

# Place-Based Missions for Circular Economy Transitions

Capacity Building Modules

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# Learning Journey

## **Module 1**

Introduction to Place-Based Missions in the Circular Transition

## **Module 2**

Engaging and Orchestrating for Mission Mobilization in Circular Economy

## **Module 3**

Shaping a Shared Mission Direction in the Circular Transition

## **Module 4**

Designing Mission Portfolios in Circularity

## **Module 5**

Implementing and Learning through Experimentation in Circular Economy



This module builds on and adapts the learning architecture and methodological foundations developed by the Joint Research Centre (JRC) under the Preparatory Action *Territories in Action – Innovation for Place-Based Transformation*.  
The content of the modules has been created and adapted by **Climate KIC Academy**.

## Module 3

# Shaping a Shared Mission Direction in the Circular Transition

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# Learning Outcomes

Across the program, participants will develop a shared understanding that enables them to:

**Analyze regional systems and shape a shared mission direction for circular transitions.**

In this module, you will work towards the program-level outcome by learning to:

**A**

Explore possible future developments affecting circular economy transitions in their region using foresight perspectives.

**B**

Develop a shared vision for a future circular economy system in their region.

**C**

Translate long-term circular economy vision into transition roadmaps, milestones and strategic priorities.

# Structure of the Module



I

## Conceptual framing

Introduction to **key concepts** related to envisioning and foresight for circular economy transitions.



II

## Guided practice

A **self-guided activity** exploring future directions and developing a shared vision for circular transition in your region.



III

## Seeds of change from regions

Short **examples** showing how foresight and vision-building guide circular economy strategies.

# Structure of the Module



I

## Conceptual framing

Introduction to **key concepts** related to envisioning and foresight for circular economy transitions.



II

## Guided practice

A **self-guided activity** exploring future directions and developing a shared vision for circular transition in your region.



III

## Seeds of change from regions

Short **examples** showing how foresight and vision-building guide circular economy strategies.

# What is Envisioning?

## Envisioning Futures for Regional Circular Economy

**Envisioning helps region move from today's circular economy challenges to a shared picture of a future circular system.**

It allows regional actors to:

- Reflect on current challenges
- Anticipate emerging changes
- Explore possible futures
- Guide policy and investment priorities
- Guide coordinated action over time

# Why this matters for Circular Economy

## Envisioning Futures for Regional Circular Economy

**Circular economy transitions require long-term direction.** Across many regions, circular economy actions are already underway, for example:

- Removing single-use packaging in public events (reusable cups)
- Reducing water use in industry or buildings (water-saving systems or optimization)
- Reusable packaging systems in food services (deposit-return containers for takeaway)
- Repairing and refurbishing renewable energy equipment
- Using construction in new applications (road base or new materials)
- Using food by-products as animal feed or fertilizer
- Recycling electronic waste (RAEE)

These initiatives often emerge in different sectors, programs, and policy areas. While each contributes to circularity, they do not automatically reinforce each other or add up to systemic change.

For regional authorities, advancing circular transitions requires a **shared vision of the future** – one that helps identify synergies across initiatives, align policy efforts, and guide investment toward a common circular economy direction.



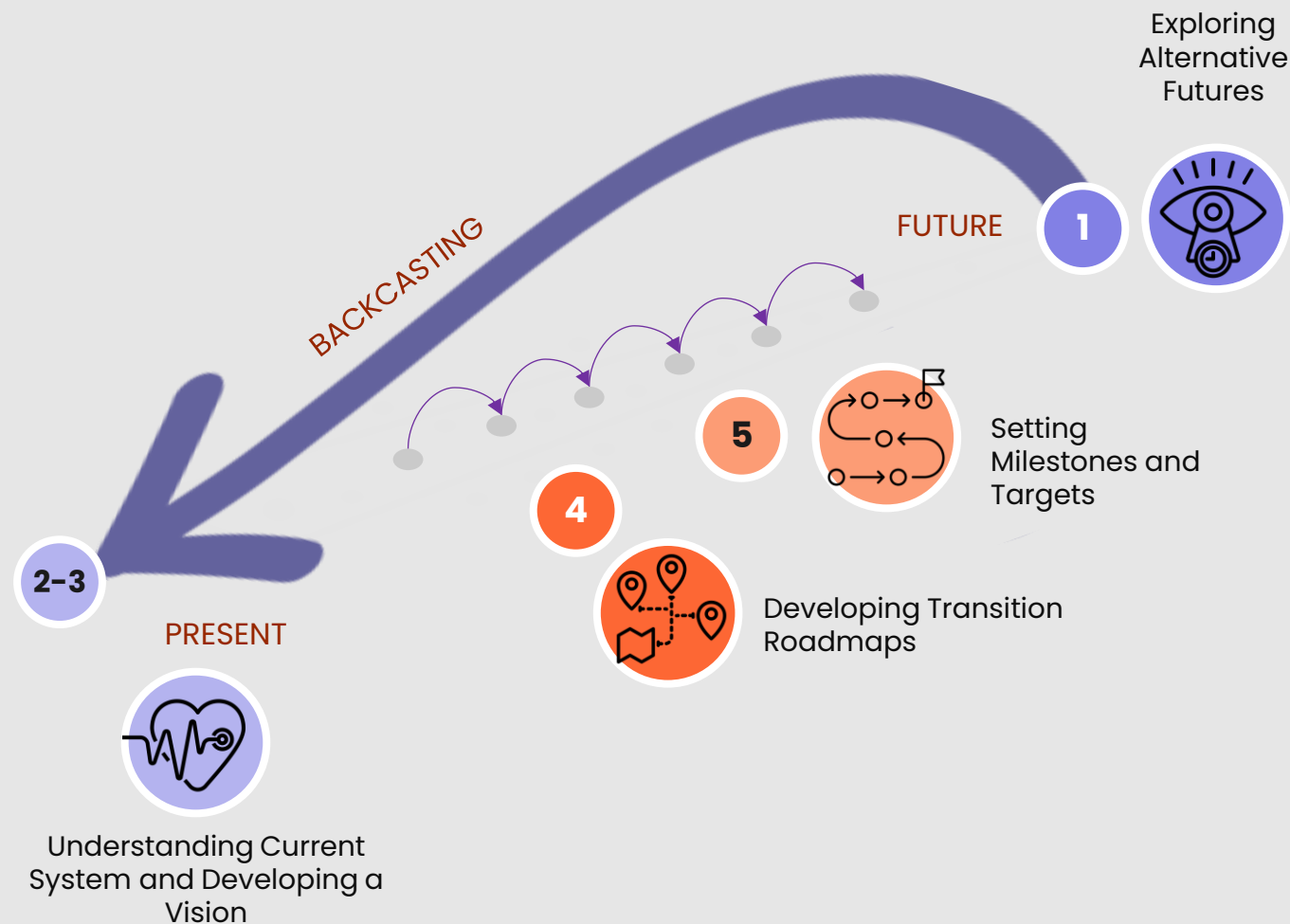
# The Envisioning Journey

From understanding the present to shaping circular futures

Envisioning place-based missions for circular transitions is not a single step.

It is a **process** that connects future exploration, system understanding, vision building and strategic action.

This may look complex but don't worry – **we will unpack it step by step throughout the module.**



# Structure of the Module

## Envisioning Futures for Regional Circular Economy

The module is structured as follows

**1**

### Understanding the Future(s)

Exploring trends, drivers of change and emerging signals that may shape the future of circular value chains, industries and regional economies.

**2**

### Understanding the Current System

Analyzing how circular value chains, actors, policies and material flows interact in the regional economy to shape current outcomes and mission opportunities.

**3**

### Defining a place-based Mission

Defining a shared direction for a place-based circular economy mission by combining future possibilities with an understanding of the regional system.

**4**

### Transition Roadmaps

Identifying possible routes – strategic actions, policy interventions and collaboration mechanisms – that can move the regional system towards the circular mission.

**5**

### Setting Milestones

Defining intermediate milestones and monitoring progress while learning and adapting as the circular mission unfolds over time.

# Icebreaker

## How do you see the future?

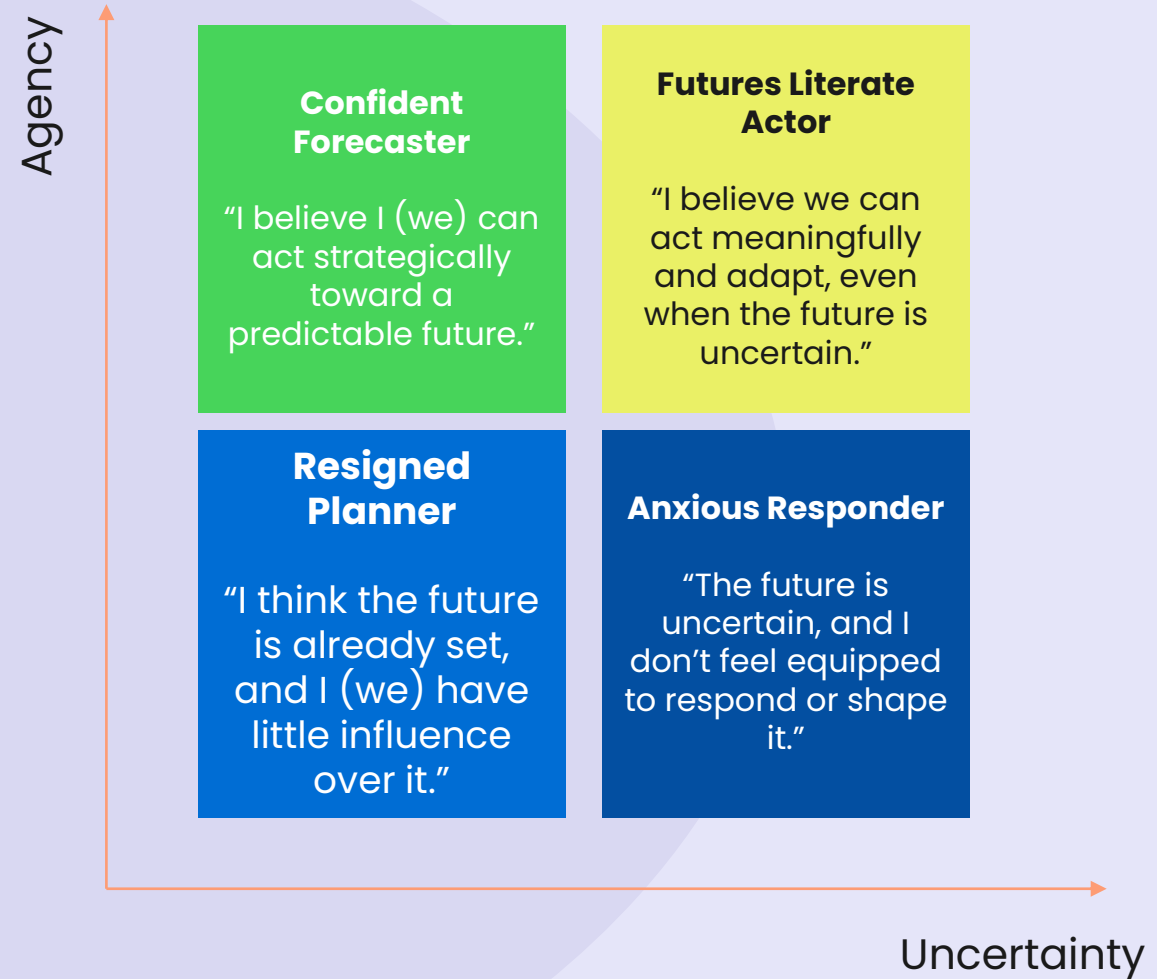
Take a moment to look at the diagram on the right and think:

- Where would I position myself?

### Example:

*Throughout the module, we will use a simple circular challenge as*

**"I consider myself as a(n)  
....."**



# Understanding Possible Futures

1

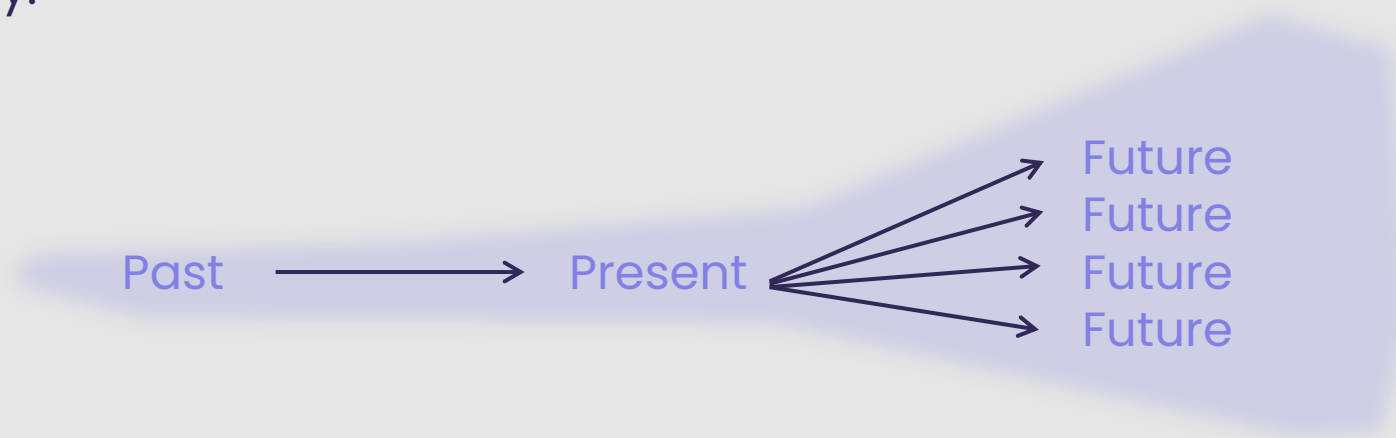
# The Future is Not Fixed

## Understanding Possible Futures

The future of circular economy systems is shaped by many factors: technological innovation, market changes, environmental pressures, regulation and policy, citizen behavior, ... It is uncertain.

These dynamics create **multiple possible futures** for regions, not only one.

Regions can influence which future becomes reality in their territory through their choices today.



