

Using EU Public Procurement Law as a Leverage for a Circular Economy

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Bachelor's & Master's degree
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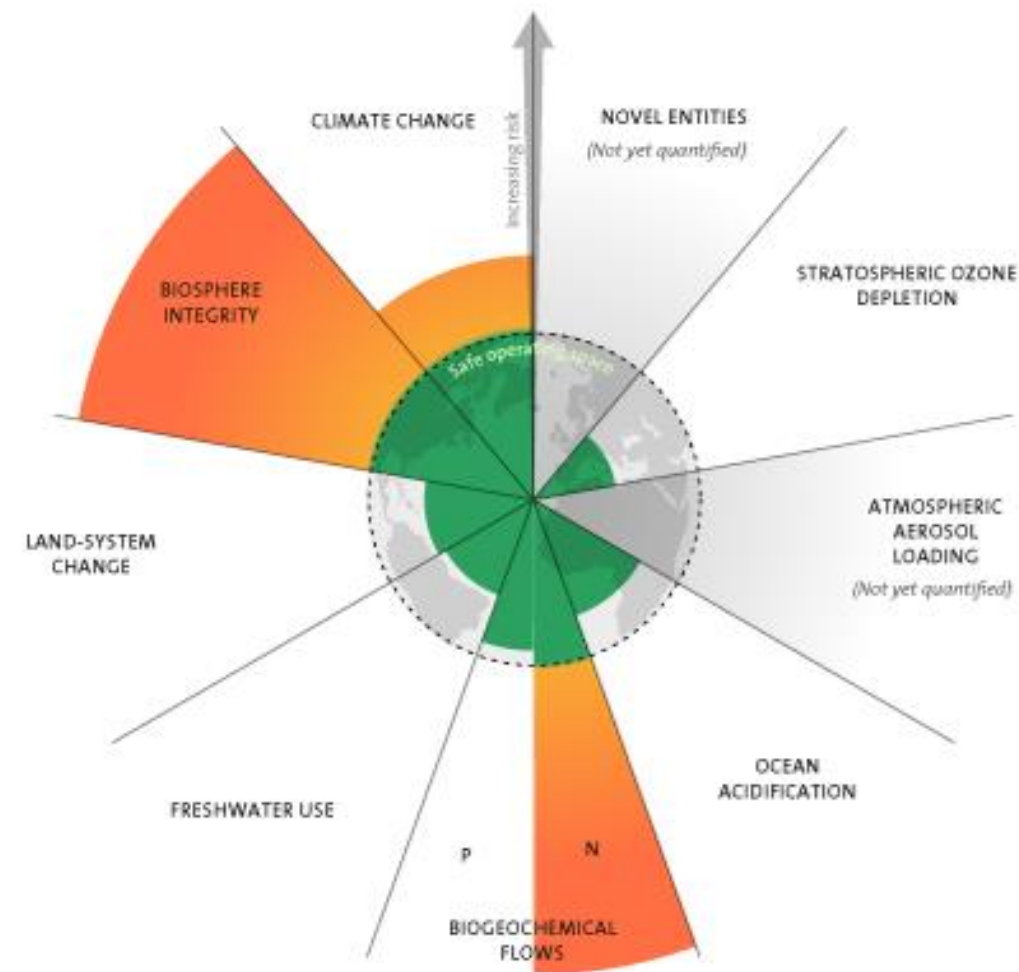
Agenda

