Circular Economy and Education

Marco Antonio Segovia Bifarini, MSc.

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

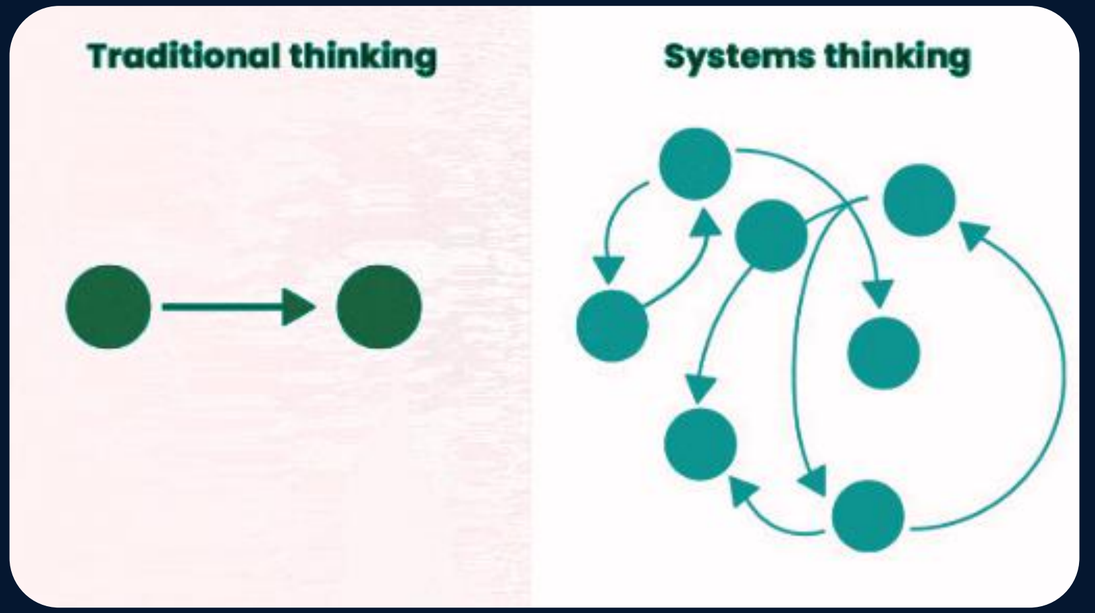
Circular Change

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."

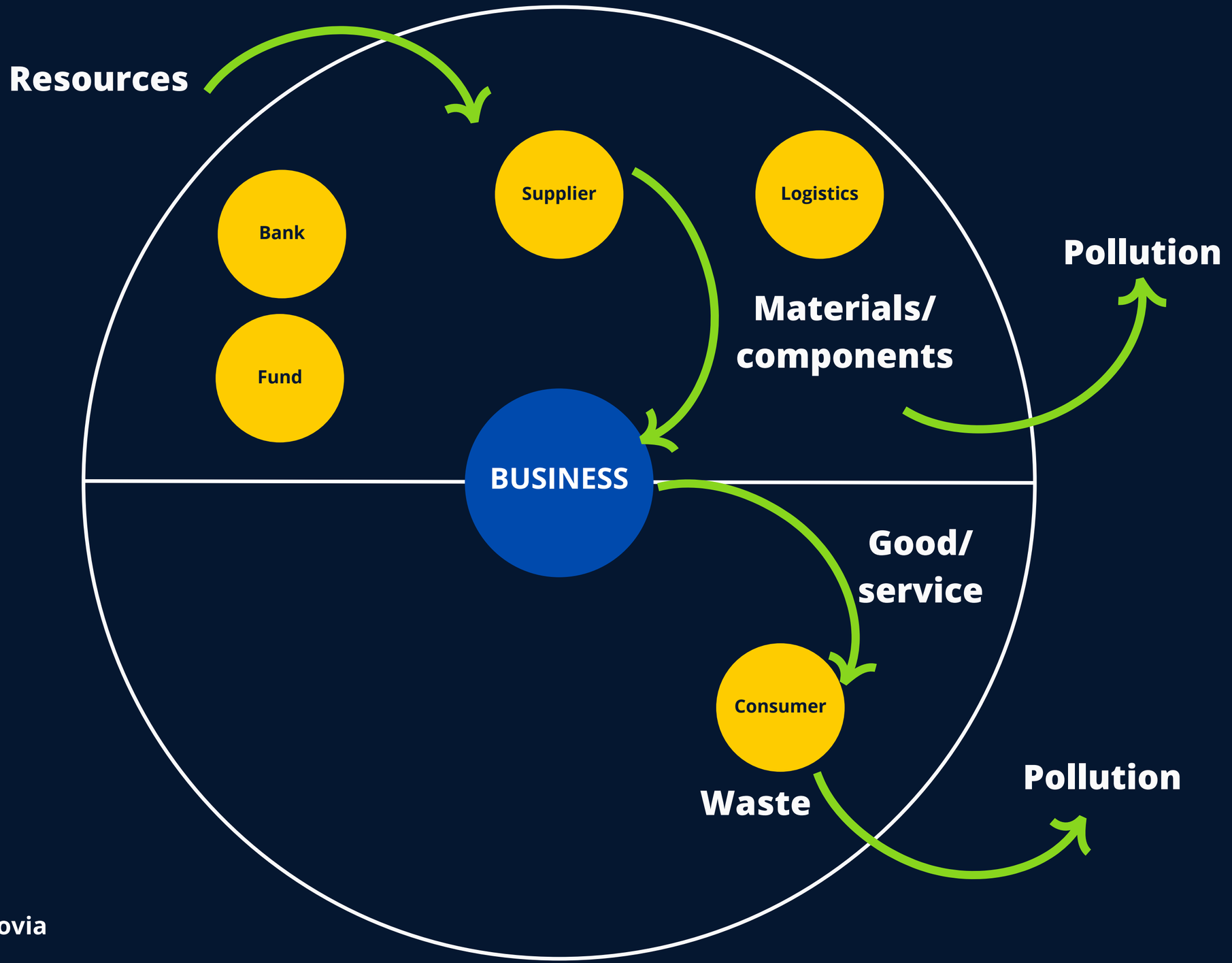


Source:
https://www.fawco.org/global-issues/environment/environment-articles/4561-thinking-in-systems-with-donella-meadows-for-the-future-of-our-planet