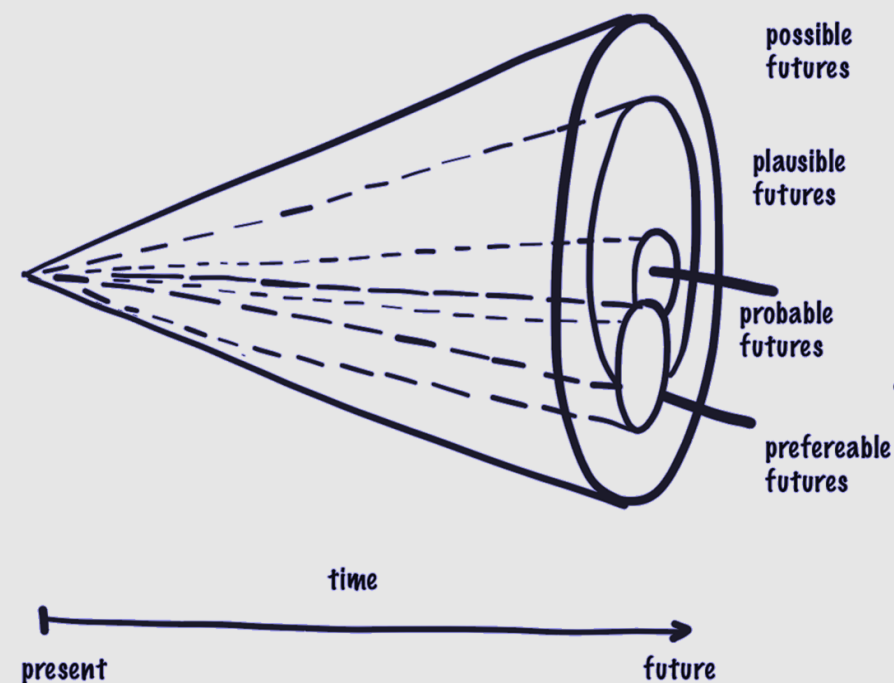
# Futures Cone

## Exploring Different Possible Futures

When thinking about the future, we do not explore just one future – but many possibilities.

The futures cone illustrates different types of futures:

- **Probable futures:** what is likely to happen if current trends continue.
- **Plausible futures:** what could realistically happen given technological, economic or policy changes.
- **Possible futures:** what might happen, even if it seems uncertain today.
- **Preferable futures:** the future we would like to create.



## 1

# What is Strategic Foresight?

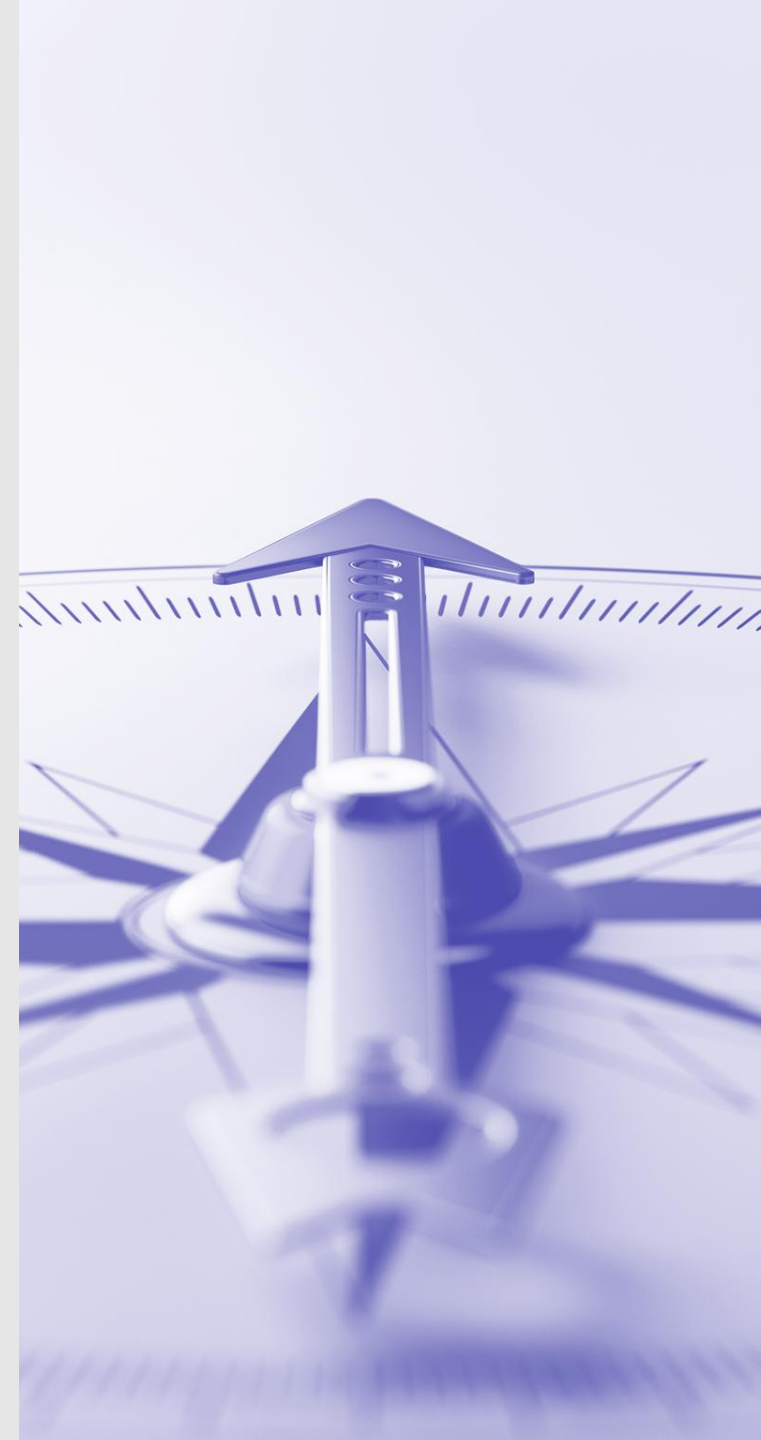
## Strategic Foresight

Strategic foresight is the practice of exploring, anticipating, and shaping the future.

It helps policymakers explore possible and preferable futures and navigate uncertainty when planning long-term transitions.

Importantly, foresight **does not aim to predict the future.**

Instead, it helps regions develop a broader understanding of future possibilities to inform better decisions today.



# Participatory Foresight?

## Participatory Foresight for Circular Transitions

**The future of a regional circular economy** cannot be designed by one department or institution alone. Transforming value chains such as construction, plastics, textiles or bioeconomy **requires the perspectives of many actors** – including industry, municipalities, research organizations and citizens.

Participatory foresight creates a space where these actors can collectively explore different futures, discuss emerging changes and reflect on what kind of circular economy they want to build (together).

By bringing these perspectives together, regions can develop a shared understanding of the future opportunities and risks and begin to shape a common direction for circular transformation.



# What is Participatory Foresight?

## Participatory Foresight for Circular Transitions

*For example, imagining the future of circular agri-food by-products may involve farmers, food processors, waste managers, bio-based industries, research centers, public authorities and procurement teams.*

*Each actors sees different opportunities and barriers: from collection and processing, to regulation, market demand and possible higher-value uses.*

*Participatory foresight helps these actors explore different possible futures together and identify which circular future they want to move towards together.*



# Foresight and Regional Capability

## Connecting this exercise to the ECIV Capacity and Capability Framework

Exploring possible futures isn't only a strategic exercise. It is part of a region's sensing capability: the ability to understand what is changing, anticipate risks and opportunities, and use these insights to shape circular economy direction.

In the **ECIV Capacity and Capability Framework**, this connects especially to:

- **Systemic analysis:** Looking at circular economy challenges through economic, social, technological and ecological lenses.
- **Regulatory foresight:** Anticipating upcoming EU, national or regional rules that may affect circular value chains.
- **Technology and Innovation Scanning:** Identifying emerging circular technologies, business models and practices.
- **External risk assessment:** Understanding how climate, supply chains, resource constraints or geopolitical shifts may affect the region's circular transition.

In the next reflection, you will apply this sensing perspective to your own circular challenge.



# Pause and Reflect

## Thinking about futures for circular economy in your region

Return to the circular challenge and apply your foresight capability:

- Which **trends or drivers** could most influence the future of your circular challenge?
- Which **future seems most likely** if current dynamics continue?
- Which **possible futures** could emerge for this challenge in your region?
- Which **preferable future** would you most like your region to move forward?

**Example:** *In an agri-food by-products challenge, stricter waste regulation, rising input costs and demand for bio-based materials could open new circular uses. Possible futures may include continued low-value use, stronger composting or biogas pathways. A preferable future could be one where, by 2035, priority agri-food by-products are systematically transformed into higher-value uses, such as ingredients, animal feed, bio-based materials or fertilizers, with biogas used mainly for remaining residues. This would reduce waste, replace virgin inputs and create new local business opportunities.*

**“For our circularity challenge, our preferable future is one where  
.....”**

# Understanding the Current System

Exploring how actors, policies and material flows interact in the regional circular economy

2

# Understanding the Current Circular System

Mapping value chains, material flows and existing initiatives

Before defining a future vision, regions need to understand **how their circular economy system currently works.**

For a regional authority, this often means looking at questions such as:

- Does your region have a strategy for circular economy?
- Which industries and value chains generate the largest material flows and waste streams in your region?
- Which circular initiatives are already emerging in businesses or municipalities?
- How is circular economy perceived by companies and consumers?
- Is there a cross-departmental coordination (e.g. Transition Team) to support the transition to a circular economy?



# Understanding the Current Circular System

Mapping value chains, material flows and existing initiatives

*For example, a region may find that agri-food industries generate large volumes of by-products that are mostly underutilised or used in low-value applications. While some valorisation pathways exist (e.g. biogas or composting), they remain fragmented and limited in scale. Barriers such as weak market demand, regulatory constraints, and limited coordination between sectors often prevent higher-value uses.*

*Understanding these gaps helps identify opportunities to transform by-products into valuable resources, supporting reflection on: “How can we better capture value from existing flows and scale circular solutions?”*

Understanding these dynamics helps identify where circular transformation could have the greatest impact. This section contributes to reflecting on: **“Where are we now, and where can we go from here?”**



## 2

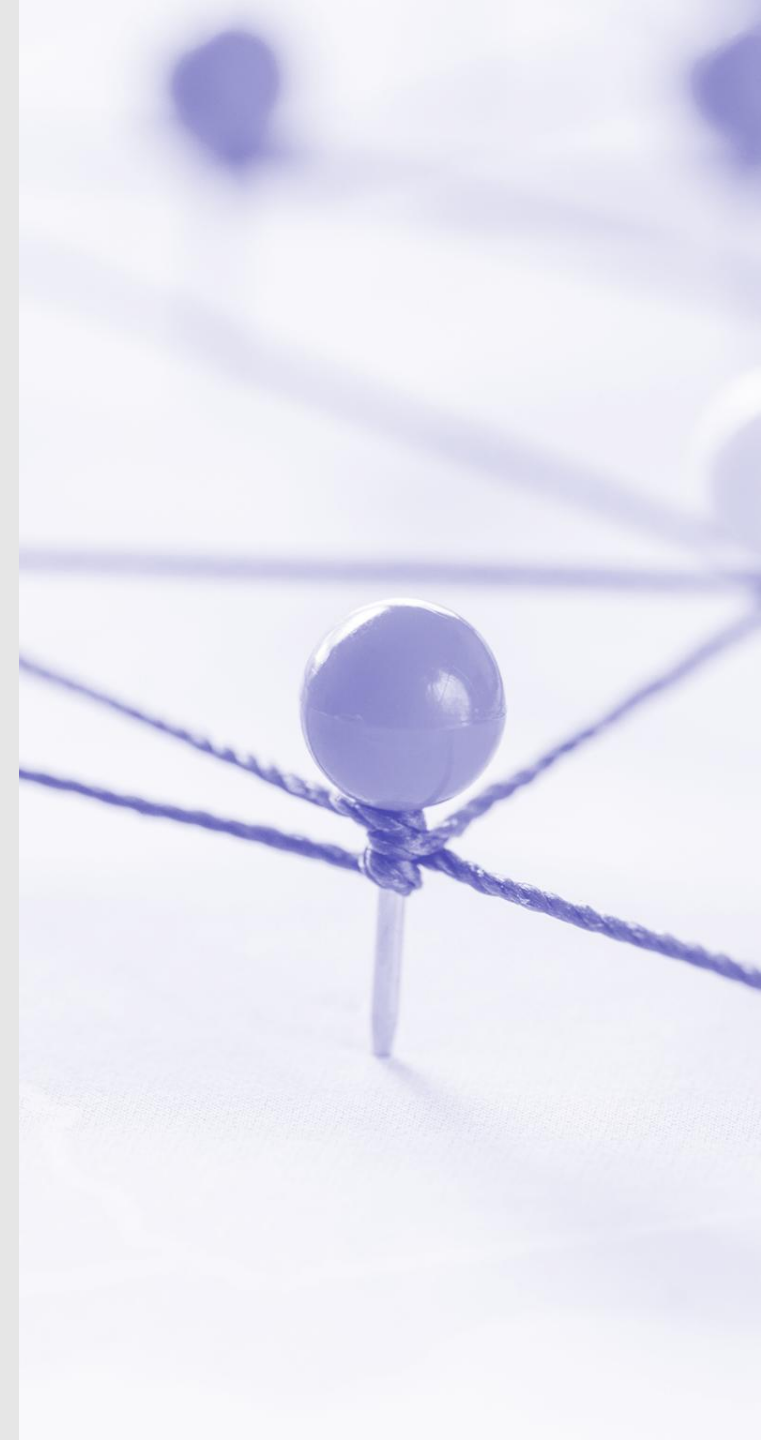
## Seeing the System as a Whole

Connecting sectors, actors and resource flows

As seen in previous modules, circular transitions rarely happen within a single sector or policy area. They emerge from **interactions between industries, infrastructure, policies and everyday practices.**

*For example, improving circularity in agri-food by-products may require coordination between farmers, food processors, waste managers, bio-based industries, research centres, regulators and public procurement actors. It depends not only on production and processing, but also on logistics, quality standards, market demand, regulation and investment.*

For regional authorities, understanding the system means looking beyond individual projects and recognising how different actors and policies interact across the regional economy.