Part 1: The Circular Economy: notion and indicators

Part 2: Public Procurement as a Leverage for a CE

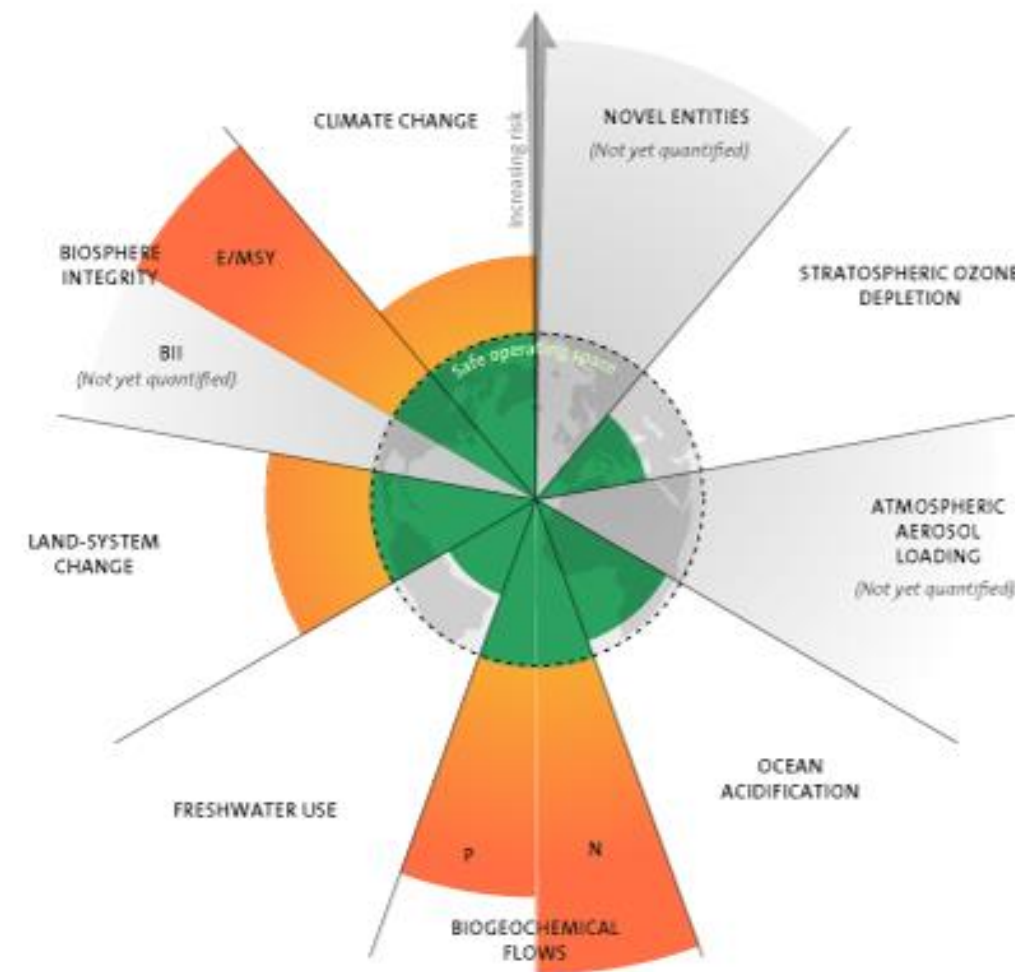


2009



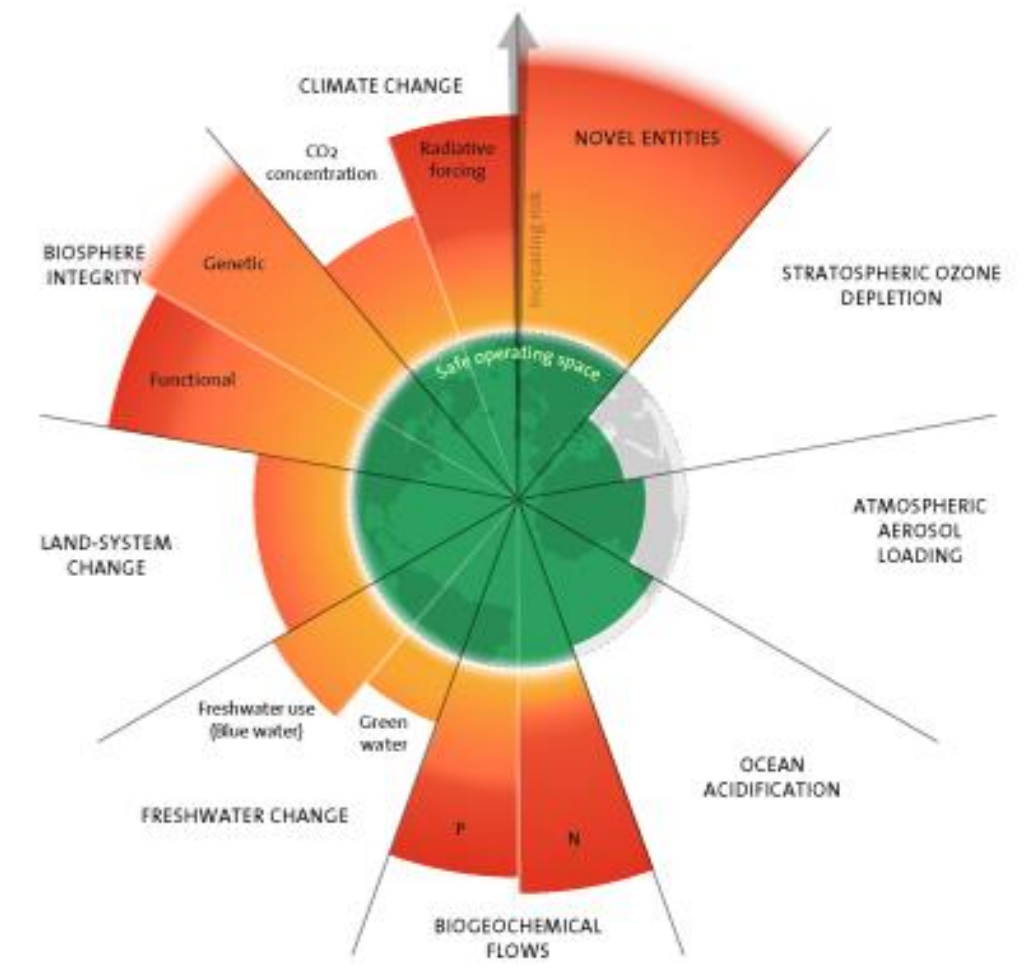
3 boundaries crossed

2015

