Second Regional Conference: Measuring and monitoring the circular economy and the use of data for policymaking

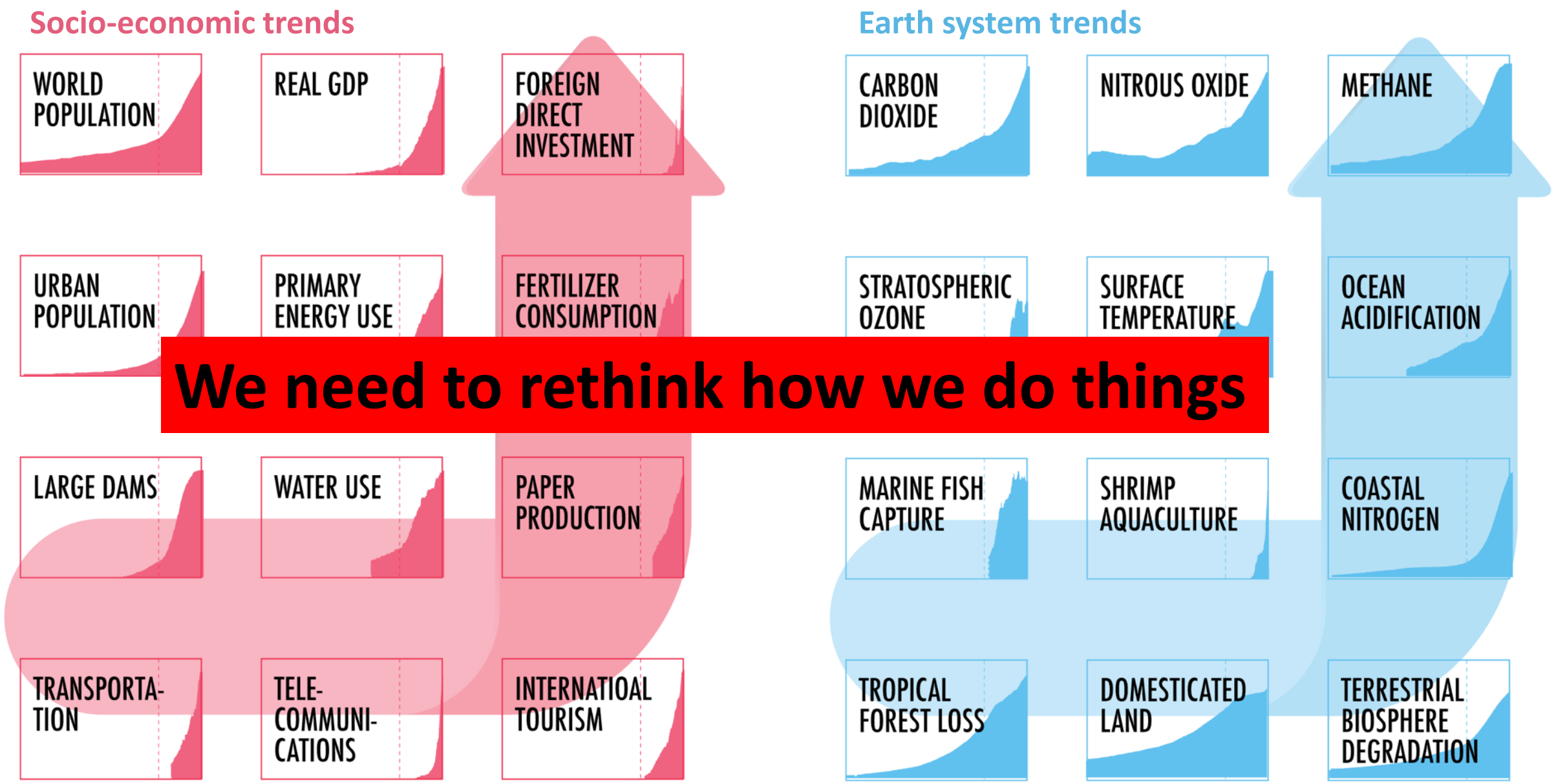
Circular Economy as a transformational agenda – monitoring is a joint effort