We need to regenerate

People
Businesses
Economy
Markets
Countries

Linear



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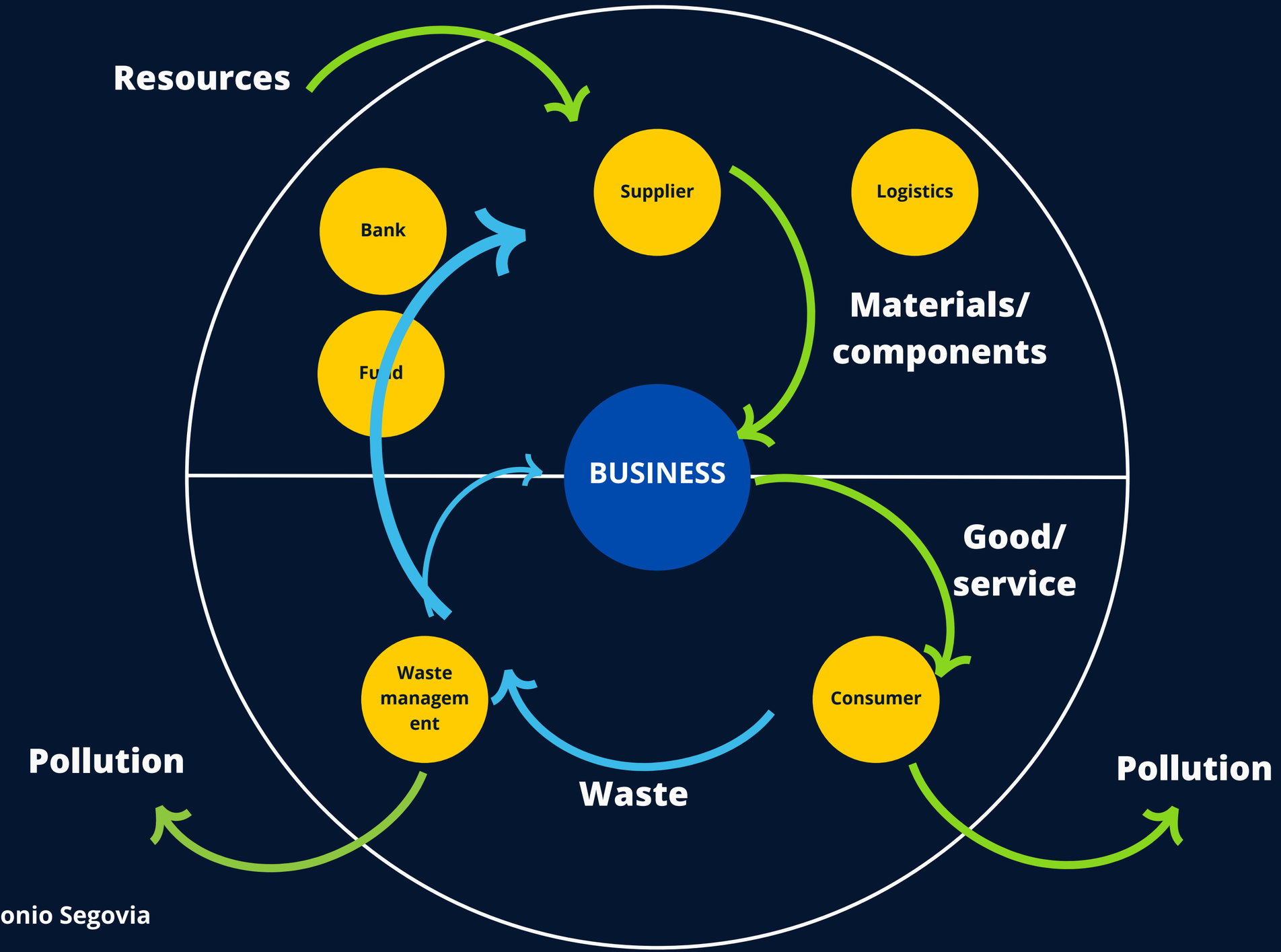
Circular



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Multilayered
issue

How to address circular innovation?

Circular Change

Social, ecosystem and business innovation

Stakeholder ecosystems

Business

Orchestration

The circular paradigm

A NEED FOR SYSTEMIC TRANSITION

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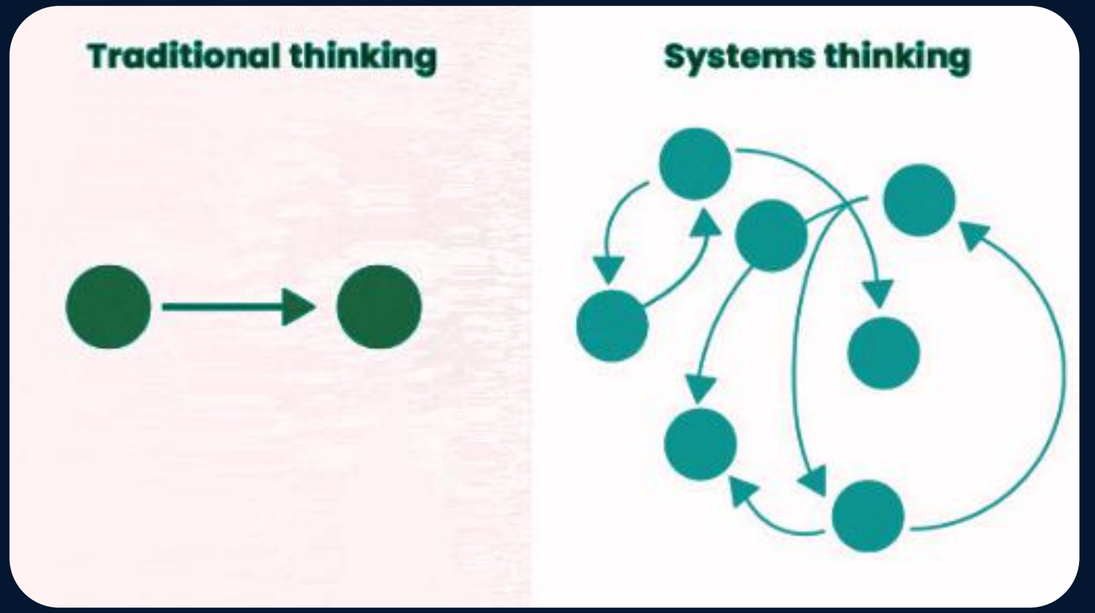