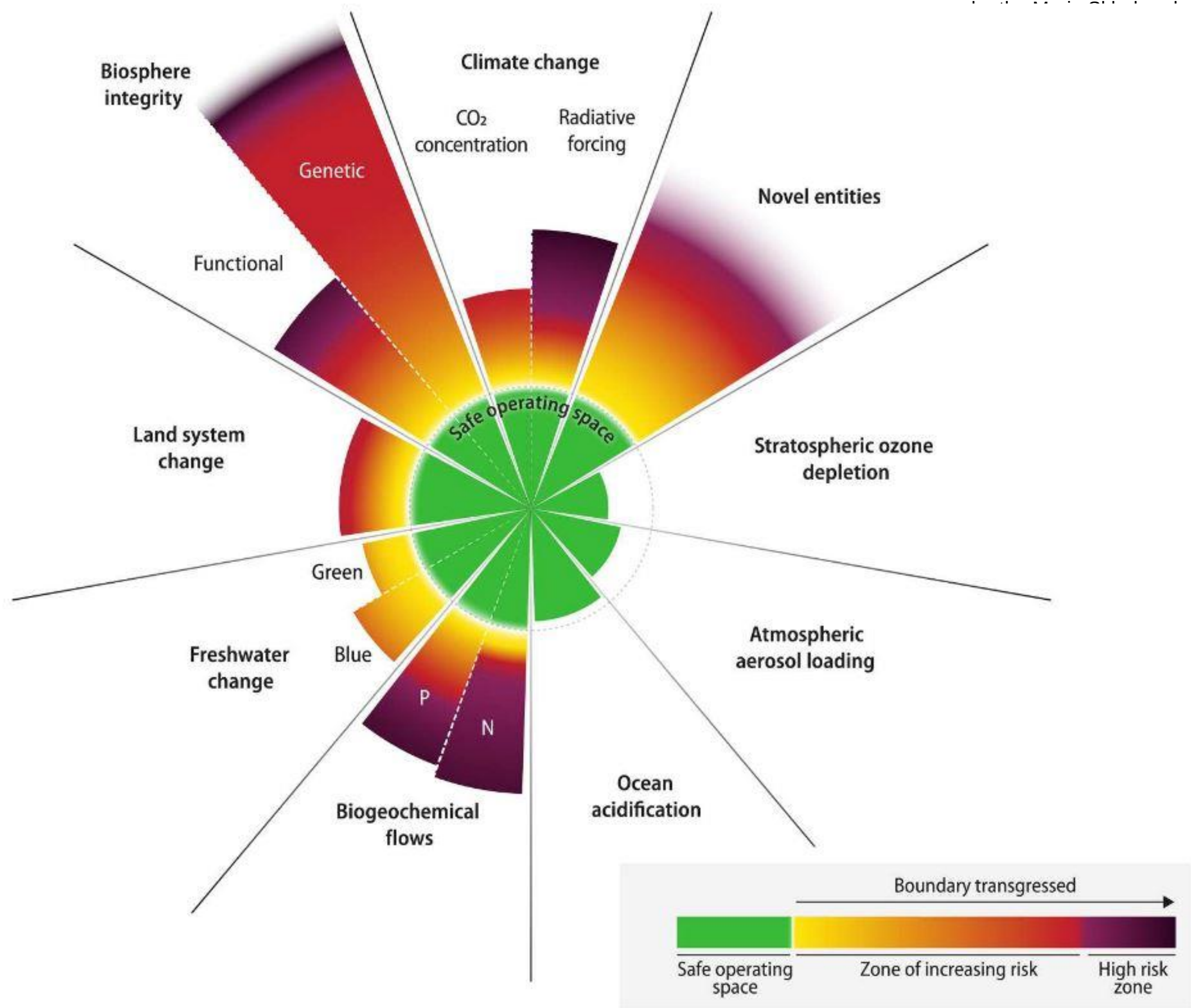


4 boundaries crossed

2023



6 boundaries crossed





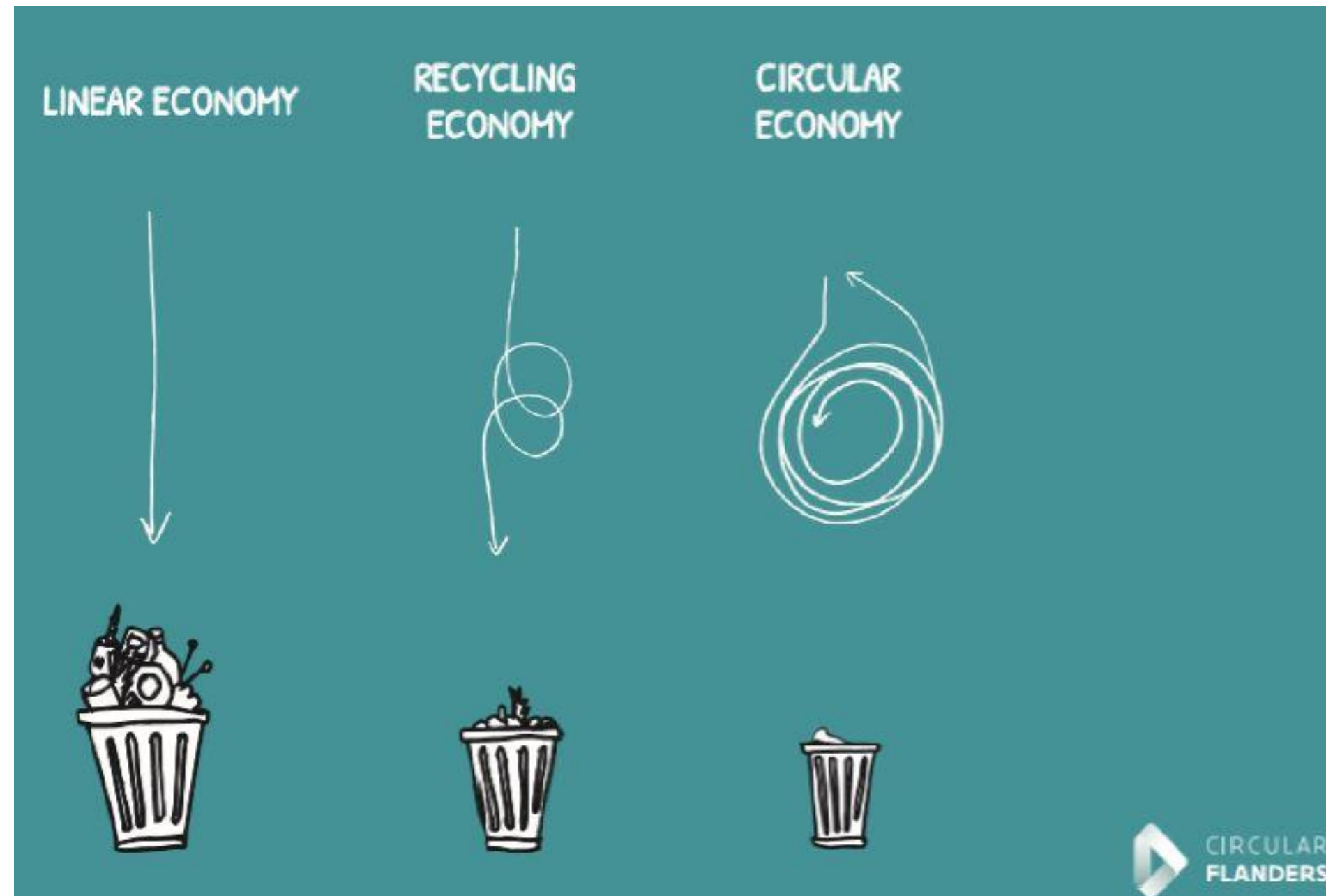
Introduction

Linear economy – take raw materials - create consumer goods – discard them after use.

