



# Technical support for the preparation of circular economy roadmap for the Slovak Republic

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# Outline

1. Project process and work streams

2. Global context and rationale for a circular economy transition in the Slovak Republic

3. Key proposed elements of the roadmap







# PROJECT PROCESS AND WORK STREAMS





# Project process

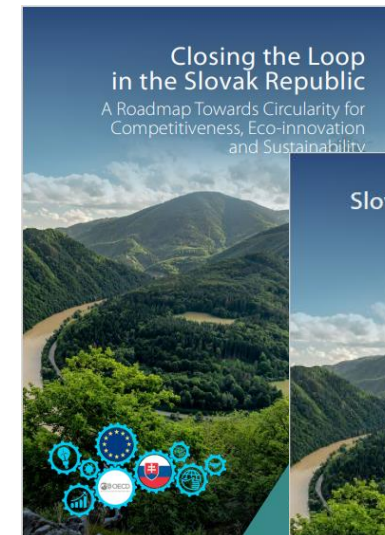
Project  
requested by the  
Slovak Republic  
in the context of  
the EU's TSI

Analytical work  
and stakeholder  
consultations

Concludes **today**  
with a high-level  
event

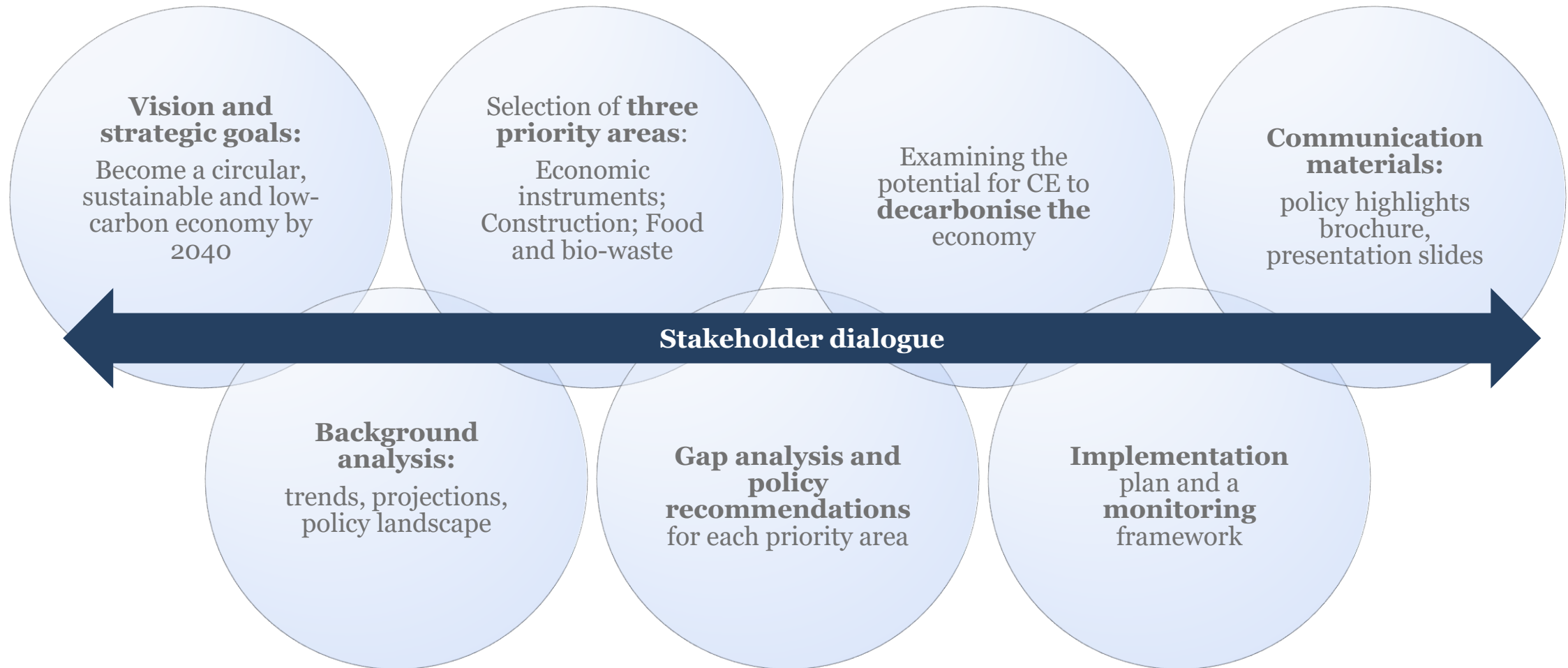
Started in  
September 2020

Development of  
a **report** and  
**policy**  
**highlights**





# Work streams: the OECD contribution to the future circular economy roadmap



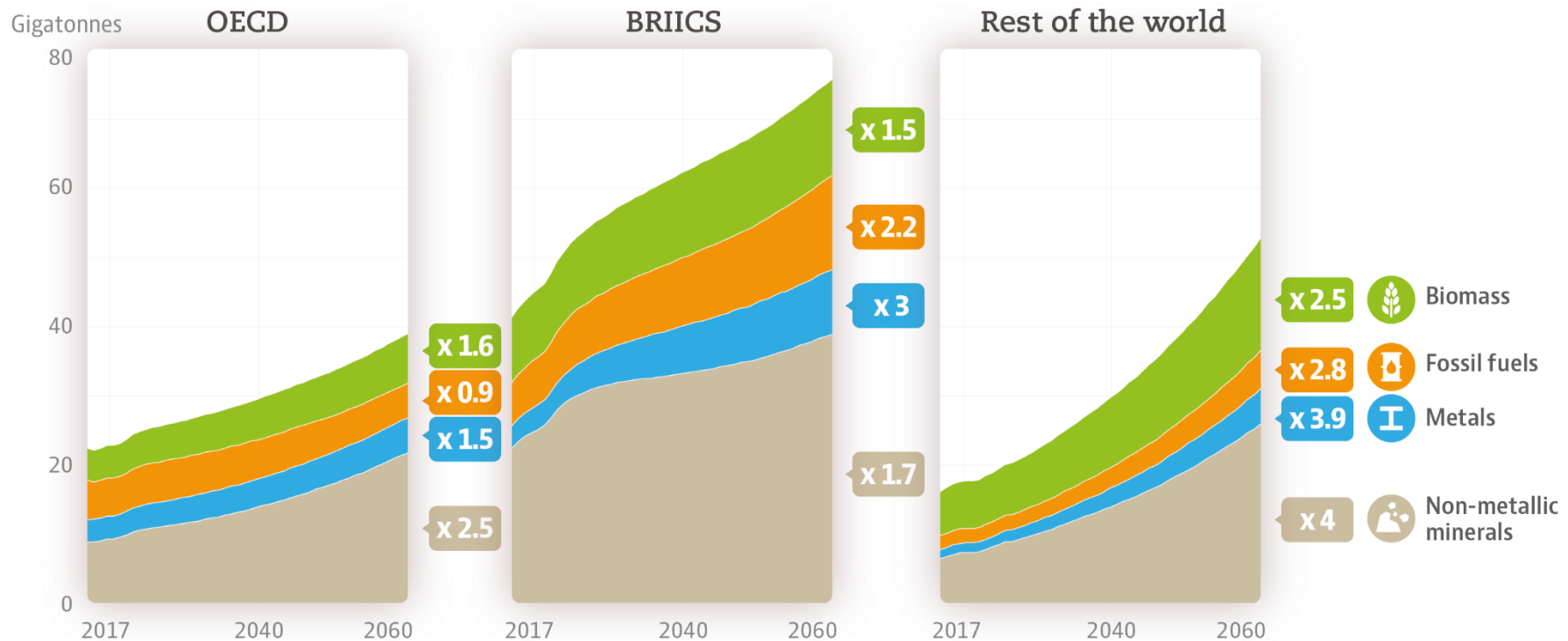


# GLOBAL CONTEXT AND RATIONALE FOR A CIRCULAR ECONOMY TRANSITION IN THE SLOVAK REPUBLIC



# Role of circular economy in tackling global challenges related to materials use

Global materials use is projected to more than double by 2060



Source: OECD (2019), Global Material Resources Outlook to 2060: Economic Drivers and Environmental Consequences, <https://doi.org/10.1787/9789264307452-en>.





# Increased materials use is associated with severe environmental consequences

## Projections of greenhouse gas emissions

**12%** of total ghg emissions  
associated with 7 key metals

**12%** of total ghg emissions  
associated with concrete

**50Gt** CO<sub>2</sub> eq emissions  
associated with materials cycle









# Increasing materials consumption provides a strong case for a circular economy transition in the Slovak Republic

Overall materials consumption is projected to increase by more than 50% (from 94 Mt to 142 Mt) by 2050 compared to 2017 levels

The Slovak Republic has made notable **progress** in **decoupling** environmental pressures from economic activity in the past decades

Nonetheless, its economy remains **energy-, carbon- and resource-intensive** due to a strong manufacturing sector

**Metals** (iron ores) and **non-metallic minerals** (construction sand, gravel and crushed rock) are projected to increase at a faster rate than the EU average

	2020	2050	RATE
 <b>Metals</b>	22 Mt	36 Mt	x1.7
 <b>Fossil fuels</b>	30 Mt	29 Mt	x1
 <b>Biomass</b>	20 Mt	24 Mt	x1.2
 <b>Non-metallic minerals</b>	32 Mt	53 Mt	x1.7

