



# **Circular Economy and Education**

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Circular Economy is...



**And... Why is  
linearity a problem?**



# A linear economy

## A NEED FOR CIRCULARITY

**12%** Materials used in the EU come from recycling

**+90** tonnes of materials are extracted and processed, including plastics, textiles, food, electronics.

**x2** Global consumption of materials in the next 40 years

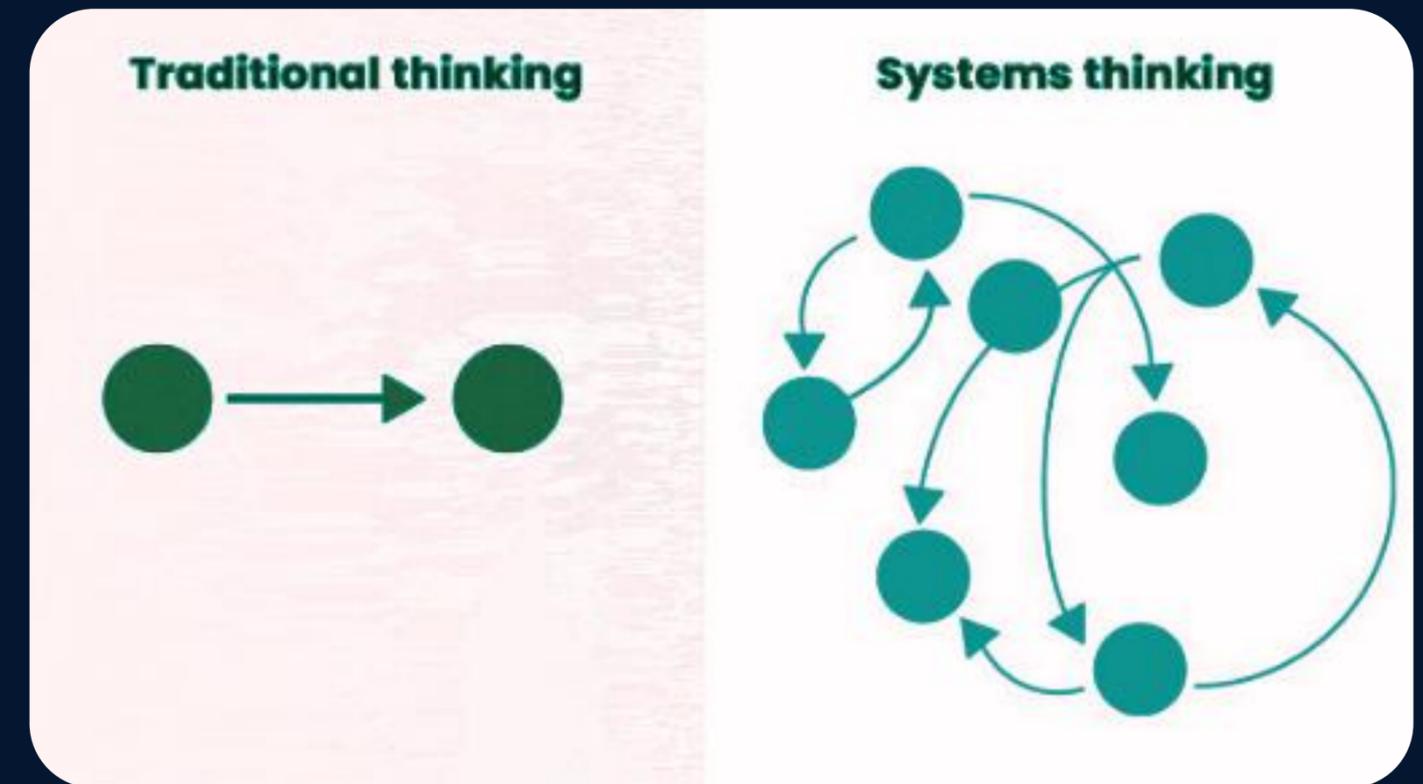
**+70%** Annual waste production by 2050

# The circular paradigm

## A NEED FOR SYSTEMIC TRANSITION

### SYSTEMS THINKING IS ...

“... a **holistic** approach to analysis that focuses on the way that a system's constituent parts **interrelate** and how systems work over time and within the context of larger systems.”



Source:

<https://www.fawco.org/global-issues/environment/environment-articles/4561-thinking-in-systems-with-donella-meadows-for-the-future-of-our-planet>

