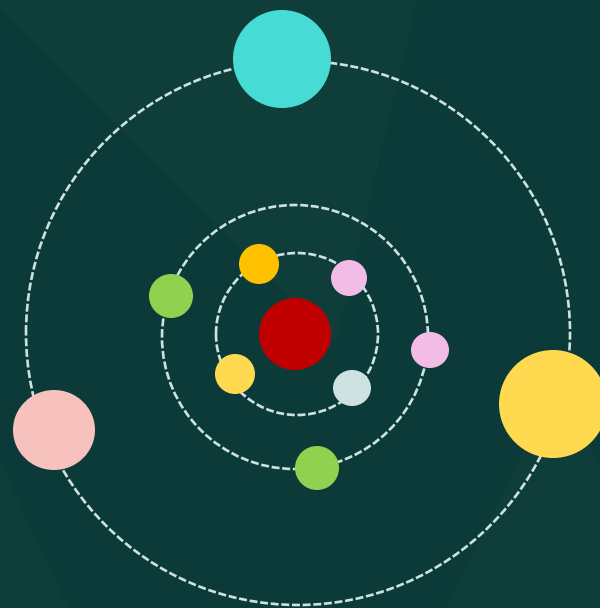




# Climate City Contract [CCC]







June-September 2024

## GOAL

Lunda  
Eko

## STRATEGIES

Energy plan

LundaMats III

Parking norms

Bicycle plan

Travel guidelines

Vehicle Guidelines

Waste plan

Carbon budget

Plan for carbon-neutral  
and circular construction

District plans

Climate package

## PROJECTS

CoAction Lund

Climate-neutral  
city 3.0

CoPilot

CoGovernance

Inclusive climate  
transition

.....



## Climate City Contract

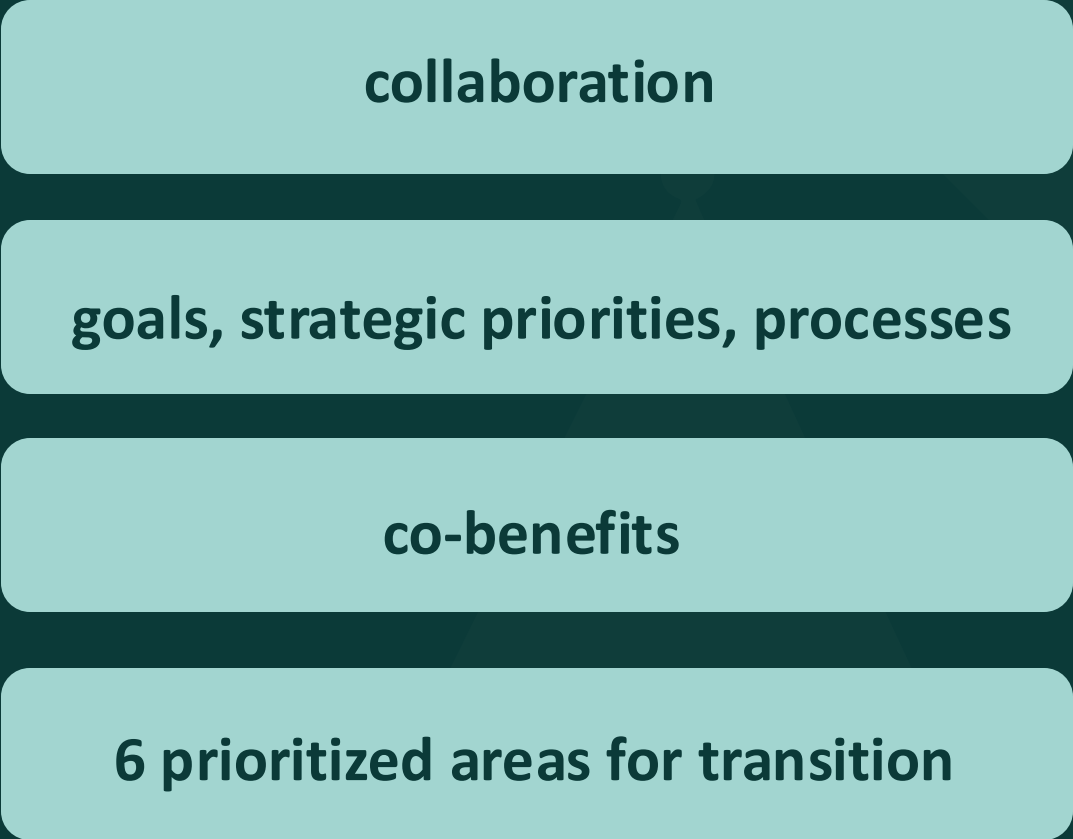
### ACTION PLAN

1. Transport and mobility
2. Agriculture and sustainable land use
3. Circular economy and sustainable consumption
4. Net zero construction
5. Energy
6. Carbon sinks

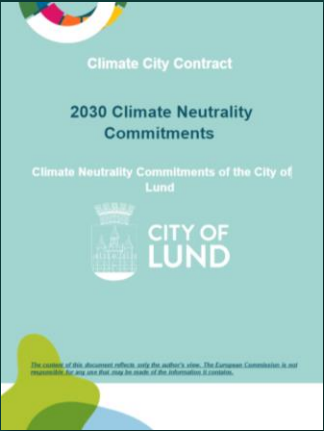
### INVESTMENT PLAN

cost  
co-benefits

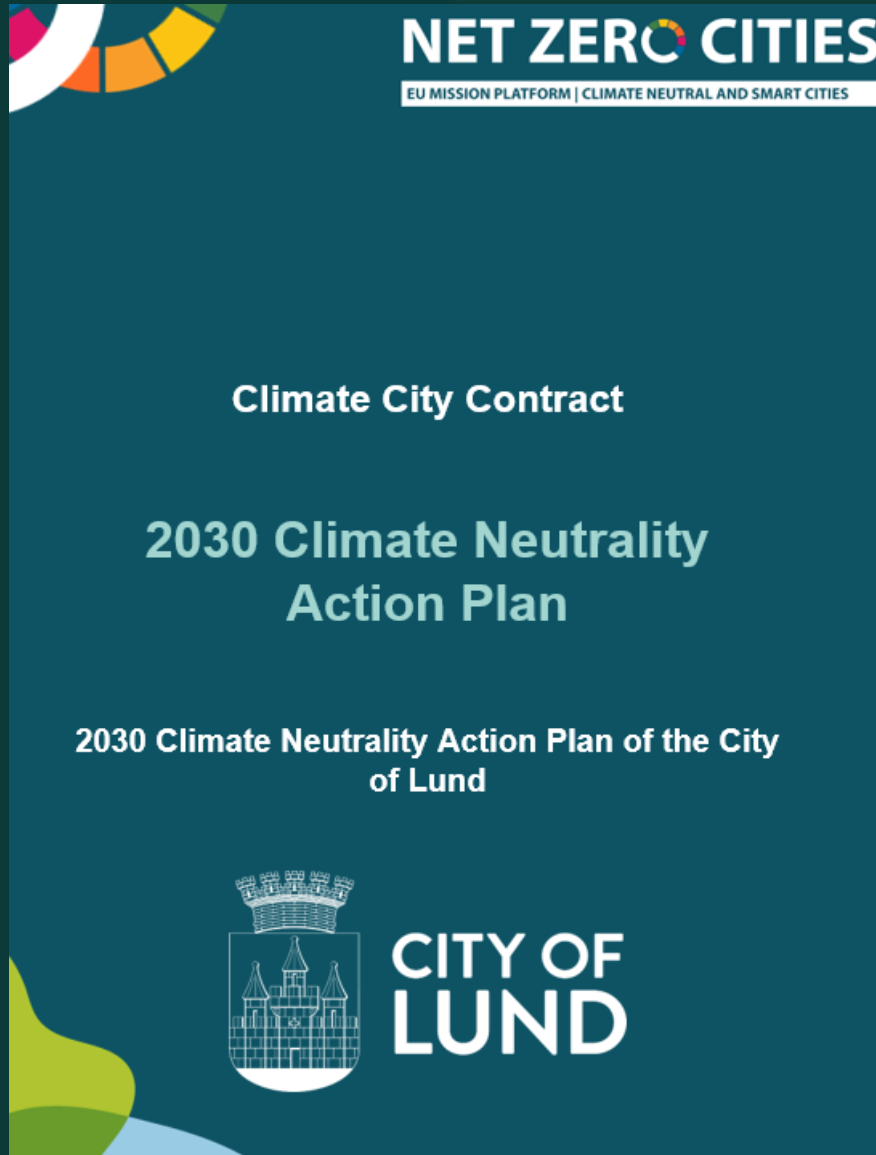
# Commitments



- 80% reduction in emissions from 2010 levels
- Climate positivity by 2045
- consumption-based target of 1 tonne CO<sub>2</sub>/capita by 2050



# Action plan



## List of actions and activities

1. Transport and mobility (11)
2. Agriculture and sustainable land use (4)
3. Circular economy and sustainable consumption (5)
4. Net-zero construction(6)
5. Energy (6)
6. Carbon Sinks (3)

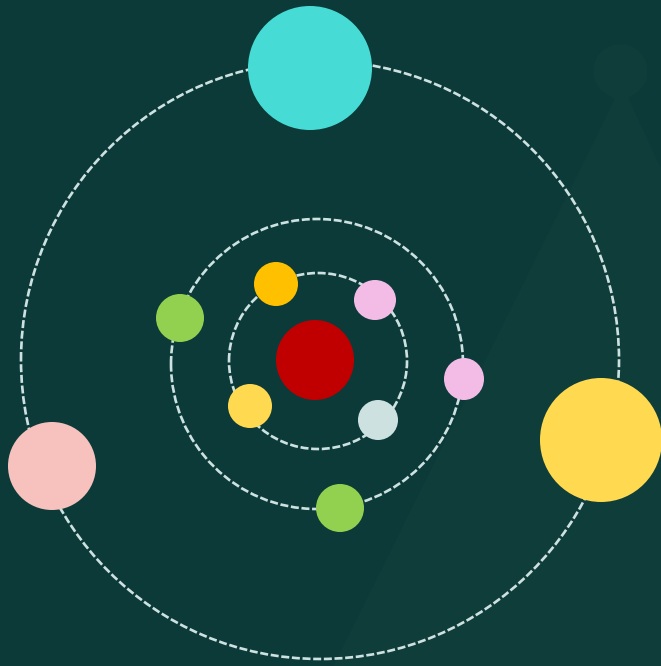
Cross-sectorial(2)

"I always thought that a space mission was 70% technology and 30% personnel. Today I know that it is the opposite. When we have problems, it's rarely about the technology – it's almost always interpersonal."