Ioannis Bakas

10 November 2021

European Environment Agency

The great acceleration



We need to rethink how we do things

European Environment Agency

Scientific consensus on the nature of the challenge

IPCC: climate change

IPBES: Biodiversity loss

IRP: natural resources

OMS: environment and health

Urgency – this decade is critical

Irreversible changes

Tipping points

Interconnected crises

European Environment Agency

Establishing a circular economy is a global challenge

Increasing global material use & globalised value chains

Changing demographics & incomes

Distribution of social impacts of material use

Distribution of supply chain know-how

Virgin vs recycled materials

European Environment Agency

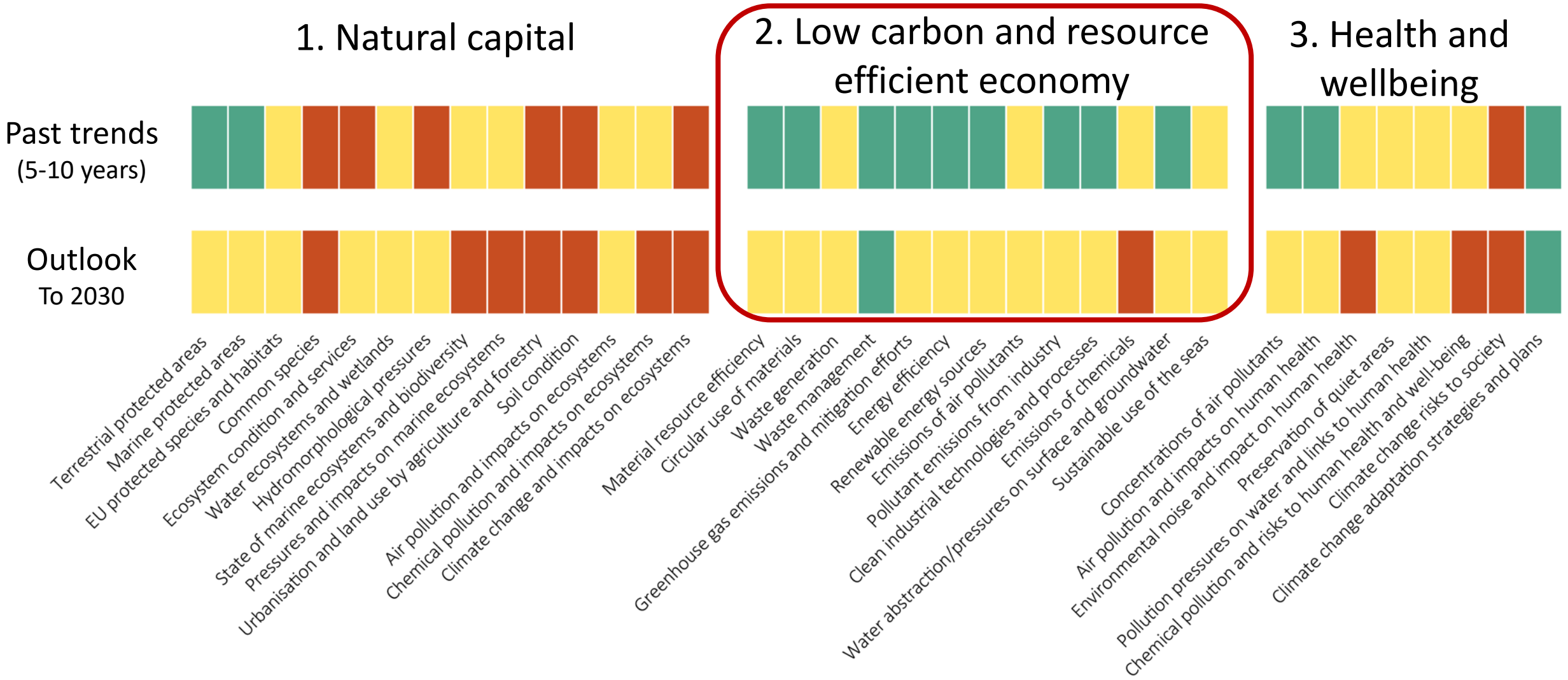
EU policy response is systemic

How are we doing?