# **We need to regenerate**

People

Businesses

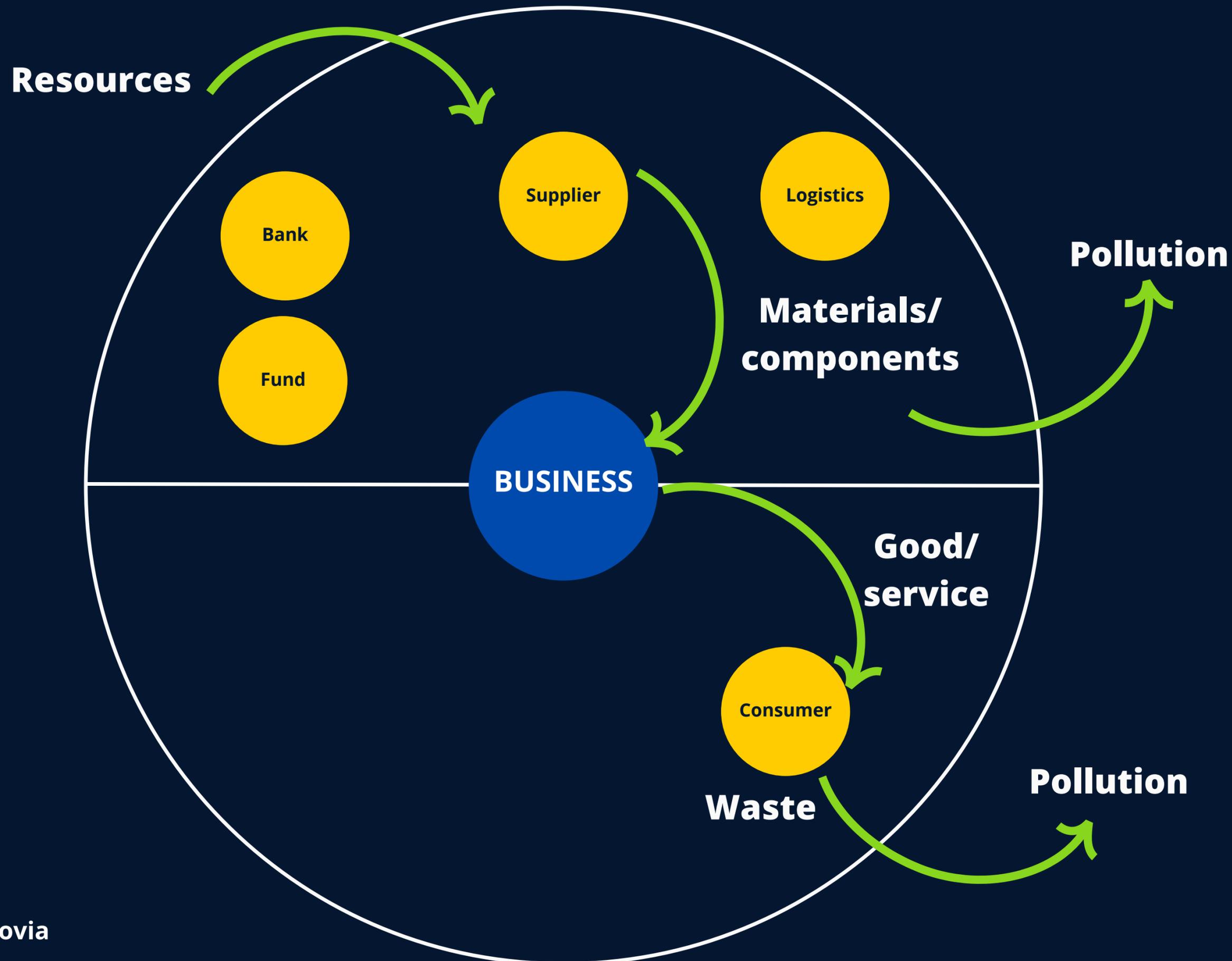
Economy

Markets

Countries

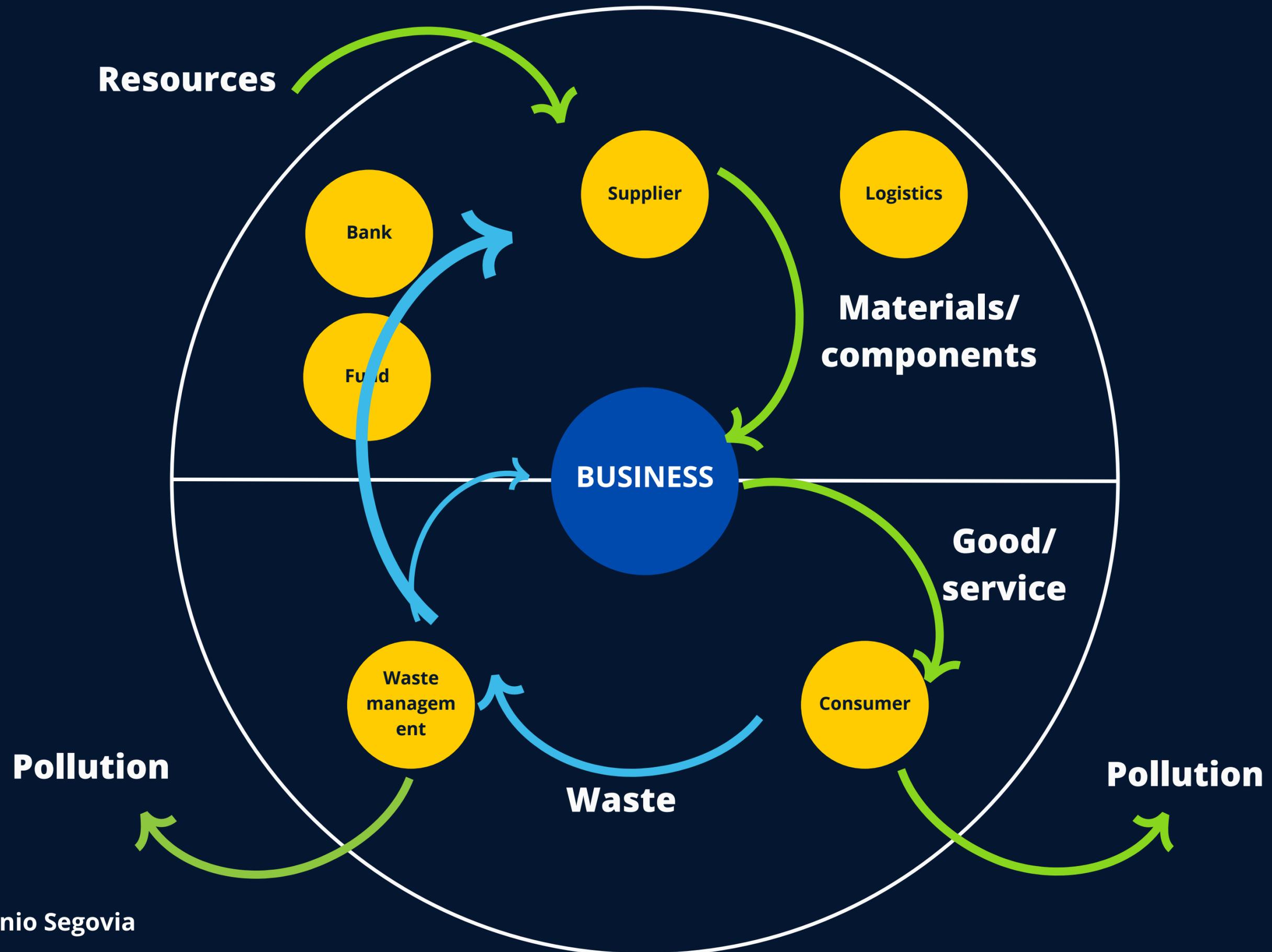


Linear



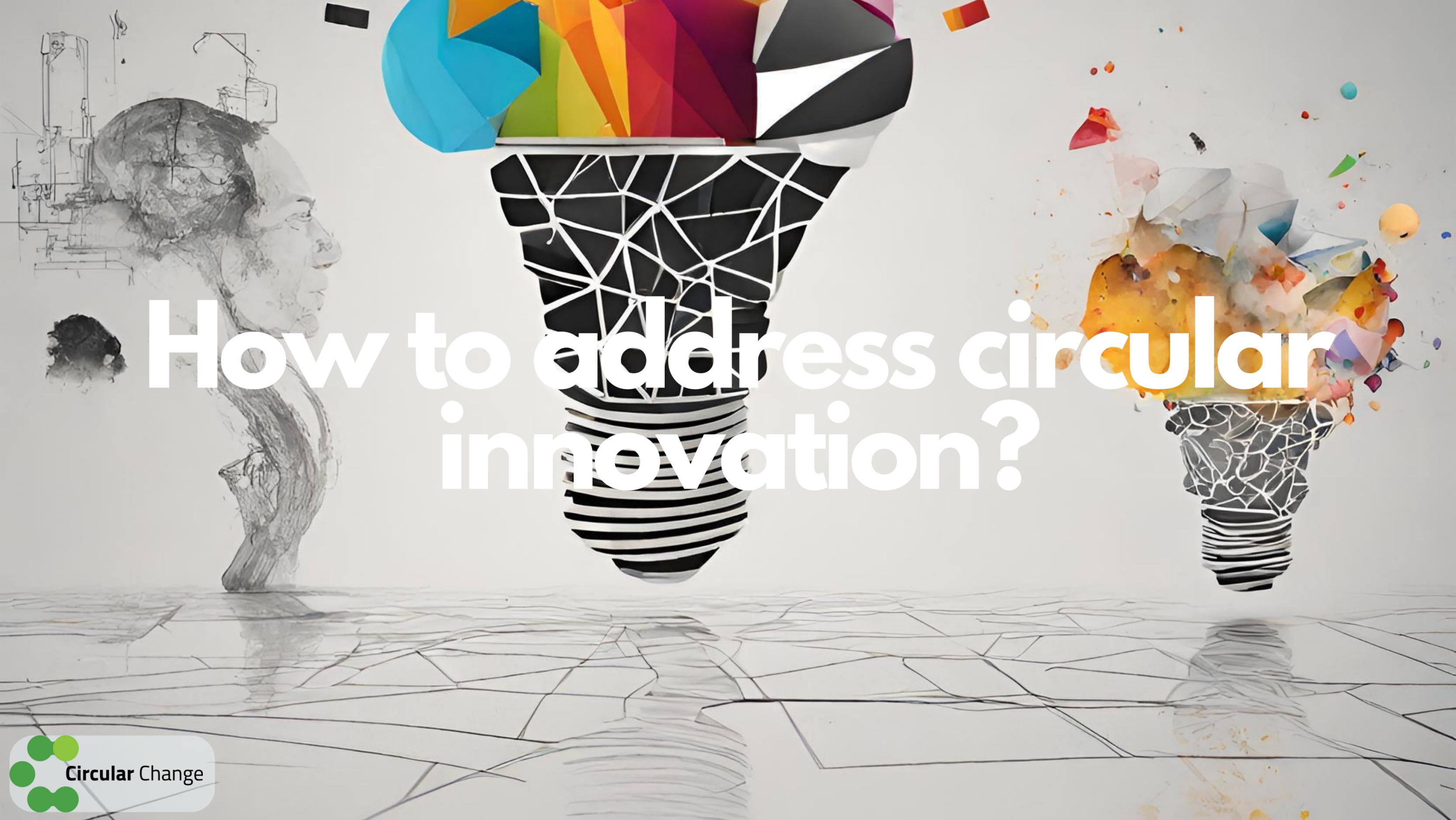
The background features a complex pattern of glowing, reddish-pink lines that swirl and curve across a dark, almost black, field. The lines vary in thickness and brightness, creating a sense of depth and movement. The overall effect is reminiscent of a fiber optic network or a dynamic, abstract circular design.