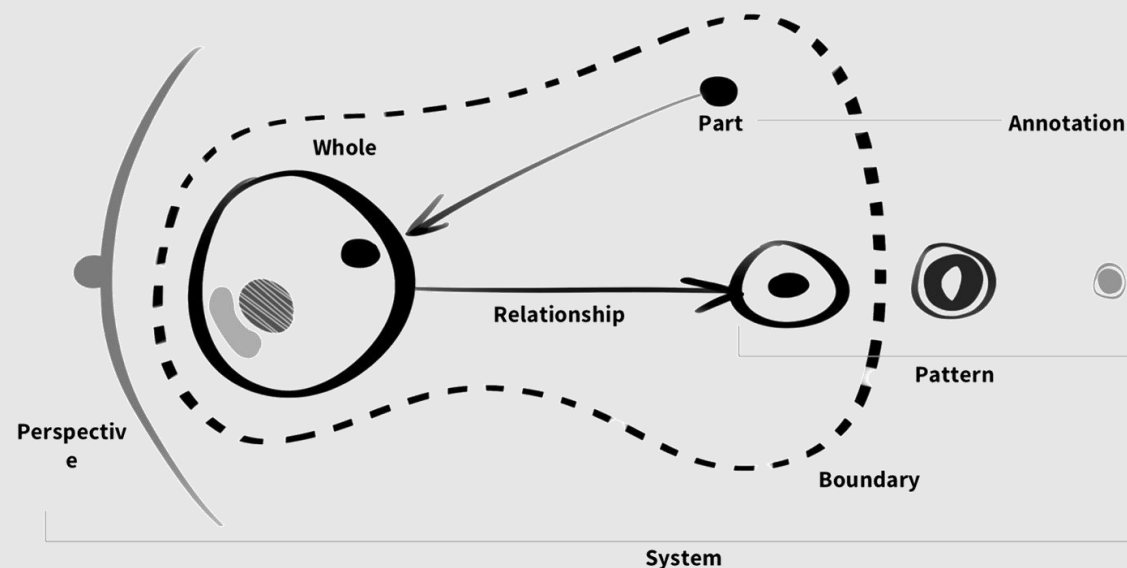
## 2

# What is a system?

Seeing how different parts relate and interact in circular transitions

A system is a :

- set of **interconnected elements** (actors, institutions, resources, behaviours, policies,...).
- Bound by a **purpose or function**, often implicit.
- Exhibits **patterns of behaviour over time**, not just isolated events.
- Changes in one part affect the whole.
- “A system is more than the sum of its part – it’s **the way they relate**”.



2

# What is a system?

For example, the following illustrates key components of a regional agri-food by-products circular system.

## Purpose or function of the system:

Transform agri-food by-products into higher-value circular resources, while reducing waste and strengthening regional bioeconomy value chains.

## Interconnected elements:

- **Actors:** farmers, food processors, waste managers, bio-based industries, research centres, regulators, logistics providers, public authorities.
- **Policies and incentives:** waste regulation, food and feed safety rules, bioeconomy strategies, procurement criteria, incentives for secondary bio-based inputs.
- **Infrastructure and resources:** collection systems, storage facilities, processing plants, quality testing facilities, logistics networks.
- **Behaviours and practices:** by-product separation, collaboration between producers and users, acceptance of secondary bio-based inputs, investment decisions.

## Patterns of Behaviour:

Over time, the system tends to produce recurring patterns such as:

- Fragmented collection of by-products
- Low-value uses such as disposal, composting, bio-gas
- Limited processing capacity for higher-value applications
- Weak demand for secondary bio-based inputs
- Reliance on virgin or imported materials

## Example: Change in One Part Affects the Whole

If **public policy and procurement support higher-value uses of agri-food by-products**, this can:

- Increase demand for secondary bio-based inputs
- Trigger investment in processing and quality infrastructure
- Encourage new collaborations across the value chain
- Reduce low-value waste treatment
- Create new regional bioeconomy opportunities

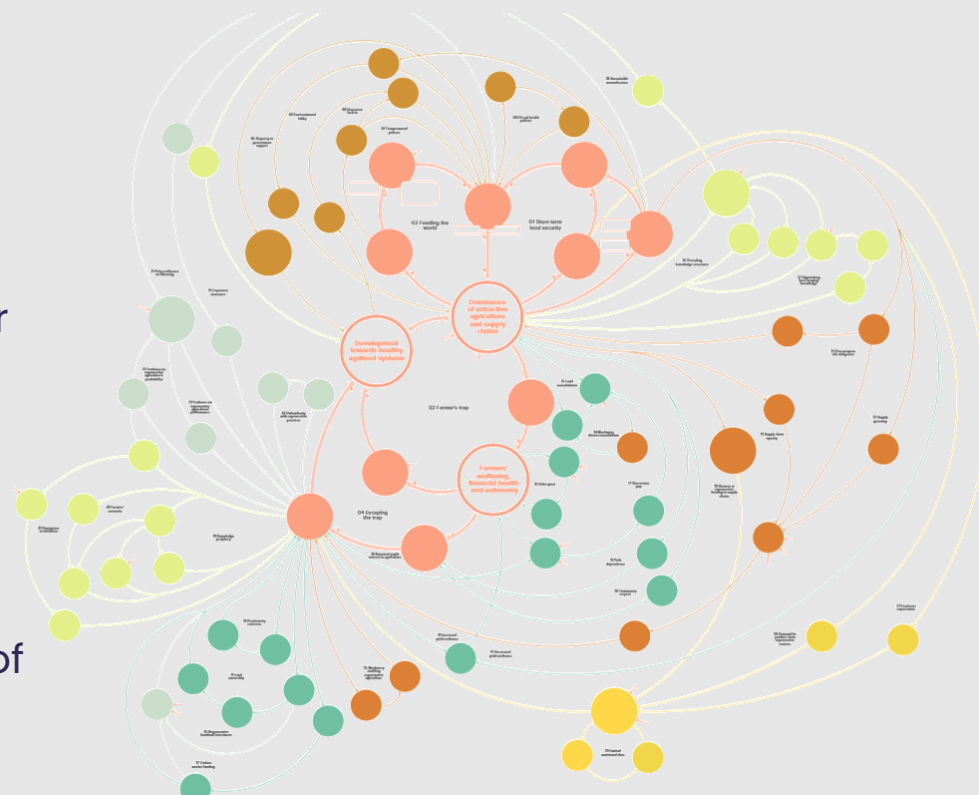
# 2

## System Mapping

### A Foundation for Strategic Envisioning

#### Why do we map systems?

- **To understand root causes:** not just visible symptoms (like the tip of the iceberg) such as water scarcity or losses in distribution networks in the previous example.
- **To reveal patterns, structures and relationships:** between actors, policies, markets and infrastructure shaping circular value chains, such as water use and reuse
- **To identify feedback loops and leverage points:** where targeted interventions can unlock circular transitions (e.g. reuse incentives or pricing can improve water efficiency)
- **To build a shared understanding** across key stakeholders of the value chain system.
- **To inform strategic visioning and mission design** by grounding future ambitions in current realities.



## 2

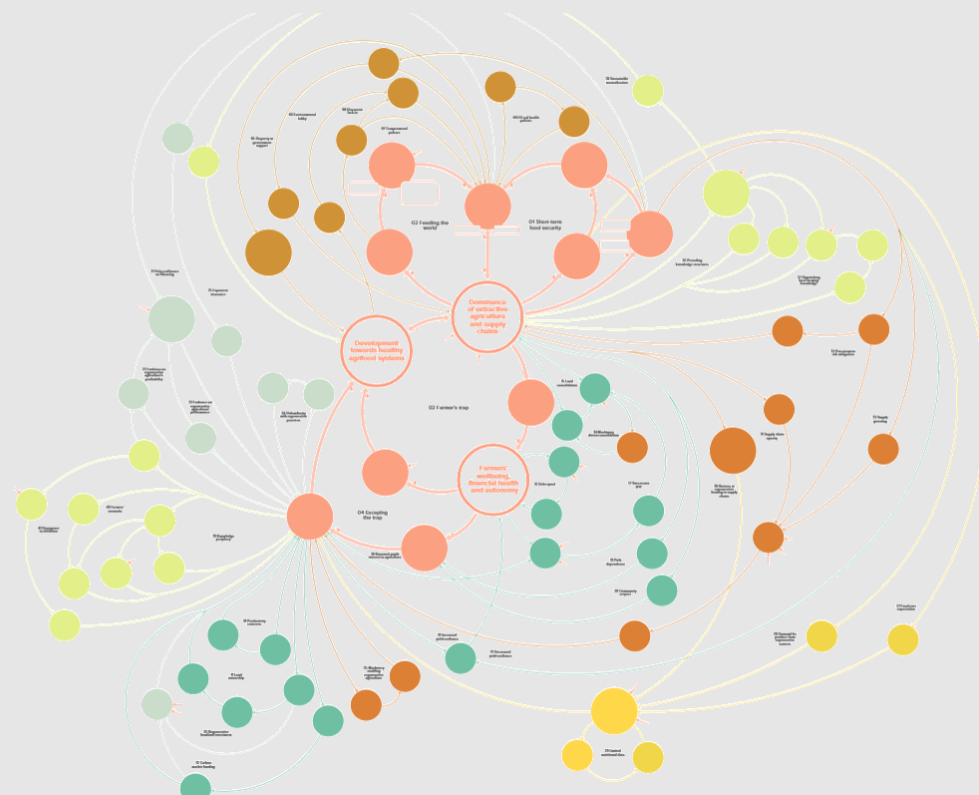
# Why System Mapping?

A Foundation for Strategic Envisioning

## How is System Mapping useful for Envisioning?

It helps you:

- Step back from fragmented, siloed views.
- See how present dynamics shape future possibilities.
- Understand which parts of the system to preserve, transform, or reimagine.
- Ground your vision in real-world complexity without being constrained by it.



## 2

## Understanding Causality in Systems

Why circular economy challenges are not linear

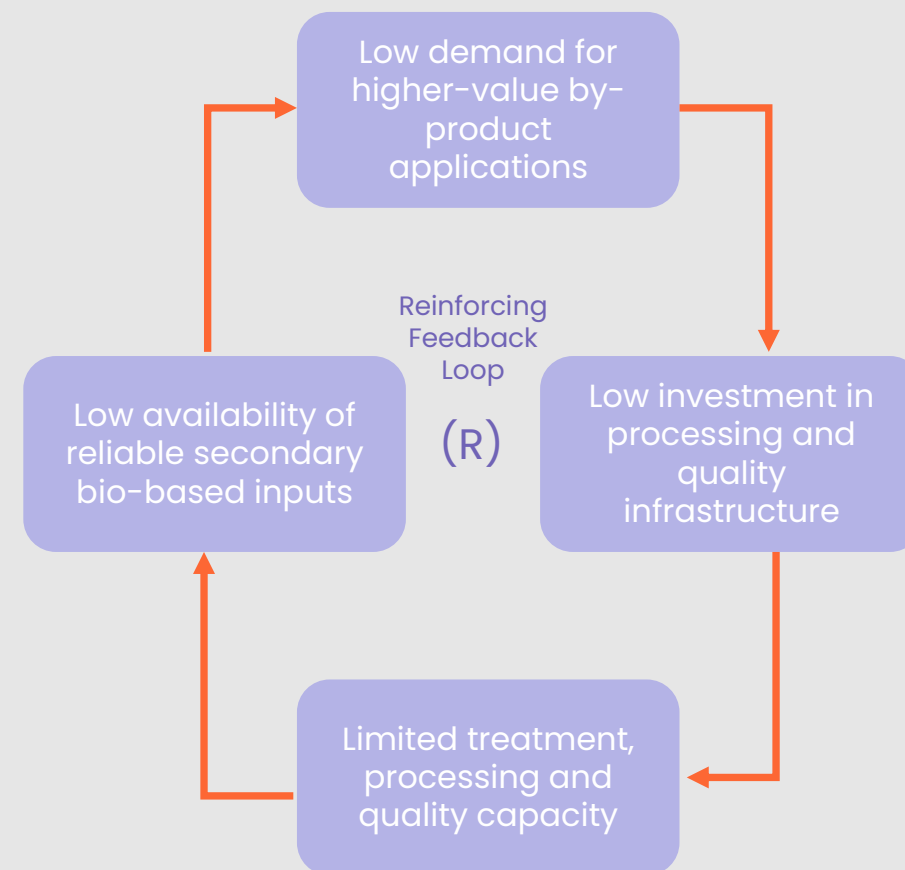
Causality describes how different elements of a system influence one another.

In circular economy systems, actions rarely lead to simple, linear results. Instead, they trigger **chains of effects** that interact over time.

*For example, in agri-food by-product system:*

- *Low demand for higher-value by-product application*
- *Reduces investment in processing and quality infrastructure*
- *Which limits the availability of reliable secondary bio-based inputs*
- *Reinforcing low-value use of products.*

These circular cause-effect relationships are called **feedback loops**.