“You cannot manage what you cannot measure”

European Environment Agency

SOER 2020: the low hanging fruit has been picked

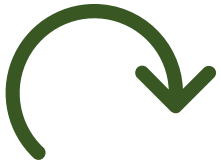


European Environment Agency

Key features of Circular Economy in Europe

Resource down
Productivity up

More waste
Better managed



Far from circular
Downcycling prevails

Design for circularity
Design for repair

Lack of targets

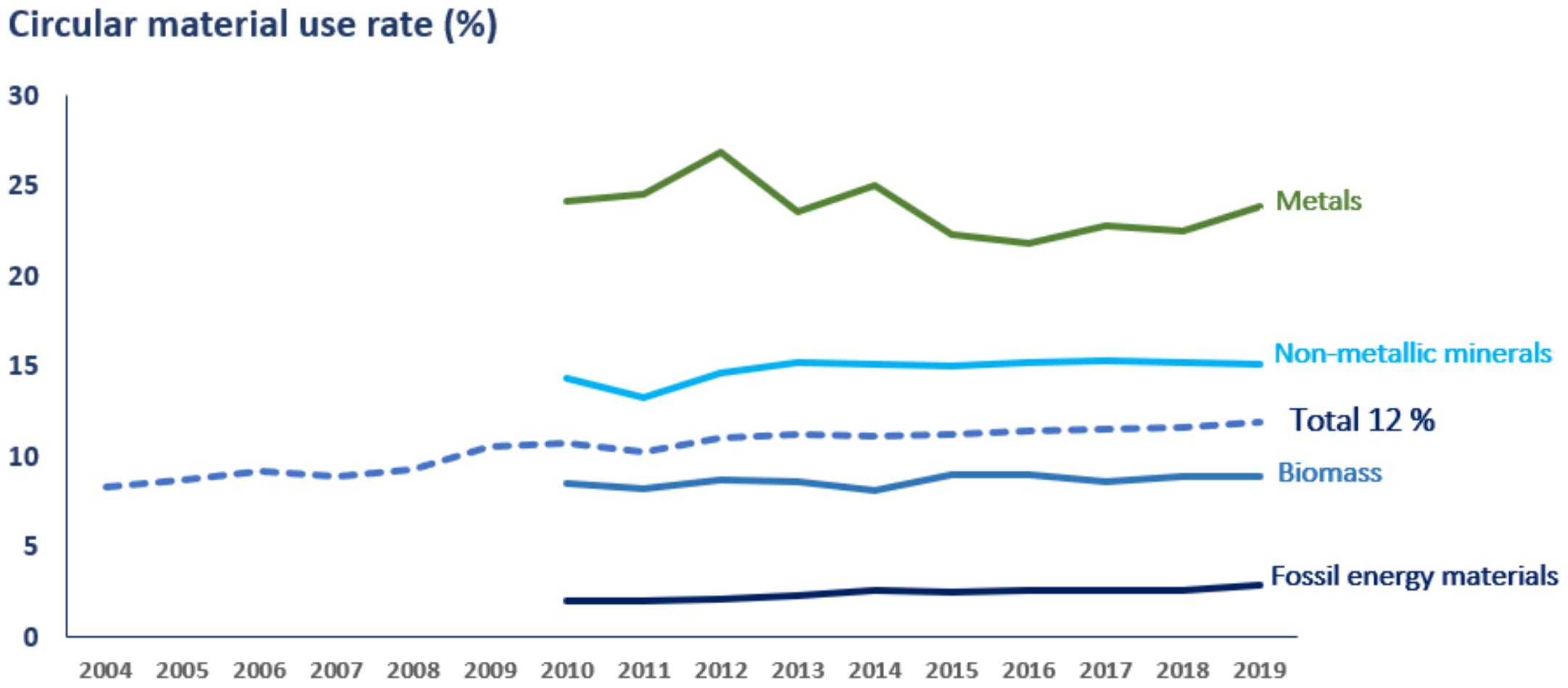
High resource use, high value, high impact