Circular economy – maintains the value of resources and minimises waste generation.

Public procurement is the process by which governments buy works, products, and services from private companies.

Public authorities can choose environmentally friendly goods, services and works to boost circular economy and innovation.





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bound one-third (34%)—from 92.7 billion to 61.2 billion tonnes.

sions could be reduced enough to limit temperature rise to 2-degrees.⁵² And crucially, it overshoot of five planetary boundaries reversed.*

Linear
consumption
Circular
resources

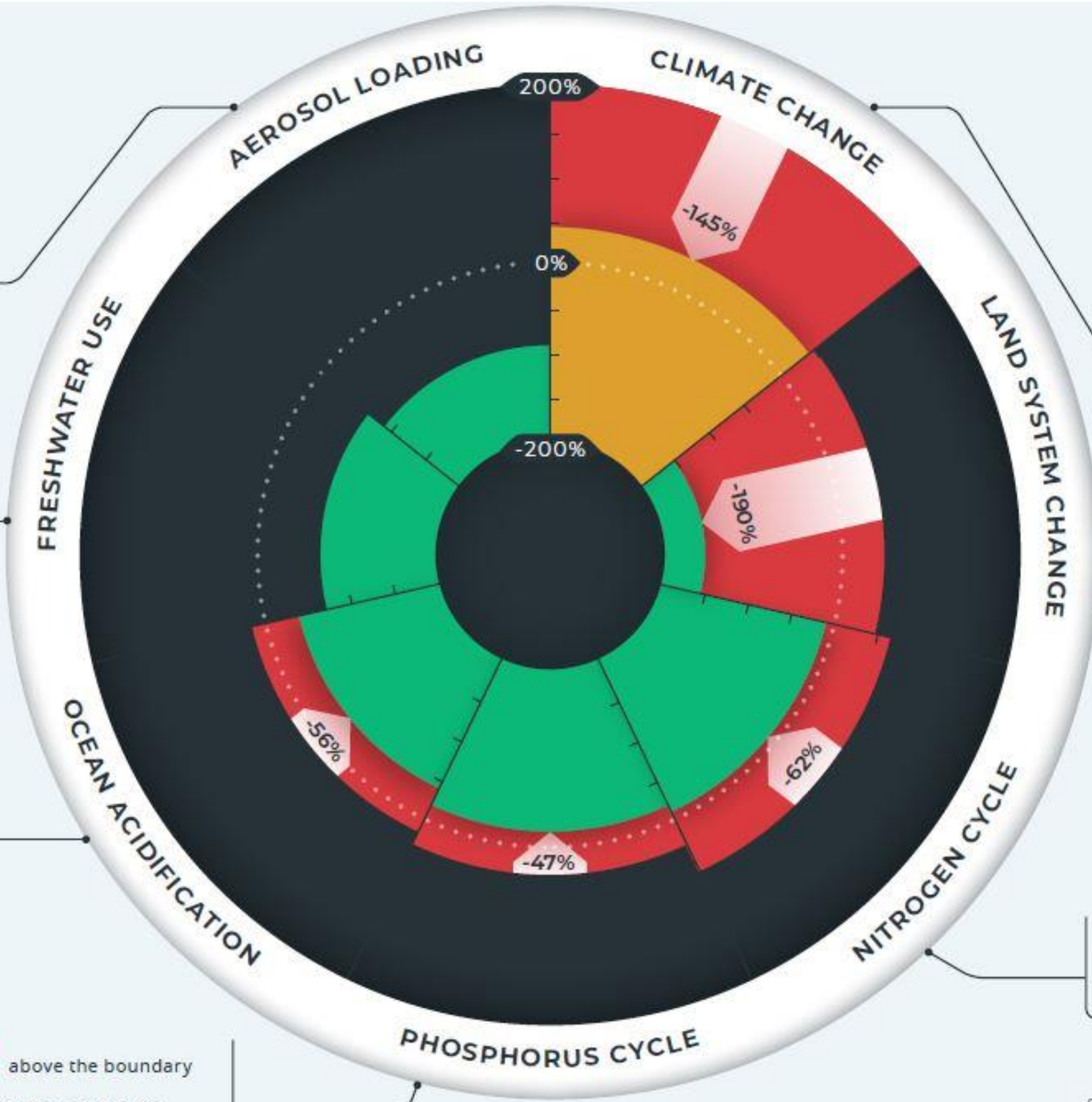
Public
government
private
Public
friendly
economy

From **87%** to **93%**
below the boundary.

From **59%** to **62%**
below the boundary.

From **13%** above the boundary
to **43%** below the boundary.

From **33%** above the boundary
to **14%** below the boundary.



detail in the report.

*Although we were only able to model the transgression of six planetary boundaries (in the framework, phosphorus and nitrogen cycles are both contained within Biogeochemical flows), we added to the eight planetary boundaries known to have been previously quantified. Measuring stratospheric ozone layer depletion was not possible. According to Rockstrom and colleagues, this boundary is transgressed only temporarily in Antarctica each spring. Biodiversity loss, and chemical pollution could also not be modelled. For more information, please refer to the [methodology document](#).

From **191%** above the boundary
to **46%** above the boundary
—enough of a decrease to limit
temperature rise to 2-degrees.

From **47%** above the boundary
to **143%** below the boundary.⁵³

From **59%** above the boundary
to **3%** below the boundary.

Figure three shows the impact the 16 circular solutions have on reversing the overshoot of five planetary boundaries.

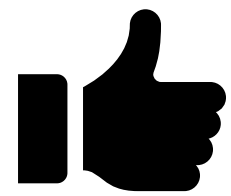
Circular economy: evolution of the concept

- Circular living approaches are known throughout various civilisations;
- The first academic mentioning explicitly a circular economy was in a PhD work, “The Economy as a Circular Flow” (Leontief, 1928)
- Different schools of thought (Cradle to Cradle, Performance Economy, Biomimicry, Industrial Ecology, Regenerative Design, Blue Economy)
- From 2010, it became a trending concept (NGO Ellen McArthur Foundation; academic debate Kirchherr) to be considered an independent research field today.