## 2

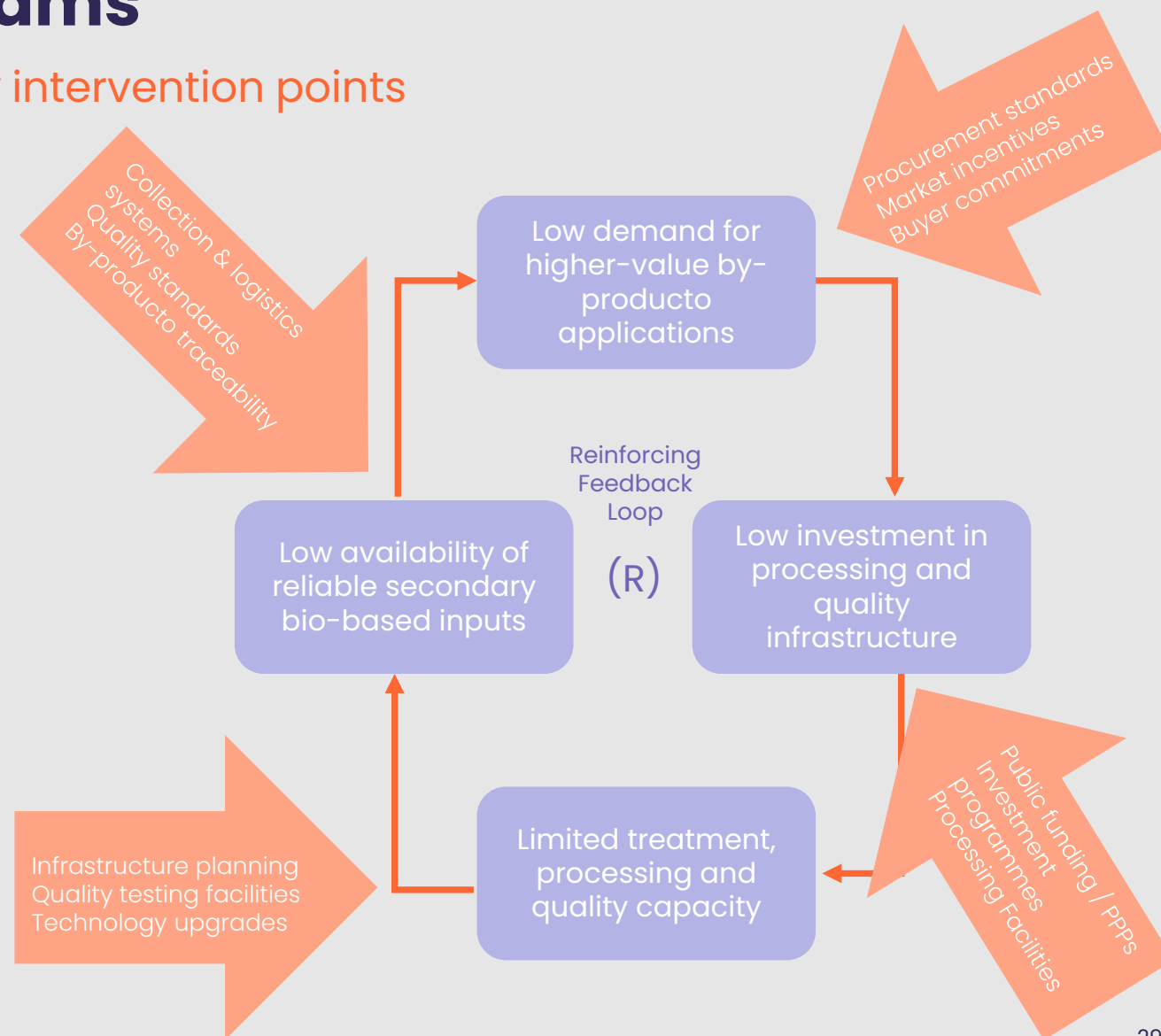
# Using Causal Loop Diagrams

Visualising system dynamics to identify intervention points

By mapping these feedback loops, regional policymakers can identify where targeted interventions – such as regulation, investment, innovation support or public procurement – could shift the system towards circular outcomes.

**Each element in the loop is a potential point of intervention.** By acting on one or more of them, you can start to shift the whole system.

You will have the chance to draft the feedback loops of your circularity challenge in the last section of this module.



# Imagining a Future for Circular Economy

## Defining a shared vision for circular transformation

Once regions understand how their circular economy system works, they can begin to imagine how it could evolve in the future.

*For example, a region has envisioned a future where priority agri-food by-products are systematically transformed into higher-value uses.*

Building on the engagement processes introduced in Module 2, this vision is co-created with the actors who will shape and implement it, such as farmers, food processors, waste managers, bio-based industries, research centres, regulators and public authorities.

Defining this vision helps regional policymakers align strategies, investments and collaboration around a shared direction for circular transition.



# Pause and Reflect

## Looking at the dynamics of your regional circular economy system:

- What **actors or conditions** currently influence circular practices in your region (for example regulations, markets, infrastructure or behaviour?)
- Where do you see situations where **one factor affects another** over time?

**Example:** *In our regional agri-food by-product system, low demand for higher-value applications may discourage investment in processing infrastructure. This limits the availability of reliable secondary bio-based inputs and reinforces low-value use of by-products.*

**“One dynamic that shapes my circular challenge is .....**”

# Defining a Place-based Mission

Turning future exploration and current system analysis into a clear and measurable direction for circular transformation

3

# From possible Future(s) to a Preferred Direction

Using foresight to imagine the direction of a place-based circular mission

Earlier in the module, we explored different possible futures for circular economy systems – shaped by technological change, new regulations, evolving markets and resource pressures.

The next step is to define **which future the region wants to move towards**. In mission terms, this means articulating a clear and shared direction for change.



3

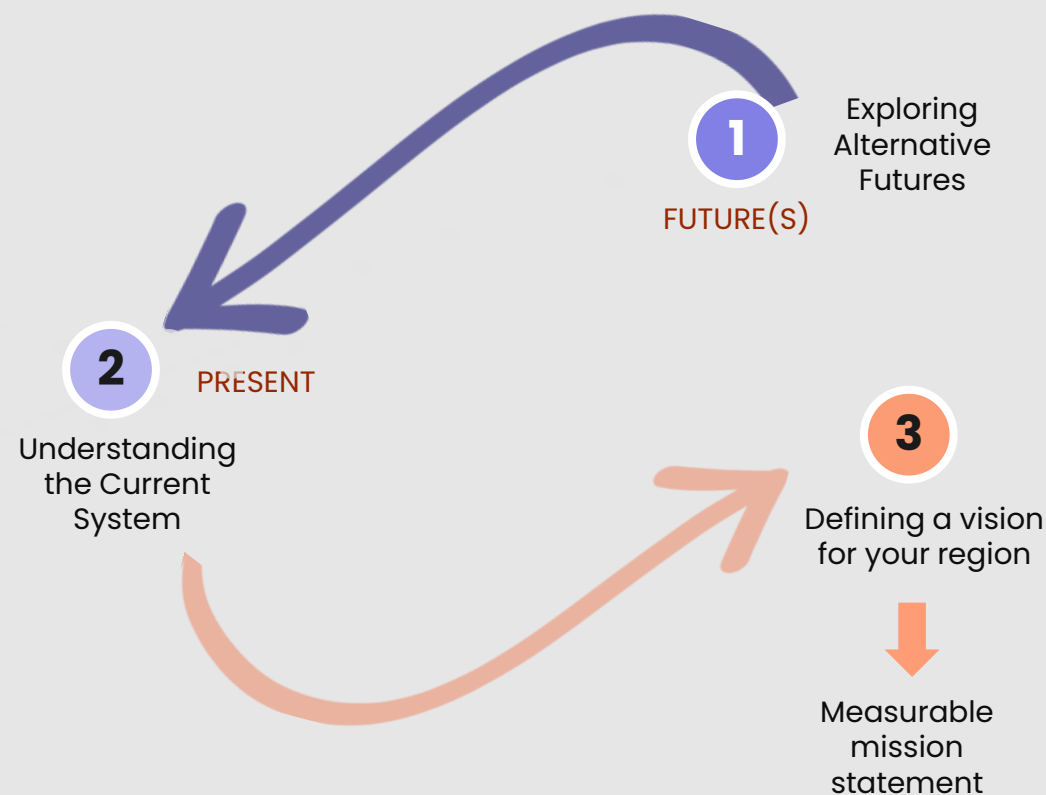
# Imagining a Circular Economy Vision

What would a successful circular system look like in your region?

Based on the exploration of possible futures and the understanding of the regional system, regions can begin to imagine what a successful circular economy could look like.

A vision describes the desired future state of the system – for example how materials circulate, how industries collaborate, or how resources are used more efficiently.

This vision helps clarify the direction of change, before translating it into a measurable mission.



3

# Mission Statement

complete

For example:

***“By 2035, our region will establish circular value chains that transform most priority agri-food by-products into higher-value uses, reducing waste, replacing virgin inputs and creating new local business opportunities”***

A mission statement defines **what** change the region wants to achieve and **by when**, while leaving space for different solutions and pathways to emerge. The roadmap (next slides) will help identify how the region could move towards that mission.

## A Mission Statement:

- ☒ Defines the problem and target
- ☒ Is measurable
- ☒ Has a timeline
- ☒ Leaves space for multiple solutions.

# Pause and Reflect

## Shaping a clear direction for a circular mission in your region...

- **What exactly needs to change, and at what scale?**  
Among the possible future you explored, what does a *successful future state* look like for your regional system?  
(e.g. *higher-value use of by-products, reduced waste, local bio-based value chains*)
- **What specific change must happen to move towards that future?**  
Identify the core outcome your region needs to achieve (at system or sector level), not the solutions.  
(e.g. *reduce low-value waste treatment, enable higher-value valorisation, replace virgin inputs*)
- **How will you measure that change?**  
Define a clear, quantifiable target that signals progress towards that future.  
(e.g. *60% valorisation, 50% reduction in low-value disposal, number of priority by-product streams reused, ...*)
- **By when should this be achieved?**  
Set an ambitious but realistic timeframe that creates direction and urgency.

Example: *"By 2035, transform 60% of priority agri-food by-products into higher-value circular uses"*

**"By 20\_\_ ... my region commits to ..... "**

# Transition Roadmaps

Identifying how the region could move from vision to mission implementation.

4

## 4

## From Mission to Transition Roadmaps

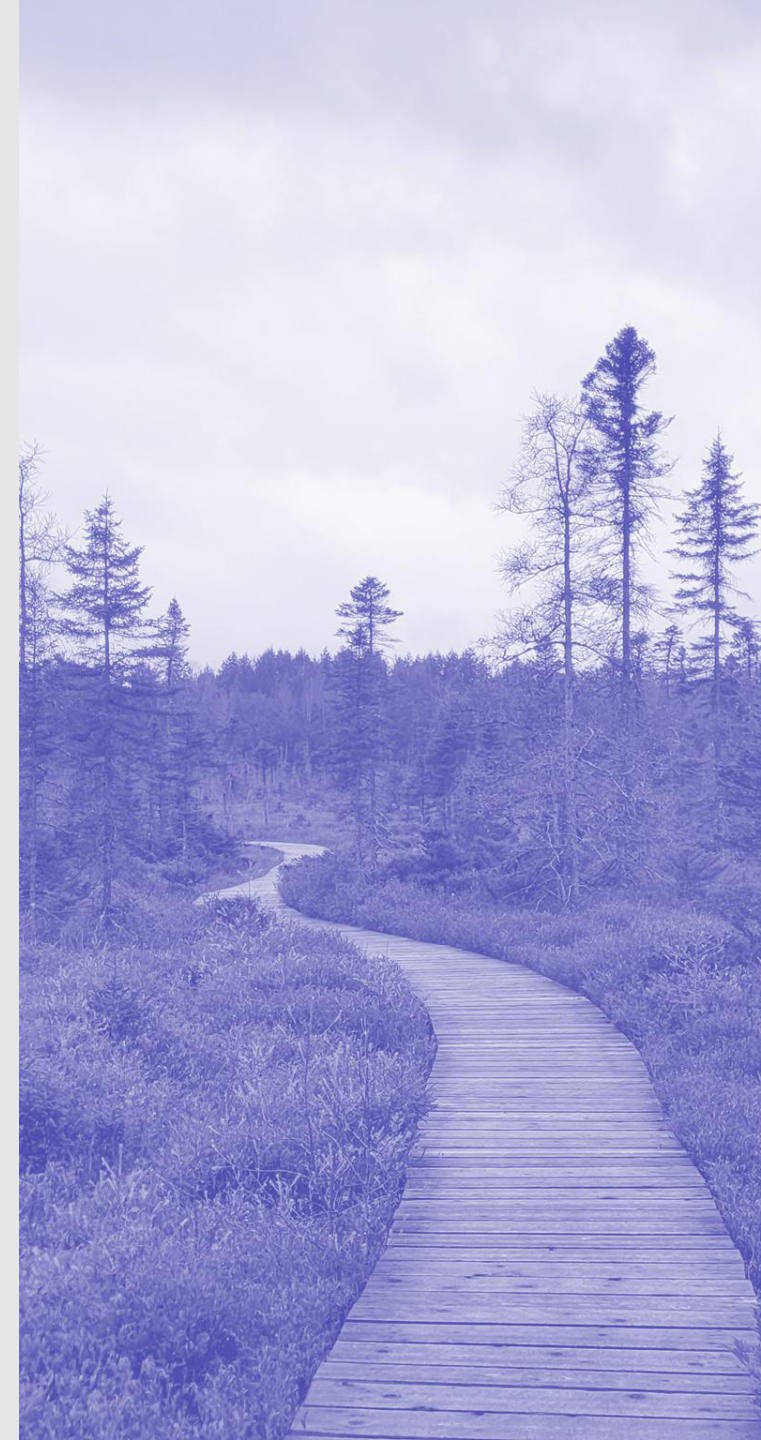
Identifying possible routes to achieve the circular mission

Once a circular mission is defined, regions can begin to explore how the current system could evolve to achieve that goal.

Transition roadmaps describe possible routes from the present system to the desired future state.