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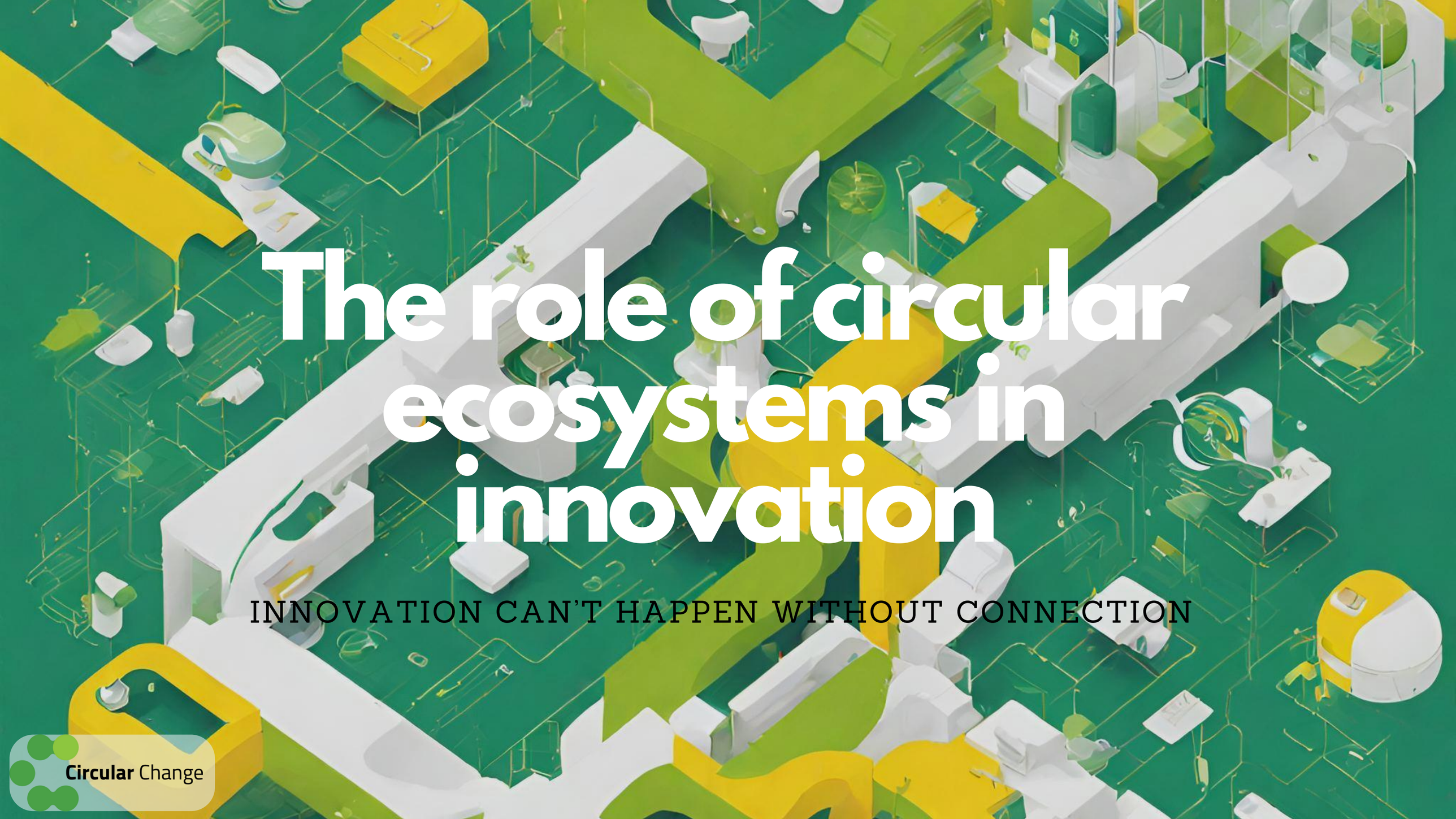
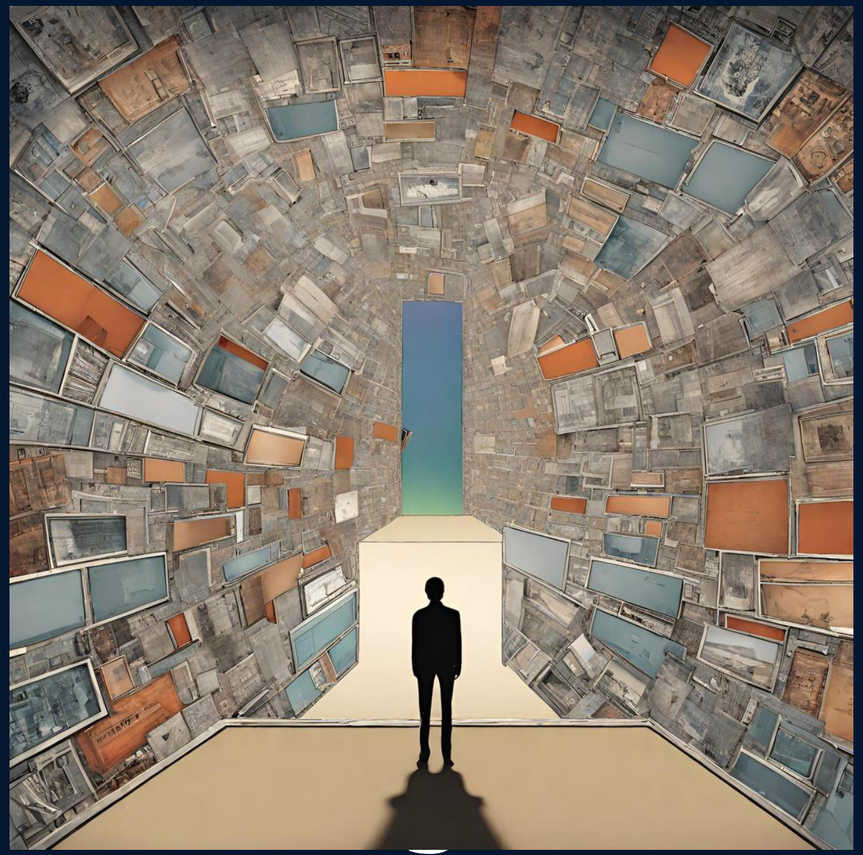


The role of circular ecosystems in innovation

INNOVATION CAN'T HAPPEN WITHOUT CONNECTION

Circular Change



Where am I?

What resources do I need?