Externalities
Other barriers

Deficient monitoring

European Environment Agency

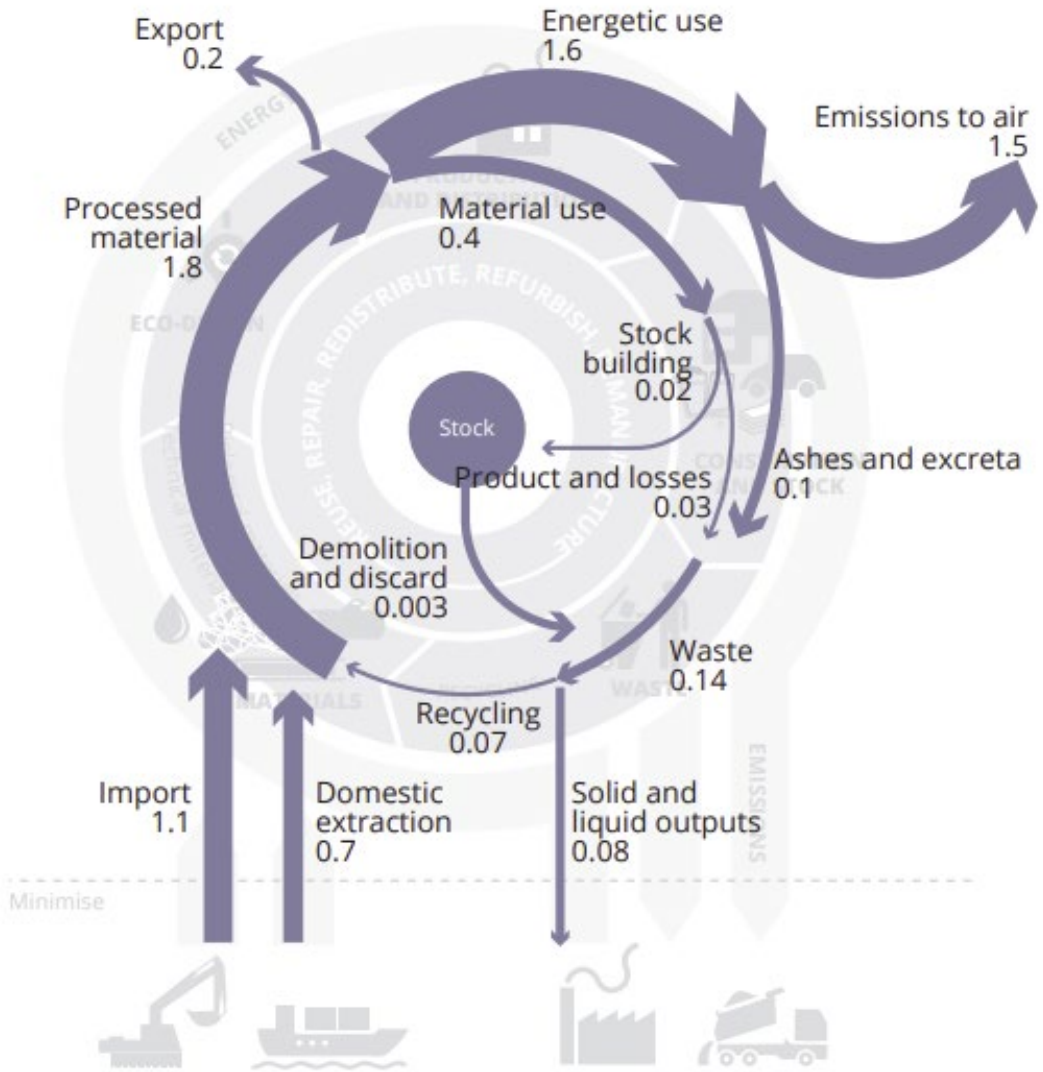
Slow progress, high potential



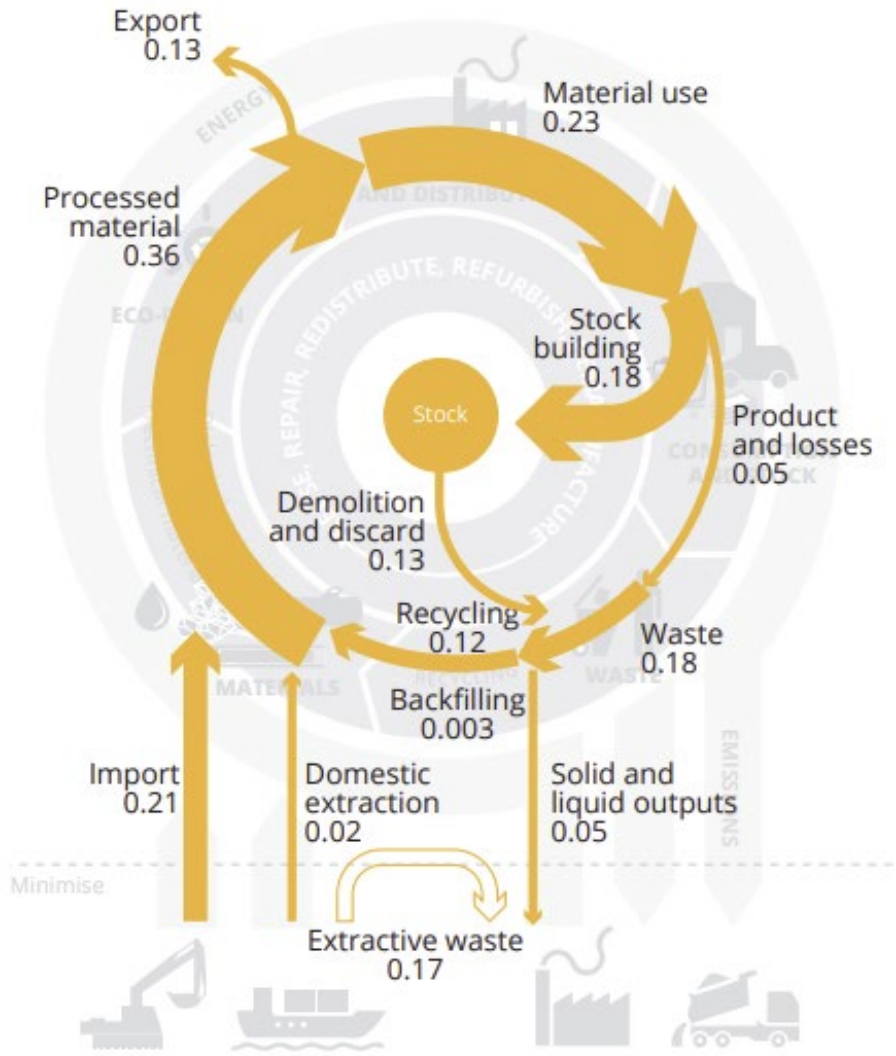
European Environment Agency

Circularity of main material groups

Fossil materials



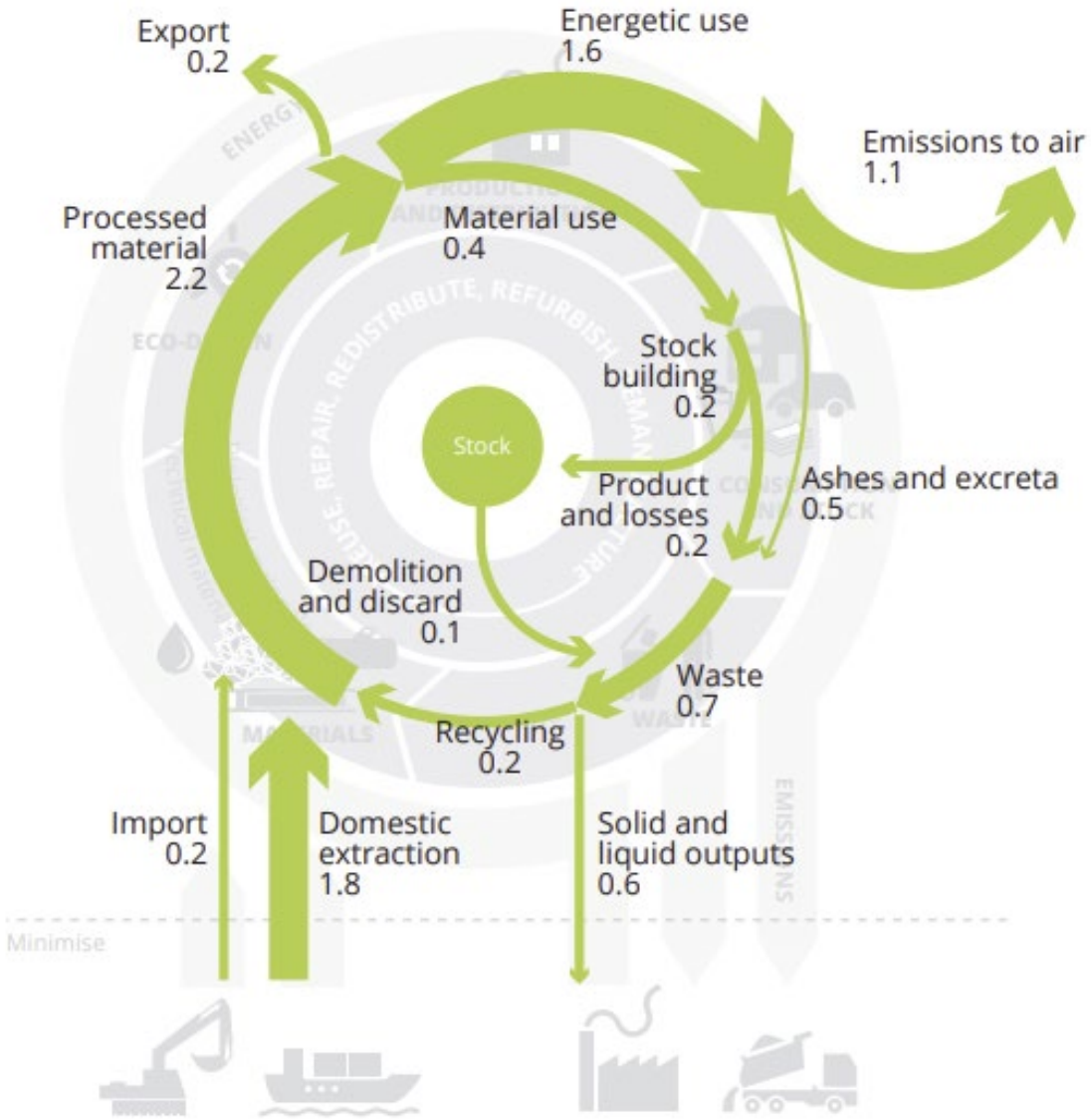
Metal ores