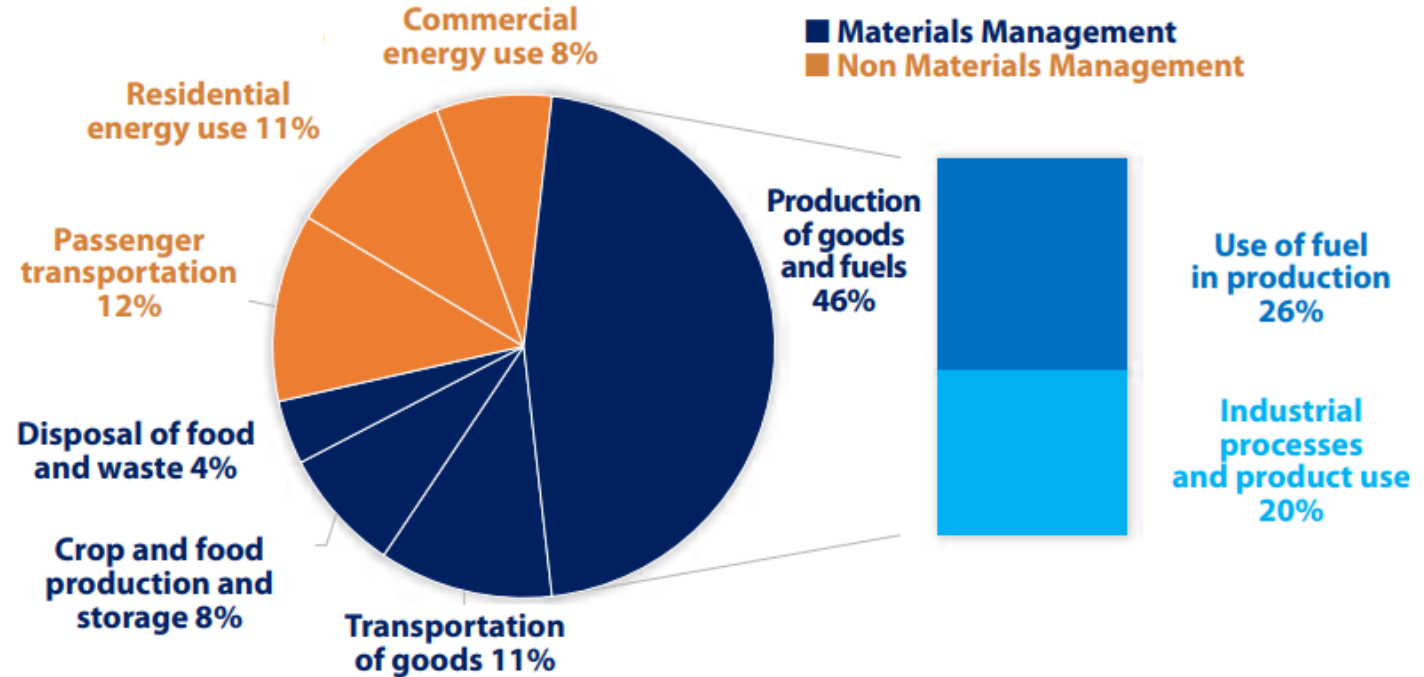


# Increasing materials consumption generates significant negative environmental impacts, including greenhouse gas emissions

Around 70% of the country's GHG emissions were associated with materials management activities in 2019

**Production** related emissions are largely associated with **steel and cement production** (inputs to the construction sector)