Evolution of the concept

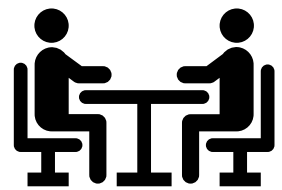
- Globally, circular economy principles have developed differently depending on the political and legislative approaches*:
 - i) explicitly labelled CE laws in Japan (2000), China (2008), Germany (2012), Uruguay (2017), South Korea (2018), and France (2020),
 - ii) law underpinning CE principles and are commonly traced at the EU level, e.g. the Waste Framework Directive 2008/98/EC
 - iii) laws impacting CEs, e.g., the Ecodesign Directive 2009/125/EC.

See: Feja Lesniewska and Katrien Steenmans, Circular Economy and the Law: Bringing Justice Into the Frame, 2023.



European Union

- Decoupling economic growth from resource extraction while ensuring long-term competitiveness;
- Develop the EU capacity of critical raw materials to avoid disruption in the supply chains;
- Accelerate the regenerative growth model;
- Economic expansion, job creation, and social inclusion;



The transition to a circular economy increases investments, value added and jobs, and stimulates innovation.

Jobs, growth and investment in circular economy sectors



3.9 million jobs



Value added in 2014
EUR 141 billion



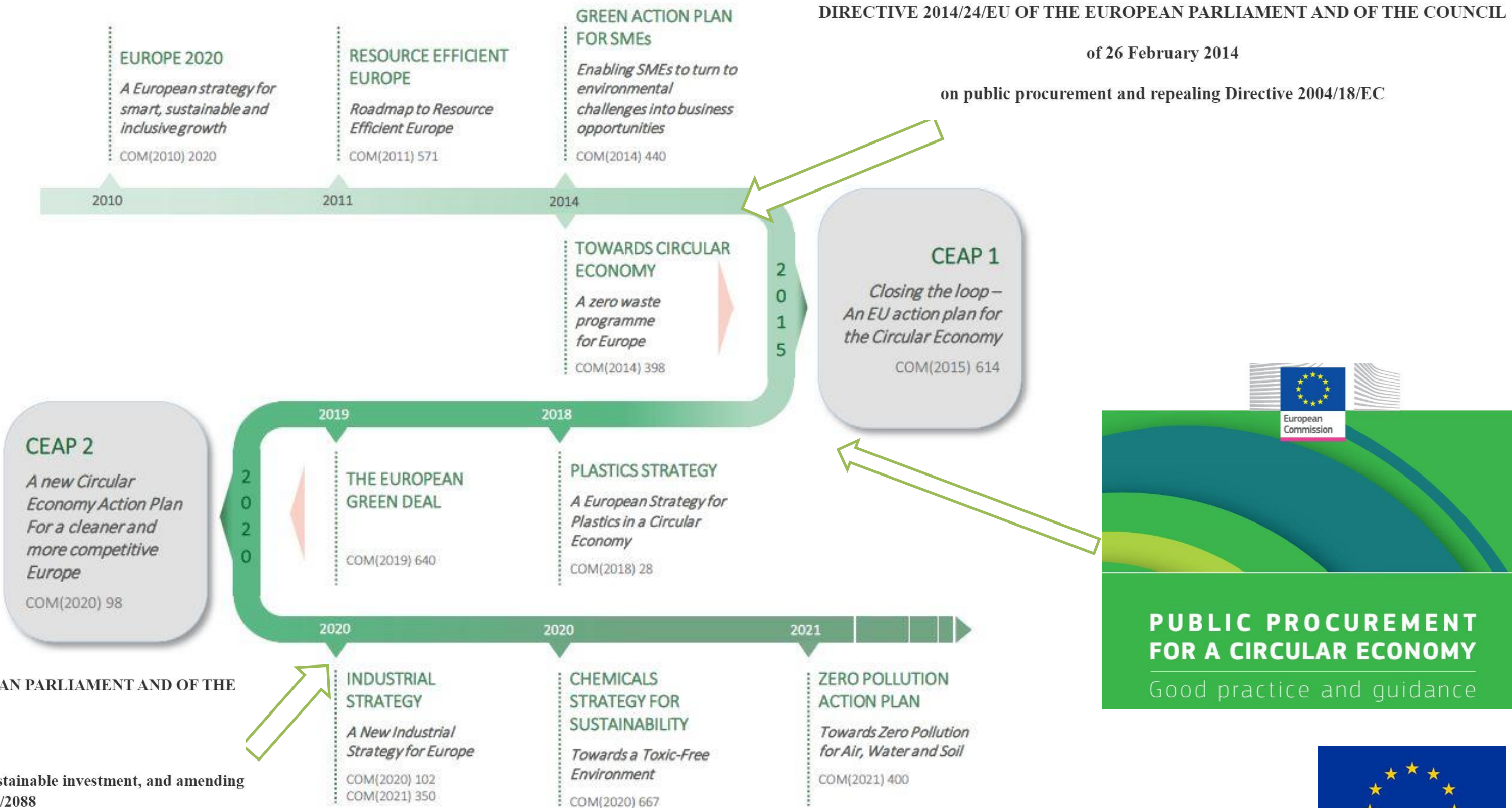
An increase of **6.1 %**
compared to 2012



Private investments
EUR 15 billion

Source: Eurostat

Figure 2 – EU strategic framework on circular economy



REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 18 June 2020
on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088

Source: ECA.