**Circular**



A landscape photograph showing multiple layers of mountains receding into the distance. The sky is a soft, hazy pink and orange, suggesting a sunset or sunrise. The foreground is a dark, green, grassy hillside. The text "Multilayered issue" is overlaid in the center in a bold, white, sans-serif font. The word "Multilayered" is on the top line and "issue" is on the bottom line, both in lowercase. The text is centered horizontally and vertically.

# Multilayered issue



# How to address circular innovation?

# Social, ecosystem and business innovation

**Stakeholder ecosystems**

**Business**

**Orchestration**

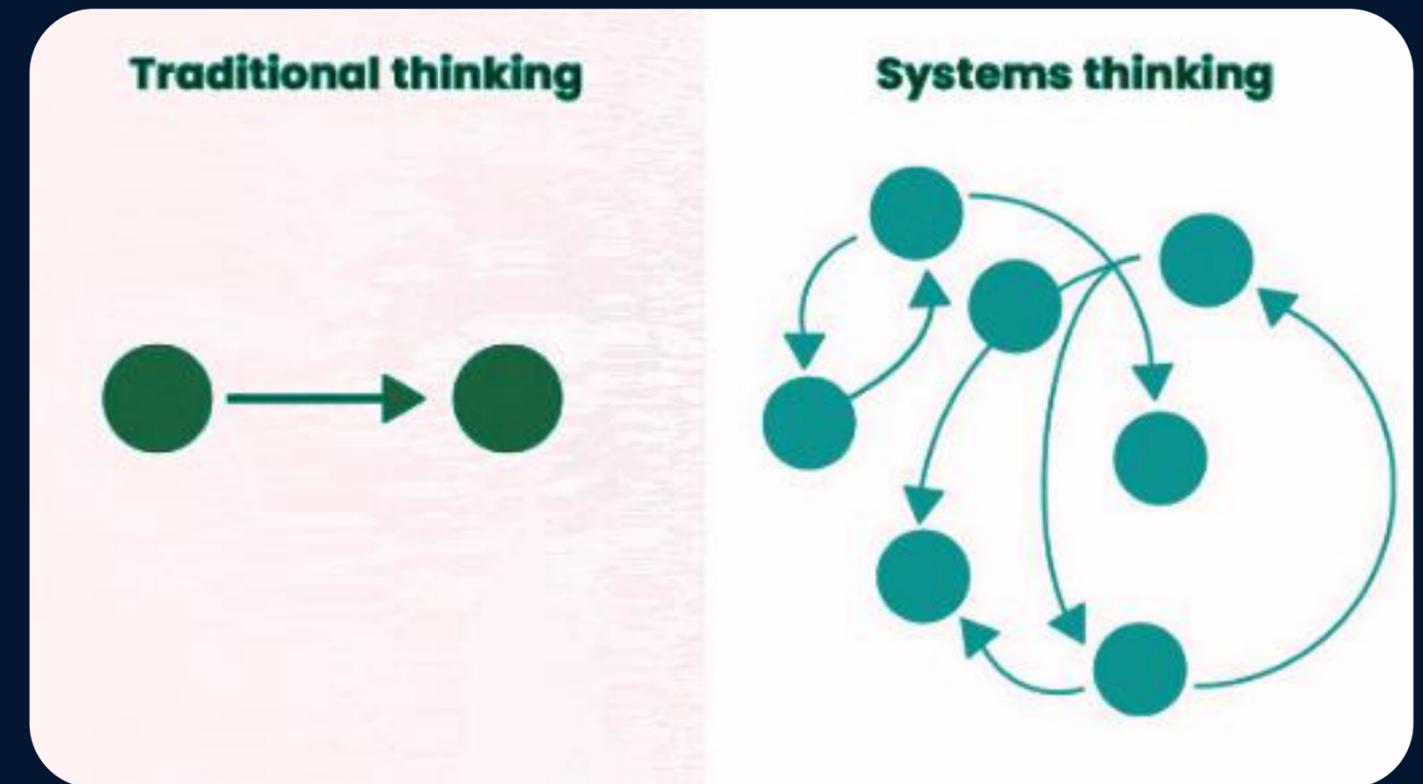


# The circular paradigm

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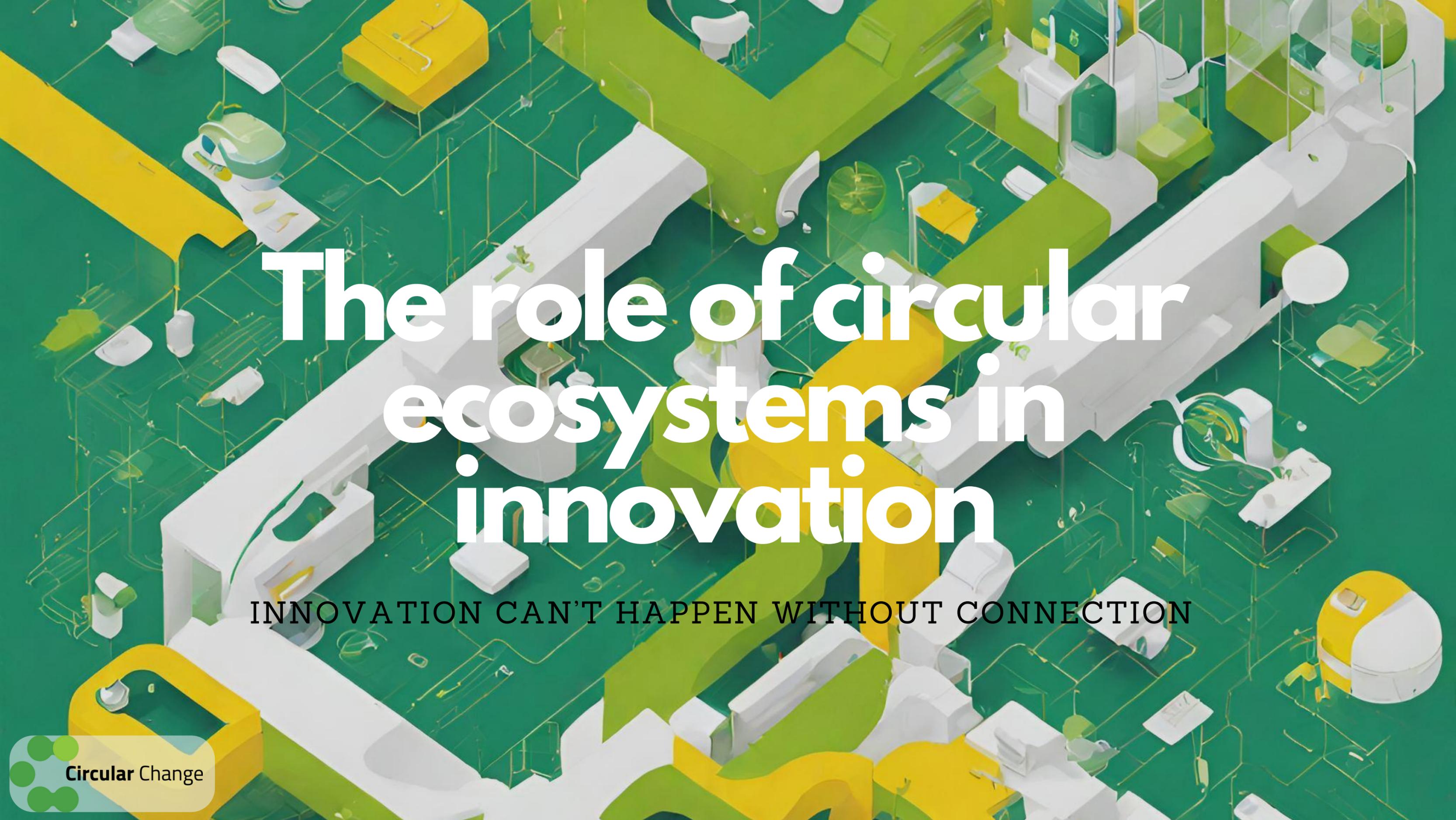
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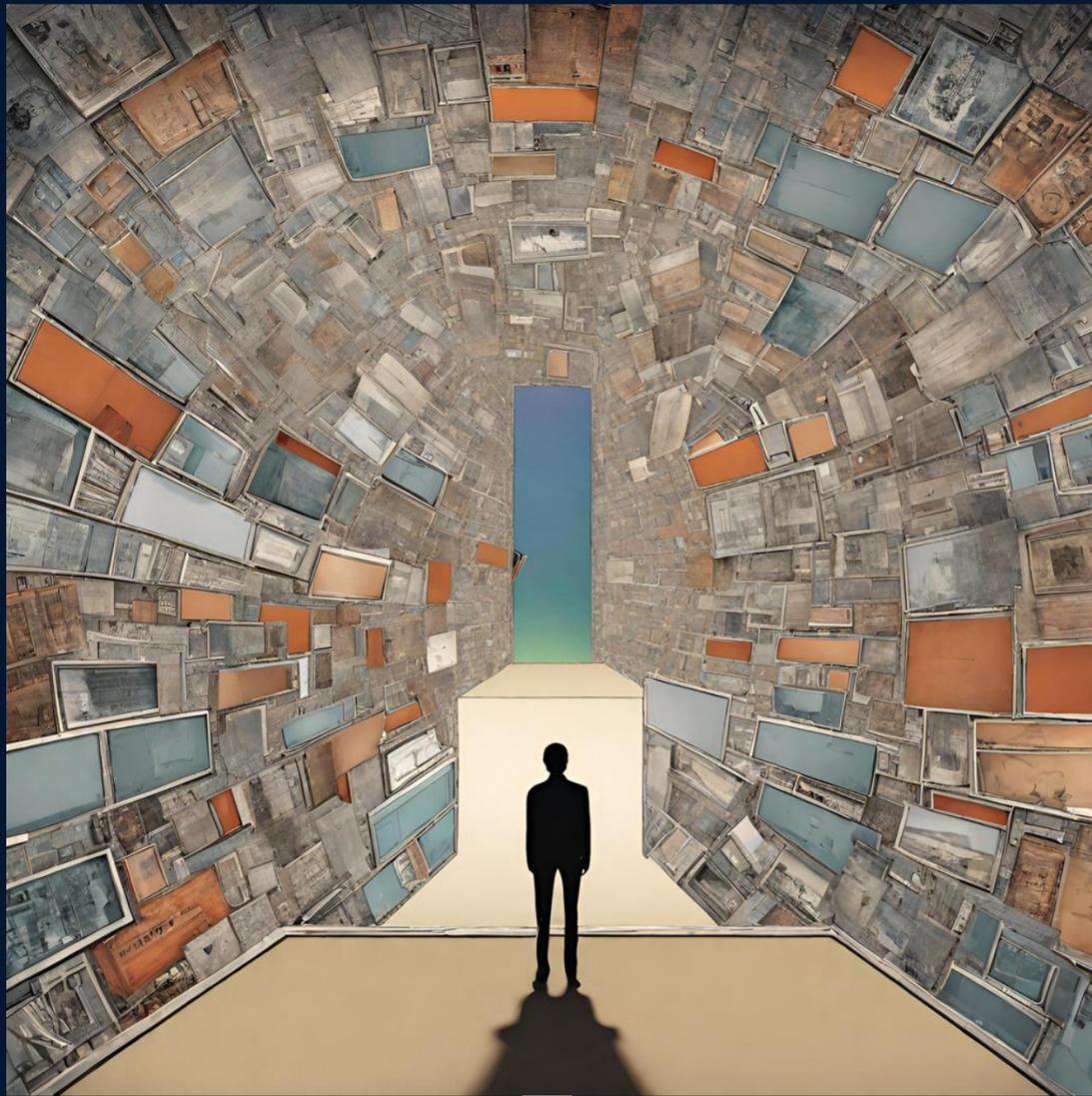
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# The role of circular ecosystems in innovation