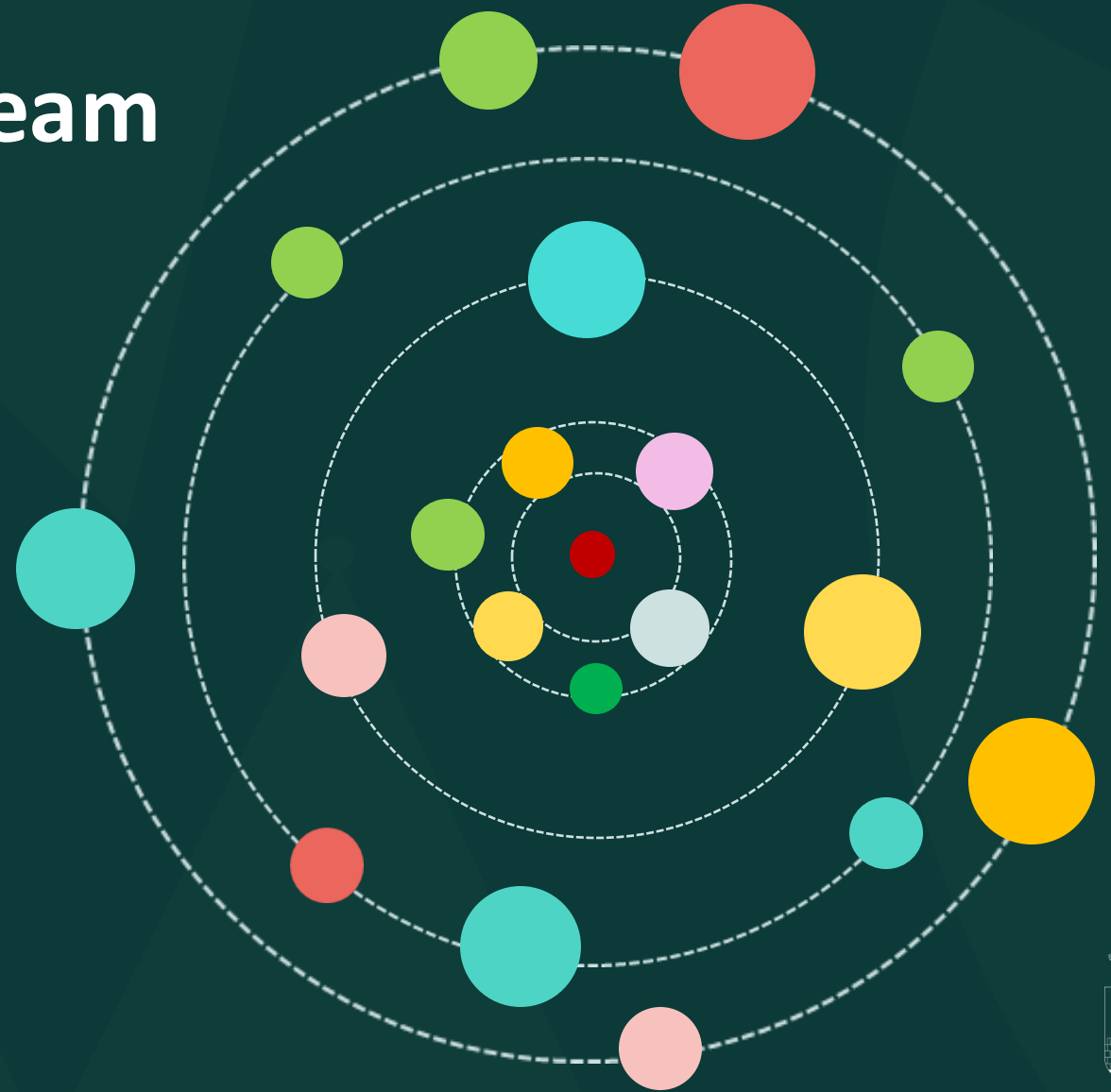
Gene Kranz, NASA



# Transition Team



## Tour





How do we get our climate actions into ordinary budgets?

What should we stop doing?

What departments are not yet involved?

How do we map our portfolio?

How do we scale proven solutions?

How do we onboard more people and spread ownership?

How do we learn faster?



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# Portfolios Thinking

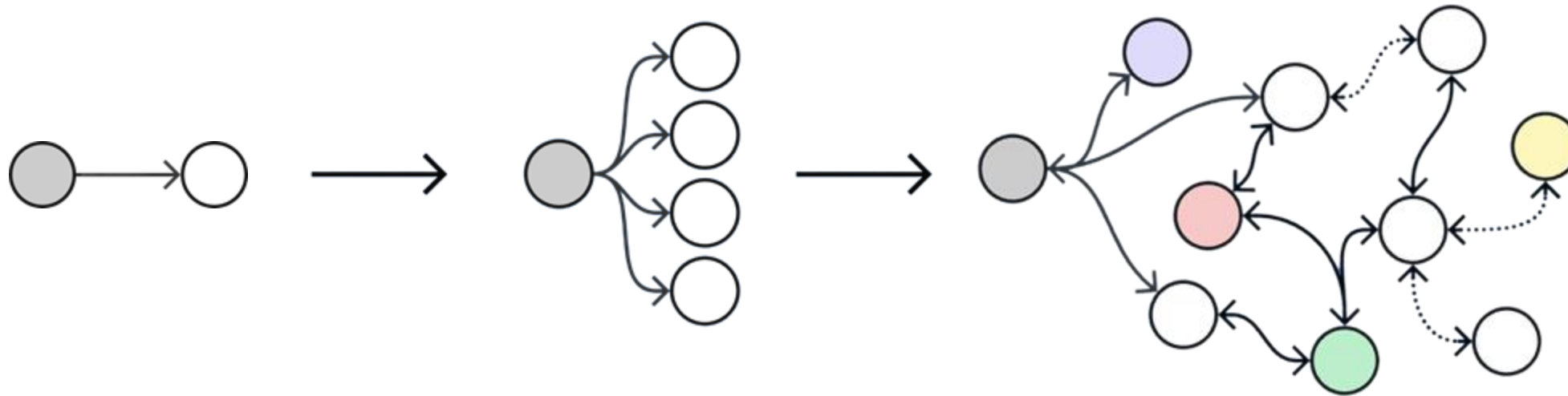
Beyond Silver Bullet Thinking







# Portfolios Thinking



Single solutions

Diversification of solutions

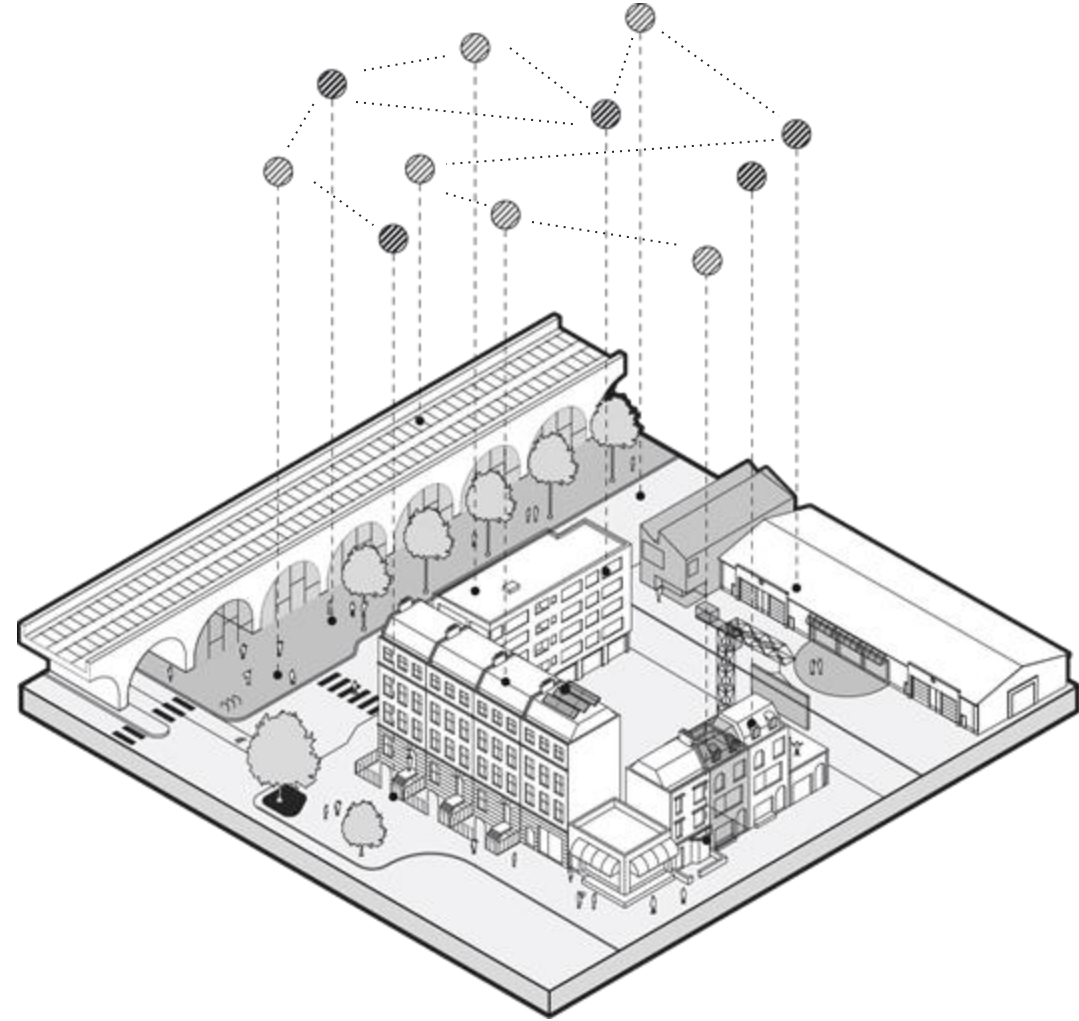
Network of solutions





# Portfolios Thinking

Portfolios can help cities see patterns, coordinate efforts, and focus resources where they can unlock the most momentum.





# Elements of a Portfolio



## Actions

The interventions we intend to implement in the system, designed to create change