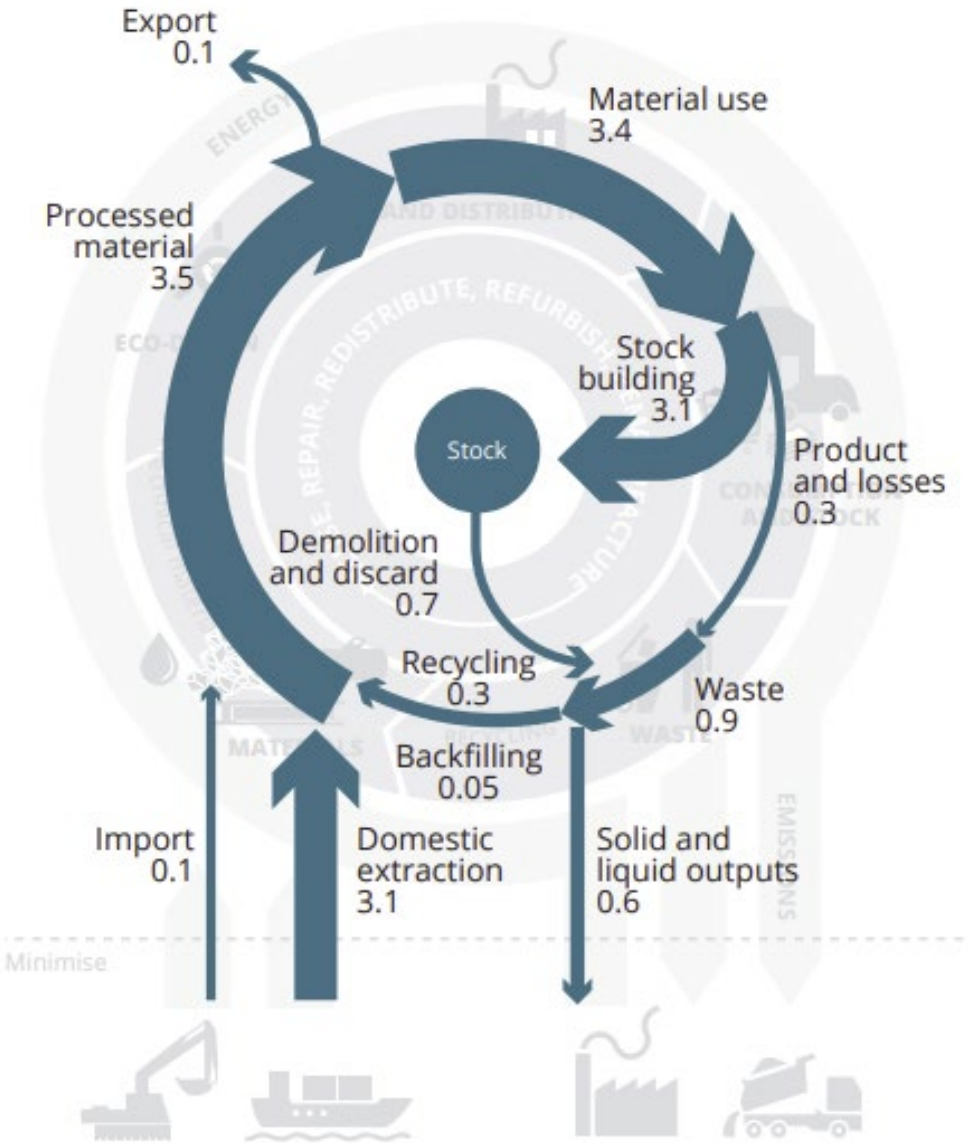
European Environment Agency

Circularity of main material groups

Biomass



Non-metallic minerals



European Environment Agency

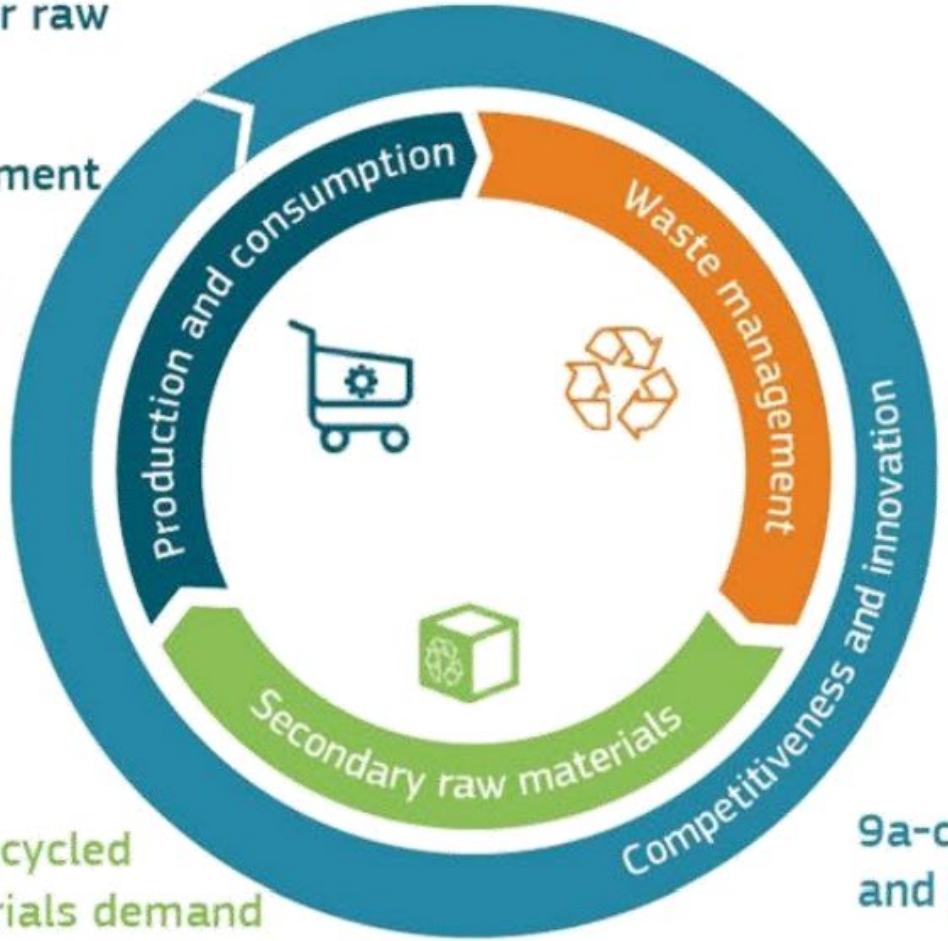
European Circular Economy Monitoring Framework

1 EU self-sufficiency for raw materials

2 Green public procurement

3a-c Waste generation

4 Food waste



5a-b Overall recycling rates

6a-f Recycling rates for specific waste streams

7a-b Contribution of recycled materials to raw materials demand

8 Trade in recyclable raw materials

9a-c Private investments, jobs and gross value added

10 Patents

European Commission

European Environment Agency

Strengths and weaknesses

Official data

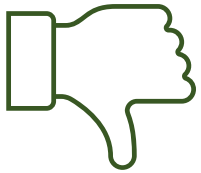
Material cycle is understood

Waste aspects well covered

Macro-view is achieved

Indicators are RACER-compliant

Lack of full implementation



Some particular aspects of the CE concept are not reflected (e.g. eco-design, new business models)