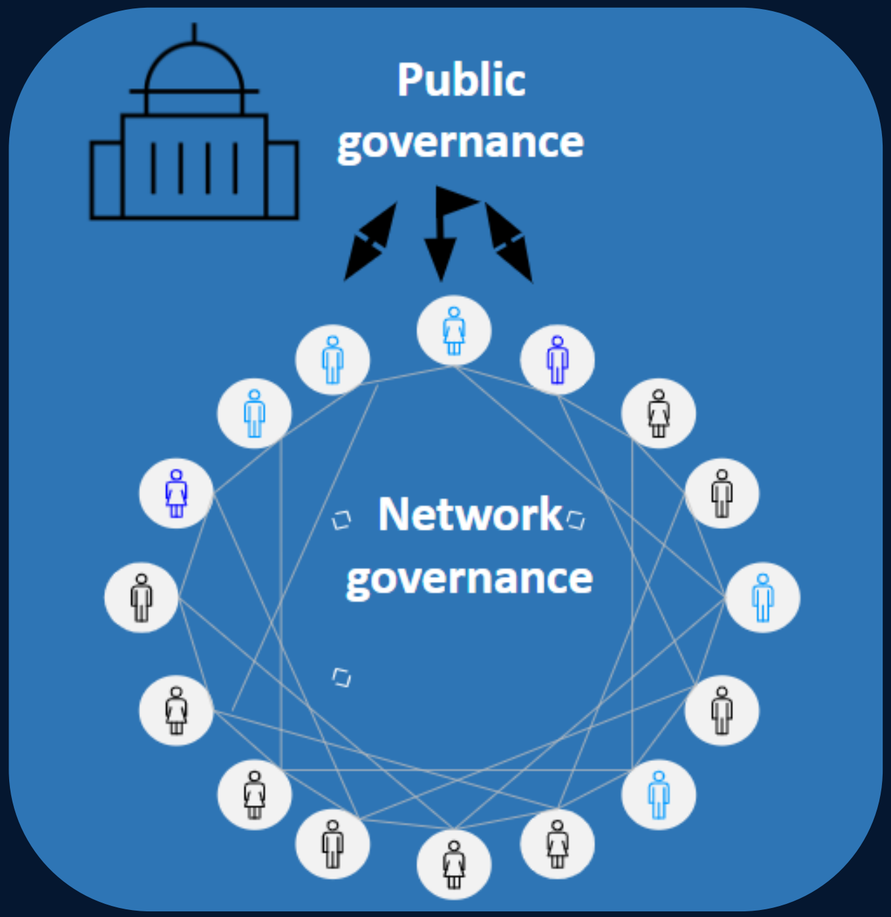
Who has them?