*For example, achieving a mission to transform agri-food by-products into higher-value circular uses may involve changes in collection systems, processing capacity, quality standards, regulation, procurement, investment and coordination across the regional value chain.*

**Transition roadmaps help regions explore different ways the system could transform over time.**



## 4

## Combining Different Policy Levers

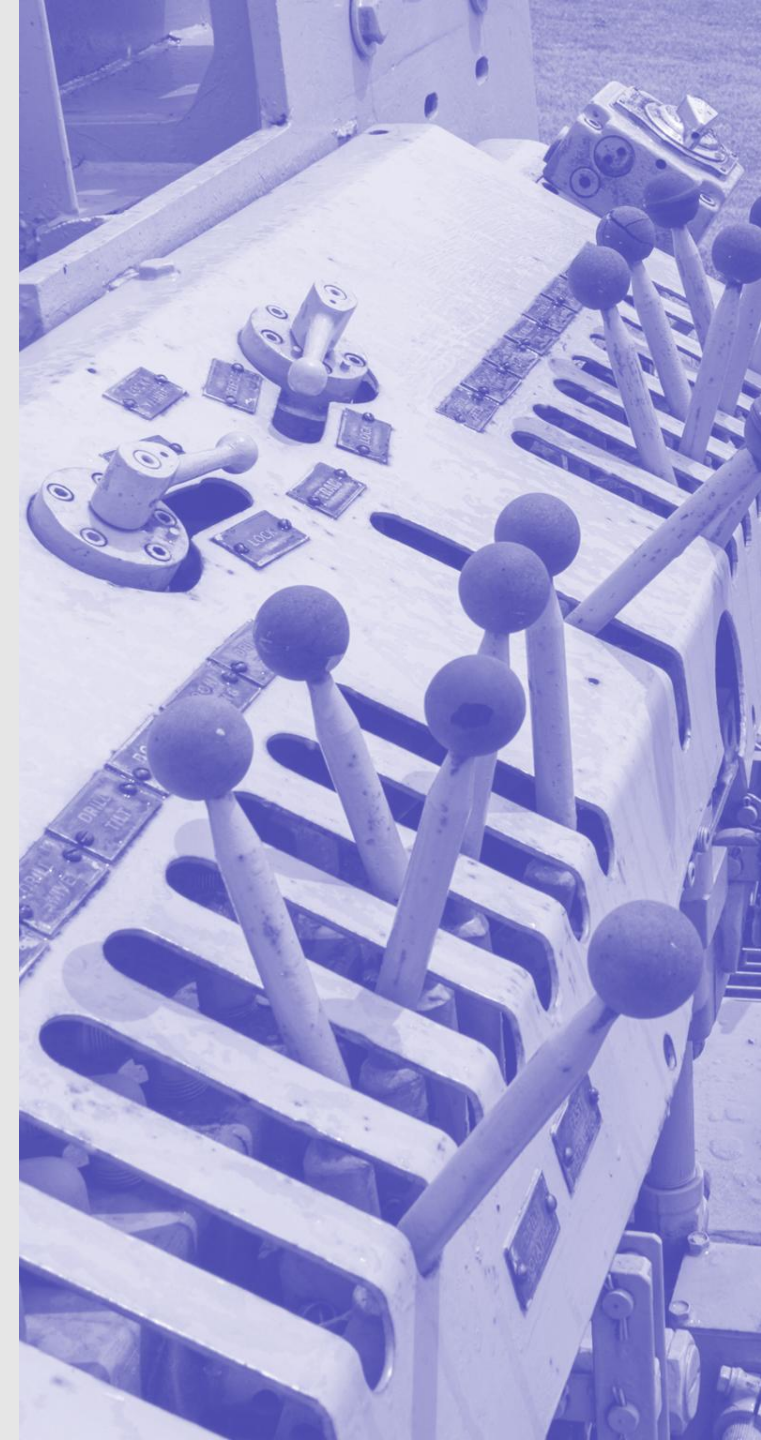
Shifting system dynamics through coordinated interventions

Circular transitions rarely happen through a single measure.

Regional authorities often need to **combine multiple instruments and initiatives**, such as innovation funding, infrastructure investment, regulation, public procurement or industrial collaboration.

Together, these can support value retention practices, improve resource efficiency, and enable circular solutions to move from isolated initiatives to wider systems change.

When these interventions reinforce each other, they can begin to shift the dynamics of the regional circular economy system.



## 4

## What a Transition Roadmap Looks Like

Shifting system dynamics through coordinated interventions

A transition roadmap is not a project list. It is a **structured narrative of system change over time**.

Think of it as:

Present system

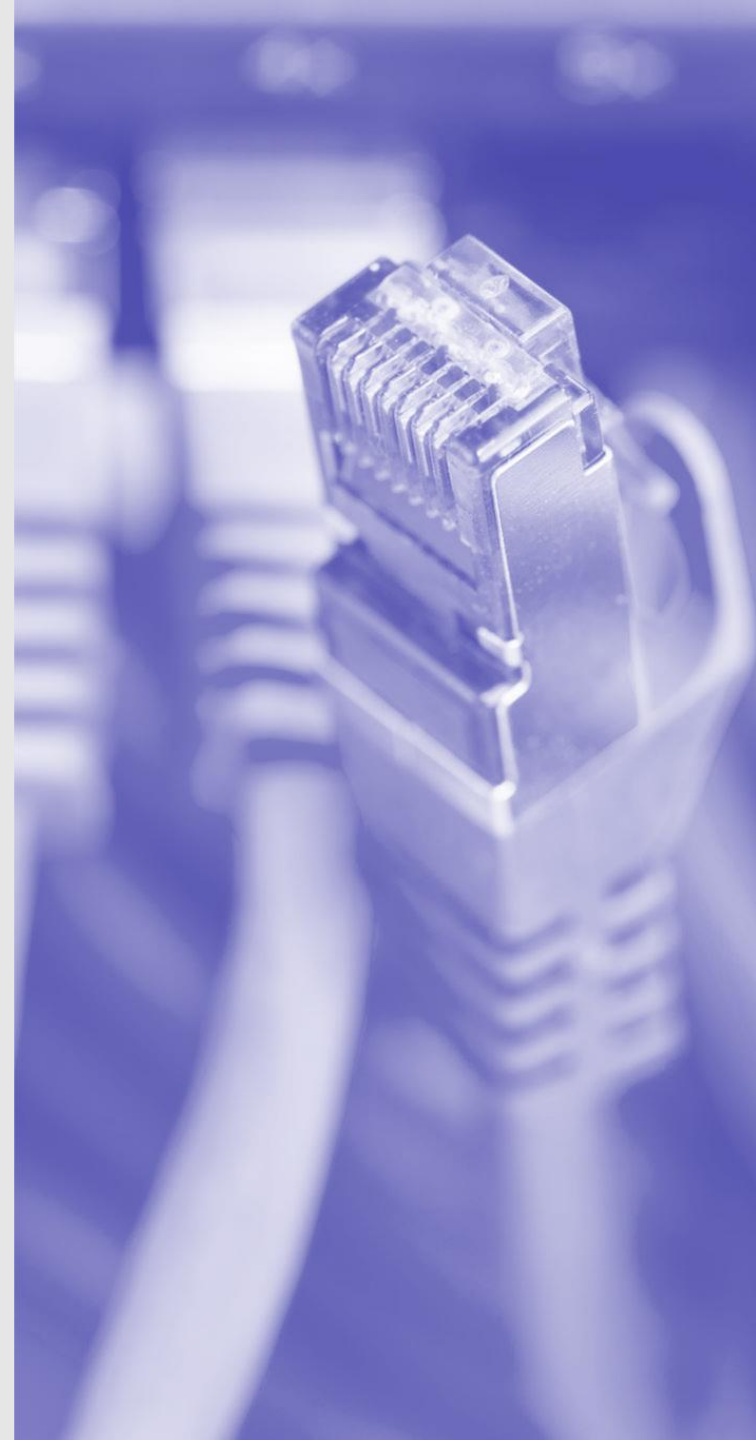
->

Key shifts

->

Future system

Only later do those shifts become concrete actions and initiatives.



## 4

# What a Transition Roadmap Looks Like

Shifting system dynamics through coordinated interventions

A roadmap usually describes 3 things:

## Key system shifts needed

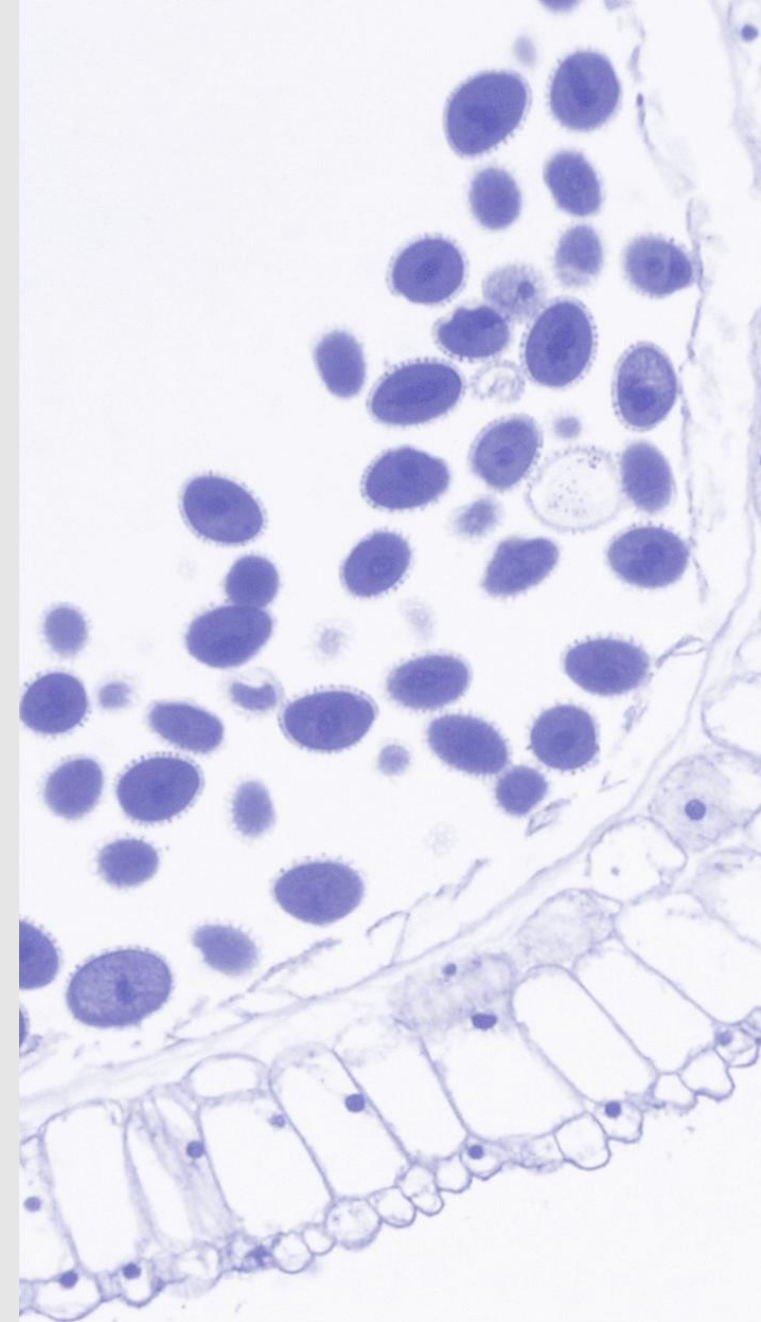
What must change in the system.

## Types of interventions

What kind of policies or initiatives could enable those shifts.

## Sequence over time

What likely happens earlier vs. Later.



## 4

## From Roadmaps to Action

### Preparing the ground for mission portfolios

Transition roadmaps help regions identify the types of initiatives and interventions that could contribute to the mission. They also highlight where existing practices, investments or regulations may need to be **phased out** to enable the transition.

This includes defining phase-out mechanisms — such as rules, incentives, procurement criteria or timelines that discourage linear practices while creating certainty for circular alternatives.

Roadmaps also clarify the enabling conditions needed to move forward, including how efforts will be coordinated, for example through a Transition Team or similar structure.

These insights can **then inform the development of coordinated portfolios of projects, phase-out mechanisms and governance arrangements**, will be explored in the next module.



# Pause and Reflect

## From mission to transition roadmap...

(It might be helpful to revisit the Regional Action Plan)

- **What are the key shifts your mission requires?**

What needs to change in your system over time to achieve the mission?

*(e.g., shift from low-value by-product use to higher-value circular applications; reduce waste; enable regional bio-based value chain)*

*(Use your insights in the system mapping to identify where change could have the greatest impact)*

- **What combination of interventions could enable these shifts?**

Consider both what needs to be put in place, and what may need to be phased out.

*(e.g., collection and logistics systems; processing infrastructure; quality standards; procurement criteria for secondary bio-based inputs; incentives for higher-value uses; phase-out of low-value disposal practices)*

- **How could this transition unfold over time?**

What is likely to happen first, next, and later.

*(e.g., map priority by-product streams; test valorization pilots; develop quality standards; scale processing capacity; expand demand through procurement and buyer commitments)*

# Setting Milestones and Targets

5

Tracking progress towards a circular place-based mission.

## 5

# From Roadmaps to Milestones

Breaking long-term goals into measurable steps

As **mission** defines the **long-term change** a region wants to achieve.