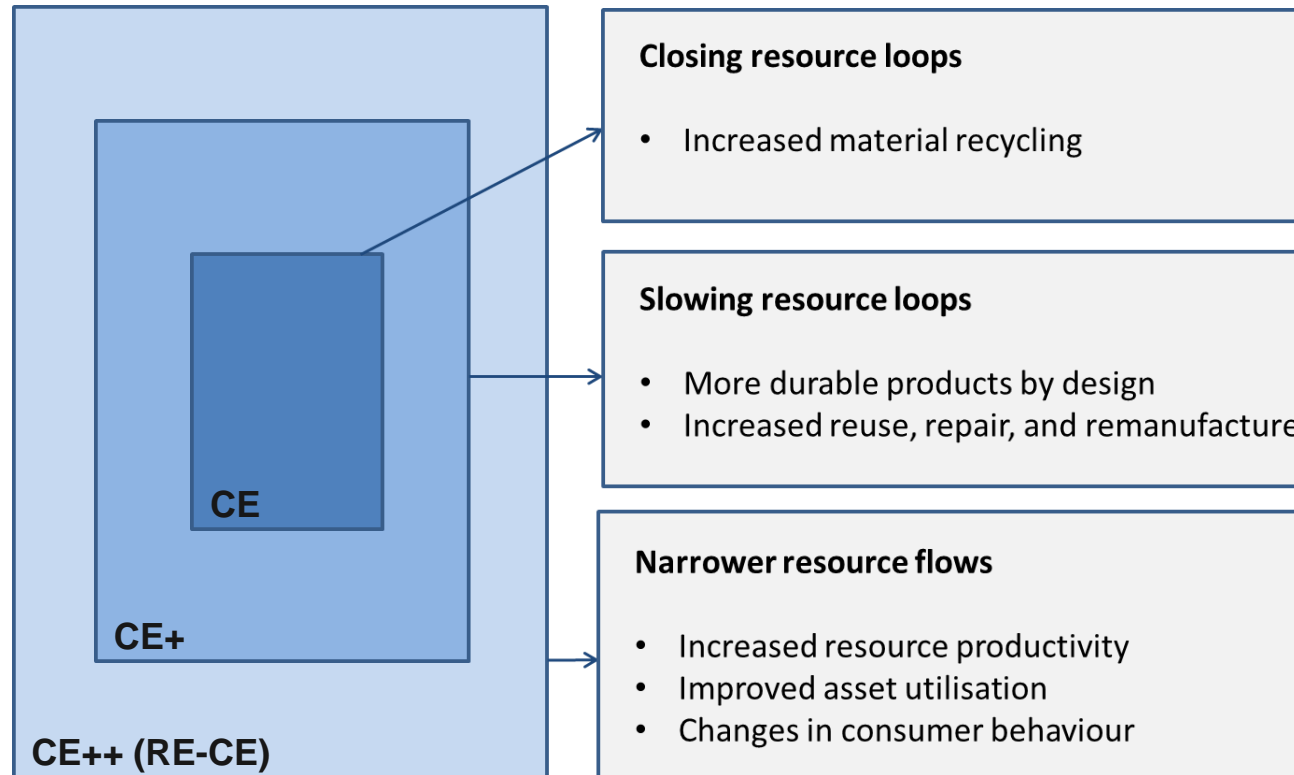
But also with **agriculture** and **waste disposal**







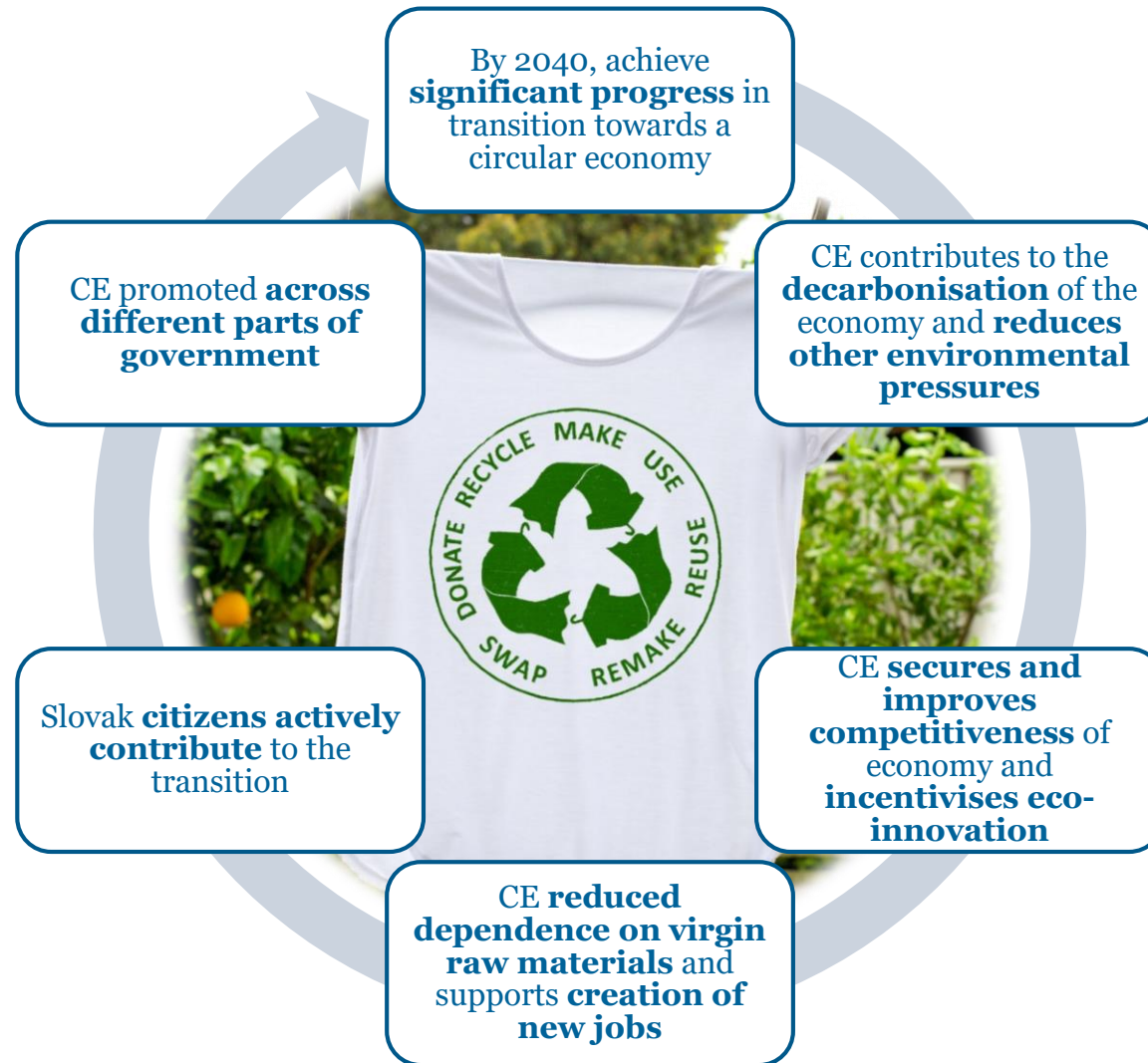
# Transitioning to a circular economy is one of the key responses