INNOVATION CAN'T HAPPEN WITHOUT CONNECTION



**Where am I?**

**What resources do I need?**

**Who has them?**

**Silos thinking**



# The importance of engaging stakeholders

**Which are the key stakeholders?**

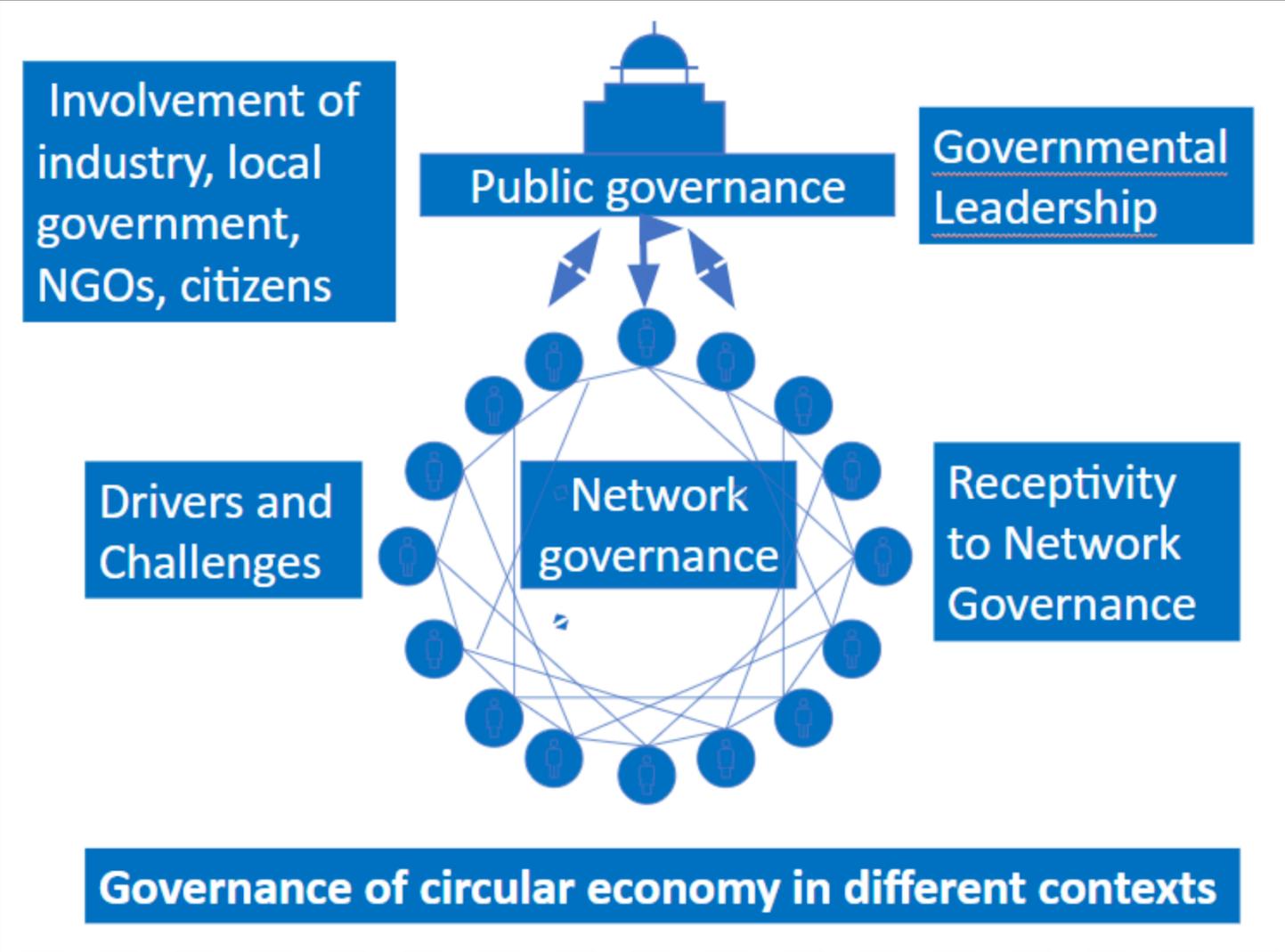
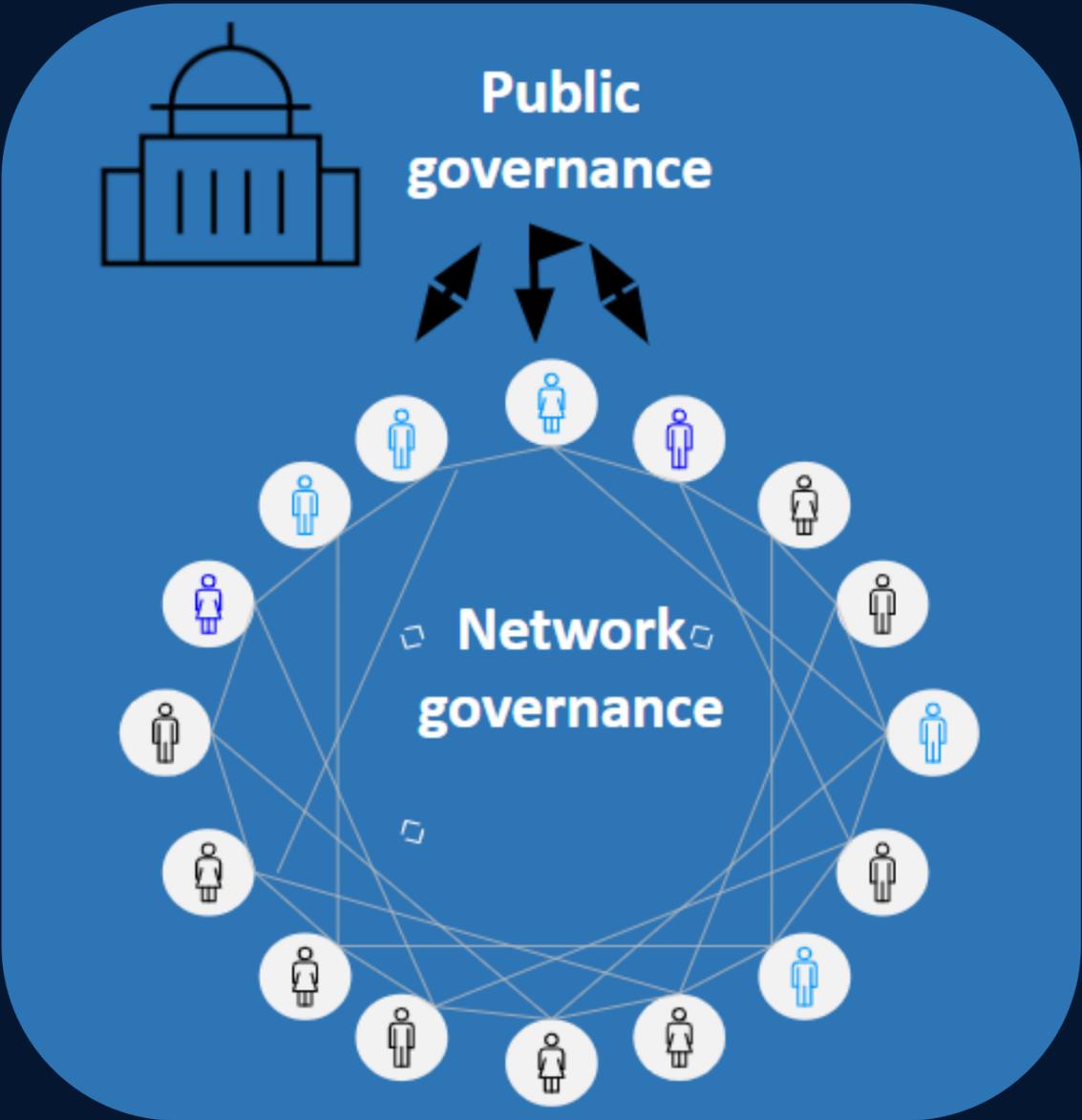
**Have we mapped them?**