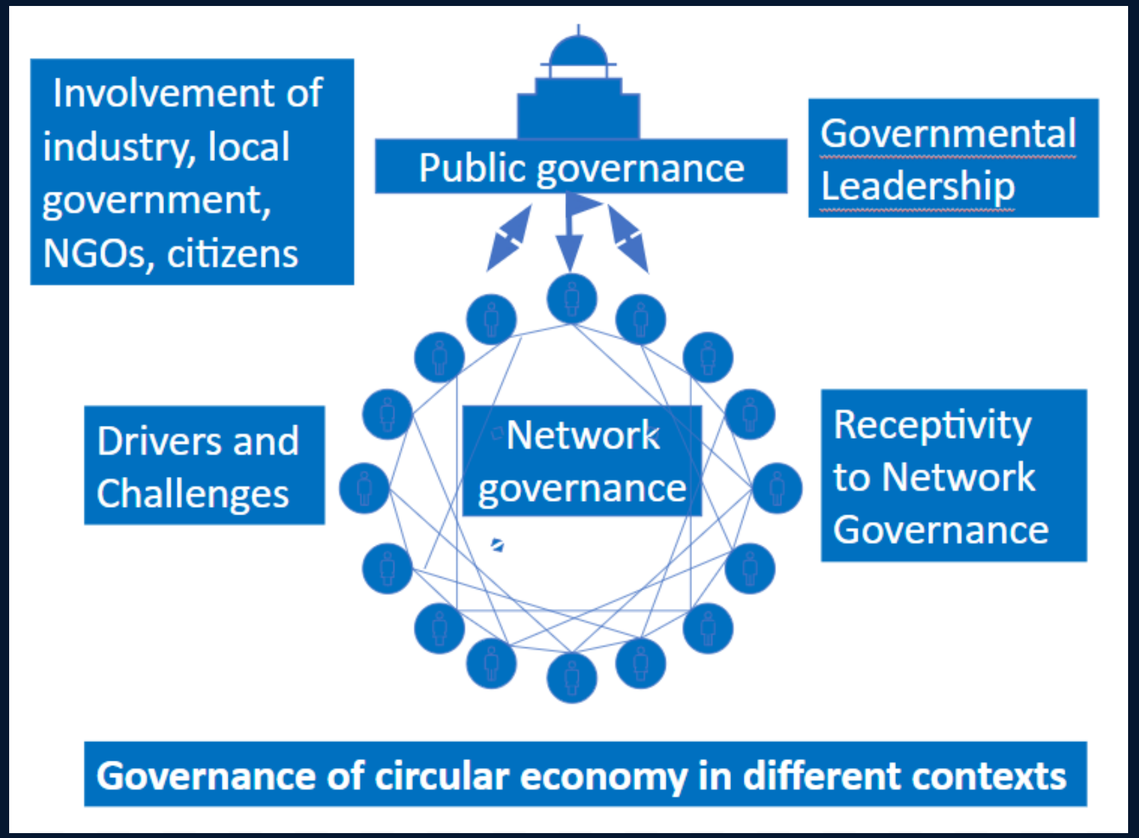
Silos thinking

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

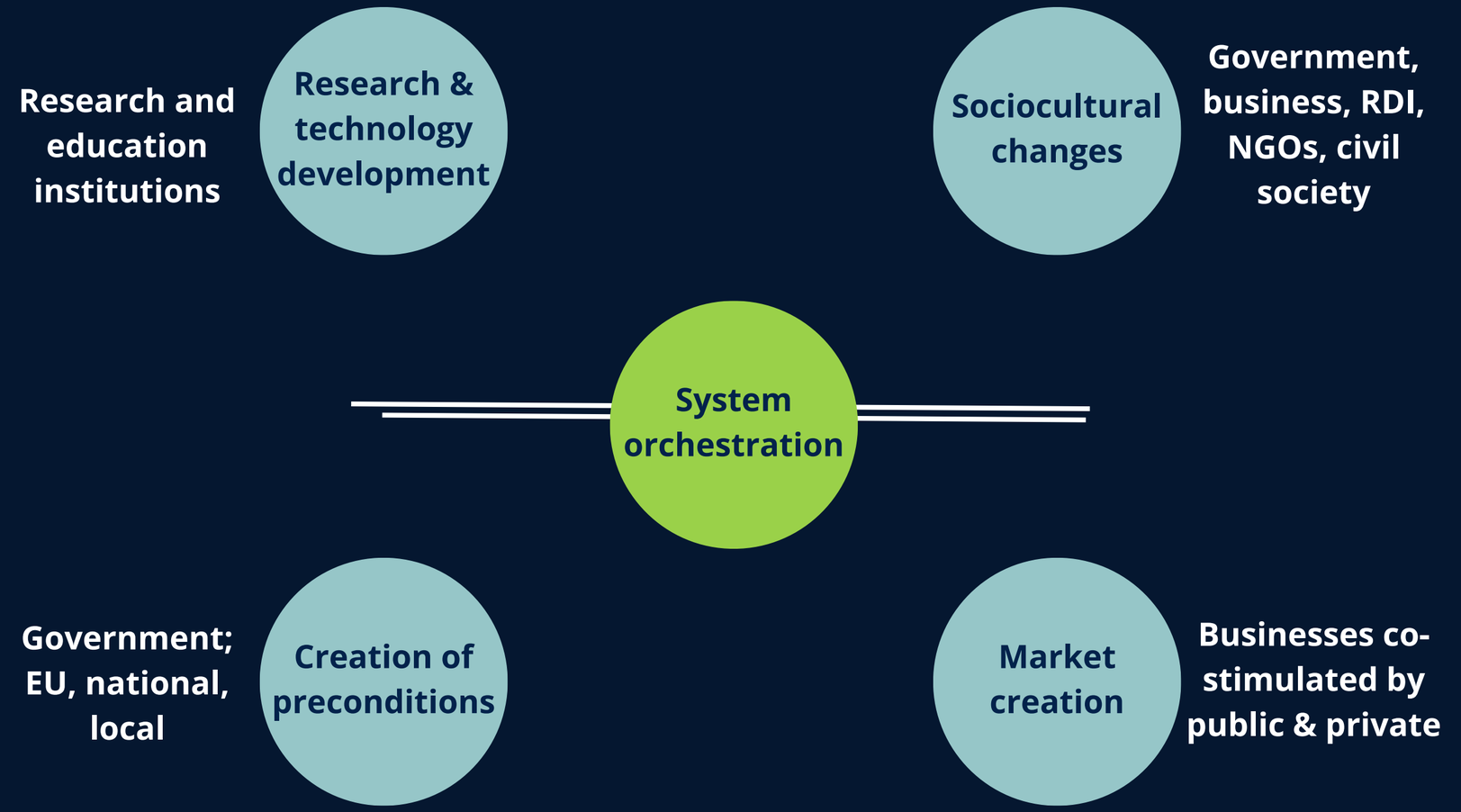




Source:
Prof. Jacqueline Cramer

NETWORK GOVERNANCE

THE ROLE OF TRANSITION BROKERS



Source: Network_governance_for_Circular_Economy_web_version.pdf

NETWORK GOVERNANCE

THE ROLE OF TRANSITION BROKERS

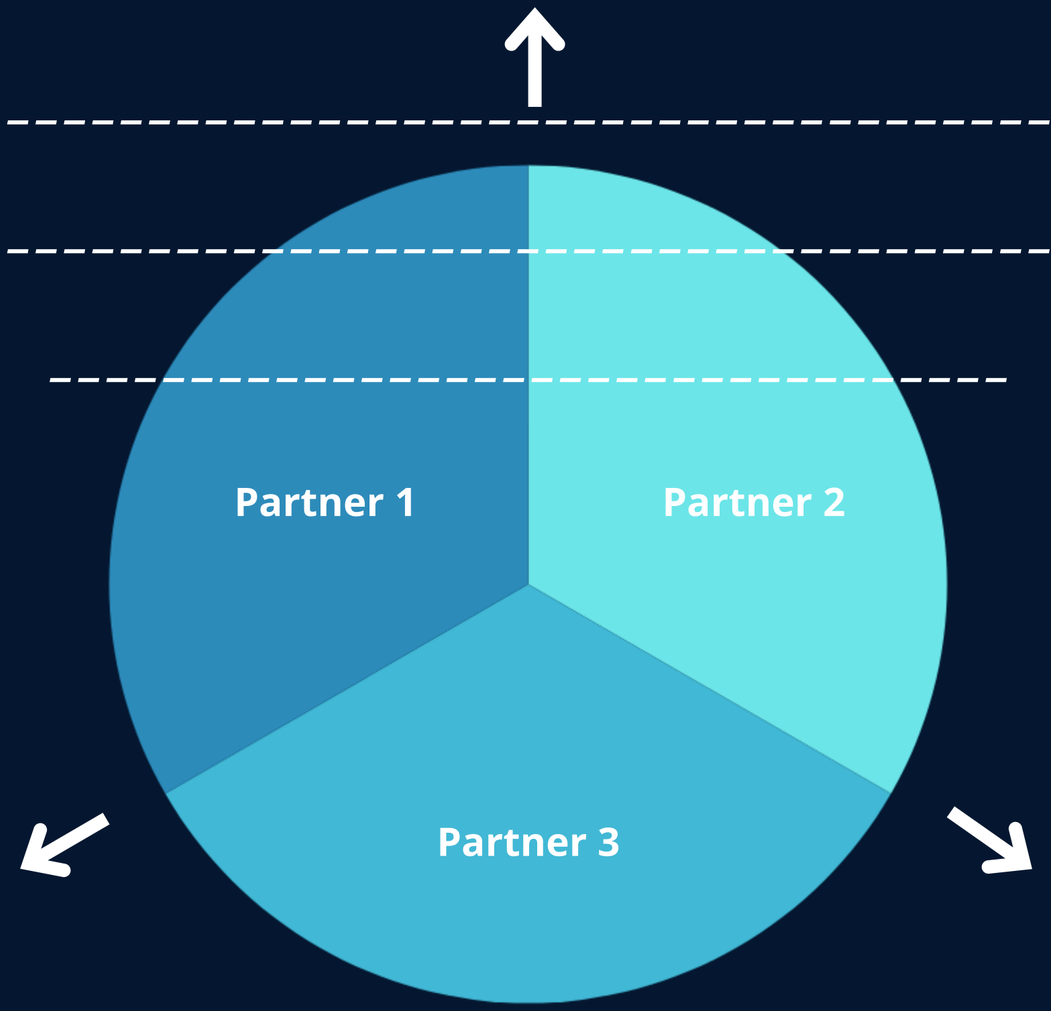
Transition brokers help co-creating the system of change from a linear
to a circular economy from a neutral position

How?