## Actors

Stakeholders whose participation is crucial for successful implementation

## Assets

Enabling conditions that make implementation possible





# What does a climate portfolio look like?

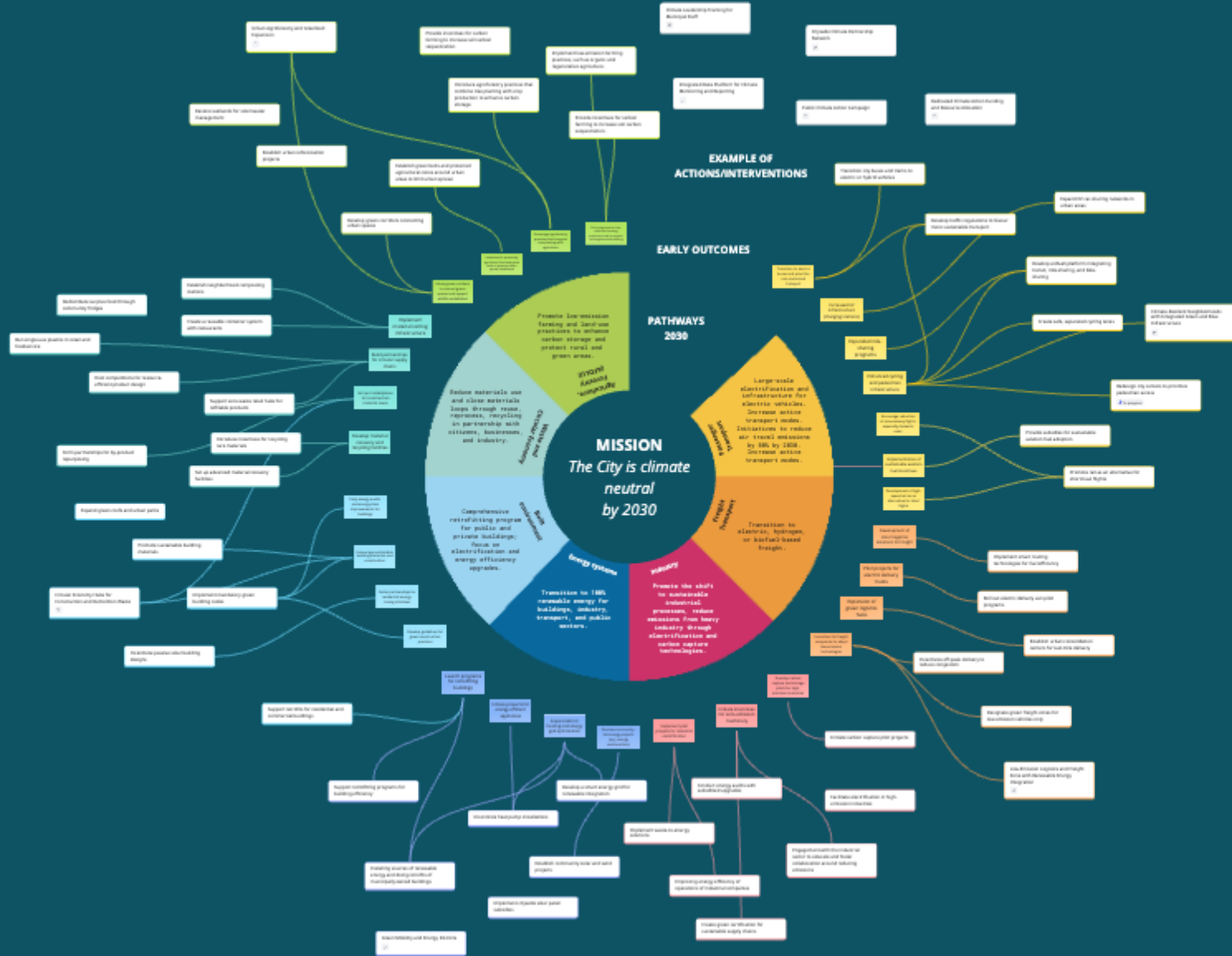




# What does a climate portfolio look like?

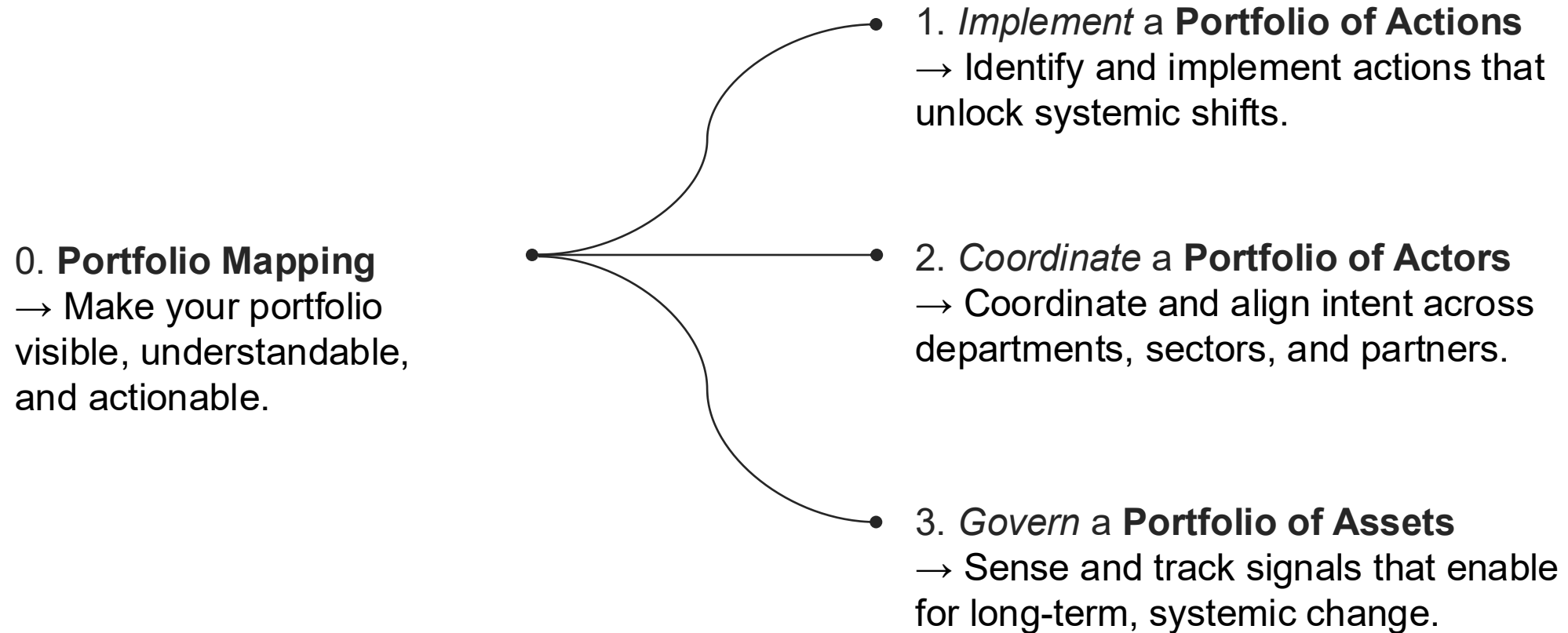
- A document such as the Climate City Contract Action plan?
- A spreadsheet?
- Systems map?
- Data driven software?







# Entry points to Portfolio co-design





# Portfolios Mapping

An entry point and a process

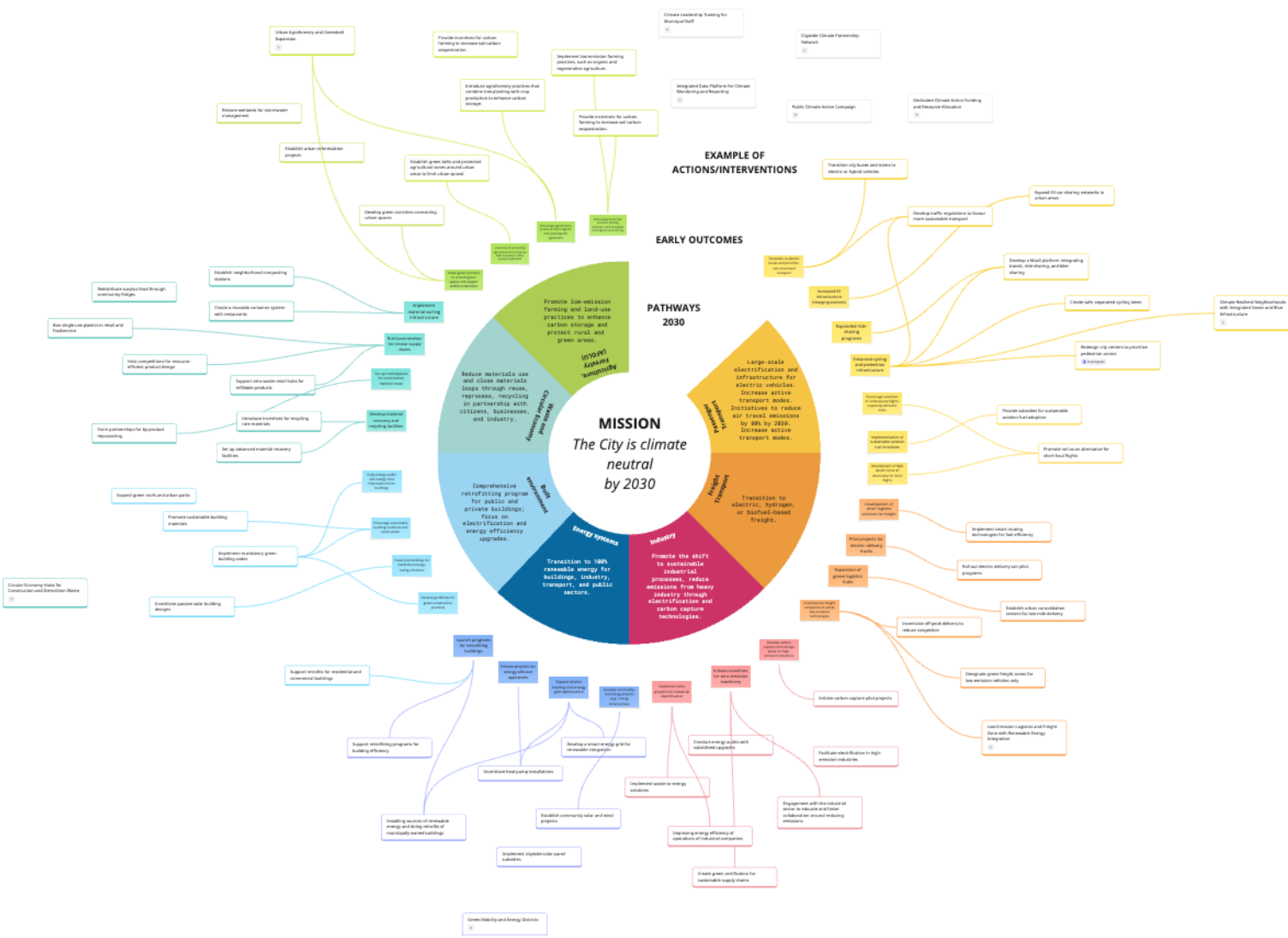




# Portfolio Mapping

Having your entire Action Plan and portfolio in a document is like trying to complete a puzzle while keeping the pieces in the box and picking them up one by one.

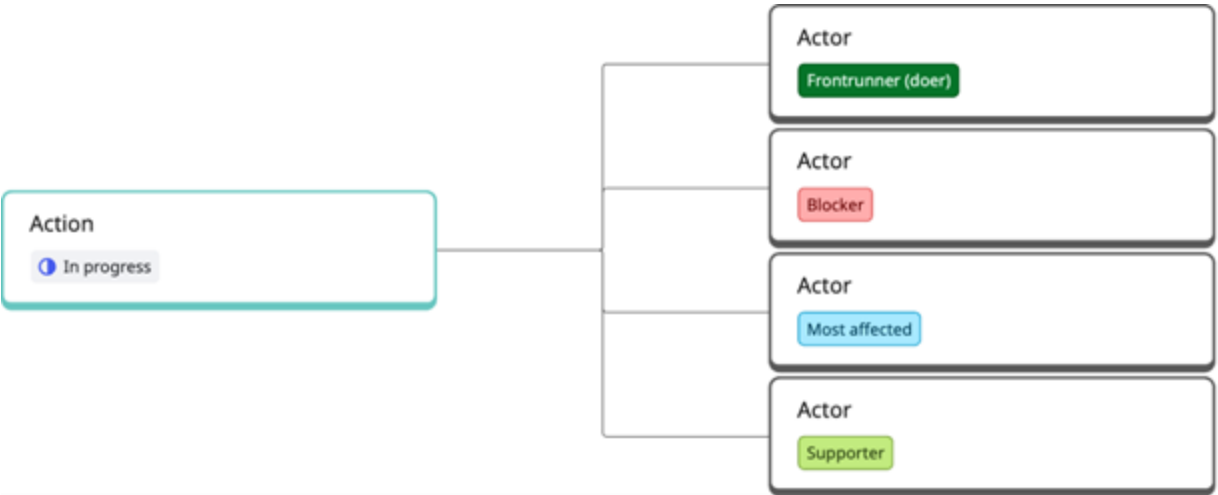
Portfolio mapping is a way to lay out all the pieces on the table and start sorting them to see how they fit together.





# Actions

The specific interventions we implement in the system, including experiments, programs, and initiatives designed to create change



# Actors

Key stakeholders, partners, and alliances whose participation, expertise, and buy-in are crucial for successful implementation

# Assets

Both enabling and constraining conditions and resources that shape what's possible





# Exercise: Mapping actions (+ actors)

- Explore a portfolio of actions.
  - Identify relevant Actions...
  - ...their connections...

You'll be working with a generic city example in Miro.


→ **MIRO**





# How to get started?

## Portfolio Mapping Guide




**Purpose of Document**

This guide provides a step-by-step introduction to Portfolio Mapping: a process to coordinate the actions, actors and resources that will enable your city's just transition to climate neutrality.

The guide is designed for Mission Cities within NetZeroCities, the EU mission platform for climate neutral and smart cities.


Additional material to be found in this [Miro board](#).

 **Funded by the European Union**

*The European Commission is not responsible for any use that may be made of the information it contains.*

**NET ZERO CITIES**  
EU MISSION PLATFORM | CLIMATE NEUTRAL AND SMART CITIES

Dark Matter Labs | Portfolio Mapping Guide | September 2025 | Maria Klint



1





# Possible benefits

- Makes complexity and coordination manageable
- Builds shared understanding and ownership
- Enhances collaboration and stakeholder engagement

*"The process is like a supernova  
– it releases energy, attracts  
more people and allows us to  
see the whole picture."*