Eu Taxonomy (Regulation 2020/852, art. 2 n.9) legal definition

Circular economy 'an **economic system** whereby the **value of products, materials and other resources** in the economy is maintained for as long as possible, **enhancing their efficient use** in production and consumption, thereby **reducing the environmental impact** of their use, **minimising waste and the release of hazardous substances** at all stages of their life cycle, including through the application of the waste hierarchy'

Maintaining the
value of products

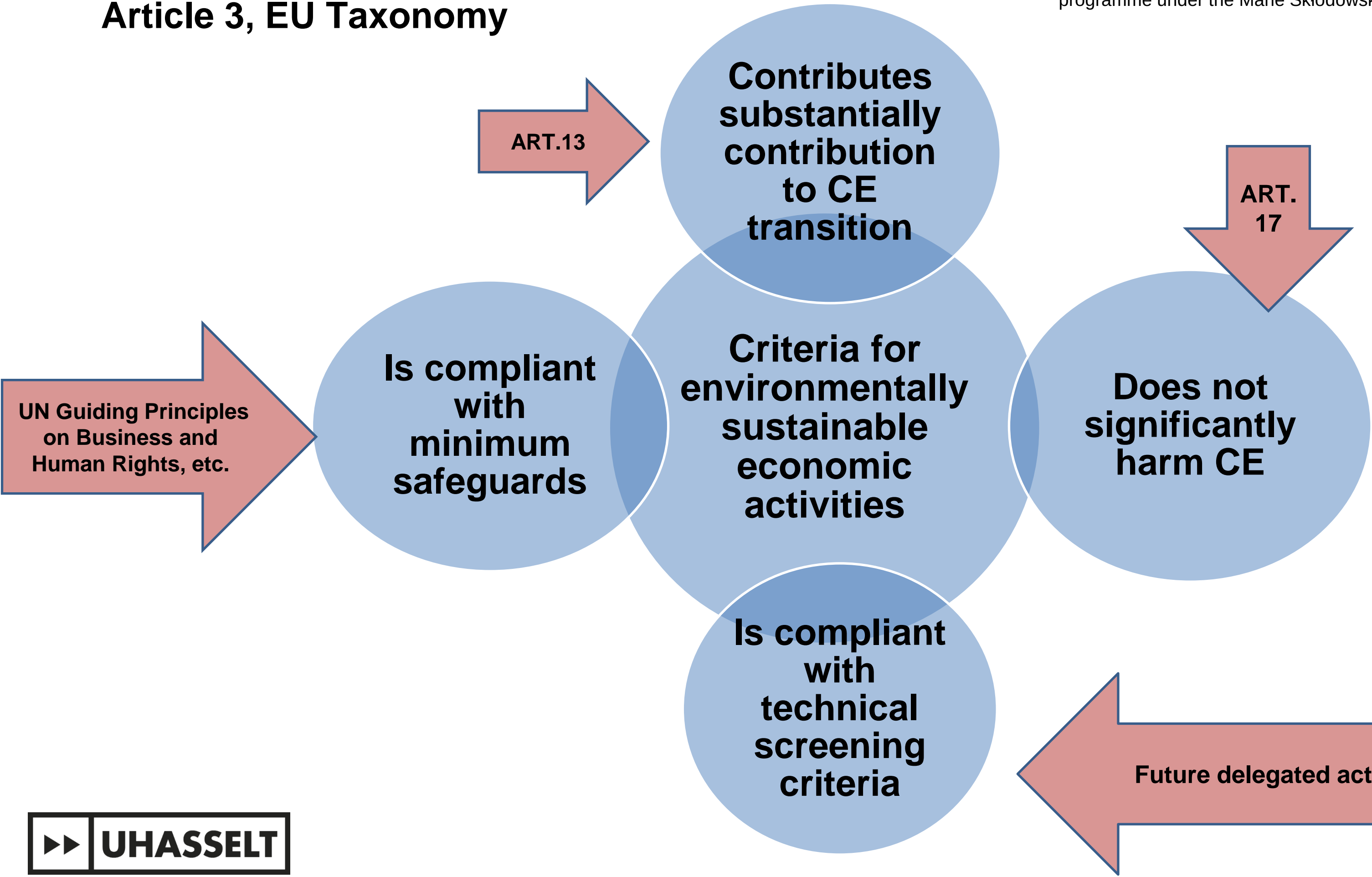
Enhancing efficient
use of products
/resources

Reducing
environmental
impact

Minimize waste



Article 3, EU Taxonomy



*Article 13***Substantial contribution to the transition to a circular economy**

1. An economic activity shall qualify as contributing substantially to the transition to a circular economy, including waste prevention, re-use and recycling, where that activity:
 - (a) uses natural resources, including sustainably sourced bio-based and other raw materials, in production more efficiently, including by:
 - (i) reducing the use of primary raw materials or increasing the use of by-products and secondary raw materials; or
 - (ii) resource and energy efficiency measures;
 - (b) increases the durability, reparability, upgradability or reusability of products, in particular in designing and manufacturing activities;
 - (c) increases the recyclability of products, including the recyclability of individual materials contained in those products, inter alia, by substitution or reduced use of products and materials that are not recyclable, in particular in designing and manufacturing activities;
 - (d) substantially reduces the content of hazardous substances and substitutes substances of very high concern in materials and products throughout their life cycle, in line with the objectives set out in Union law, including by replacing such substances with safer alternatives and ensuring traceability;
 - (e) prolongs the use of products, including through reuse, design for longevity, repurposing, disassembly, remanufacturing, upgrades and repair, and sharing products;
 - (f) increases the use of secondary raw materials and their quality, including by high-quality recycling of waste;
 - (g) prevents or reduces waste generation, including the generation of waste from the extraction of minerals and waste from the construction and demolition of buildings;

Article 17

Significant harm to environmental objectives

1. For the purposes of point (b) of Article 3, taking into account the life cycle of the products and services provided by an economic activity, including evidence from existing life-cycle assessments, that economic activity shall be considered to significantly harm:
 - (d) the circular economy, including waste prevention and recycling, where:
 - (i) that activity leads to significant inefficiencies in the use of materials or in the direct or indirect use of natural resources such as non-renewable energy sources, raw materials, water and land at one or more stages of the life cycle of products, including in terms of durability, reparability, upgradability, reusability or recyclability of products;
 - (ii) that activity leads to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or
 - (iii) the long-term disposal of waste may cause significant and long-term harm to the environment;



How?