**How to listen to them?**

**Do we know their context and their goals and needs?**



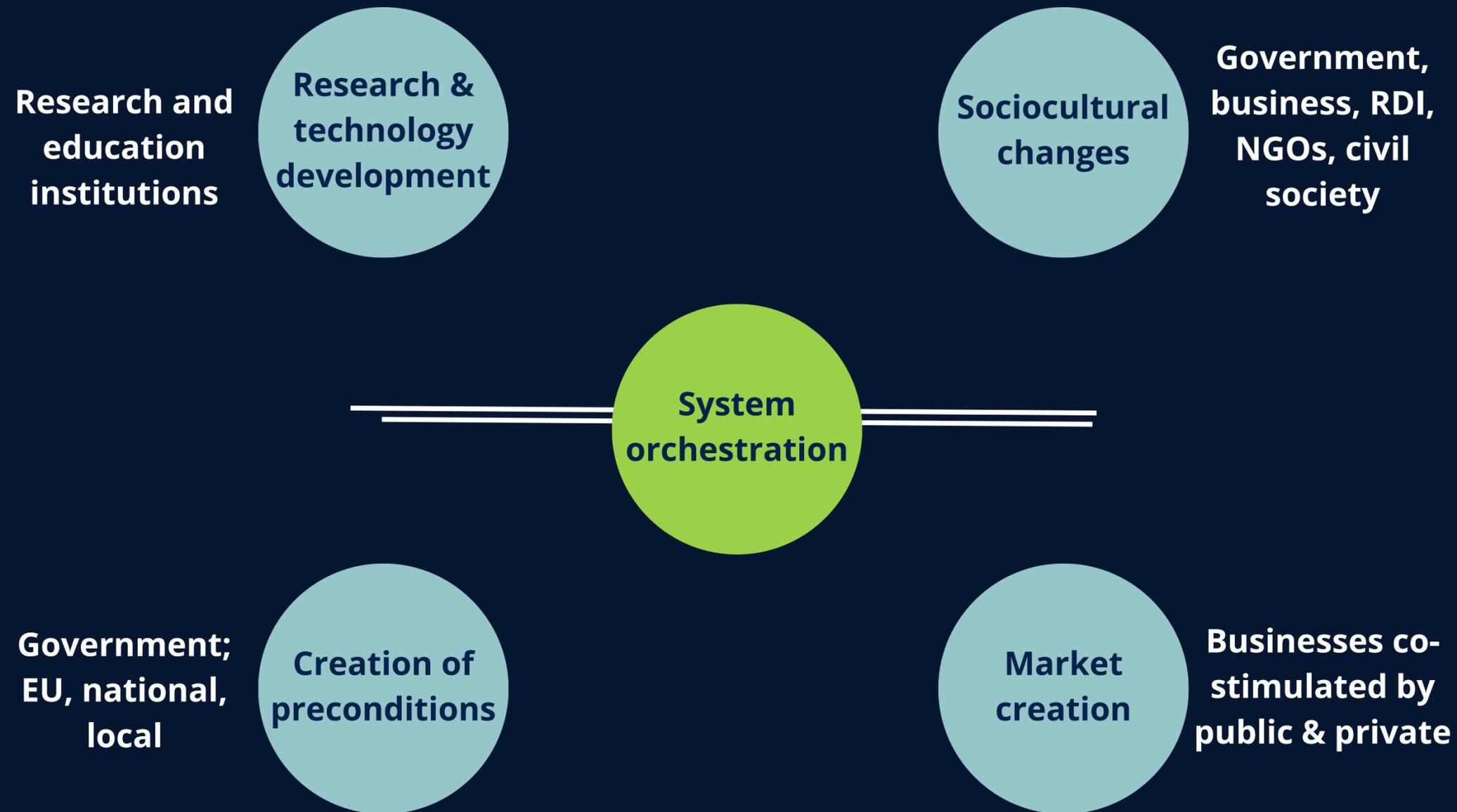
# NETWORK GOVERNANCE



Source:  
Prof. Jacqueline Cramer

# NETWORK GOVERNANCE

## THE ROLE OF TRANSITION BROKERS



# NETWORK GOVERNANCE

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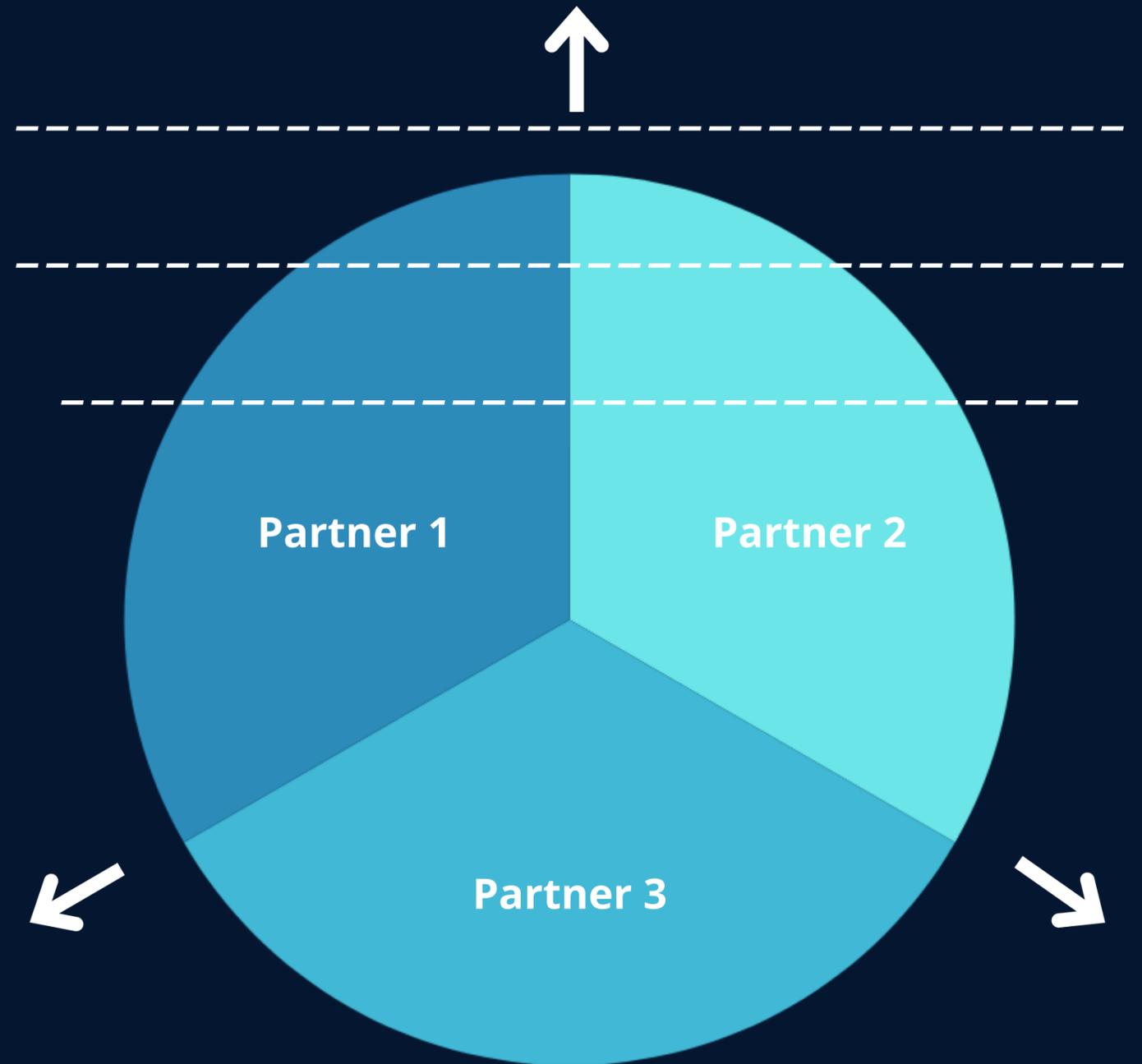
**Transition brokers help co-creating the system of change from a linear to a circular economy from a neutral position**