Juliet Leonette, process manager  
Climate Neutral Lund 2030

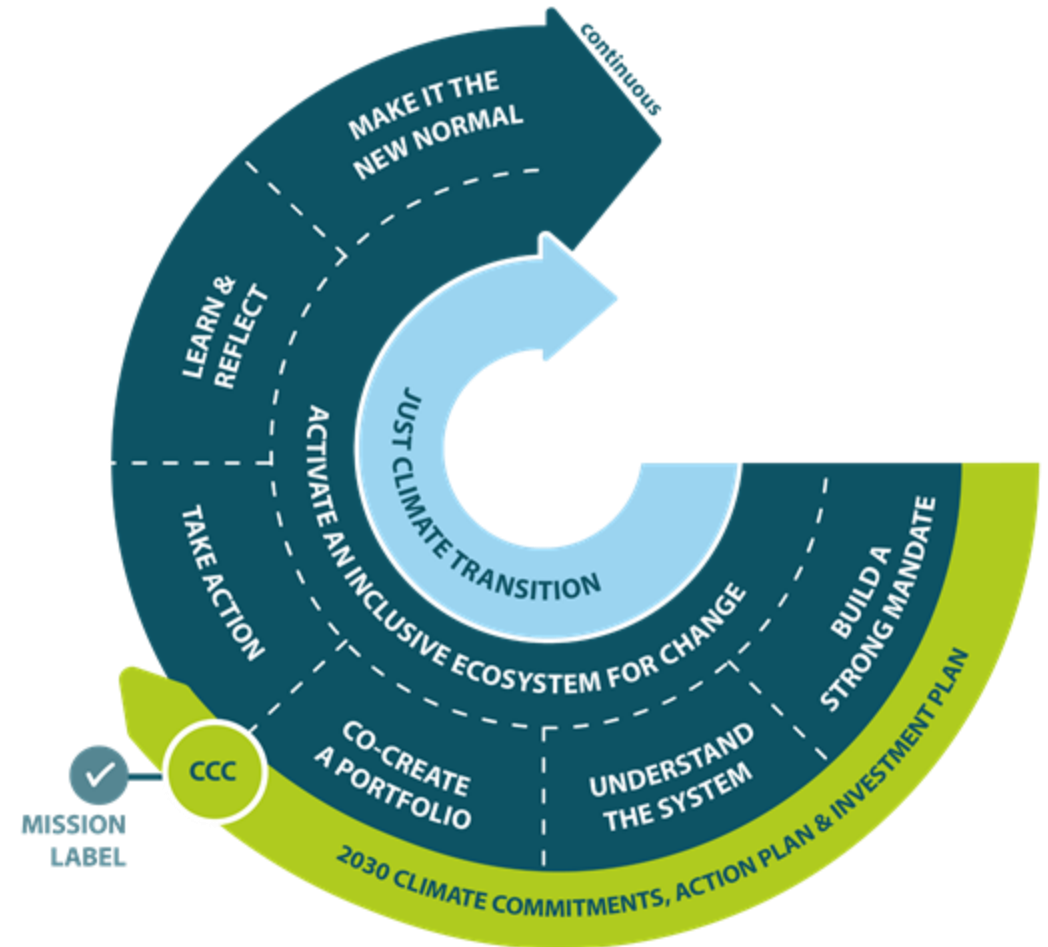




# When to use it

Portfolio mapping is primarily useful:

- After submitting a Climate City Contract.
- When onboarding and engaging colleagues internally.
- When aligning multiple stakeholders.
- Iterating the Action plan.
- At moments of political or organisational change.







# By whom



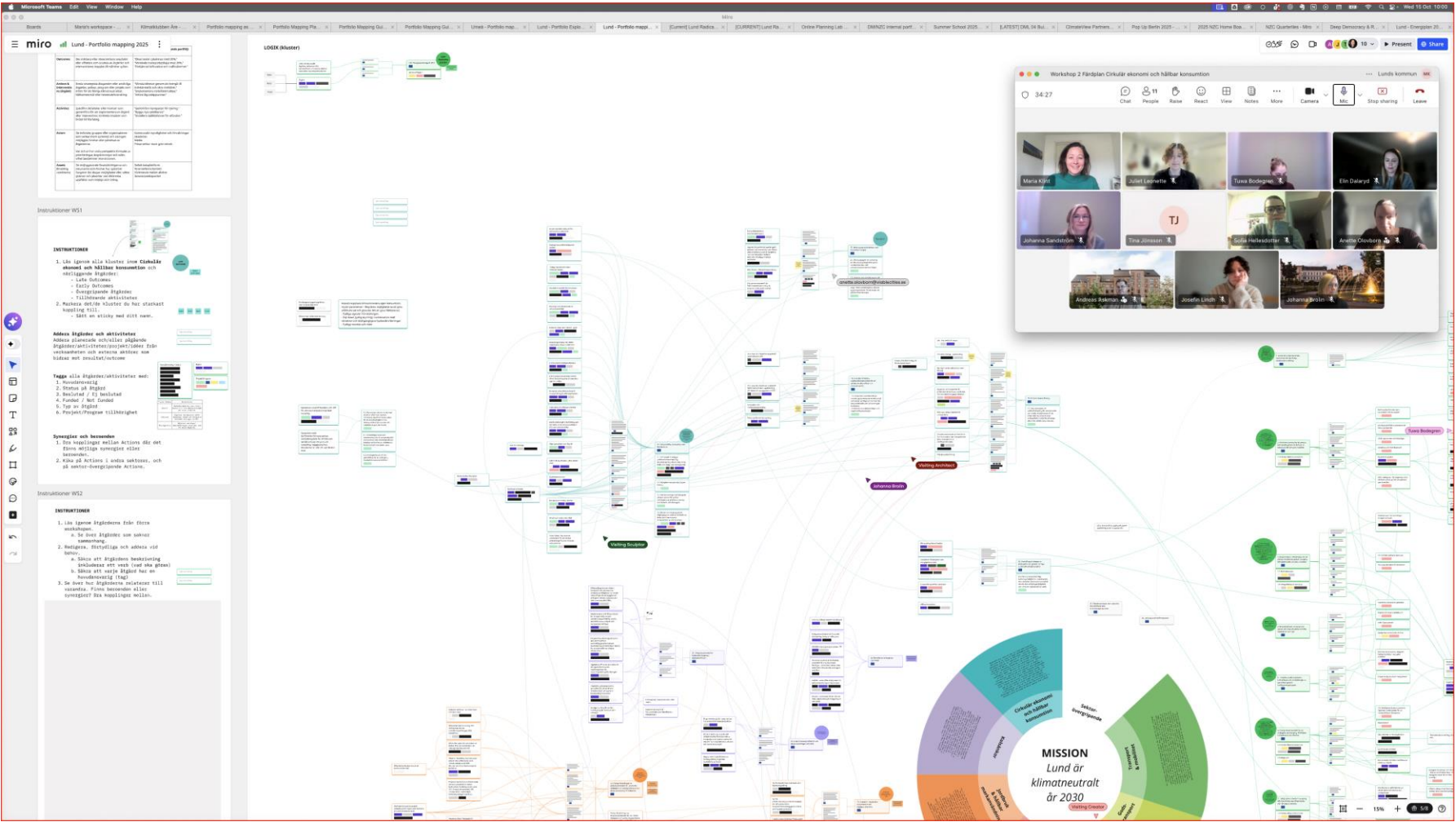
Photos:  
NetZeroCities



Funded by  
the European Union



# By whom







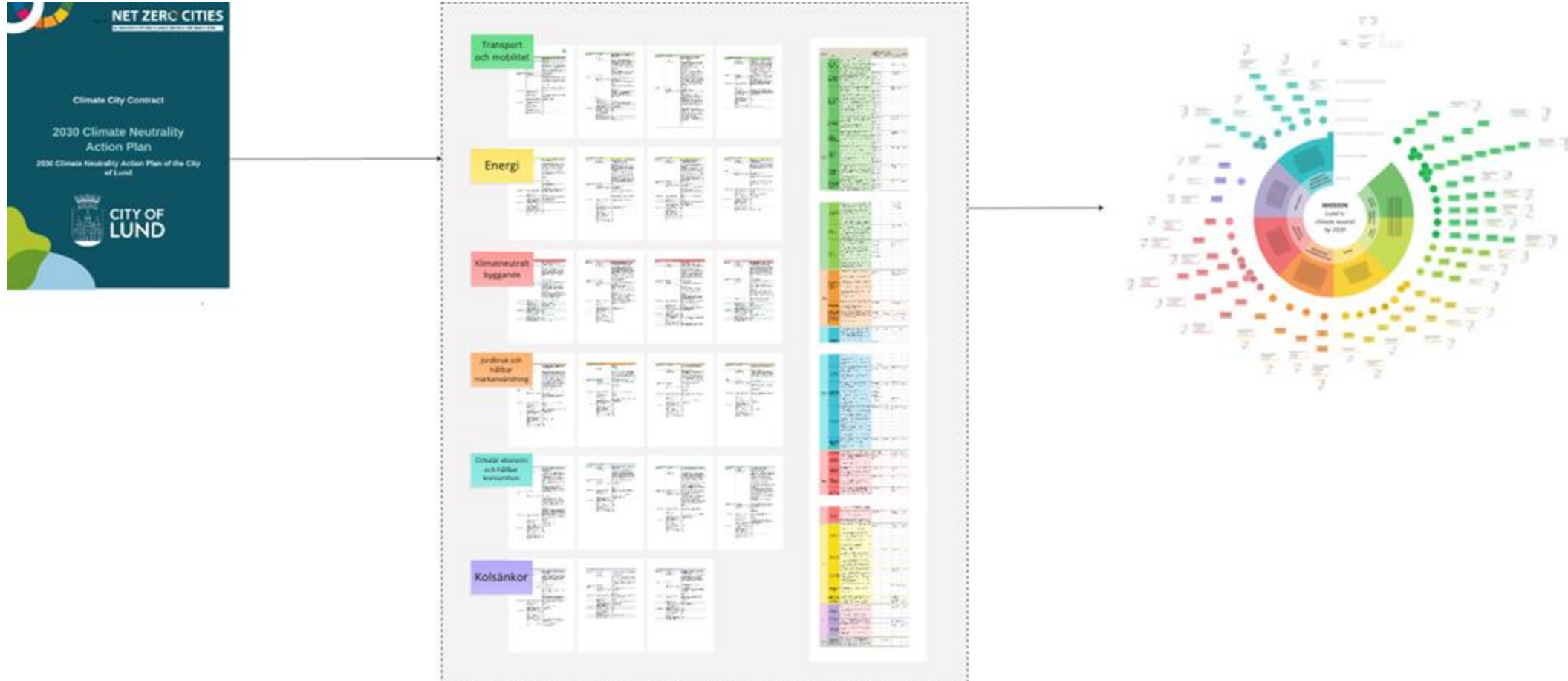
# How to get started?

1. Define Scope and Purpose
2. Unpack the Action Plan
3. Co-Design the Portfolio
4. Explore and Iterate the Portfolio





## 2. Unpack the Action Plan





# 3. Co-Design the Portfolio

## Part 1: **Actions**

(interventions, activities)

Surface existing and identify future actions. Focus on one or two domains at a time with relevant participants.

*What actions and activities are we doing/planning to achieve our goals?*

*What interdependencies exist?*

*What's the status of the action?*

## Part 2: **Actors**

(stakeholders)

Starting from each action and map actors related to implementation of the action. Involve participants from different pathways.

*Who is the main responsible?*

*What actors enable the actions?*

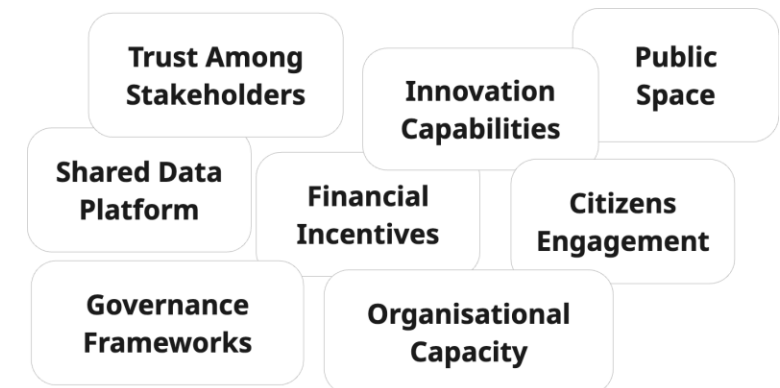
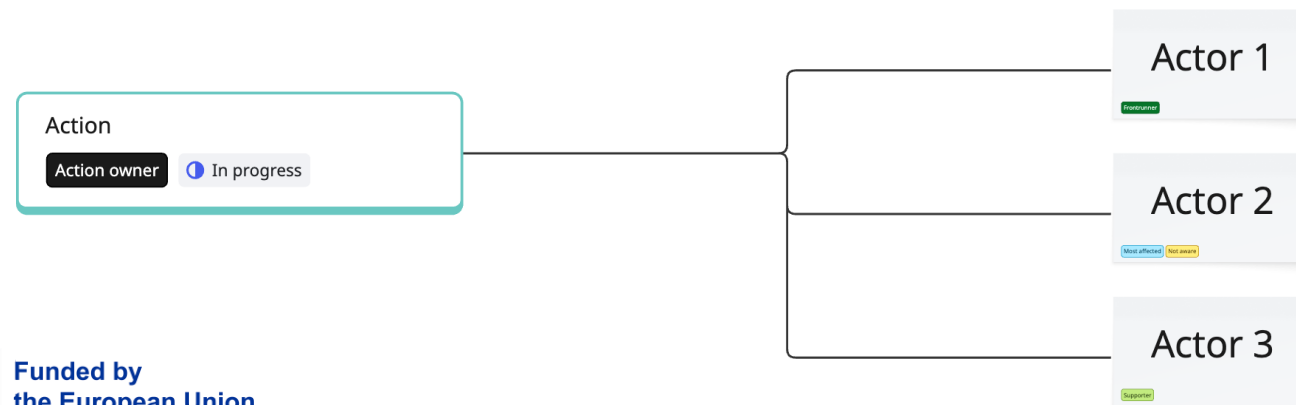
*Who's most affected?*