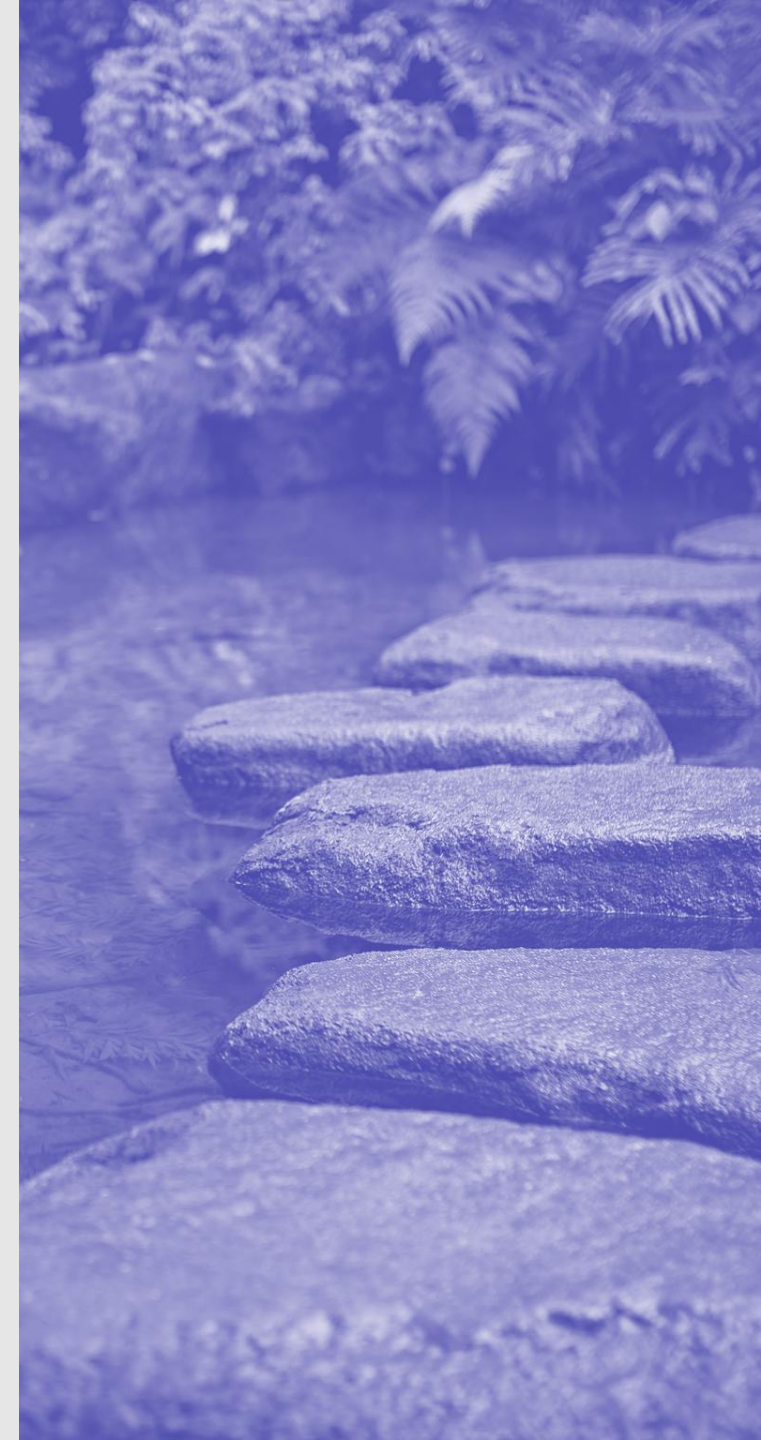
**Milestones** translate that mission into **intermediate checkpoints** along the transition roadmap. It involves selecting performance indicators, setting timelines, and anticipating risks and trade-offs.

*For example:*

**Mission:** *By 2035, transform at least 60% of priority agri-food by-products into higher-value circular uses across regional value chains.*

**Possible milestones could include:**

- *Priority by-product streams mapped across the region.*
- *2-3 valorization pilots launched with farmers, food processors and bio-based industries.*
- *Quality standards developed for selected secondary bio-based inputs*
- *First regional value-chain agreements established*
- *Share of by-products going to higher-value uses increases over time*



5

# Monitoring: What to?

Breaking long-term goals into measurable steps

Milestones are checkpoints that track progress toward outcomes and impact. **They are not just outputs.**

In traditional programs, milestones often track outputs (number of projects, platforms launched, funding distributed)

But in mission-oriented and place-based transitions, milestones should increasingly reflect outcomes and early impact.

**Outputs:** what we produce.

*Example: by-product mapping completed and processing infrastructure in place.*

**Outcome:** what changes because of it (behaviors, practices,...)

*Example: priority agri-food by-products are used in higher-value applications across regional value chains.*

**Impact:** the long-term system change

*Example: Reduced waste, lower reliance on virgin inputs, and stronger regional bioeconomy value chains.*



## 5

## Milestones Over Time

Circular transitions evolve through experimentation

Circular economy transitions involve uncertainty.

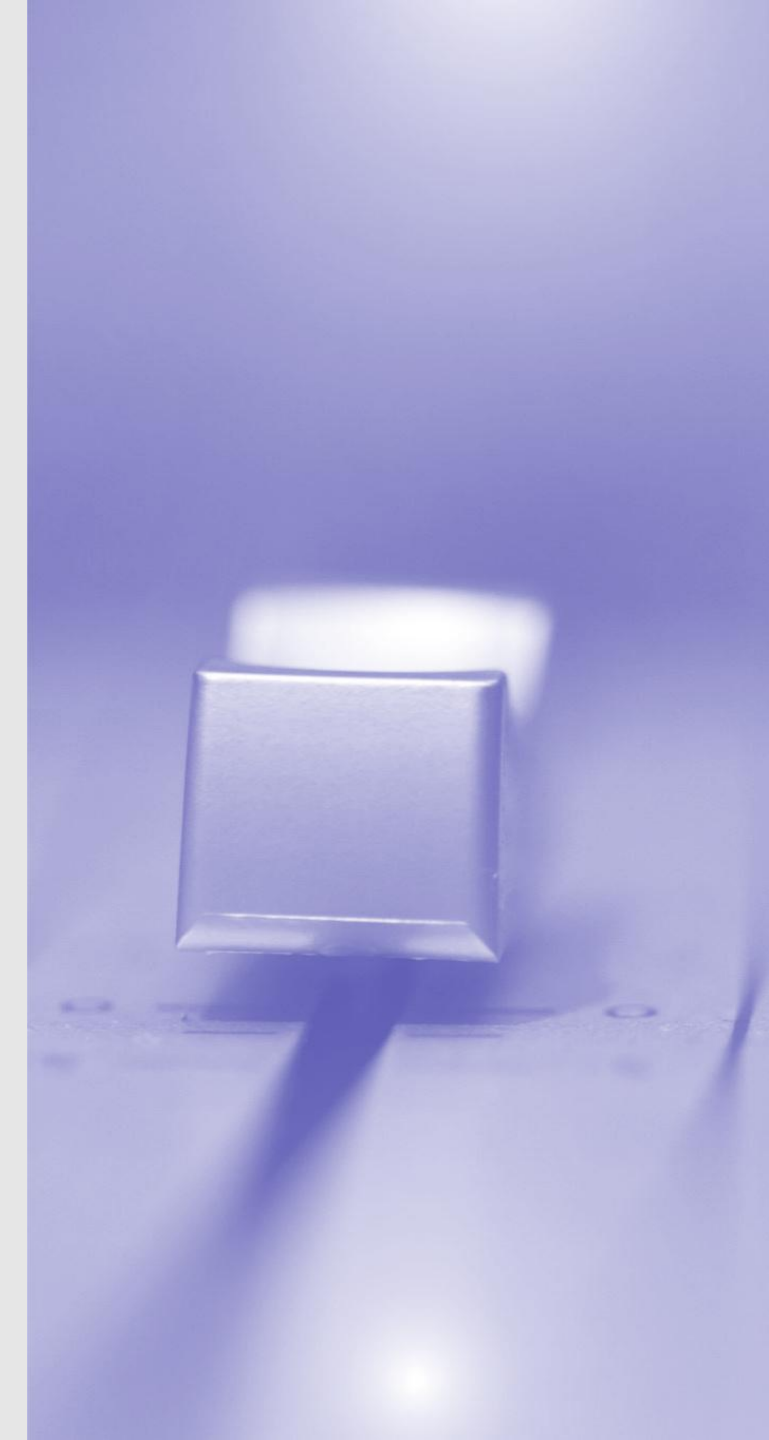
**Not all policies or initiatives will work as expected.**

Regions therefore need to treat the mission journey as a learning process, where pilot projects, experiments and early initiatives generate insights about what works and what needs to change.

*For example, a region tests higher-value uses for agri-food by-products, such as ingredients, animal feed, bio-based materials or fertilizers. Early uptake remains low because standards are unclear, processing capacity is limited and buyers are not yet confident.*

*Rather than scaling immediately, the region adapts its roadmap by prioritizing quality testing, buyer engagement and targeted investment before expanding further.*

These **lessons** help refine the transition roadmap and milestones over time.



## 5

# Adaptive Circular Economy Missions

Adjusting roadmaps as the system evolves

For this reason, mission-oriented transitions are not linear plans.

As regions implement initiatives, new opportunities, constraints and innovations may emerge. This means the roadmap may need to adapt over time.

By combining clear milestones with continuous learning, regions can steer circular transitions while remaining flexible to new knowledge and changing conditions.



# Pause and Reflect

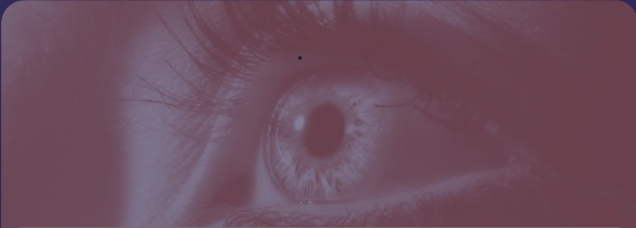
## Milestones

- What **early milestones** could help track progress toward a circular mission in your region?
- What **pilot projects or experiments** could help generate learning?

**Example:** *Early milestone for an agri-food by-products mission might include:*

- *Mapping priority by-product streams across the region*
- *Launching 2–3 valorization pilots with farmers, food processors and bio-based industries*
- *Developing quality standards for selected secondary bio-based inputs*
- *Establishing first buyer or value-chain agreements for higher-value uses*

# Structure of the Module



01

## Conceptual framing

Introduction to **key concepts** related to envisioning and foresight for circular economy transitions.



02

## Guided practice

A **self-guided activity** exploring future directions and developing a shared vision for circular transition in your region.



03

## Seeds of change from regions

Short **examples** showing how foresight and vision-building guide circular economy strategies.

# From Understanding to Direction

What can **I** start seeing differently in my region – **now**?

In the following slides you will find **practical entry points** you can activate immediately to explore possible futures, understand your current system, and shape a shared direction for circular transition in your region.

You will move step by step from future exploration to vision and mission direction. This process can start **within your team**, but it becomes **stronger when you involve the right actors** at the right moments.



# Practical Actions You Can Take

## Step 1. Start from your challenge or mission area

Purpose: To define a clear and shared starting point

Who: Core team

How: Internal Working Session

Clarify the focus of your circular transition:

- What challenge or value chain are you addressing?
- Why does it matter for your region?

*For example: circular construction, circular textiles, or bio-waste valorization.*

This is a framing step, usually done internally to create a starting point.

Tools: problem framing canvas (e.g., challenge statement), "How Might We...?" questions, ...

## Step 2. Explore Possible Futures

Purpose: To open up perspectives and avoid narrow framing

Who: Core team + diverse external perspectives  
Bring in: experts, innovators, cross-sector actors.

How: Foresight workshop or exploratory session (2-3 hours)

Look ahead and consider which trends, uncertainties, and emerging changes could shape the future of this challenge in your region. Ask:

- What changes could influence this system in the coming years?
- What futures seem possible, probable, or preferable, using the Futures Cone?

Tools: Futures Cone, Trends & Drivers Mapping, Scenario Exploration (light)

This step helps widen the conversation before narrowing into decisions. It can be done through a workshop or lighter conversations.

## Step 3. Understand the Current System

Purpose: To ground future thinking in how the system works today

Who: Core team + system actors

Bring in: practitioners, value chain actors, public authorities, and those directly affected by them.

How: System mapping workshop, working sessions or interviews

Explore **how the system functions today** by identifying:

- Key actors and relationships
- Material and value flows
- Policies, incentives, and behaviors shaping outcomes

Ask:

- What are the key elements and relationships in this system?
- What factors influence how the system behaves today?

Tools: System mapping (actors, flows), Value Chain Mapping, Causal Loop Diagrams (introduced in detail later in this Module)

This step helps ensure that future visions are grounded in real dynamics and constraints.

## Step 4. Identify patterns and leverage points

Purpose: To understand what drives current outcomes and where change is possible

Who: Core team + selected stakeholders

Bring in: actors with deep system knowledge and analytical perspectives.

How: Analytical working session (can be a smaller group)

Explore **how the system behaves over time by identifying:**

- Recurring patterns and trends
- Reinforcing and balancing dynamics
- Bottlenecks, tensions, and inefficiencies

Ask:

- What patterns keep repeating in this system?
- Where does the system get stuck or fail to change?
- Where could small changes lead to larger systemic shifts?

Tools: Iceberg Model, Causal Loop Diagrams (explained in detail later in this Module)

This step helps move from description of the system to **insights and strategic focus**.

## Step 5. Build a shared vision

Purpose: To create a common picture of a desirable and more circular future

Who: Broader group of stakeholders

Bring in: Key ecosystem actors, combining strategic and operational perspectives.

How: Co-creation workshop or facilitated group session.

Build on futures and systemic insights to define:

- What a more circular system could look like?
- What success means in your regional context
- What changes you would expect to see

Ask:

- What would a desirable future look like for this system?
- What would be different if we succeeded?
- What outcomes matter most for our region?

Tools: Visioning exercises, Backcasting

This step creates **alignment and shared ambition**.

## Step 6. Translate into a mission direction

Purpose: To turn a broad vision into a clear and actionable direction

Who: Core team + decision-makers + key partners  
Bring in: actors with strategic responsibility and capacity to act

How: Focused design and validation session.

Translate your vision into:

- A clearly defined challenge
- A measurable direction
- A timeframe and scope

Ask:

- What specific challenge can we focus on?
- How can we express this as a clear and measurable mission?
- What would success look like by a given year?

Tools: Mission Statement Template (earlier in this module), measurable targets

This step moves from vision to **direction and commitment**.

## Step 7. Identify pathways and milestones

Purpose: To connect direction with action and early progress

Who: Core team + implementers and enablers  
Bring in: program managers, funders, innovation actors

How: Smaller working sessions or technical discussions.

Identify:

- Key system shifts required
- Early milestones and signals of progress
- Initial actions or intervention areas

Ask:

- What needs to change in the system to move in this direction?
- What early signals would show progress?
- Where could we start acting now?

Tools: Theory of Change (light), Milestones Mapping

This step begins to translate direction into **actionable pathways**.

## Step 8. Prepare for collective action

Purpose: To ensure the roadmap is ready to be taken forward by the regional and interregional ecosystem.

Focus:

- Clarify who needs to be involved moving forward
- Identify key partners and roles (without defining full actions yet)
- Spot opportunities for interregional collaboration and learning (ECIV)
- Ensure ownership beyond the core team.

Ask:

- Who needs to be part of delivering this circular transition?
- What roles could different actors play?
- Where could collaboration with other regions strengthen this work?

This step prepares the ground for translating roadmaps into coordinated actions in the next phase.

**Shared direction does not emerge  
by accident—  
it is intentionally and  
collaboratively shaped**

# Practical Tools for System Mapping: System & Causal Loops canvas

Previously in this Module, we have explored **what** a system is and **why** understanding it matters for our regional circular transition.