Source: McCarthy, A., R. Dellink and R. Bibas (2018), The Macroeconomics of the Circular Economy Transition: A Critical Review of Modelling Approaches, <https://doi.org/10.1787/af983f9a-en>.



# Proposed vision and strategic goals for a circular economy roadmap





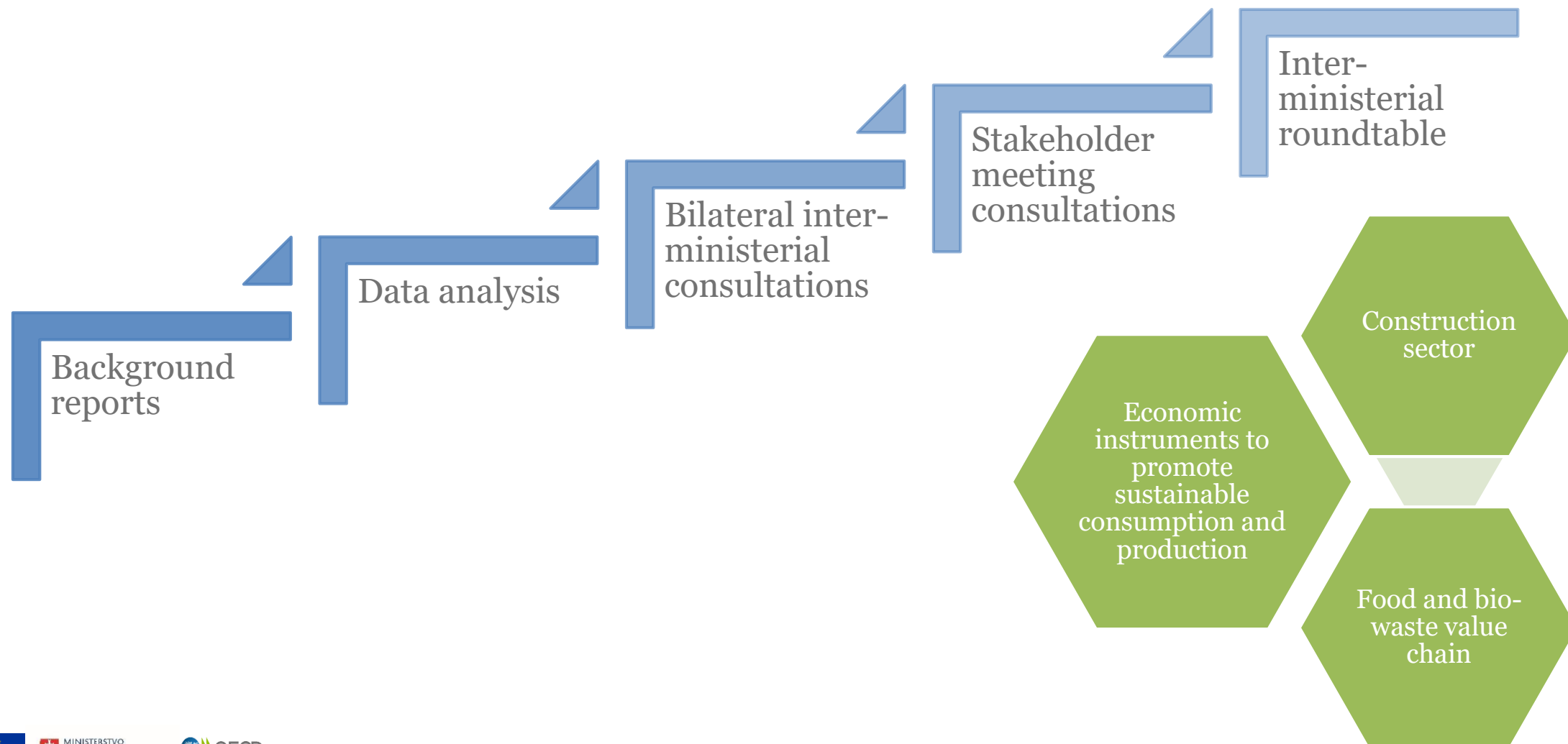


# KEY PROPOSED ELEMENTS OF THE ROADMAP





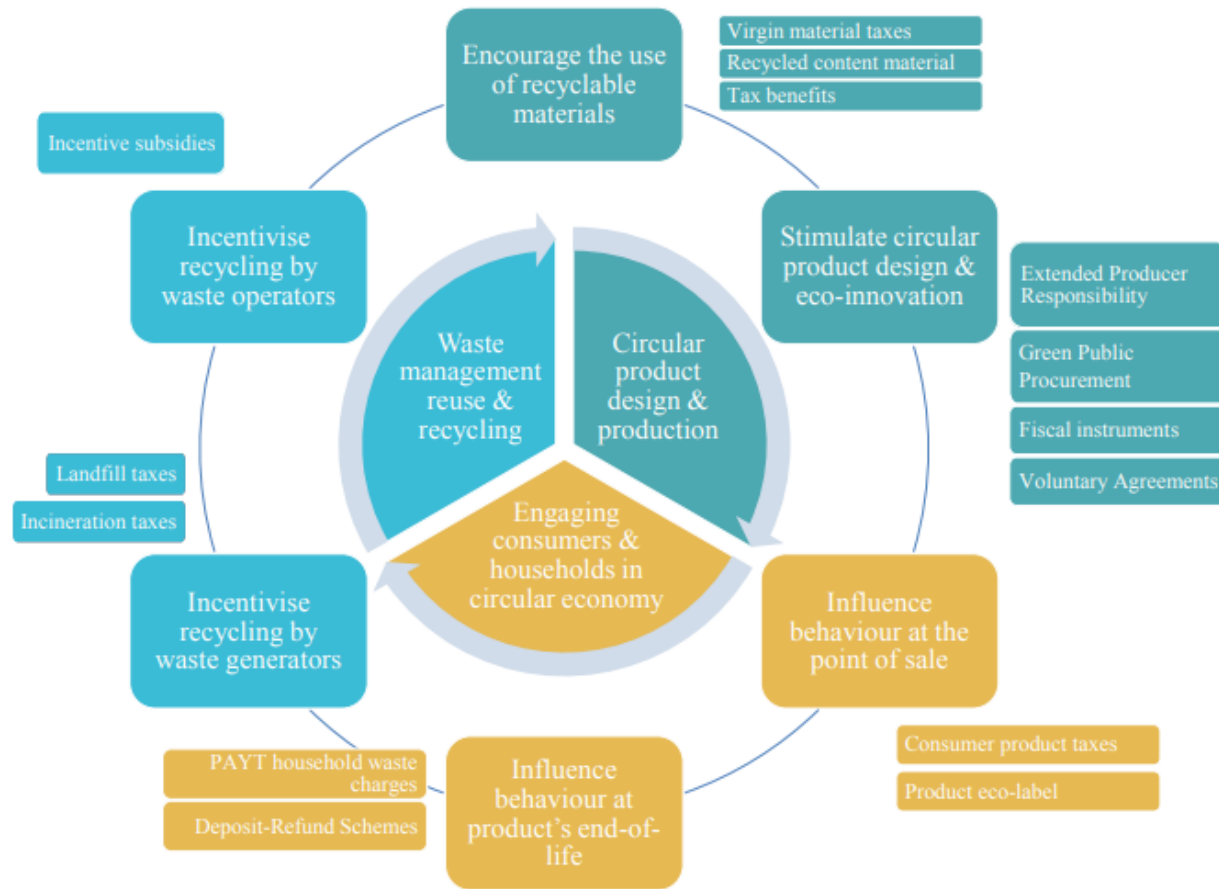
## Process behind the selection of priority areas







# Economic instruments offer the prospect of achieving circular economy objectives at a lower cost, while incentivising innovation



Economic instruments can provide **incentives along value chains**

Offering a degree of **flexibility in compliance** allowing to **minimise costs**

Inducing behavioural changes through **price signals**



# Examples of key policy recommendations to strengthen the use of economic instruments

## Short-term (up to 2025)

- Strengthen existing environmental taxes (landfill tax, VAT)
- Reform existing EPR schemes (eco-modulated fees)
- Gradually increase the (mandatory) use of GPP criteria as award criteria
- Expand the coverage of well-designed PAYT schemes (through legislation or incentives)

## Medium- to long-term (2025-2040)

- Consider introducing new environmental taxes (taxes on virgin aggregates or plastics, incineration taxes)
- Extend EPR to additional products (construction products)
- Consider minimum recycled content requirements within GPP (paper, plastics)
- Move towards sack-/ weight-based PAYT schemes