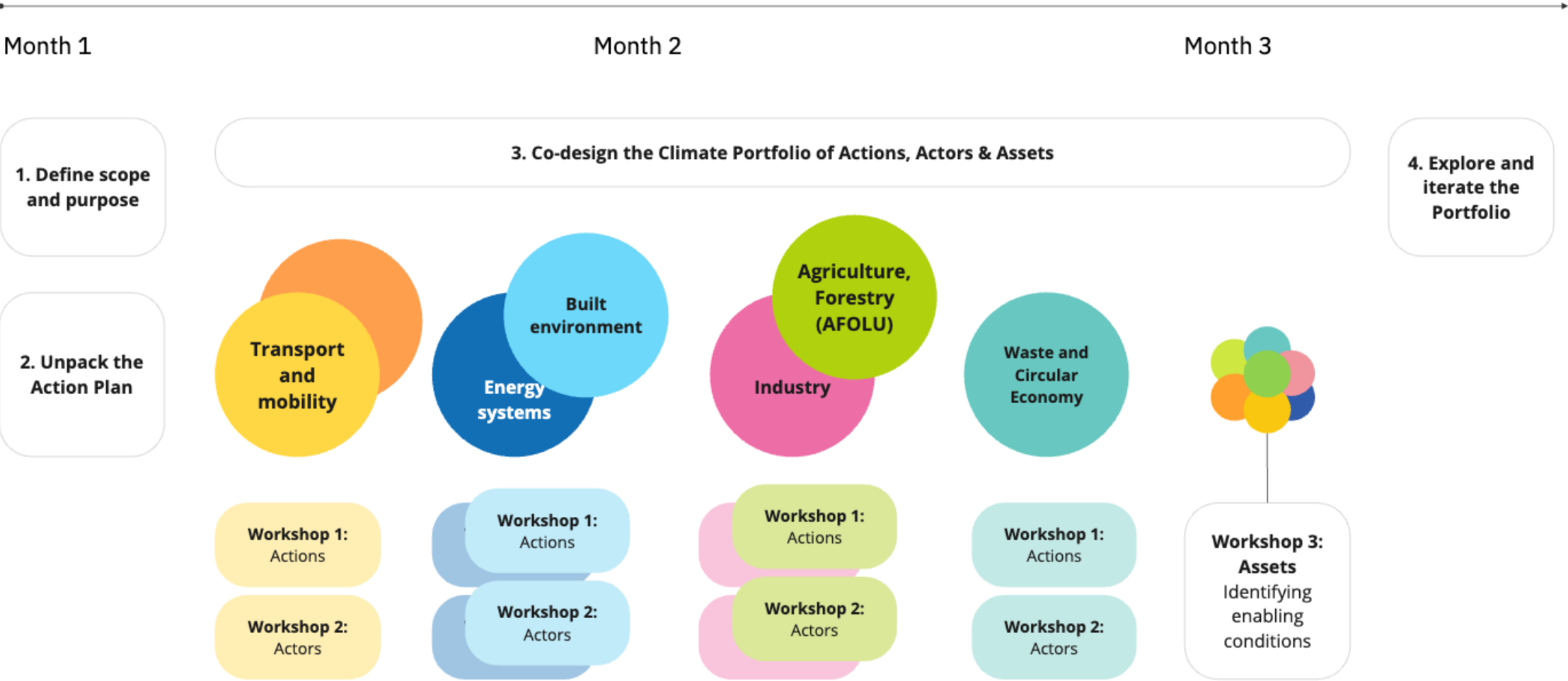
## Part 3: **Assets**

(enabling conditions)

Zoom out and analyse patterns, common needs, barriers and drivers among the actors and between the actions. This often creates a need for new actions or additional actors. Based on the findings, plan the support and targeted workshops needed to design the enabling conditions.

*What enabling conditions are required to succeed?*







## 4. Explore and Iterate

### Levers of change

- Technology and infrastructure
- Governance and policy
- Social innovation
- Finance and funding
- Democracy/Participation
- Learning and capabilities

### Type of action

- Direct emission reduction
- Indirect emission reduction
- Enabling action

### Status of funding, progress, ownership

- Fully funded, Partly funded, Not funded
- To Do, In Progress, Done
- Responsible actor/department

1. Strengthen organisational capacity for large scale mobility shift

≡ Governance & policy

13. Work to influence consumers and food retailers

≡ Finance & funding

Learning & capability

Pre-study/innovation project transition to regenerative agriculture

Direct Not funded

Samhällsbyggnadsförvaltn... To do

Direct buses from and to villages morning and evening.

≡ Indirect Partly funded

Skånetrafiken In progress





# Co-benefits

- Air Quality
- Health & well-being
- Reduction of noise
- Job creation
- Property value
- Resource efficiency

Green travel plan with all stakeholders in the University area

Health & Well-being

Marketplace for the reuse of building materials in operation

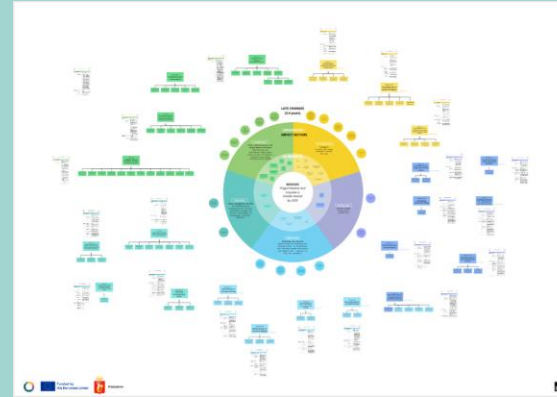
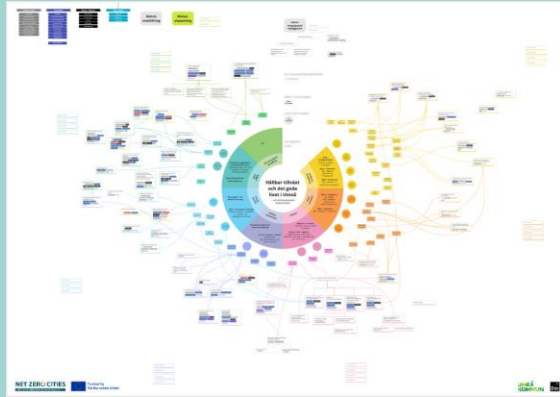
Job creation

Local economy

Resource efficiency

✓ Done





# City examples

Umeå, Warsaw and Lund

→ **MIRO**





# Lund

How we've used Portfolio Mapping



**Juliet Leonette**  
Climate Neutral Lund 2030  
Lund Municipality





What departments  
are not yet  
involved?

How do we learn  
faster?

What should we  
stop doing?

How do we map  
our portfolio?

How do we scale  
proven solutions?

How do we get our  
climate actions into  
ordinary budgets?

How do we  
onboard more  
people and spread  
ownership?



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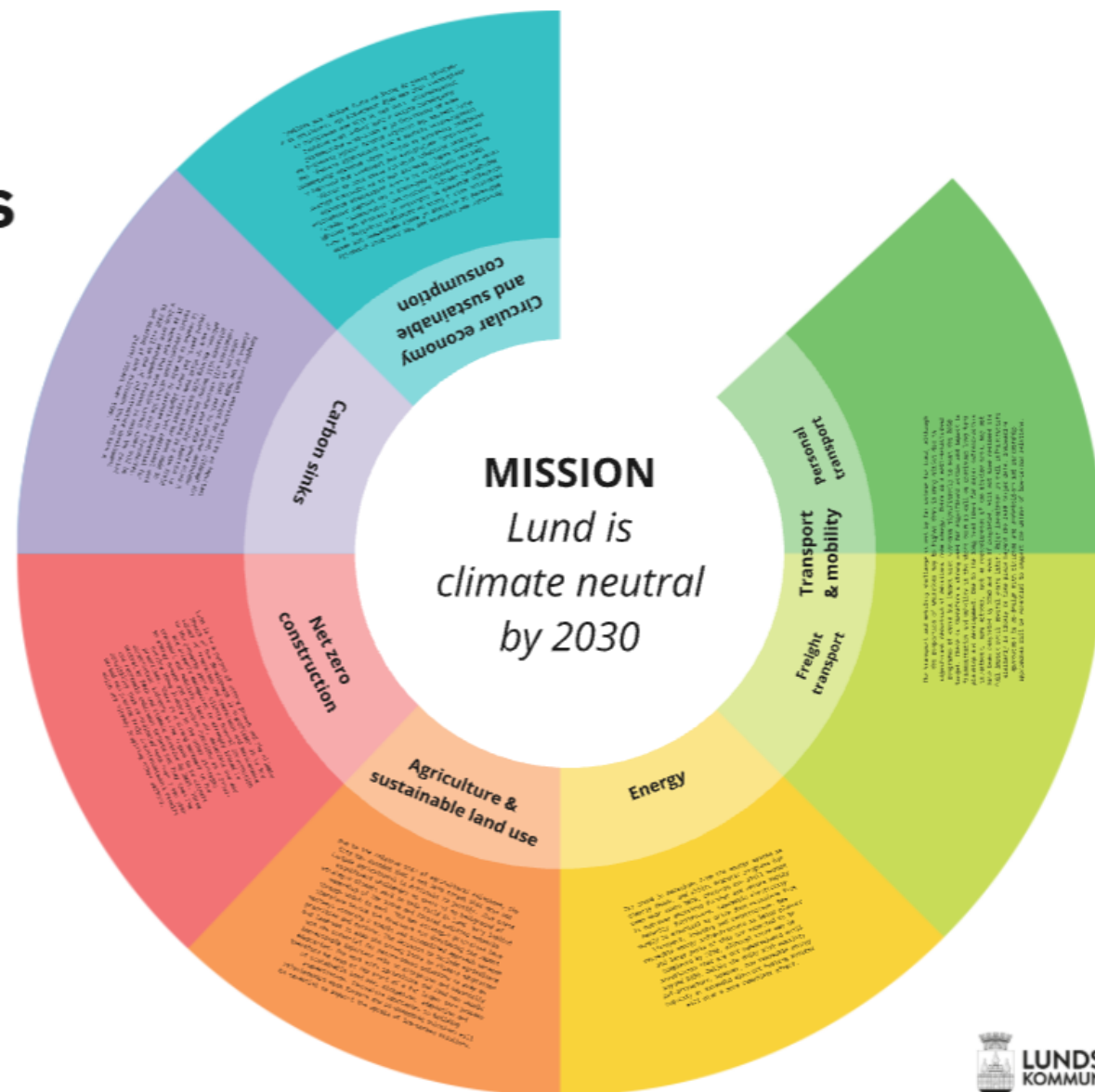
# Mapping climate actions, actors & assets

A workshop series with Lund.  
May 2025

Maria Klint, Strategic Designer  
Dark Matter Labs  
[maria@darkmatterlabs.org](mailto:maria@darkmatterlabs.org)



Funded by  
the European Union



LUNDS  
KOMMUN

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Dm

# Why

Portfolio mapping is both a tool and a process that aims to create a **better understanding** of the portfolio and to **keep the portfolio alive** by iterating it to achieve the best possible impact.

1. Without a **portfolio logic**, resources such as money, time, materials, people (burnout) will run out.
2. Keeping the entire system and your portfolio in your head at all times is an **exhausting** task or even impossible. Portfolio mapping can be a tool to help you **zoom in and out of** your portfolio, allowing you to spot gaps and connections.
3. The mapping will also help to **engage stakeholders**, by showing them how they are part of the system and to **coordinate efforts and investments** where relevant.