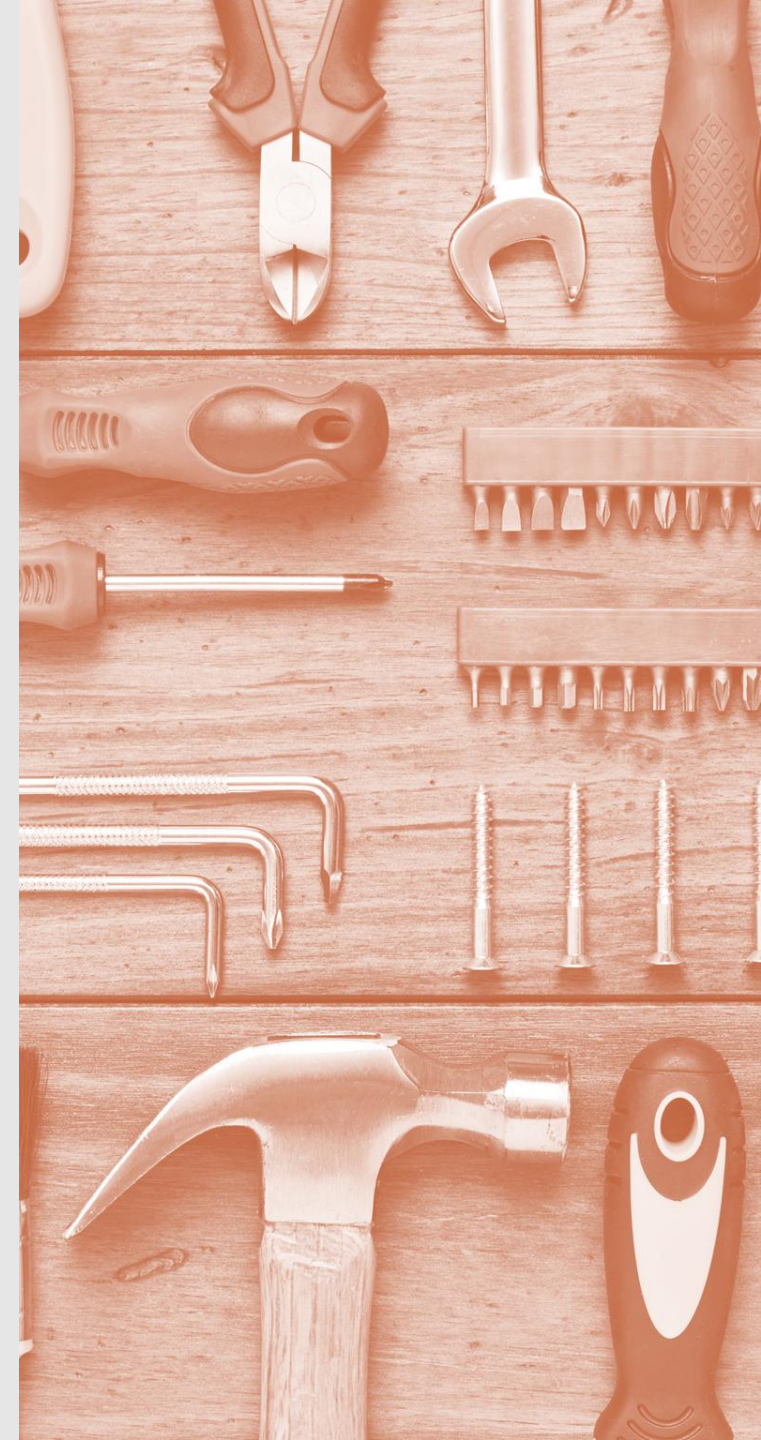
Now we move to **how** to map the system in practice.

In this module we will use Causal Loop Diagrams to see how the parts form the whole and how feedback loops drive the behavior of the system

Developing Causal Loop Diagrams support you to:

- Make the **ecosystem** visible.
- Establish a **purpose**
- Clarify **variables and relationships**
- Understand how **changes in one part affect the whole**
- Identify where **change could be unlocked**

All canvases can be found in this [Miro board](#).



### Step 1: Review your system, it's purpose and starting variables

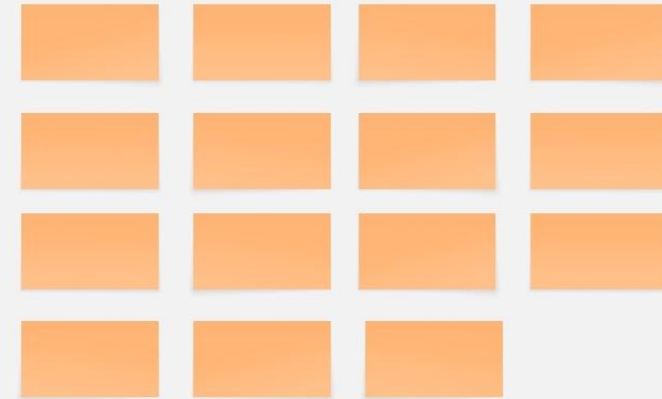
**Topic:**  
XXXXXX

**PURPOSE:**  
XXXXXXXXXXXXXX

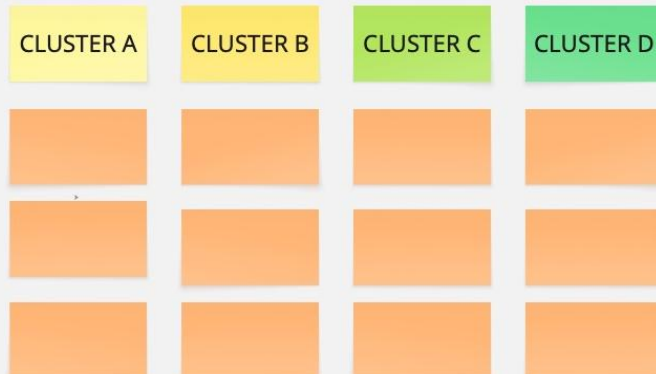
**STARTING VARIABLES:**

XXXXX    XXXX    XXXXX    XXXXXX

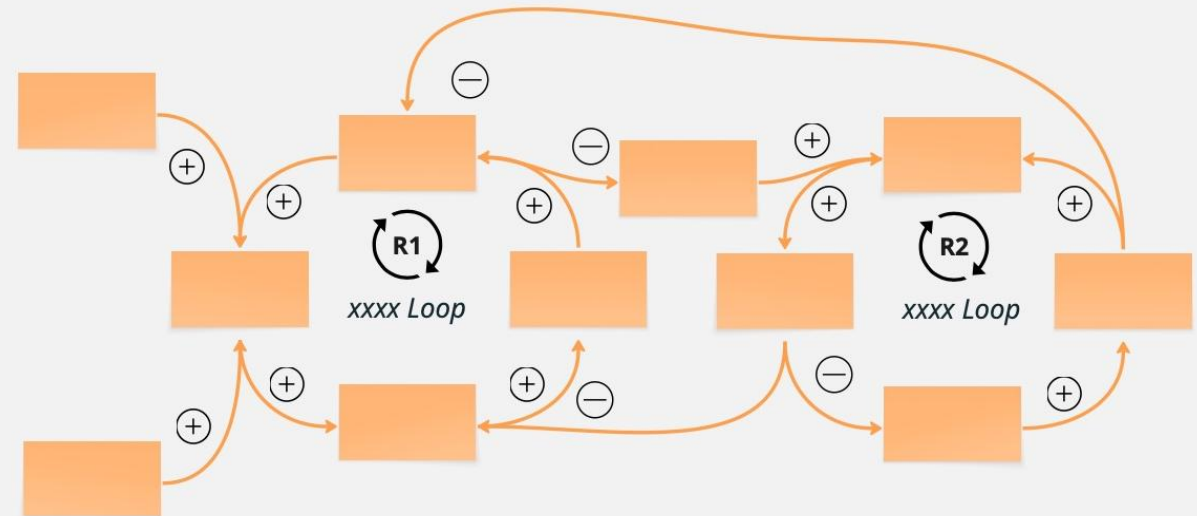
### Step 2: Brainstorm Additional Variables



### Step 3: Map a Small Cluster



### Step 4: Draw Causal Connections Identify Feedback Loops



# Map the System & Causal Loops

See how the parts form the whole and how feedback loops drive the behavior of the system

## Step 1: Review your system, it's purpose and starting variables

Review your region's **purpose** and **starting variables**.

Clarify:

- What sub-system are you mapping?
- What do you hope to understand or reveal?

Example:

**Topic: Regional Circular Economy Initiatives**

### **PURPOSE:**

*Identify system conditions for scaling local circular business models.*

### **STARTING VARIABLES:**

- Access to circular funding
- Quantities in areas
- Availability of repair/reuse facilities
- Regulatory support for circular practices
- Knowledge sharing platforms

**Step 1: Review your system, it's purpose and starting variables**

**Topic:**  
**XXXXXX**

**PURPOSE:**

XXXXXXXXXXXXXXXX

**STARTING VARIABLES:**

XXXXXX

XXXXX

XXXXXX

XXXXXXX

# Map the System & Causal Loops

See how the parts form the whole and how feedback loops drive the behavior of the system

## Step 2: Brainstorm Additional Variables

*Start with the 1–2 variables identified*

- Ask: What other elements influence or are influenced by these?
- Think about **actors, behaviors, policies, resources, norms, technologies**, etc.
- Aim for at least 6–10 meaningful variables. Capture each as a **short, clear phrase** (e.g., “Energy prices,” “Public awareness,” “Waste recycling rate”).

### Example:

- Market offer
- Lack of consumers awareness
- Collaborative ecosystem
- Not unified regulation within the regions in Europe
- Reuse timing
- Economic and policy factors
- Sustainability maturity in businesses
- Market demand
- Available technology
- Map of unused resources
- Regulatory barriers
- Different regional criteria to EU regulation
- Scale economy is not a reality
- Institutions ready for the Circular Transition
- Option of combine funds

## Step 2: Brainstorm Additional Variables

|  |  |  |  |
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# Map the System & Causal Loops

See how the parts form the whole and how feedback loops drive the behavior of the system

## Step 3: Map a Small Cluster

From your list, choose a small group of 4-6 **interconnected variables**. Copy them and arrange them with space on your Miro space.

- Ask: **Which variables influence each other most directly?**

Example:

### Market & Demand

- Consumers behavior
- Lack of consumers awareness

### Technology & Innovation

- Available technology

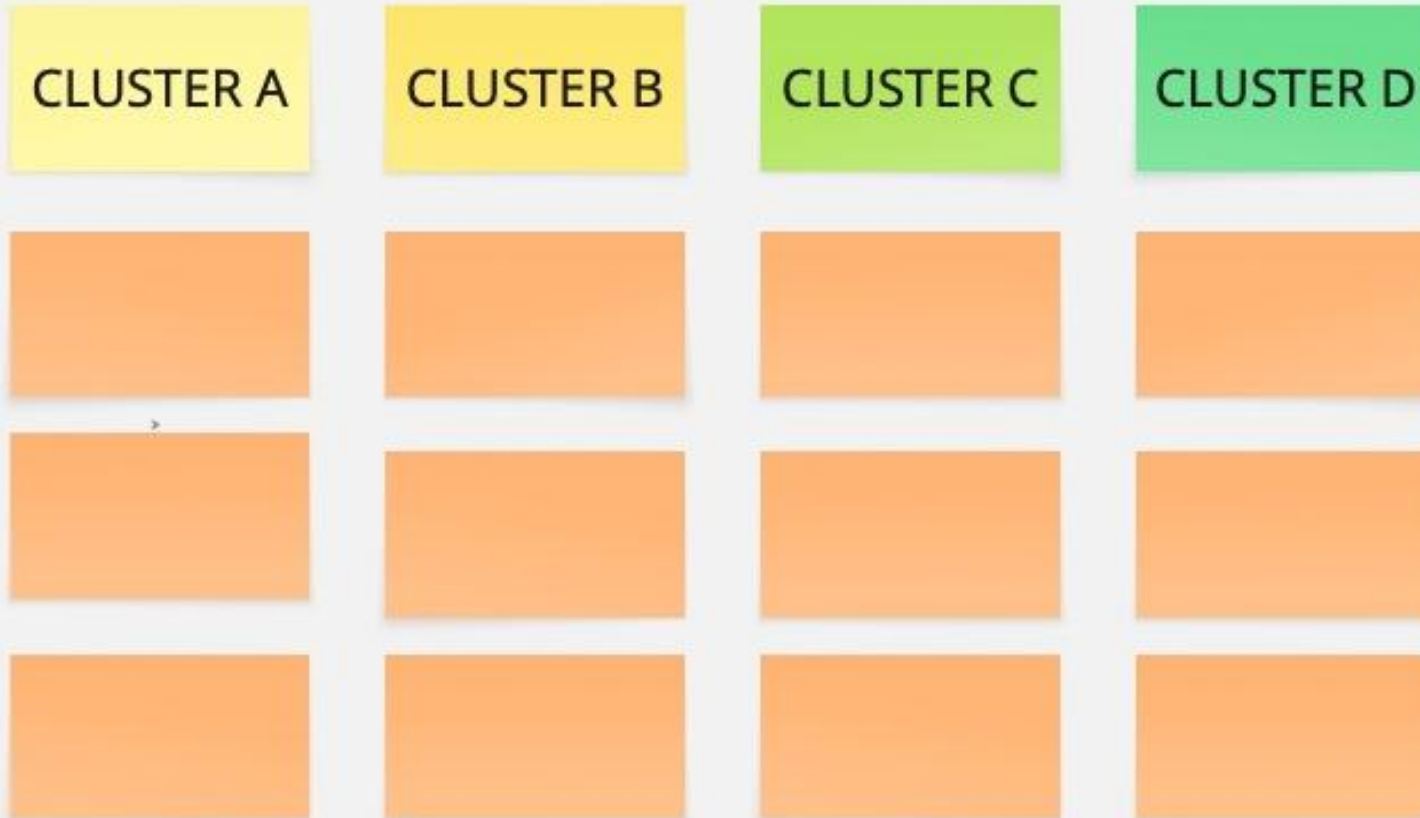
### Regulatory & Policy

- Not unified regulation within the regions in Europe/Regulatory barriers
- Different regional criteria to EU regulation

### Business & Operations

- Sustainability maturity in businesses
- Scale economy is not a reality

### Step 3: Map a Small Cluster



# Map the System & Causal Loops

See how the parts form the whole and how feedback loops drive the behavior of the system

## Step 4: Draw Causal Connections / Identify Feedback Loops

Draw **arrows** between variables to show cause-effect relationships.