2018

- Legislative measures;
- Monitoring trends to understand how circular economy develops over time;
- Identifying successful actions of Member States;
- Using the information to set the basis for new priorities towards the long-term objective of a circular economy.

Circular economy monitoring framework

1 EU self-sufficiency for raw materials

The share of a selection of key materials (including critical raw materials) used in the EU that are produced within the EU

2 Green public procurement

The share of major public procurements in the EU that include environmental requirements

3a-c Waste generation

Generation of municipal waste per capita, total waste generation (excluding major mineral waste) per GDP unit and in relation to domestic material consumption

4 Food waste

Amount of food waste generated

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

Secondary raw materials' share of overall materials demand - for specific materials and for the whole economy

8 Trade in recyclable raw materials

Imports and exports of selected recyclable raw materials

5a-b Overall recycling rates

Recycling rate of municipal waste and of all waste except major mineral waste

6a-f Recycling rates for specific waste streams

Recycling rate of overall packaging waste, plastic packaging, wood packaging, waste electrical and electronic equipment, recycled biowaste per capita and recovery rate of construction and demolition waste

11.a. Global sustainability from circular economy

- consumption footprint (respect of planetary boundaries)
- greenhouse gas emissions from production activities

11.Resilience from circular economy

- how much the EU depends on imports of materials
- EU contribution to secure raw materials supply

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

Private investments, number of persons employed and gross value added in the circular economy sectors

10 Patents

Number of patents related to waste management and recycling



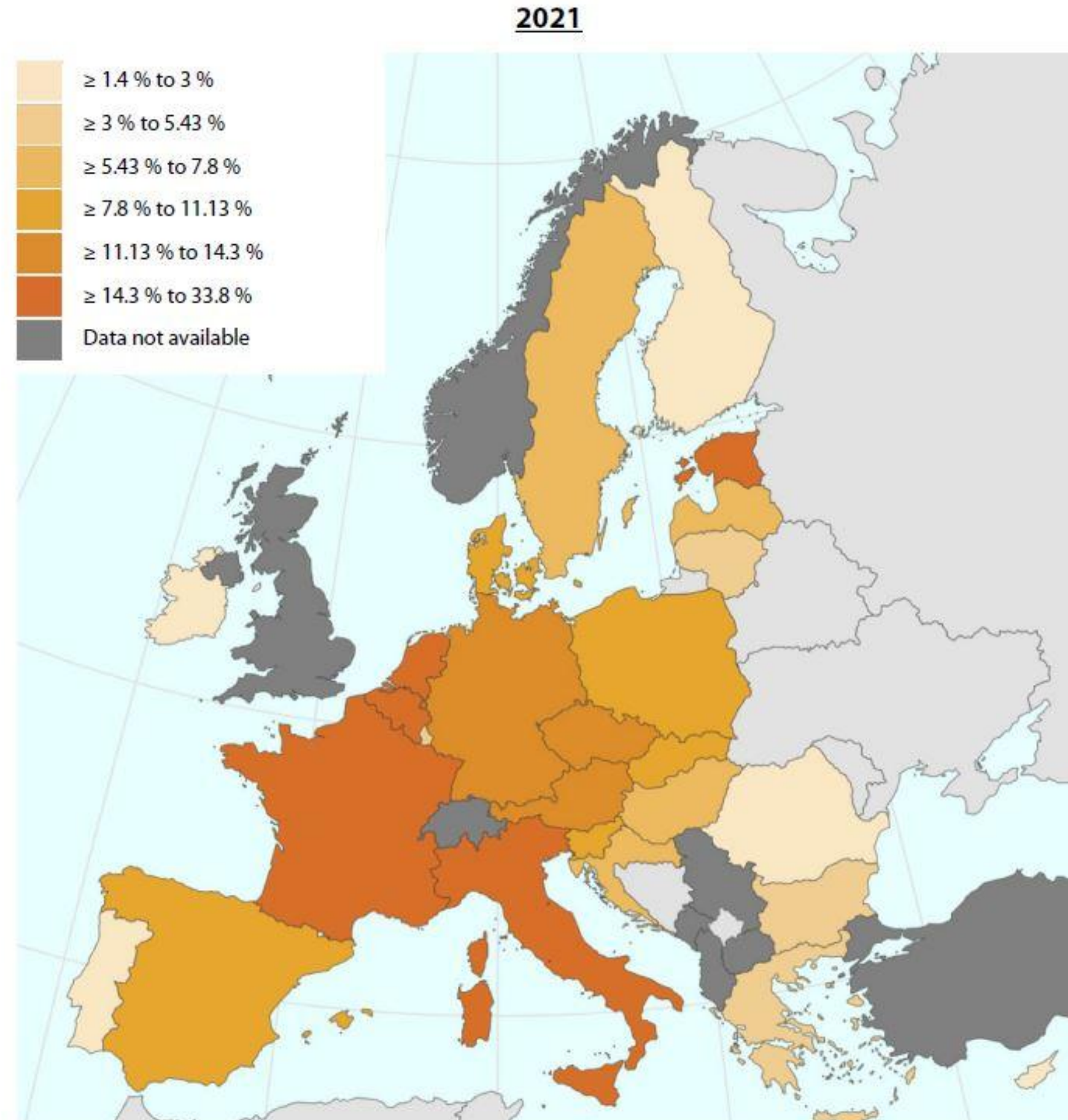
Public Procurement as a Leverage for CE

Public procurement is the process by which governments buy works, products, and services from private companies.

Public Procurement represents a large share of EU GDP (14%), and hence green public procurement – i.e. when public authorities use their purchasing power to **choose environmentally friendly** goods, services and works – **can be a driver for the circular economy and innovation.**

Green public procurement - CE indicator under development.