# Context



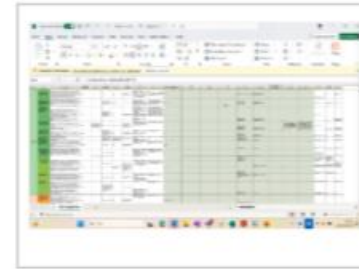
Miro visual portfolio mapping and/or unpacking Action Plan



Transition element framework (open source)



ClimateView platform

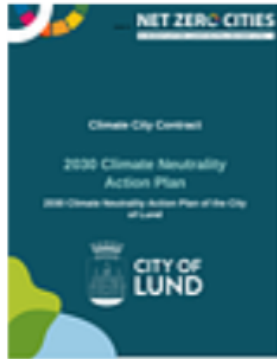


Action plan data matrix



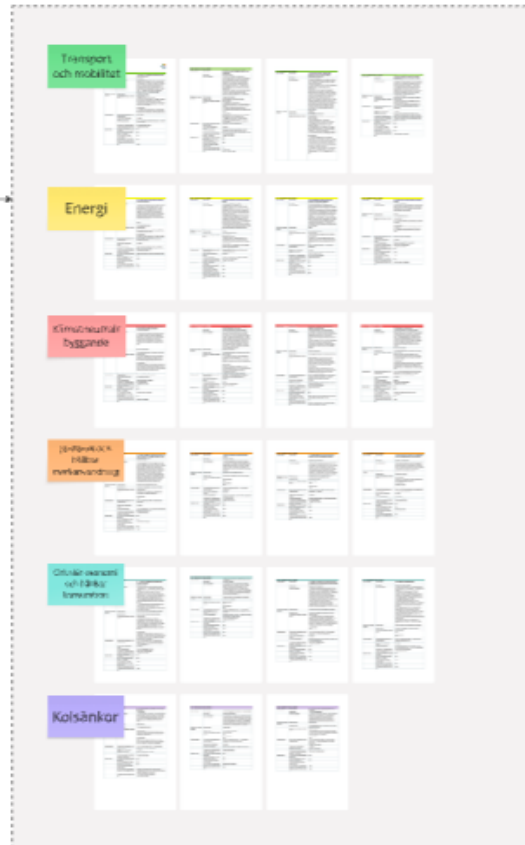
Data sets and visualisations in Excel by Future by Lund

# Unpack the Action Plan



Unpacking the  
**Climate City Contract**  
Action Plan

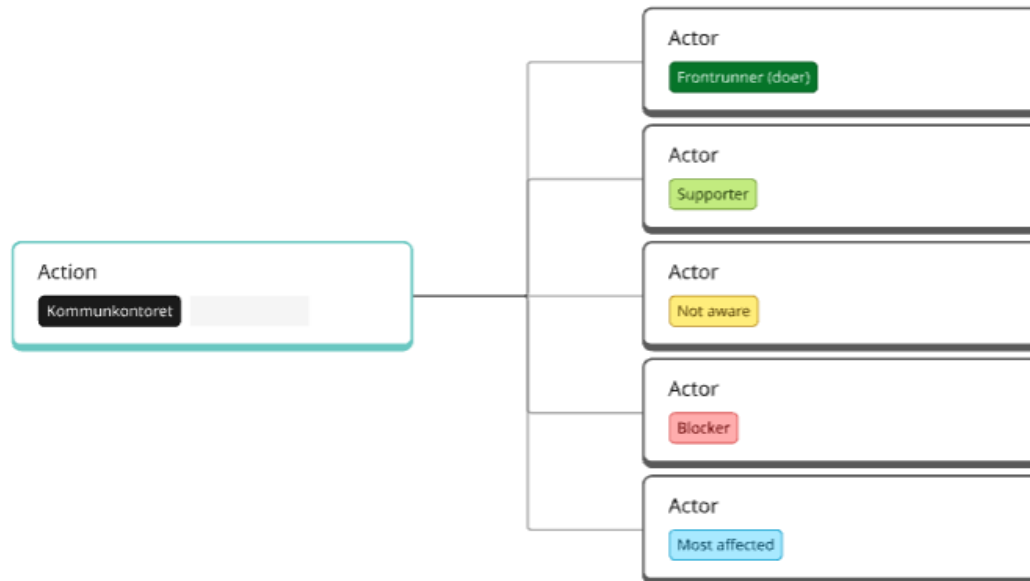
- 37 Actions
- 6 Domains



**Portfolio mapping**  
Place all the pieces on the  
table and start sorting.

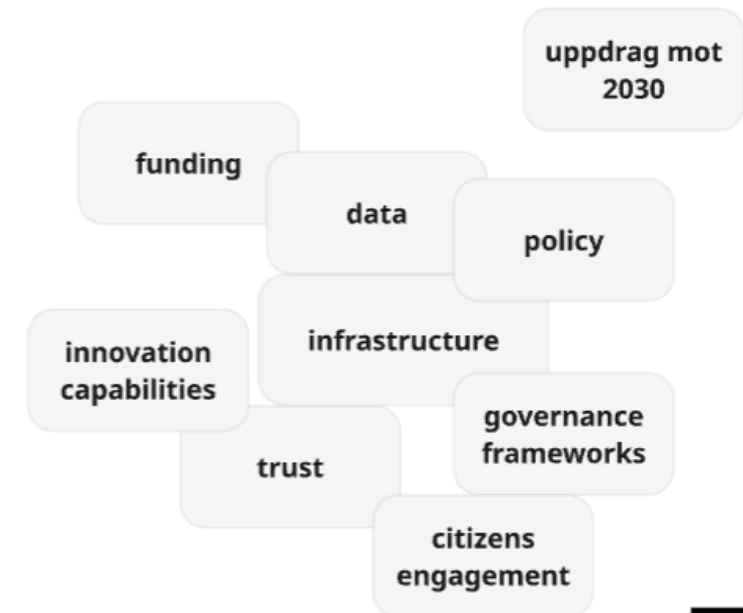
# Elements of a portfolio

**Actions:** The specific interventions we implement in the system, including experiments, programs, and initiatives designed to create change



**Actors:** Key stakeholders, partners, and alliances whose participation, expertise, and buy-in are crucial for successful implementation

**Assets:** Both enabling and constraining conditions and resources that shape what's possible



# Workshop serie 2025

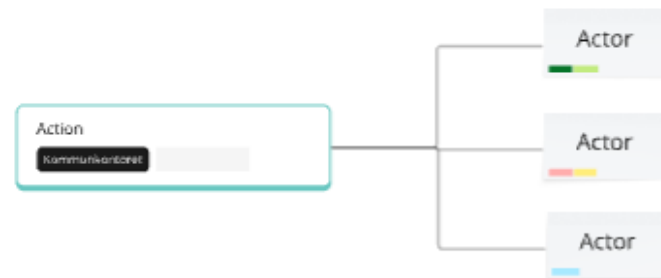
## Workshop 1:

Actions

En pathway at a time.

What actions are we taking/planning to achieve our short/long term results (Early & Late outcomes)?

Who is responsible?



## Workshop 2:

Actors

Stakeholder mapping per action.

Which actors enable the measures?

What is the status of each actor's involvement?

## Workshop 3:

Radical scenario

Larger workshop to explore and co-create a more radical future scenario and identify new actions or actors.



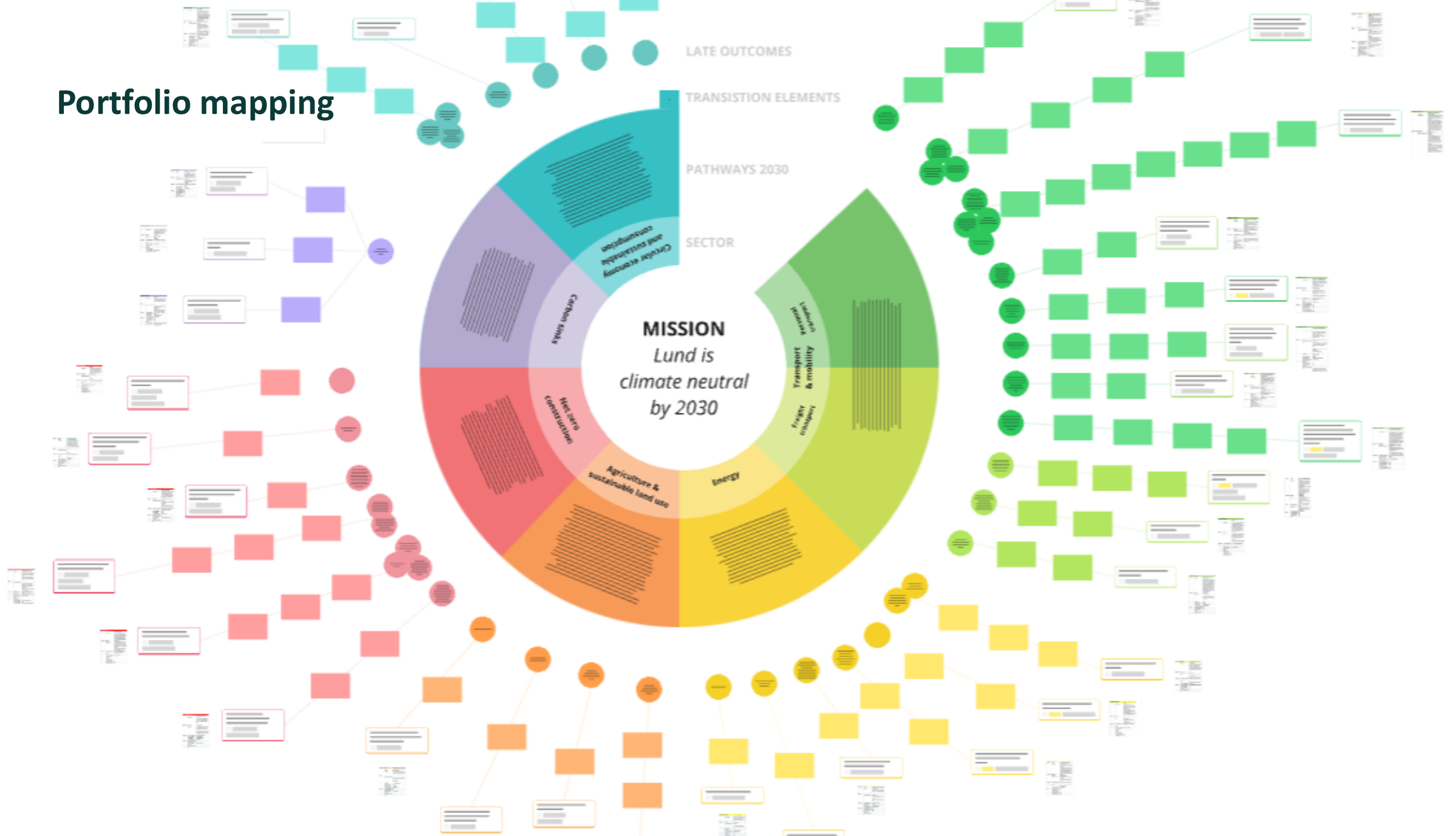
## Workshop 4:

Assets/enabling conditions

What enabling conditions are required to succeed with each measure, or goal?