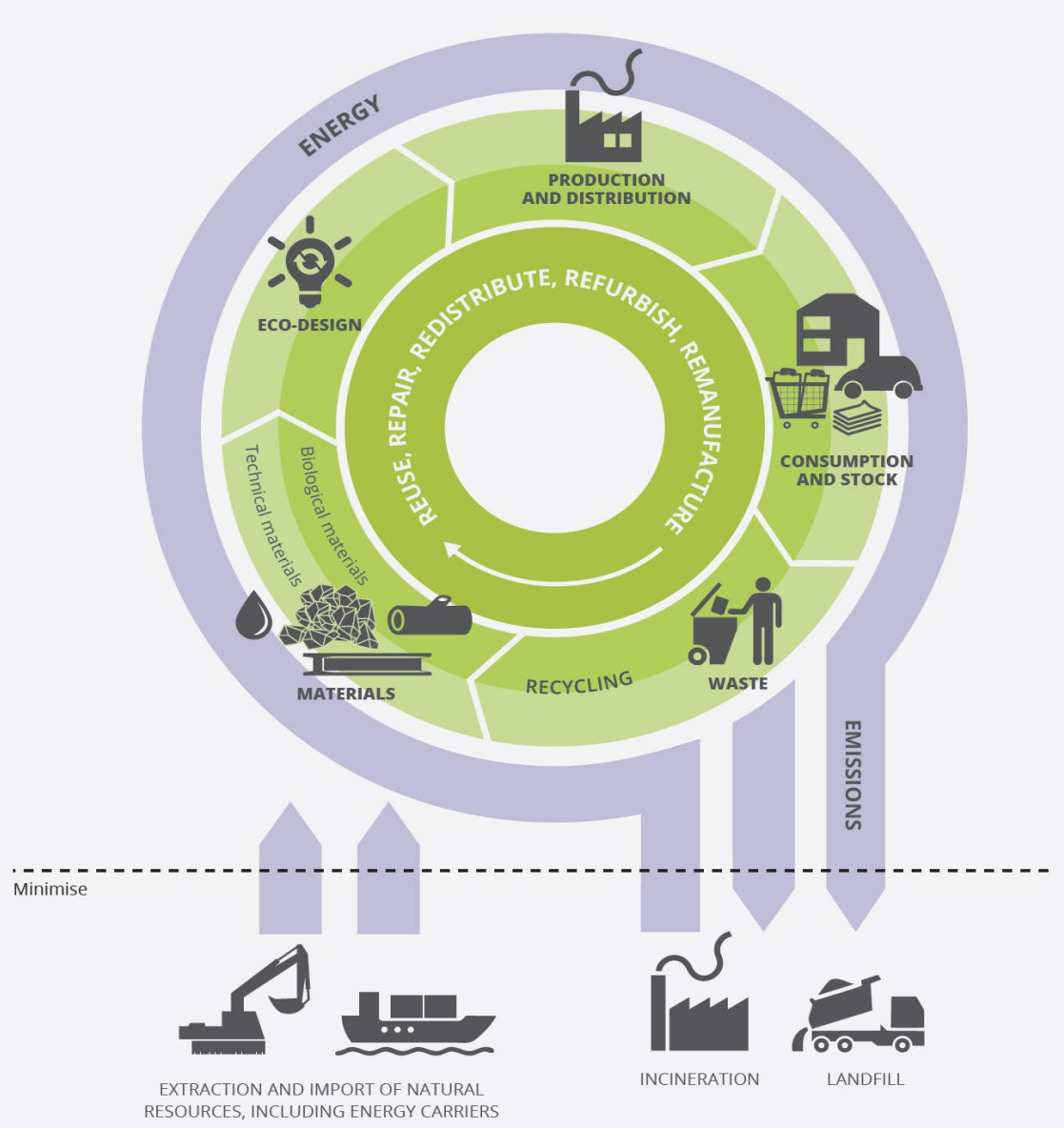
A full understanding of life cycle of products and services is missing

No info on hazardous chemicals/clean material cycle

Waste aspects only covered as material flows

European Environment Agency

The role of EEA



BELLAGIO PRINCIPLES

1. Monitor the circular economy transition
2. Define indicator groups
3. Follow indicator selection criteria
4. Exploit a wide range of data and information sources
5. Ensure multilevel monitoring
6. Allow for measuring progress towards targets
7. Ensure visibility and clarity

European Environment Agency

Circular Economy monitoring at the EEA

Coalition building

Bellagio partnership

Country level

Eurostat

UNECE / OECD

Innovation and pilots

Harvesting data from product passports

Piloting the use of novel data sources

Experimental Dashboard

Delivery and implementation

CE State and Outlook report

Experimental dashboard on CE

EEA Indicator set

Doubling CMUR