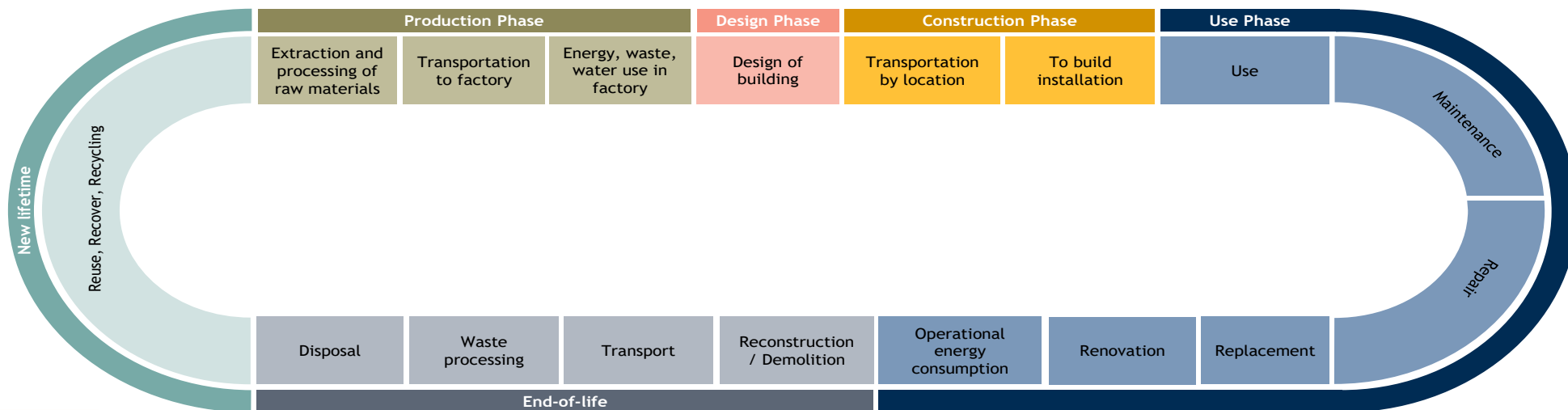


# Large untapped opportunities in materials and waste management exist in the Slovak construction sector

The construction sector accounts for **more than half** of domestic raw materials use and a considerable amount of **waste** generated

While the focus so far has been on improving buildings' energy efficiency, new constructions and **renovations** offer important opportunities to deploy circular strategies

Incentives encouraging **circular design** and the use of **secondary construction materials** provide the largest potential to keep materials flowing in the sector







# Examples of key policy recommendations towards a circular construction sector

## Short-term (up to 2025)

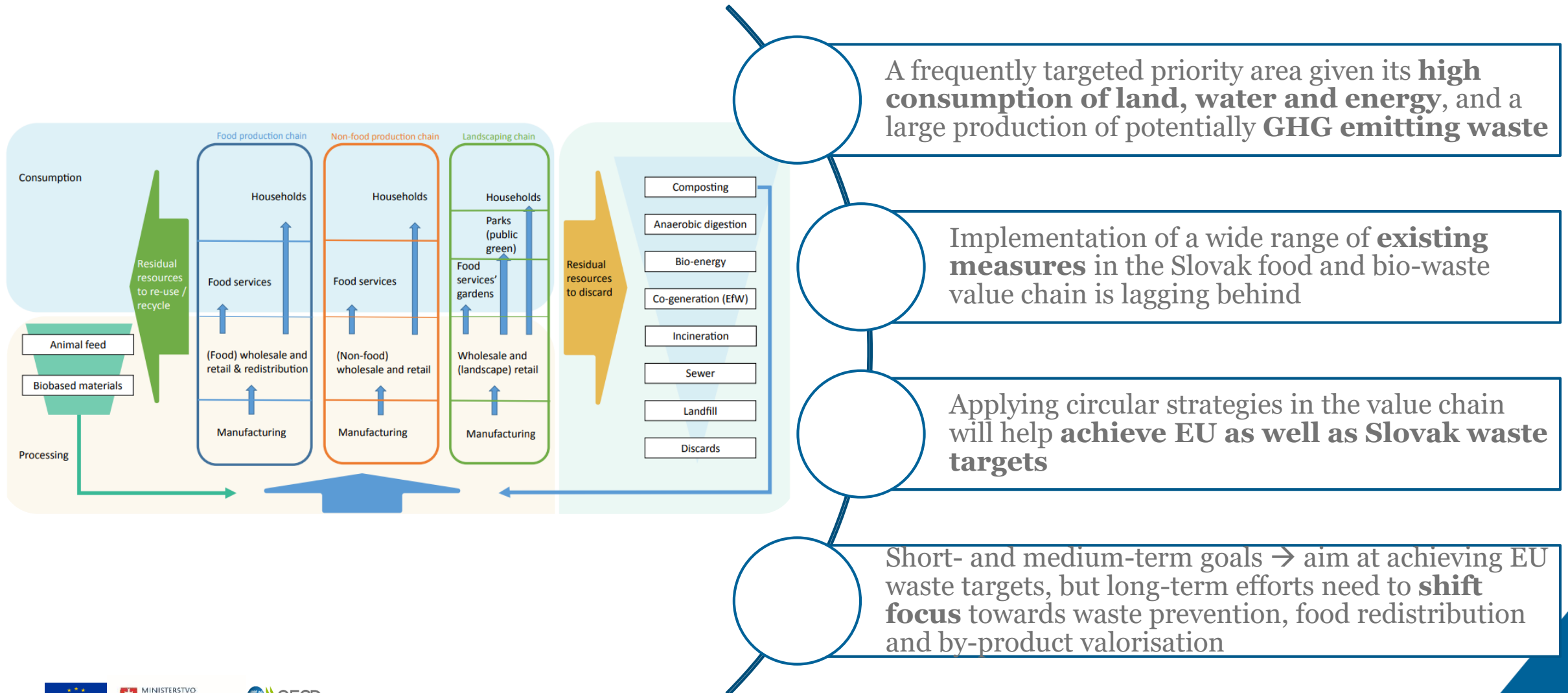
- Improve measurement and monitoring of CDW flows
- Introduce quality standards for recycled construction materials
- Strengthen GPP of construction works for all public entities (as award criteria mainly)
- Support business model innovation and construction pilot projects that apply circular principles in new construction and renovation