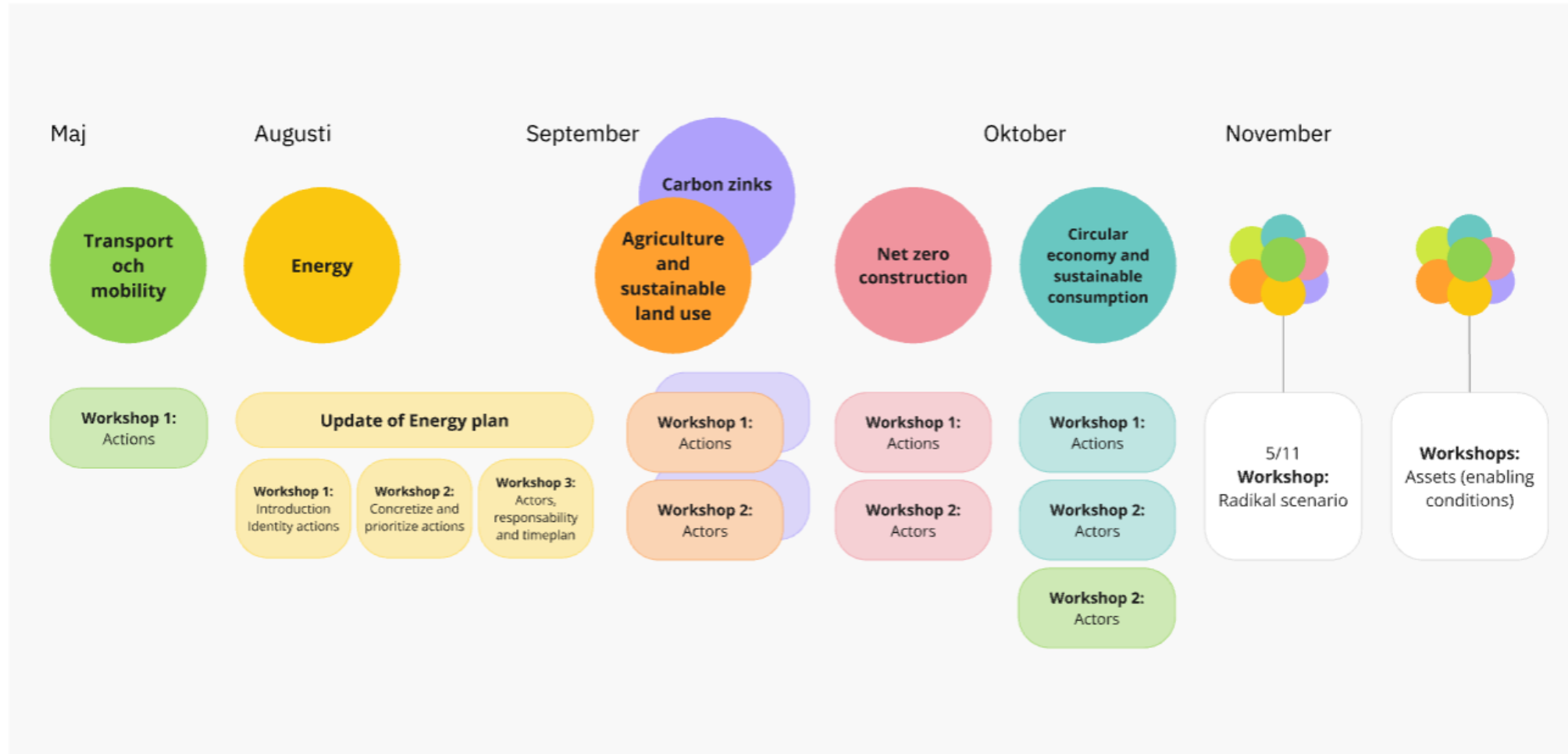


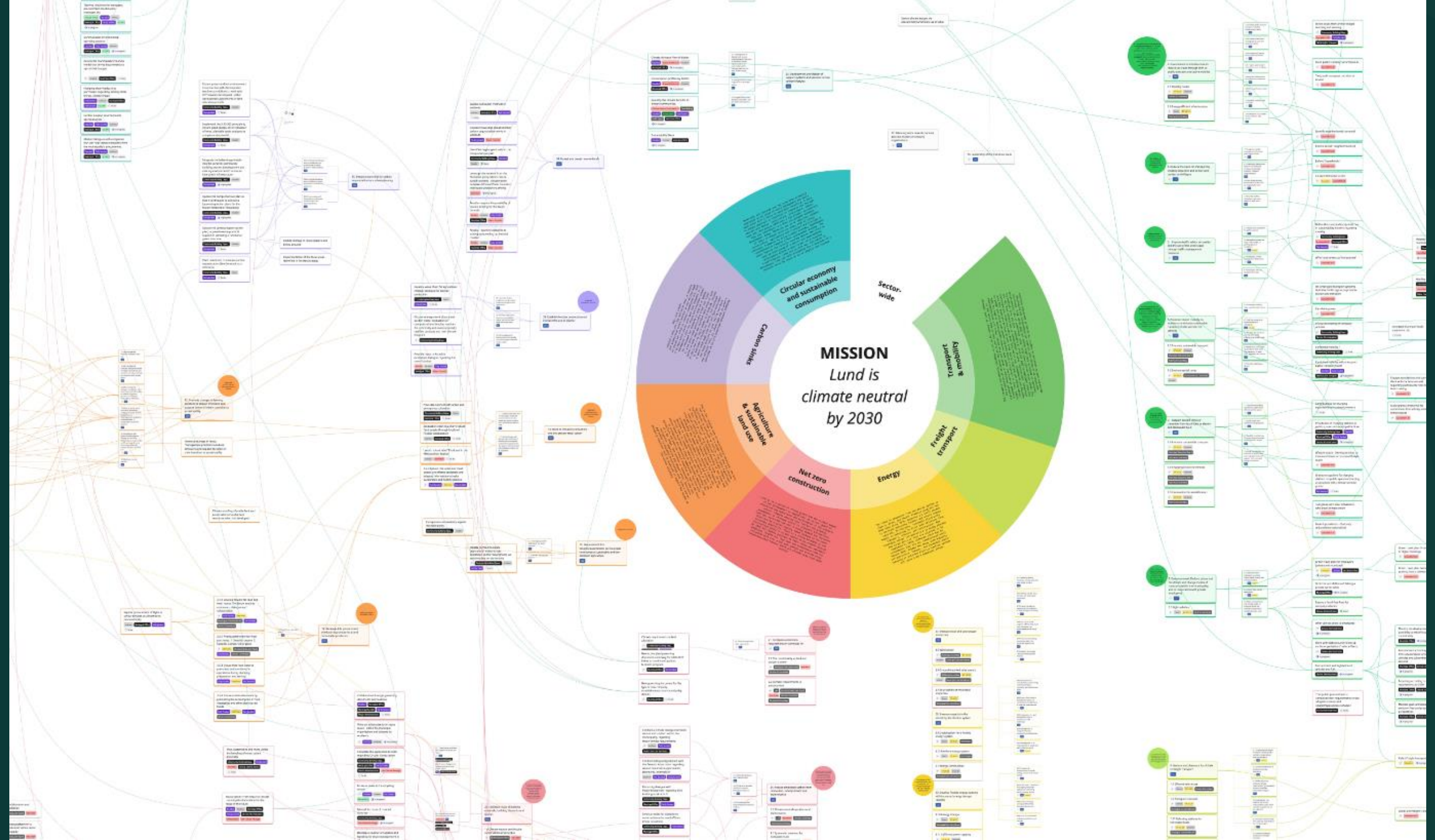
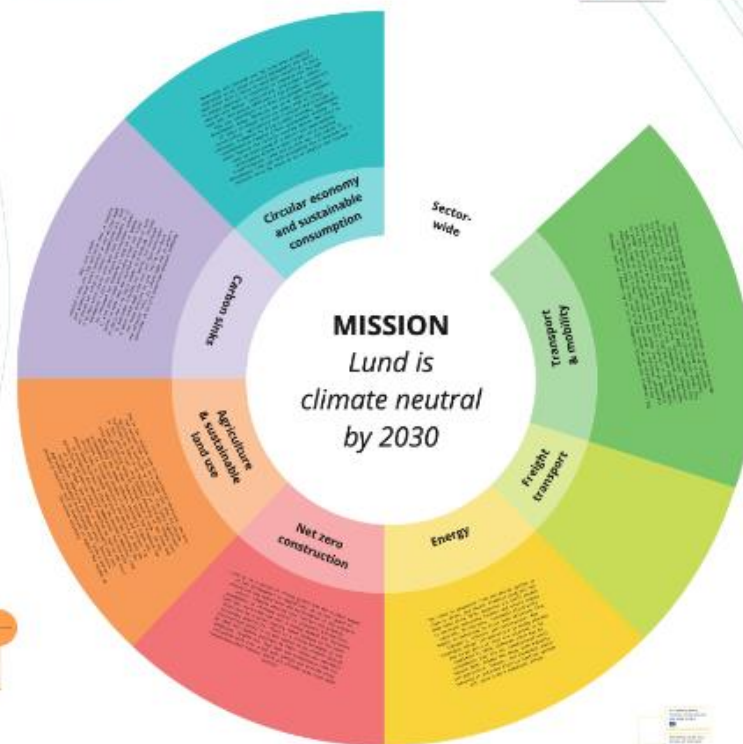
# Portfolio mapping





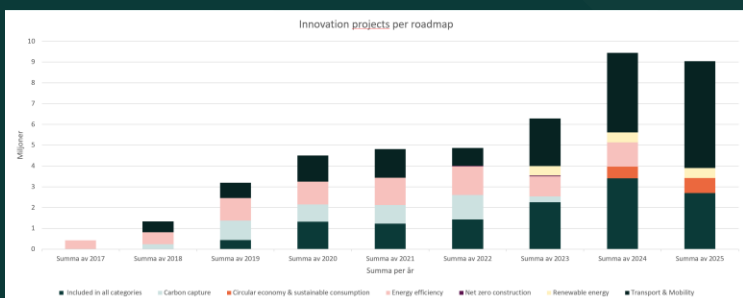
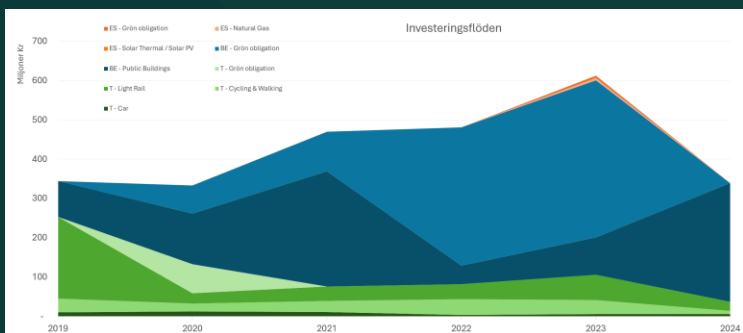
# Timeline





# Process

Analysis & follow-up



Projektnamn	Ansvarig	Startår	Slutår	Estimerad kostnad (SEK)	Estimerad nytta (ton CO2)
...	...	...	...	...	...

Planning & Roadmaps



Finansieringsbudget (Mnkr)	Budget 2024	Budget 2025	Plan 2026	Plan 2027
<b>Den löpande verksamheten</b>				
Årets resultat	-72	125	191	92
Justering för avskrivningar mm	443	488	493	498
Justering för försäljning exploatering		-45	-45	-45
Justering för avsättningar	258	50	9	20
<b>Medel från den löpande verksamheten</b>	<b>629</b>	<b>617</b>	<b>647</b>	<b>564</b>
<b>Investeringar</b>				
Nettoinvesteringar	-1 099	-1 095	-1 179	-1 424
<b>Medel för investeringsverksamhet</b>	<b>-1 099</b>	<b>-1 095</b>	<b>-1 179</b>	<b>-1 424</b>
<b>Finansiering</b>				
Upplåning/Amortering	470	478	532	860
<b>Medel från finansieringsverksamheten</b>	<b>470</b>	<b>478</b>	<b>532</b>	<b>860</b>
<b>Förändring av likvida medel</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Financial & operational plan

Omställningsområde:						Kostnad i SEK, per år, investering respektive drift					
Nr.	Beslutad	Ätgärd/ Aktivitet	Huvud- och delansvarig	Direkta effekter Co2 minskning (ton)	Mervärden	2026		2027		2028	
						Investering	Drift	Investering	Drift	Investering	Drift
KF											
KS											
KSMHU											
MN											

Climate budget

[Juliet.leonette@lund.se](mailto:Juliet.leonette@lund.se)