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

The power of circular newtorks

A NEED FOR COLLABORATION



AI-NURECC PLUS

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

EU Strategy for the Adriatic and Ionian Region
EUSAIR

What is happening on the ground?

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

EU Strategy for the Adriatic and Ionian Region
EUSAIR

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

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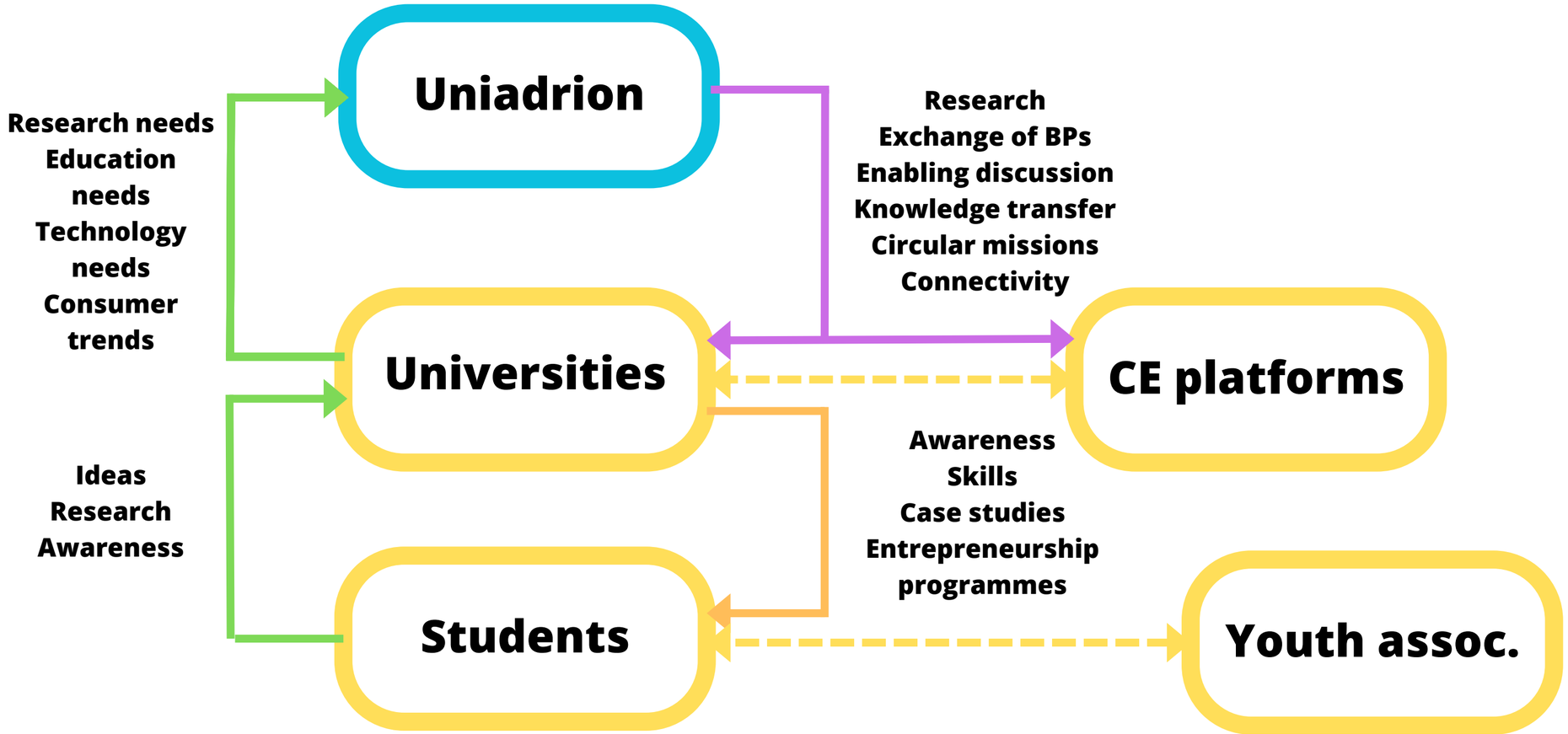
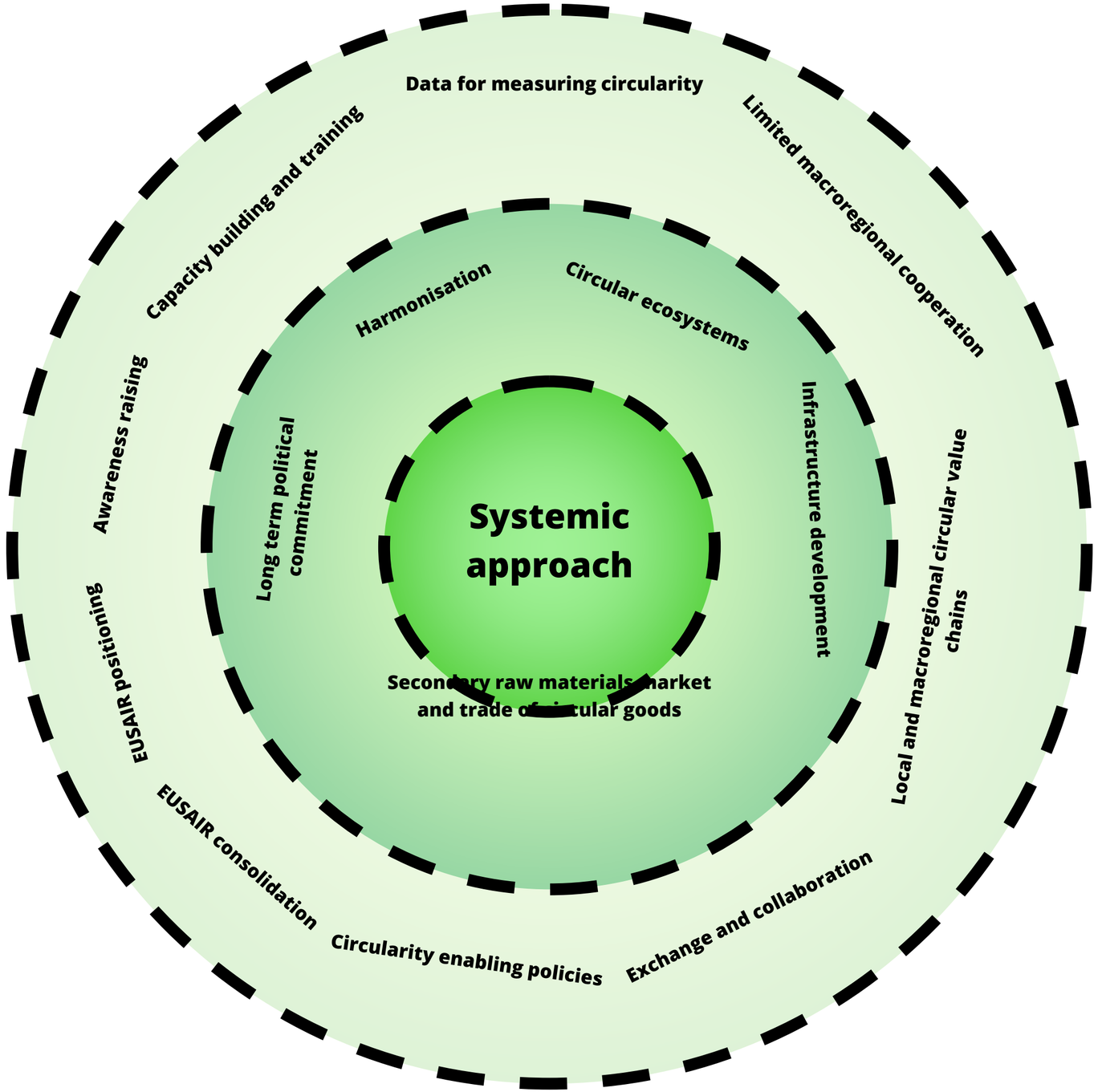
Education