## Medium- to long-term (2025-2040)

- Implement digital tools
- Consider new tax incentives (tax credits, VAT) to promote the use of secondary raw and renewable materials in renovation
- Develop and apply advanced GPP tools to evaluate bids on green criteria
- Consider EPR for construction products



# Achieving circular food and bio-waste value chain requires a shift in production as well as behavioural patterns





# Examples of key policy recommendations for a circular food and bio-waste value chain

## Short-term (up to 2025)

- Improve measurement of food waste and stimulate multi-stakeholder cooperation
- Implement more effective information and education tools on food waste prevention
- Enhance the use of economic instruments (GPP, subsidies)
- Develop a supportive regulatory framework for bio-waste management

## Medium- to long-term (2025-2040)

- Strengthen efforts in informing and educating households in food waste prevention and bio-waste management
- Enhance the use of tax incentives (food donations, innovation)
- Engage stakeholders from animal (feed) production to support by-production valorisation
- Set up a stakeholder platform on food and bio-waste





# Proposed monitoring framework for the implementation of the circular economy roadmap

## EU circular economy monitoring framework (four categories of indicators):

- Production and consumption
  - Secondary raw materials
  - Waste management
- Competitiveness and innovation for the circular economy

Indicators measuring  
the progress made on  
increasing the use of  
economic instruments



Indicators measuring  
the transition to a circular  
construction sector



Indicators measuring  
the application of circular  
principles in the food  
and bio-waste value chain

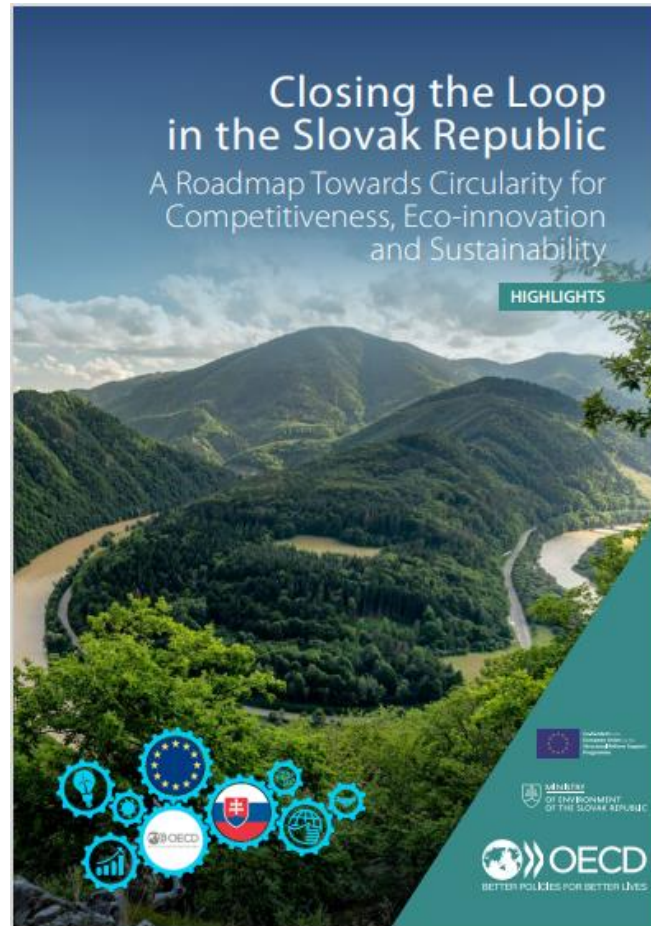




## Publications and communication materials

Find the Highlights  
(and report) at:

<https://www.oecd.org/environment/waste/circular-economy-country-studies.htm>





# Thank you for your attention!

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