### **How?**

- Building and upscaling circular initiatives from frontrunners.
- Help to create necessary preconditions
- Align partners, and orchestrate so that impactful circular initiatives can be taken and made visible

# The power of circular networks

A NEED FOR COLLABORATION



**AI-NURECC PLUS**

ADRIATIC IONIAN NETWORK OF UNIVERSITIES, REGIONS,  
CHAMBERS OF COMMERCE AND CITIES INITIATIVE



CPMR  
CRPM



FORUM  
of Adriatic  
and Ionian  
CITIES



EU Strategy for the  
Adriatic and Ionian Region  
**EUSAIR**

# What is happening on the ground?

# Common macroregional trends

## Circular policy



- Circular economy roadmaps
- Circular economy strategies
- Bioeconomy strategies

## Circular networks



- Development of think tanks
- Development of multistakeholder platforms, clusters and hubs

## Circular education



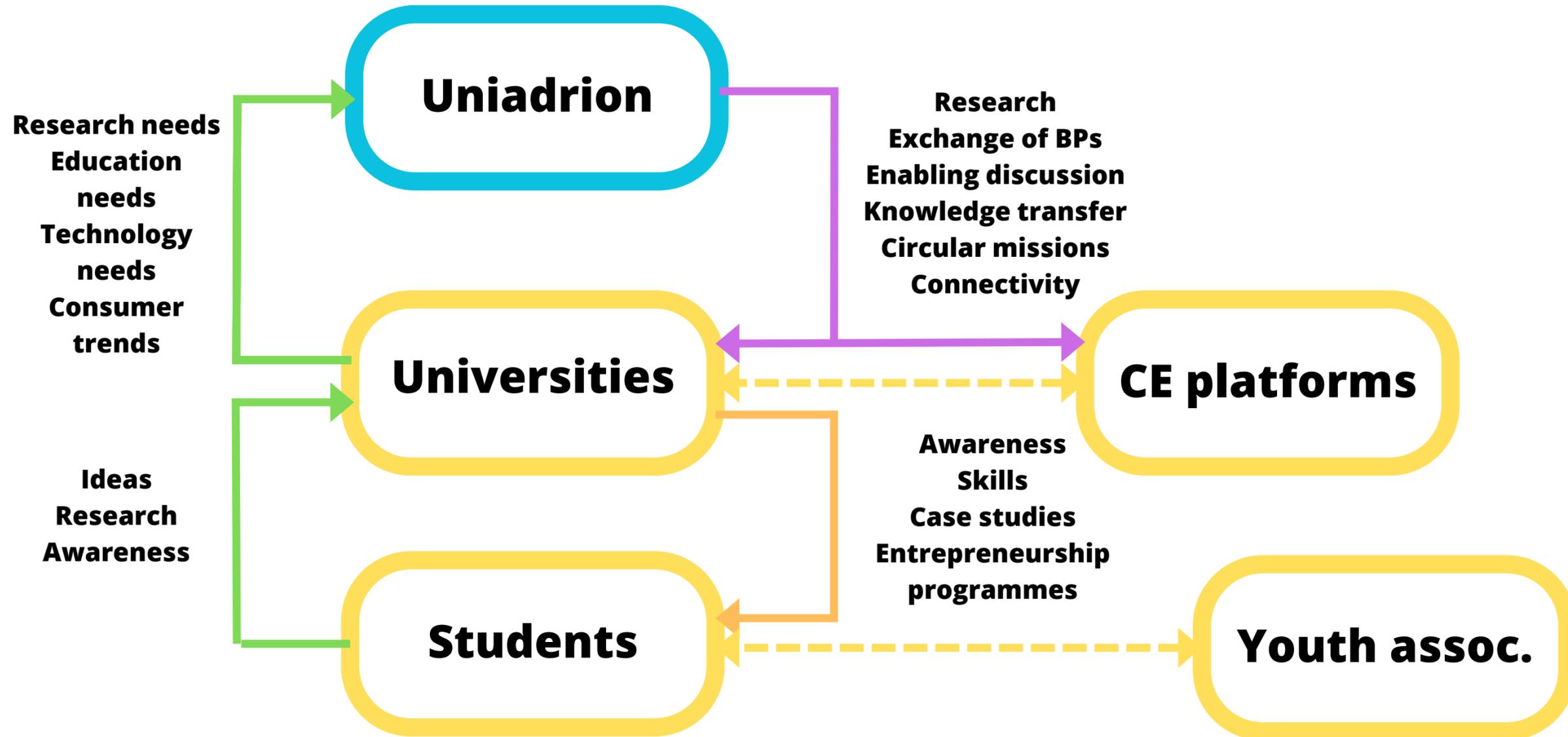
- Young researchers
- Summer Schools and Educational programmes been developed
- Circular economy programmes for high level and early education