Why?

- There is minimal evidence that the EU's efforts have influenced circular economy activities in the Member States, and the progress is plodding.
- Overall, the EU's circularity rate is 11.7%, higher than the global one at 7.6%.

Public procurement law can boost circular economy activities.



CIRCULAR PROCUREMENT MODELS

1. System level

- Product service system
- Public Private Partnership
- Cooperation with other organisations on sharing and reuse
- Rent/lease
- Supplier take-back systems including reuse, recycling, refurbishment and remanufacturing

2. Supplier Level

- Supplier take-back system
- Design to disassembly
- Reparability of standard products
- External reuse/ sale of products
- Internal reuse of products

3. Product

- Materials in the product can be identified
- Products can be disassembled after use
- Recyclable materials
- Resource efficiency and Total Cost of Ownership
- Recycled materials

Practical Steps Towards Circular Public Procurement

Engage with suppliers to explore and promote new business concepts and circular solutions, such as product-service systems, leasing options, buy-per-use, shared use, or buying and selling back.

Considering a service instead of buying a product

Focus on product design, its use phase and end-of-life

Practical Steps Towards Circular Public Procurement

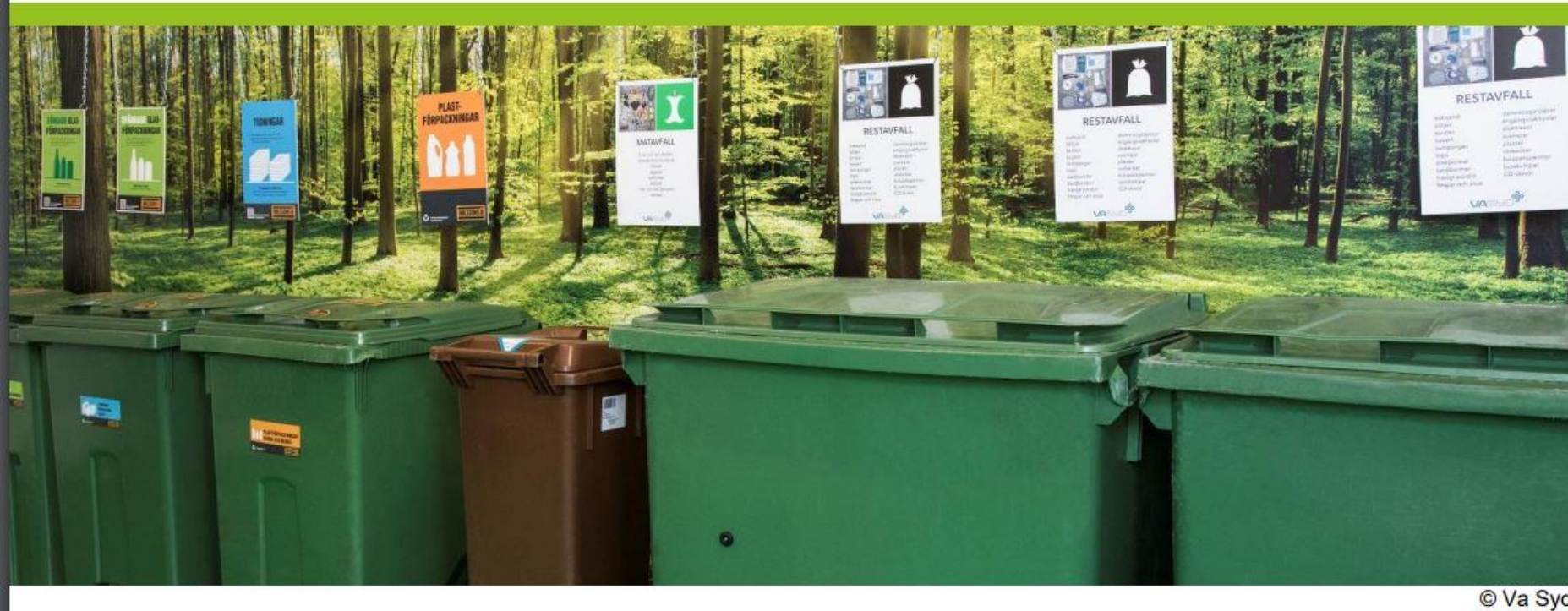
Specifications

- (CIRCULAR) ECOLABELS
- GPP CRITERIA on product design (recyclability, waste prevention, reuse, and refurbishment)
- Identify *functional* or *performance-based* technical specifications for achieving a circular result based on the broader needs.

Award

- Most Economically Advantageous Tender + criteria on the quality and circularity aspects
- Consider life-cycle costing methods that can encourage circularity as in many cases, costs incurred during use (such as energy consumption, service and maintenance costs) and disposal may be highly significant in terms of price.

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Waste management services

Keywords: waste, sorting, minimization, fossil free

Commissioned by: City of Malmö, Sweden

The environmental and circular criteria

- Climate demands on transportation
- Containers made of recycled material
- Cleaning of containers with just hot water (no harmful chemicals)

Challenges

- Creating a good pricing model due to the diverse range of waste streams and services included in the contract

https://northsearegion.eu/media/23890/interreg-nsr-procirc-case-study_waste-management-services.pdf

Conclusion

Using EU Public Procurement Law as a Leverage for a Circular Economy: Myth or fact?

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Public authorities can engage in public tenders with circular economy objectives by rethinking their needs into circular solutions and introducing circularity in their tenders (specifications, award criteria, contractual clauses)

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- 1 The transition to a Circular Economy is a key action of the EU that can bring long-term competitiveness, job creation, and put an end to resource scarcity and waste production.
 - 2 The CE is a research field in constant development, and its monitoring is crucial. CE indicators can help formulate priorities towards long-term objectives.
 - 3 Public procurement can be a driver for the circular economy and innovation. It can boost circular economy business and create demand for circular works, supplies and products.
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Thank You!

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