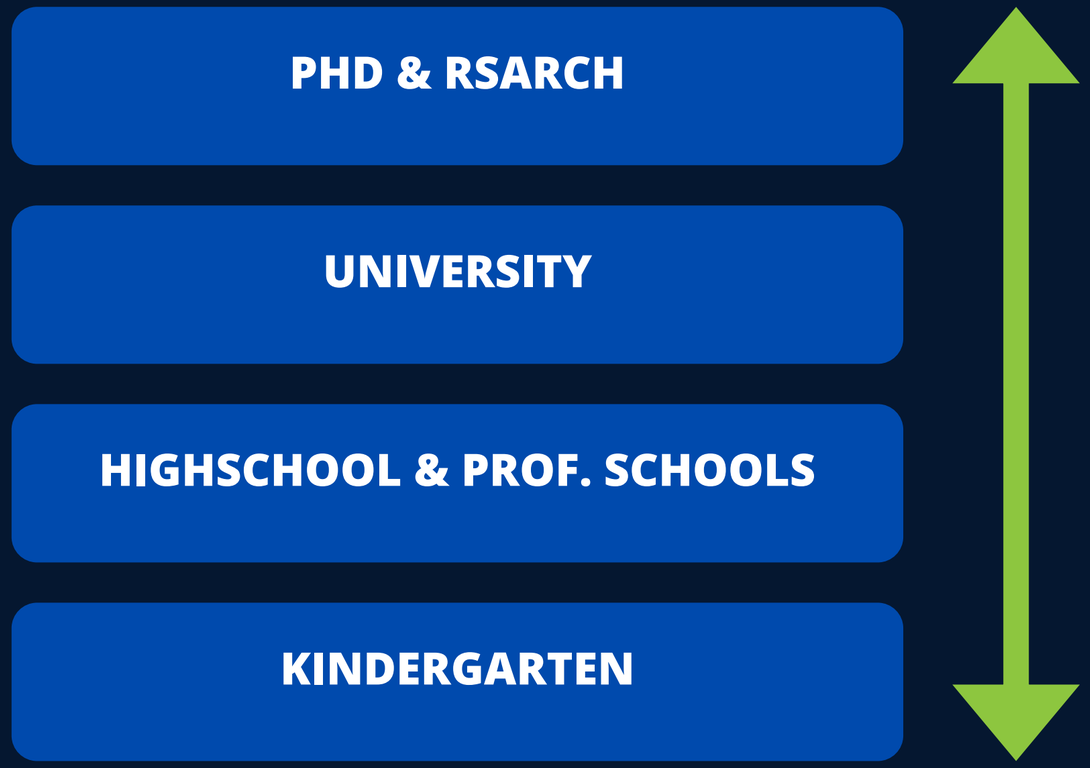




Areas of action

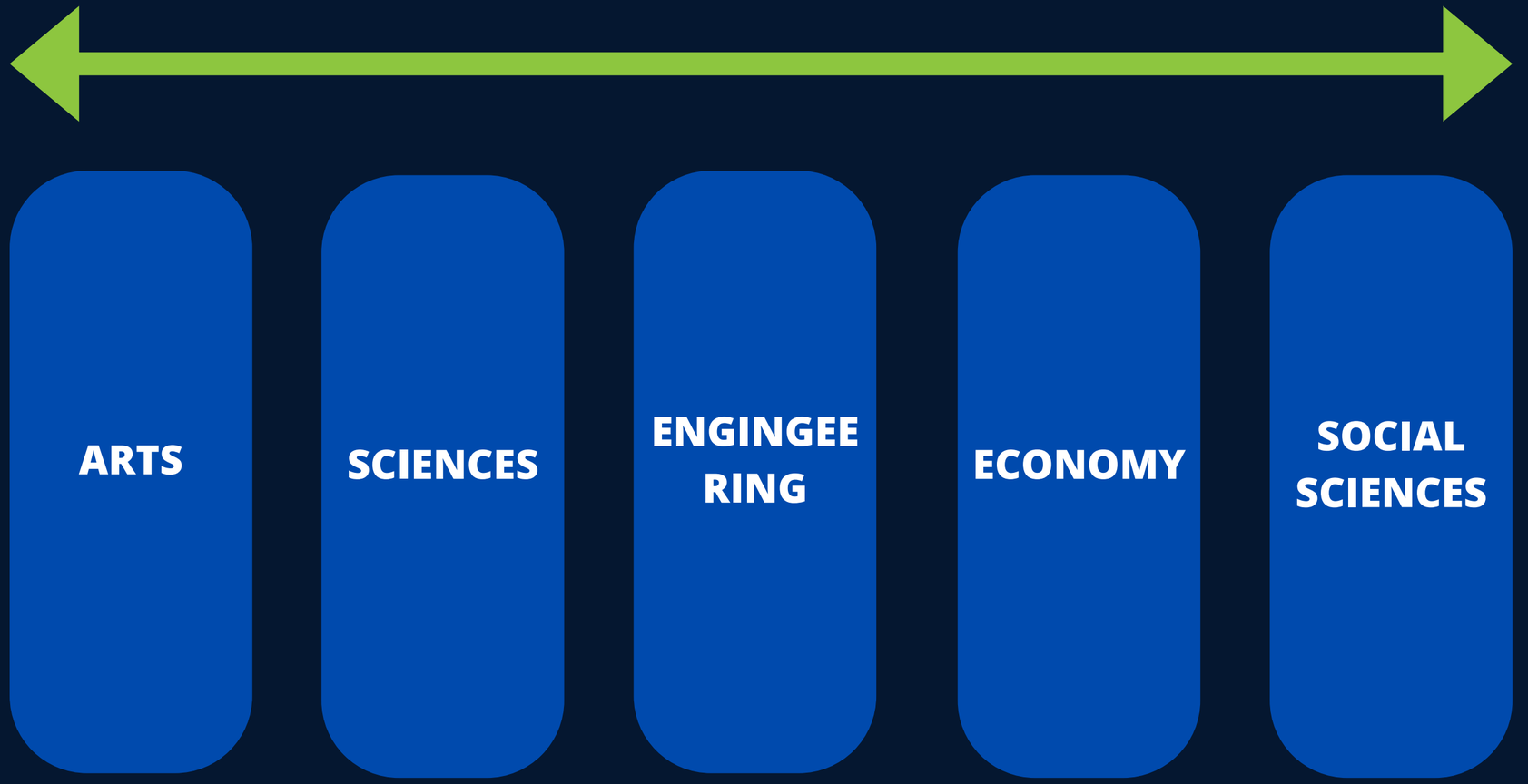
- EUSAIR consolidation in circular economy and EUSAIR governance
- Supporting policy development
- Fostering circular diplomacy
- Enabling knowledge sharing, increasing awareness, and capacity building
- Development of circular ecosystems