## Circular frontrunners

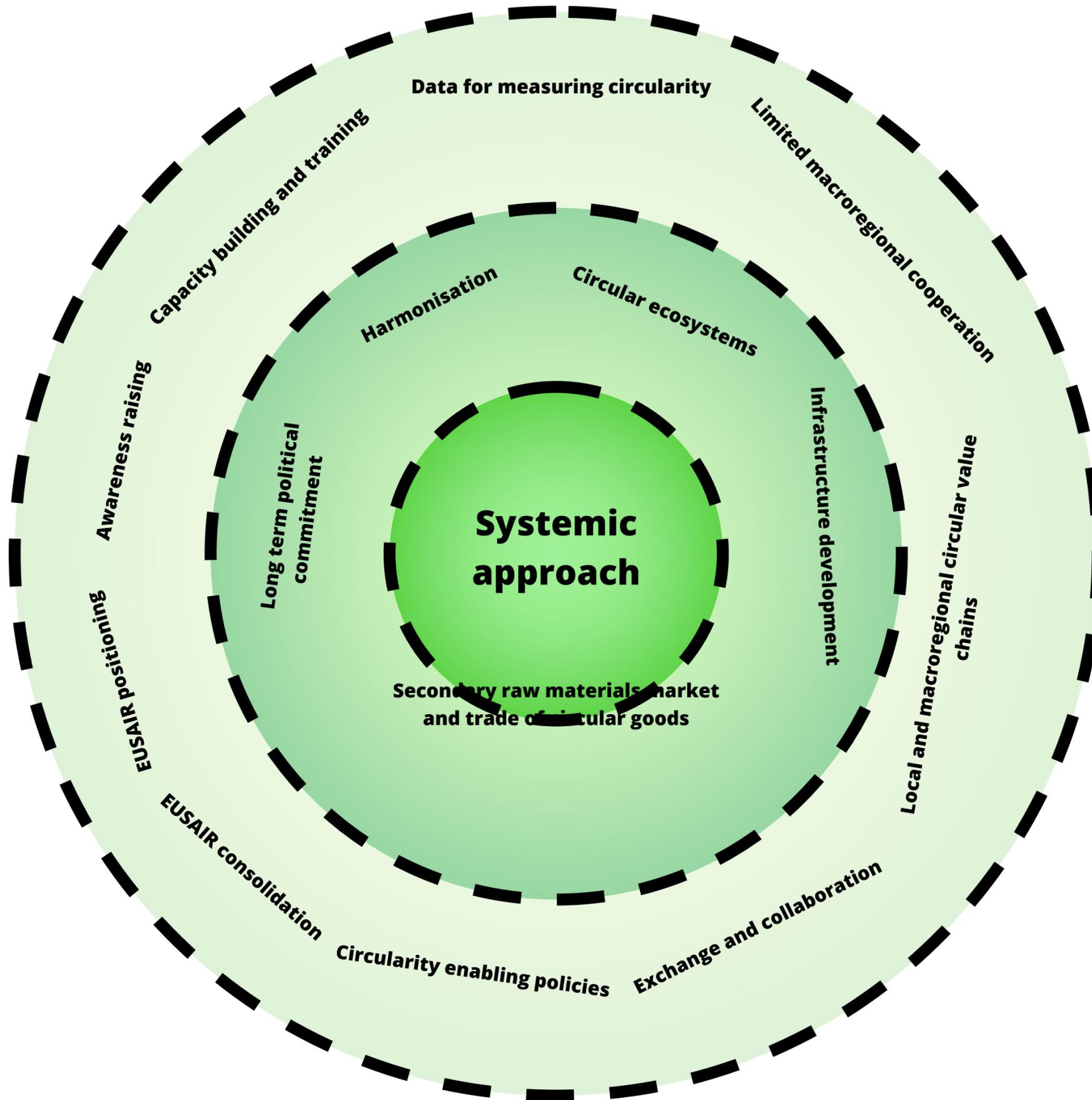


- Startups and entrepreneurs
- Consolidated SMEs working with circular models
- Circularity included in the CSR of large businesses

# Education



# Areas of action



- **EUSAIR consolidation in circular economy and EUSAIR governance**
- **Supporting policy development**
- **Fostering circular diplomacy**
- **Enabling knowledge sharing, increasing awareness, and capacity building**
- **Development of circular ecosystems**
- **Filling the data gap**
- **Evolving the education system**
- **Enabling circular business**

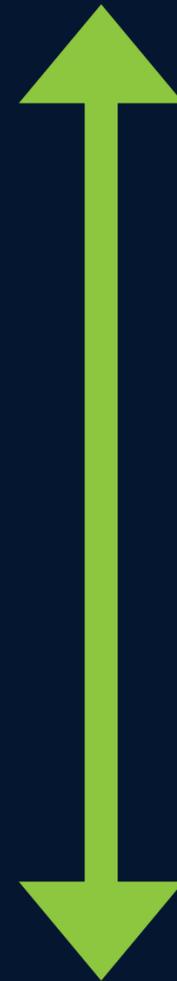
# CE & education curricula

**PHD & RSARCH**

**UNIVERSITY**

**HIGHSCHOOL & PROF. SCHOOLS**

**KINDERGARTEN**



**INTEGRATE  
CIRCULARITY**

# CE & education curricula



**ARTS**

**SCIENCES**

**ENGINEERING**

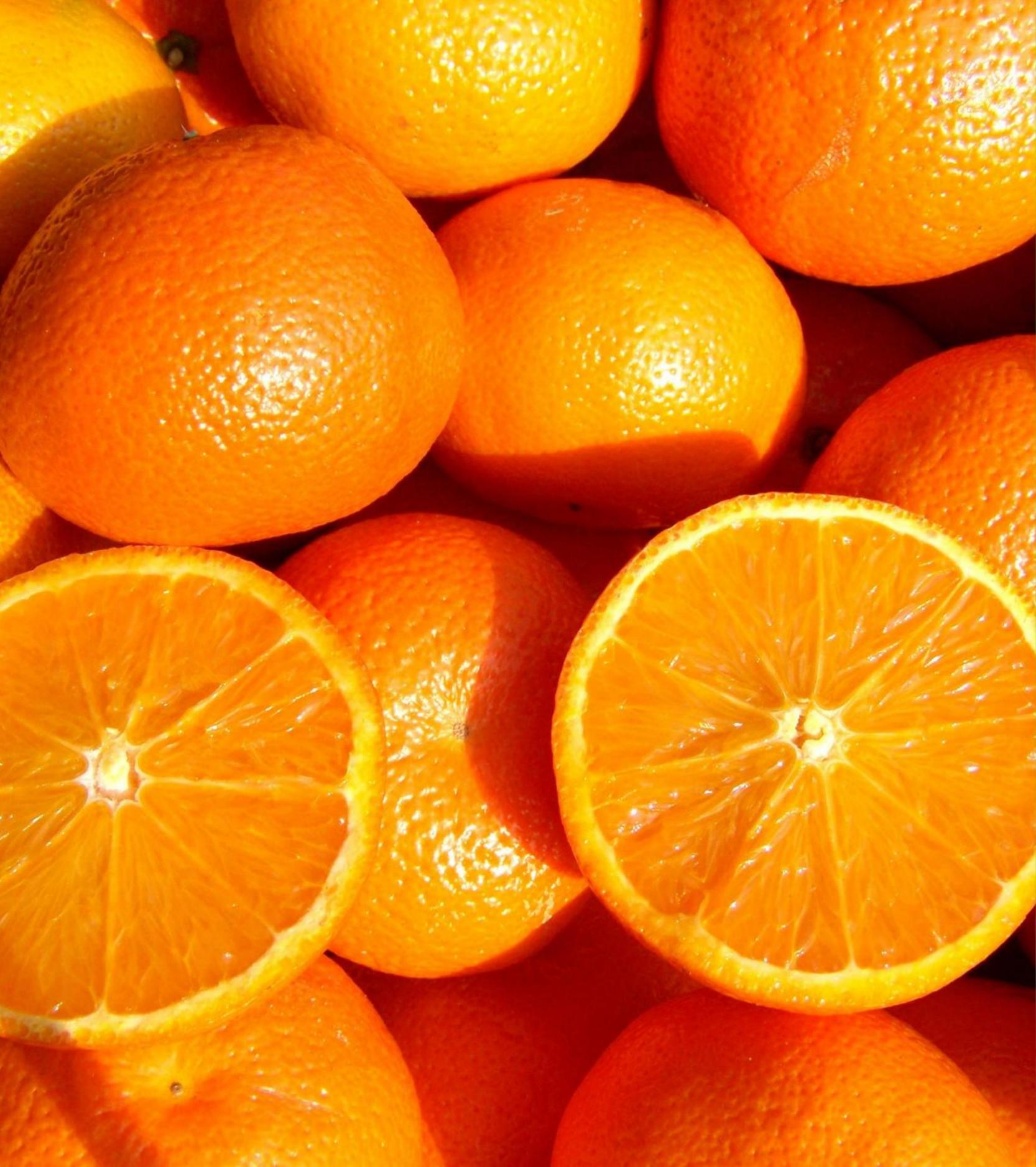
**ECONOMY**

**SOCIAL  
SCIENCES**

**INTEGRATE  
CIRCULARITY**

A hand is shown holding a curved wooden piece, likely a segment of a log, against a white background. Below the hand, two straight wooden blocks are visible. The text is overlaid on the image.

**Circular design  
Let's get rid of  
this 80%**



A close-up photograph of a small green seedling with two heart-shaped leaves growing out of dark brown soil. The seedling is positioned in the center-right of the frame. The soil is rich and textured, with some small white particles visible. The background is a blurred, dark brown soil surface.

**Rethink how we use  
our resources**



**Is the circular  
economy enough to  
make our world  
sustainable?**



**We can't  
recycle our  
way out of  
this?**

# NEW GENERATION