# Practicalities







# Tools for portfolio mapping



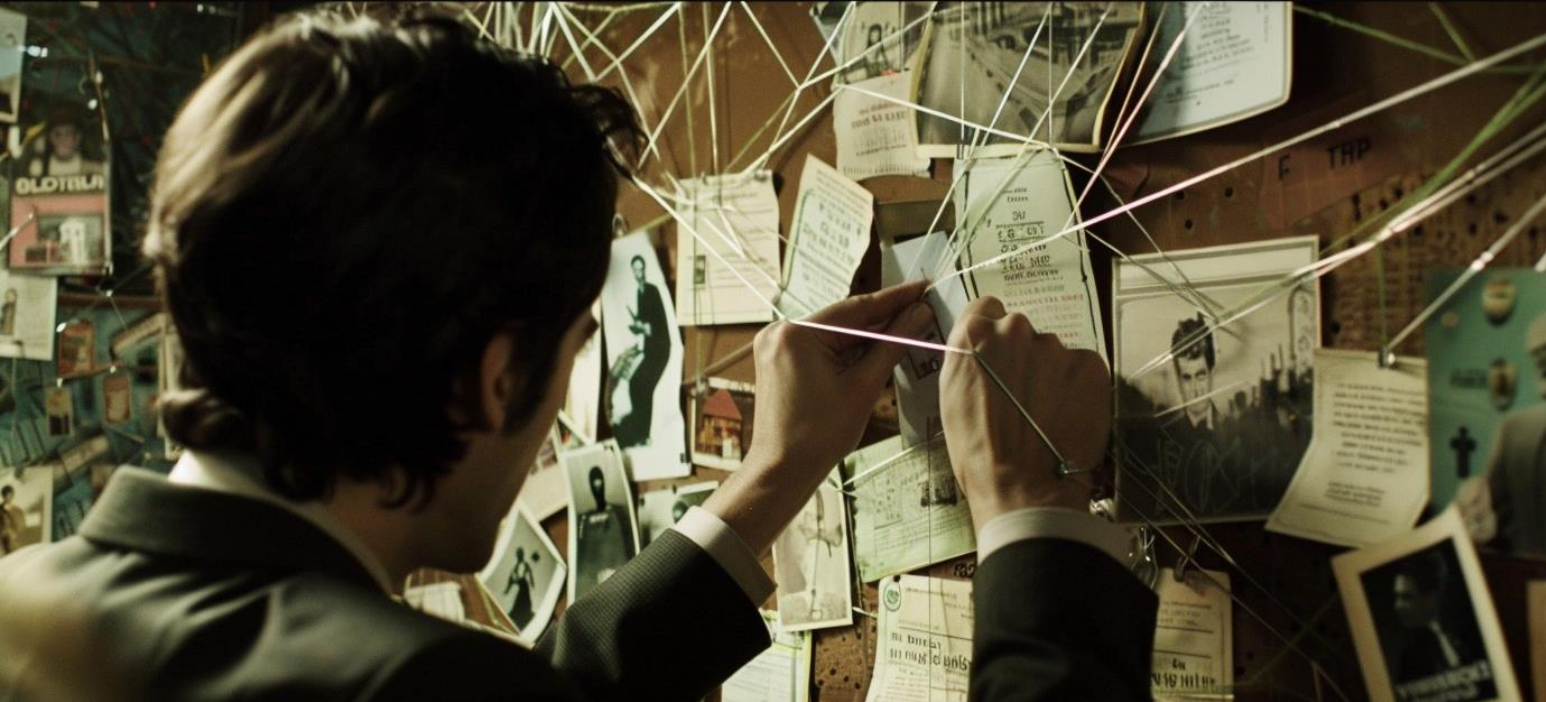
Post-its on the wall  
(not recommended)







# Tools for portfolio mapping



Pen, paper and thread  
(not recommended)

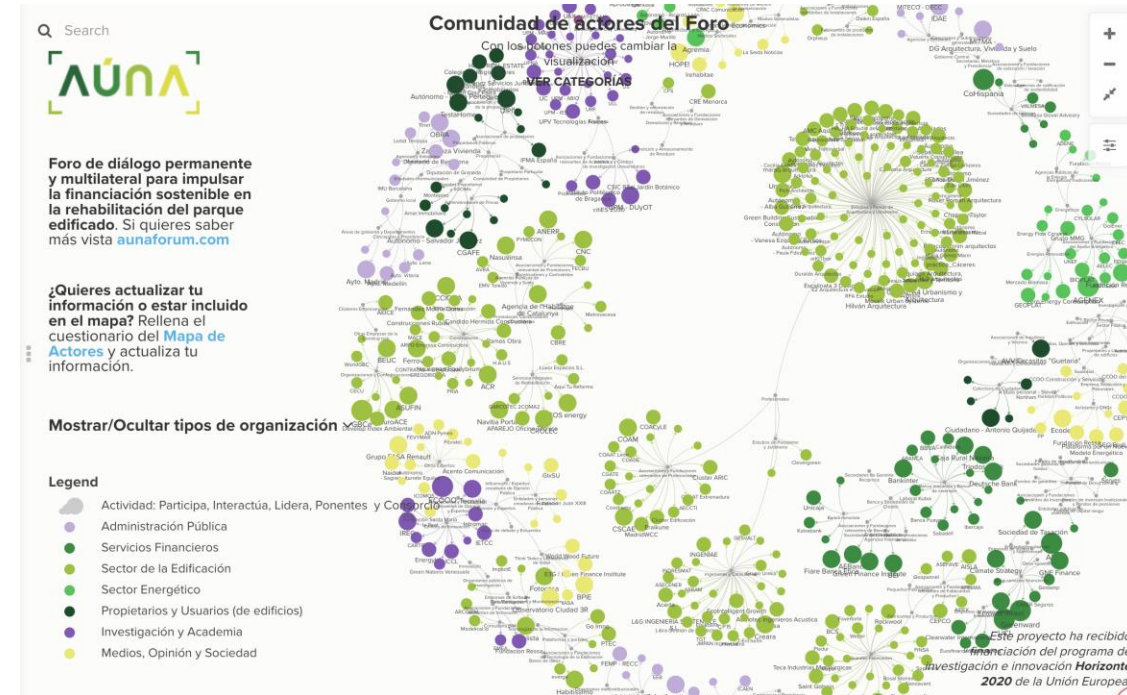






# Tool for portfolio mapping

- Digital white board – Miro/Mural
- Data visualization tool - **Kumu**



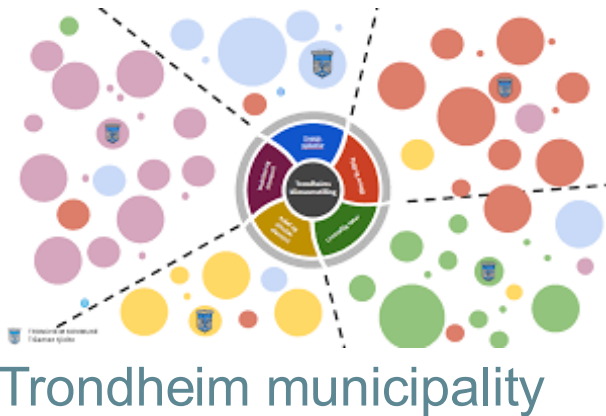
Kumu map: Green Building Council España





# Tool for portfolio mapping

- Airtable for more datadriven overview of interventions



Trondheim municipality

Airtable

Aktiviteter

Prosjekter

Prosjekter under domenet sirkulærøkonomi. FOU-prosjekter markert med gul

Sign up for free

Sort

**RePlast**

Prosjektleder  
Per Anders Follstad, Kim Mjenes

Total budsjett  
kr 2 800 000

Net Zero Climate portfolio  
Sirkulærøkonomi

Kategori  
Plast

Startdato  
3/8/2025

Sluttdato  
1/8/2027

**Grønn Arena**

Prosjektleder  
Mats T. Østberg

Total budsjett  
kr 4 000 000

Net Zero Climate portfolio  
Sirkulærøkonomi

Kategori  
Grønne arrangement

Startdato  
1/1/2024

Sluttdato  
1/7/2025

**Trendelag Ressursbank (FOU)**

Prosjektleder  
Per Anders Follstad

Total budsjett  
kr 1 800 000

Net Zero Climate portfolio  
Sirkulærøkonomi

Kategori  
Masse

Startdato  
1/8/2024

Sluttdato  
31/7/2026

**BrukOm Heggstadmoen**

Prosjektleder  
Beate White Dahm

Total budsjett  
kr 3 100 000

Net Zero Climate portfolio  
Sirkulærøkonomi

Kategori  
Ombrukssatsing

Startdato  
20/3/2025

Sluttdato  
1/8/2026

**Handelens Miljøfond**

**HMF Pilot- Gjenvinnbar emballasje**

Prosjektleder  
Suzanne Øverlie, Linda Thorsteinen

Total budsjett  
kr 900 000

Net Zero Climate portfolio  
Sirkulærøkonomi

Kategori  
Emballasje

Startdato  
6/8/2025

Sluttdato  
30/6/2026

**Teksstilpilot (FOU)**

Prosjektleder  
Birgitte Hjeltnes McDonald

Total budsjett  
kr 3 500 000

Net Zero Climate portfolio  
Sirkulærøkonomi

Kategori  
Tekstil

Startdato  
1/1/2025

Sluttdato  
31/12/2027

**Det Plastsirkulære Bord**

Prosjektleder  
Per Anders Follstad

Total budsjett  
kr 800 000

Net Zero Climate portfolio  
Sirkulærøkonomi

Kategori  
Plast

Startdato  
1/4/2024

Sluttdato  
1/1/2027

**TRÅD (FOU)**

Prosjektleder  
Birgitte Hjeltnes McDonald

Total budsjett  
kr 2 302 000

Net Zero Climate portfolio  
Sirkulærøkonomi

Kategori  
Tekstil

Startdato  
25/4/2024

Sluttdato  
24/4/2027

**Eksten- SESAM prosjektet**

Prosjektleder  
Ingvald Burkholt

**Resertifisering av brukte byggematerialer (FOU)**

Prosjektleder  
Suzanne Øverlie

**Nærgjenbruksstasjon**

Prosjektleder  
Birgitte Hjeltnes McDonald

**Kolstad Arena Pilot- Gjenvinnbar emballasje**

Prosjektleder  
Linda Thorsteinen, Suzanne Øverlie





# Tool for portfolio mapping

# ClimateView and the Transition elements framework (open source) for datadriven connection between interventions





# Tool for portfolio mapping

NetZero Planner – a data-driven decision-making tool.

**NET ZERO CITIES**  
EU MISSION PLATFORM | CLIMATE NEUTRAL AND SMART CITIES

## The NetZeroPlanner

*Empowering your City to Plan, Prioritise, and Fund your Path to Net Zero*

The NetZeroPlanner is a powerful data-driven decision making tool that empowers city leaders to assess the impact of their Climate Action and refine their roadmaps to ensure they meet decarbonisation goals. Using local data inputs and performance tracking, it provides evidence-based insights to make informed climate actions and investment decisions.

By supporting cities in evaluating the costs, benefits, and returns on investment across various sectors, it enables city leaders to prioritize actions that maximize carbon reductions while allowing financial returns and additional co-benefits.

The tool aims to be a dynamic part of a city's planning process. Cities can track their progress through performance reports and scenario analysis, adjusting plans as needed.

Start transforming your city's decarbonisation strategy today with the NetZeroPlanner!

The tool is a free tool available to all city users of the NetZeroCities Portal [here!](#)

### Features of the NZPlanner

- GET A CUSTOMIZED DECARBONISATION ROADMAP FOR YOUR CITY:**  
Based on your city data and strategic plans, NetZeroPlanner generates a customised roadmap for your city's journey to climate neutrality.
- EXPLORE MULTIPLE PATHWAYS TO NET-ZERO WITH SCENARIO PLANNING:**  
The NetZeroPlanner enables to test "what-if" scenario, giving cities the flexibility to explore different strategies and ambition levels. What's the most impactful sector for your city? NetZeroPlanner breaks down decarbonization in 13 sub-sector, to help your city target high-impact areas and reach climate neutrality faster! Besides, it covers Scope 1 and 2 emissions, along with key Scope 3 emissions, to provide a comprehensive view of your city's carbon footprint.
- MONITOR CITY'S PROGRESS TO STAY ON TRACK WITH NET-ZERO GOALS:**  
The tool enables cities to use annual performance reports to assess progress and make the needed adjustments to their Climate Action Plans.
- MAXIMIZE RETURNS ON CLIMATE ACTIONS:**
  - **By optimizing resource allocation:** By evaluating the costs, benefits, and returns on investment across different sectors, the tool helps cities prioritize actions that maximize both carbon reductions and financial returns, ensuring efficient use of limited resources.
  - **By ensuring Co-Benefits for Communities:** Invest in climate solutions that not only reduce emissions but also enhance public health! The NetZeroPlanner reveals the often-overlooked value of decarbonization by monetizing benefits such as cleaner air.

**EU MISSIONS**  
CLIMATE NEUTRAL & SMART CITIES

[www.netzerocities.eu](https://www.netzerocities.eu) NetZeroCitiesEU netzerocitieseu @NetZeroCitiesEU NetZeroCities EU

Funded by the European Union





# Q&A







Next Sessions

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

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





# Online Planning Lab. Feedback form Module 3 Spotlight 2



# Get in touch with NetZeroCities!

NetZeroCities Help Desk: [infocities@netzerocities.eu](mailto:infocities@netzerocities.eu)



**@NetZeroCitiesEU**



**NetZeroCities**



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