- Add a **“+” sign** if the variables move in the same direction (e.g.,  $\uparrow A \rightarrow \uparrow B = A \text{ increases } B$ ).
- Add a **“-” sign** if they move in opposite directions (e.g.,  $\uparrow A \rightarrow \downarrow B = A \text{ decreases } B$ ).
- Look for **closed loops** where a variable eventually feeds back to influence itself.
- Give the loop a meaningful name that describes the dynamic (e.g., “Awareness loop,” “Innovation lock-in,” “Resource depletion”)



# Map the System & Causal Loops

See how the parts form the whole and how feedback loops drive the behavior of the system

## Step 6: Reflect Together

*Once your map is complete, take a few minutes to discuss as a group:*

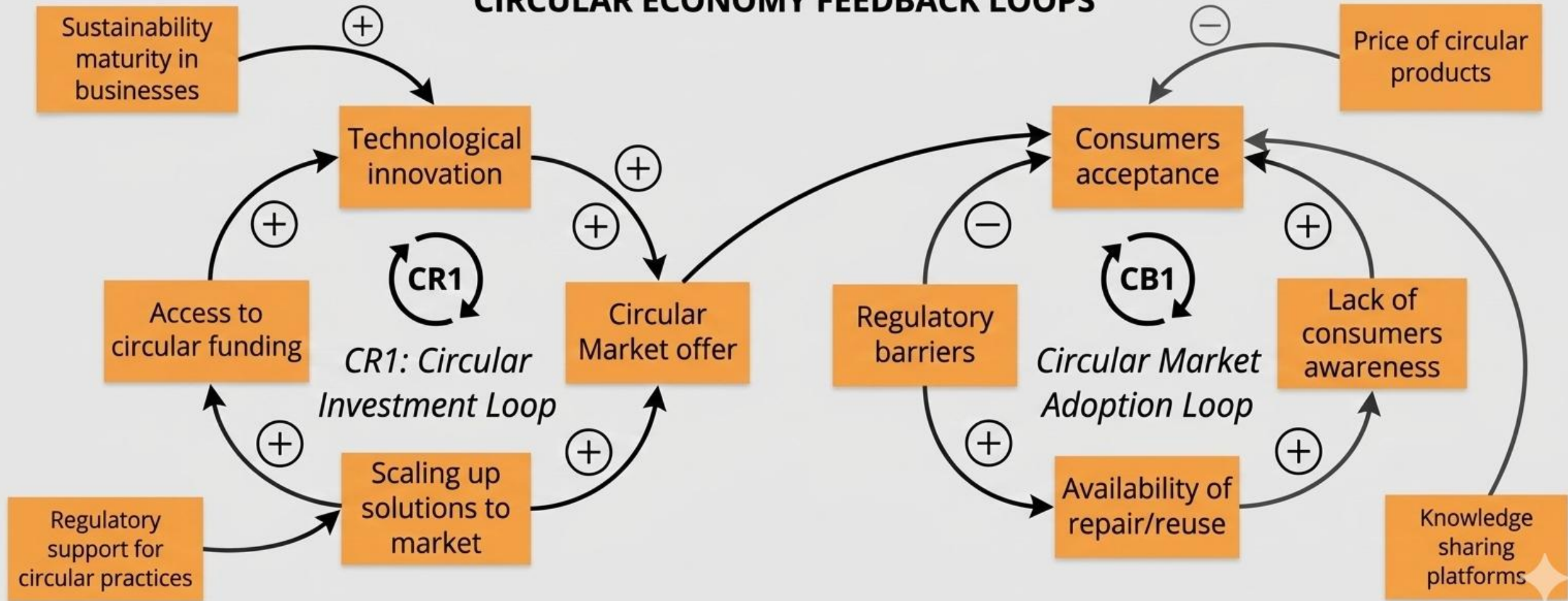
- *What insights emerged from your system map? What surprised you?*
- *What new possibilities for change became visible through mapping?*
- *How might this system behave differently in your desired future?*

## Example:

Here are the same questions adapted to the topic of your circular economy system map:

- What insights emerged from mapping the dynamics of circular economy markets?  
→ For example, you may realize that improving consumer awareness or reducing regulatory barriers could shift the system toward stronger market demand and innovation in circular products.
- What surprised you about the relationships within the circular economy system?  
→ For example, the reinforcing interaction between technological innovation, market offer, and consumer awareness, and how both supportive policies and barriers can strongly shape these loops.
- What new leverage points or opportunities for change became visible in the system?  
→ For example, intervening at consumer awareness, regulatory frameworks, collaborative ecosystems, or technological innovation to accelerate the transition to circular markets.
- How might this circular economy system behave differently in your desired future?  
→ For example, lower prices of circular products, stronger market demand, supportive regulations, and increased innovation, leading to a more self-reinforcing and scalable circular economy.

## CIRCULAR ECONOMY FEEDBACK LOOPS



# Other activities and resources

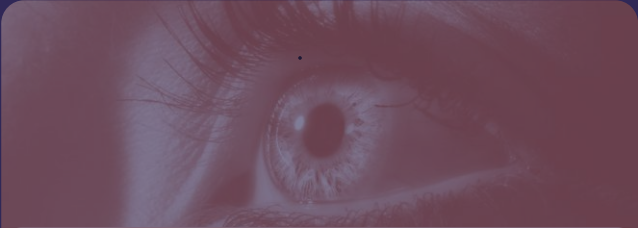
## Resources

- [Participatory Foresight and Reflexive Innovation](#)  
Explores how participatory foresight can support mission-oriented policy by bringing citizens' perspectives and diverse future imaginaries into innovation strategies.
- [Foresight: our new guide to how it could work for you](#)  
A practical EU Policy Lab guide introducing foresight tools that help policymakers navigate uncertainty, build shared visions, and choose suitable approaches.
- [Towards a fair and sustainable Europe 2050: Social and economic choices in sustainability transitions \(JRC, 2023\)](#)  
A JRC foresight study presenting four scenarios for a climate-neutral Europe, offering inspiration for long-term sustainability transitions and participatory futures work.
- [Causal Loop Diagrams](#) explained.

## Complementary Activities

- [Futures Triangle](#). Participants identify the forces shaping the future of their circular economy challenge: the desired future pulling the system forward, the current pressures pushing change, and the legacy structures holding the system back.
- [Berkana Two Loops Model](#). Participants map the dominant linear system that is losing relevance, the emerging circular practices that need support, and the transition roles required to connect, protect and strengthen new ways of working.
- [Berkana Two Loops Model](#) explained in a video.

# Structure of the Module



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Short **examples** showing how foresight and vision-building guide circular economy strategies.



## Case Study:

# Plastic Patrol Blekinge Mission Oriented Innovation

### Key Information

- **Region:** *Blekinge*
- **Country:** Sweden
- **Promoter:** *Regional Government, Department of Growth*
- **Partnership:** (1) Pre-study: Region Blekinge, national authorities, universities, procurement and industrial cluster. (2) Pilot: wide range of stakeholders.
- **Time-framework:**  
(1) Pre-study 2025;  
(2) Pilot Feb- June 2026
- **Resources:**  
(1) Pre-study: no financial resources.  
(2) Pilot: 30 teur
- **Team:**  
(1) Pre-study: 2 strategist part-time.  
(2) Pilot: innovation leader part-time

# Overall Program:

## Overarching Program/Strategy:

Blekinges Smart specialization strategy points out missions as one of our focus areas. Blekinge has missions as one of three smart specialization areas. The pre-study aims at taking a global mission and set it in our regional context- plastic in the sea. What does plastic in the sea problem looks like in Blekinge? What is our regional challenge? Where in the system and who is most important to make a change?

Rise awareness of areas where Blekinge need change and make it easier for actors to act.

## Thematic Focus:

EUs mission ocean and the objective preventing and eliminating ocean, seas and water by reducing plastic litter at sea by at least 50% and reduce microplastic by at least 30%.

## Impact:

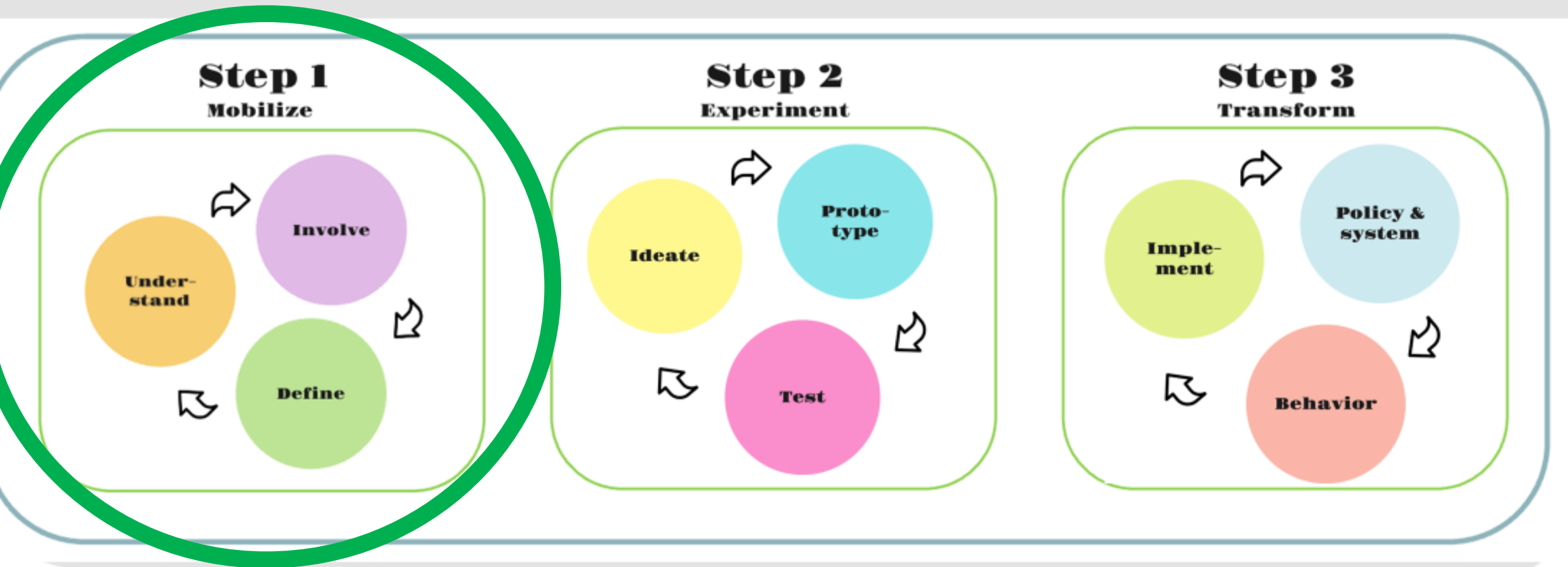
More knowledge about the problem in a regional context to find out the next step

Involve actors, rise awareness of the mission and make a pilot "Reducing flying plastic". The first steps toward reducing plastic in the Baltic.

## Collaborative approach:

Include different perspectives/experts in the pre-study. Include wider range of stakeholders in the pilot.

# A framework for Mission-oriented innovation



# Envisioning Activity: Pre-study

**Focus Activity:** Find out how to take the mission into a regional context by mapping different part of the system and actors.

Workshop with national authorities, researchers from 3 universities, industrial cluster and procurement. Mostly focusing on what does the system look like in Blekinge and where can we start making a change what will be the next step.

**Purpose:** Better knowledge about the problem in Blekinge and what part of the system we could start making an impact. To involve actors, rise awareness and point out areas for pilots.

**Impact:** the pre-study is a ground for pilots and the impact is to enable pilots

**Who is involved:** Researchers, National authorities, Regional actors. The promoter is innovation strategist at Region Blekinge

# Envisioning Activity: Innovation Pilot on flying plastics

**Focus Activity:** The pilot will create a temporary testbed at a public recycling facility and engage staff and users in the challenge of plastics leaking from the facility due to wind, birds and other factors.

**Purpose:** The purpose of the pilot is primarily to engage citizens and different stakeholder groups in addressing a focused challenge connected to the larger challenge of plastic. Ultimately, the pilot will render prototypes for innovative solutions at the specific site.

**Impact:** This pilot is a small first step in testing our method for Mission-driven innovation. The main impact will probably be connected to communication on the challenge, stakeholder engagement and learning on Mission-driven innovation in practice.

**Who is involved:** Local waste management company, citizens/users and students, NGO's, Researchers, National authorities' Regional actors



# Envisioning Activity:

## Timeline:

8 months, digital workshops and meetings, writing and problematizing i.e., what is circularity for deeper understanding.

## Results:

Defining step 2 “experimenting” – “flying plastic” and “storm water”

A written report – spreading and engaging actors to act via digital forum.

Challenges with circularity:

- Circularity not always sustainable (transport)
- Circularity needs resources
- Limited quantity of materials to circulate
- Risk hindering transformative innovation upstream
- Some materials shouldn't circulate

# Envisioning Activity:

## Learnings:

Great mix of participants. We had an idea of whom we needed and what they could gain of being a part of the work

To take time to understand the system and to allow yourself to problematize definitions i.e., circularity.

**Tips for other peers:** Set aside time for understanding the mission in your regional context. Allow yourself time to analyze your regional system to make the most impactful interventions. “one size fits no one” – you have to find your regional unique conditions.

## Contact Person:

Lottie Dahl Ryde, [Lottie.dahlryde@regionblekinge.se](mailto:Lottie.dahlryde@regionblekinge.se)

Daniel Sköld, [Daniel.eurosolution@gmail.com](mailto:Daniel.eurosolution@gmail.com)

# Blekinge – a region on a mission

Innovation in Blekinge – EU Regional Innovation Valley - Business  
Blekinge



Blekinge - a region on a mission



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