- Filling the data gap
- Evolving the education system
- Enabling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

CE & education curricula



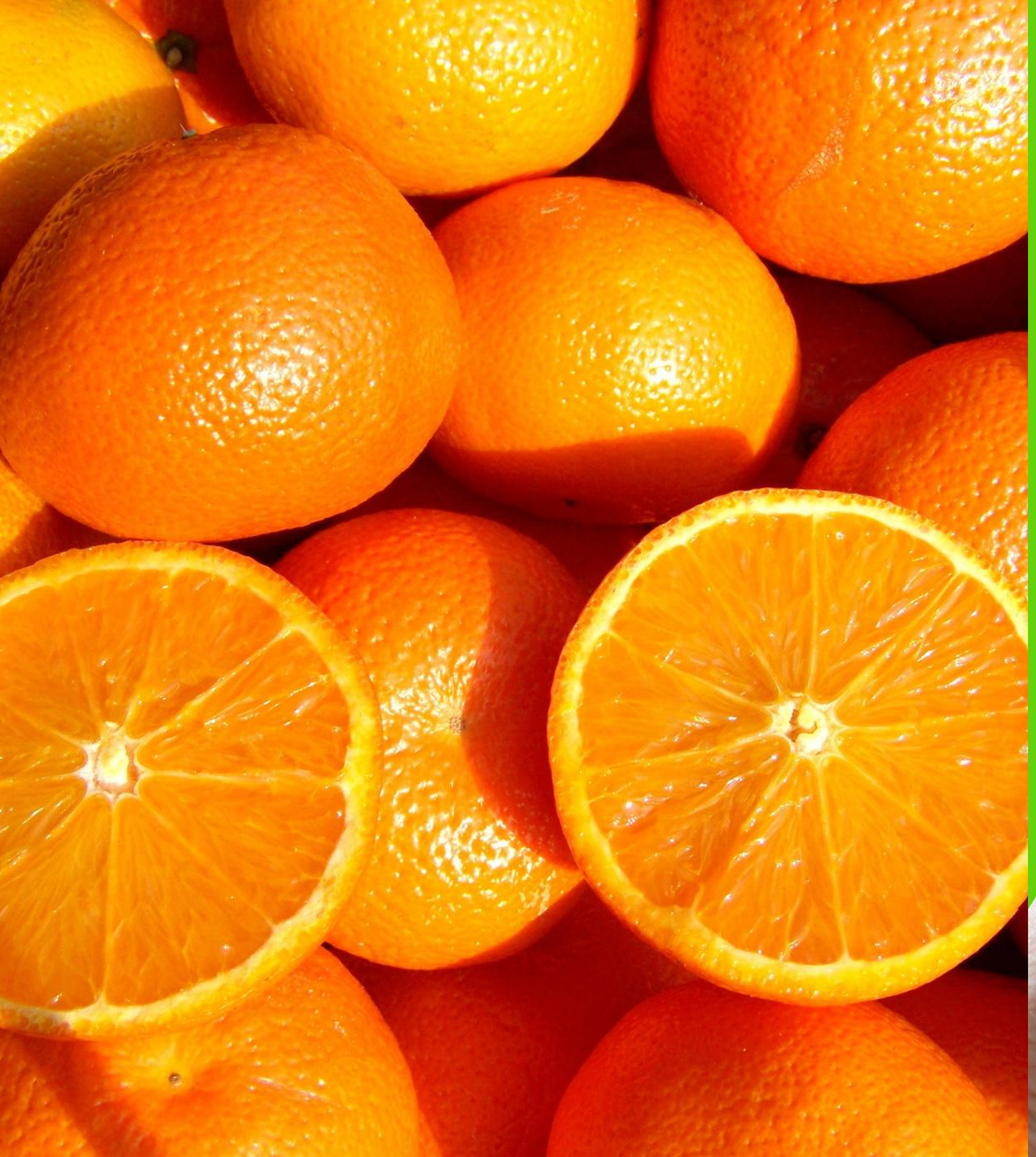
INTEGRATE
CIRCULARITY

CE & education curricula



INTEGRATE CIRCULARITY

Circular design Let's get rid of this 80%



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