

Bridging Science, Policy, and Statistics in the target countries

Background document on
MEASURING AND MONITORING THE CIRCULAR ECONOMY AND
USE OF DATA FOR POLICY-MAKING

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Science
Policy
Statistics

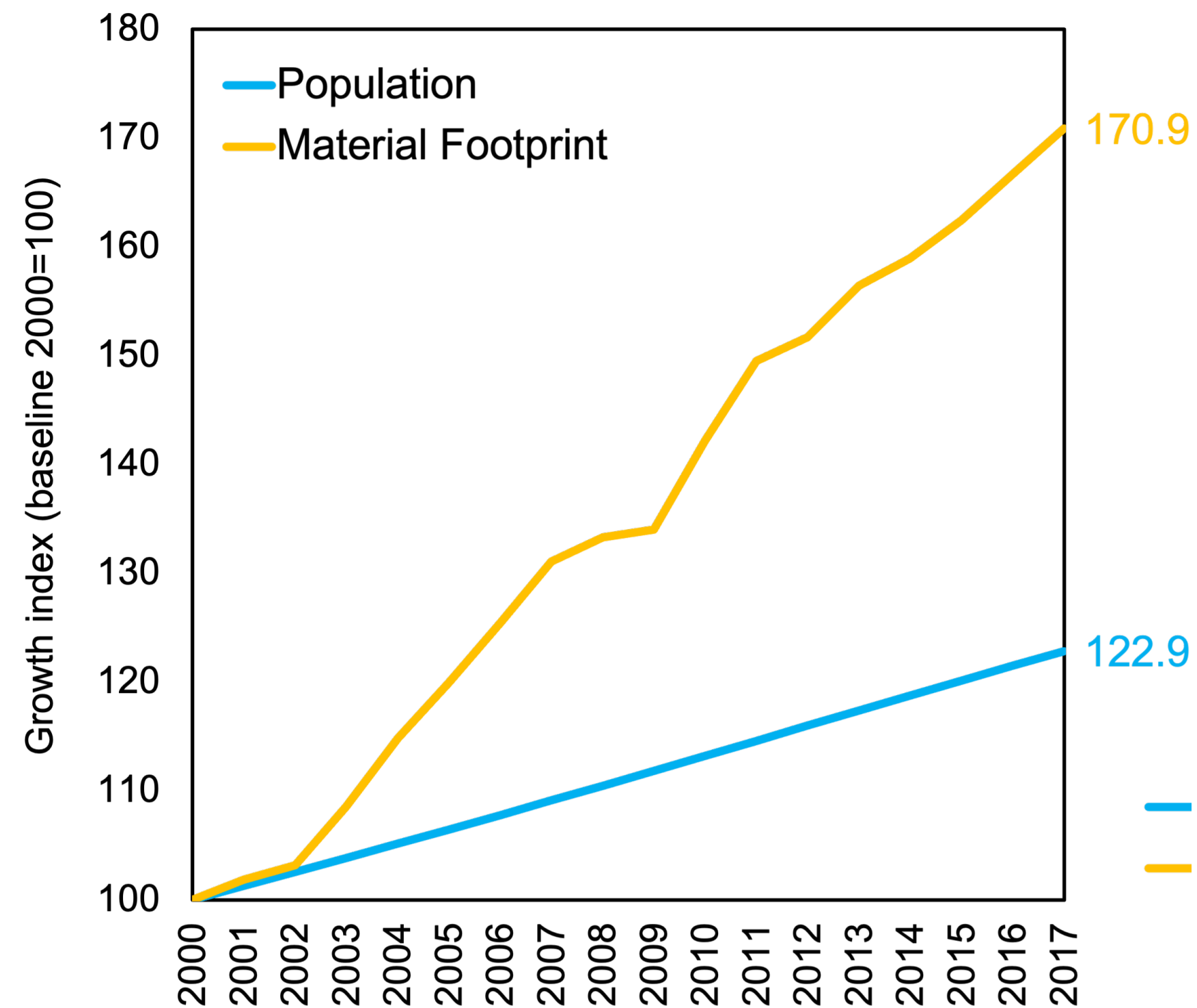
Science

Policy

Statistics

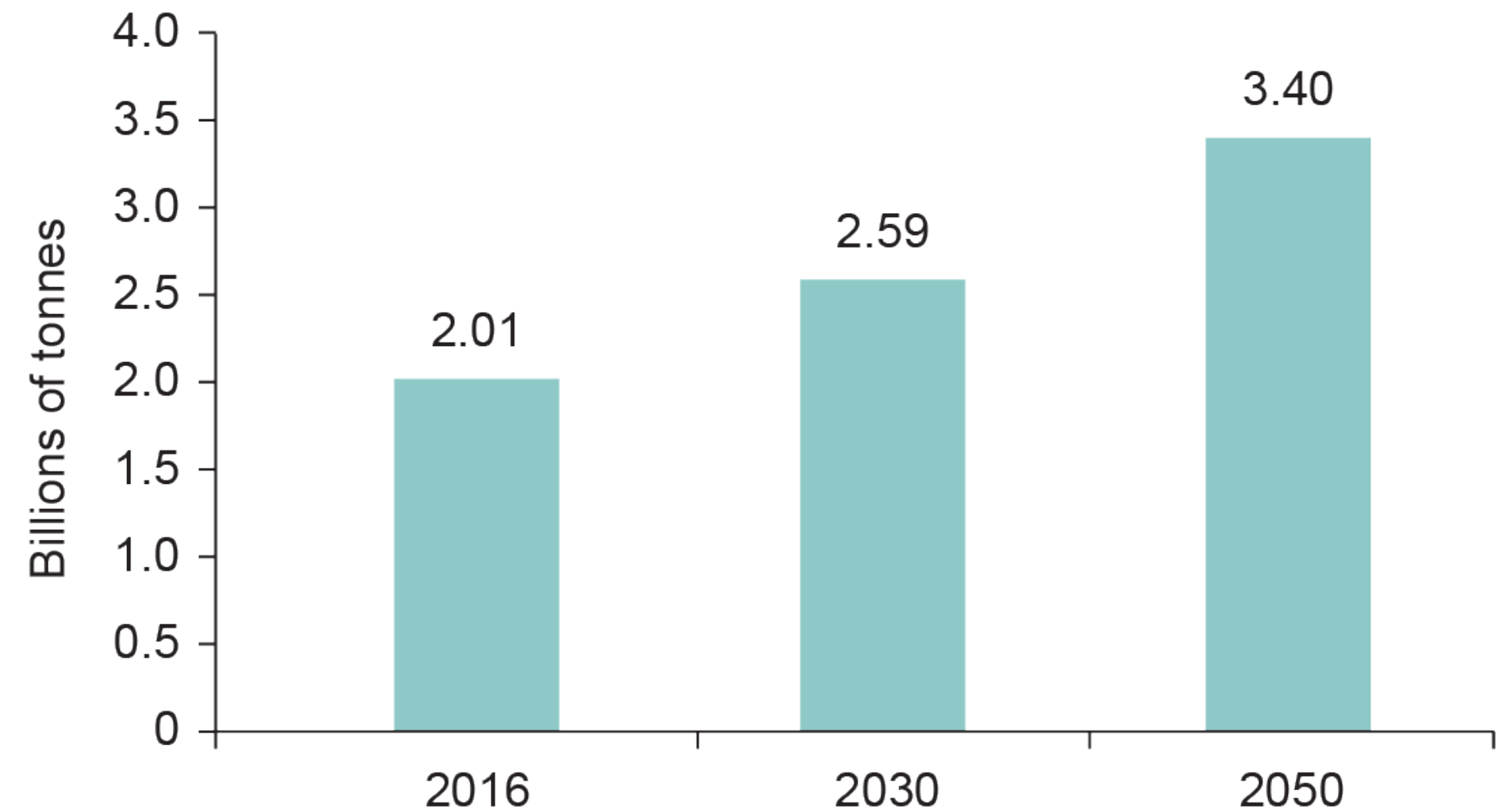
The need for a circular economy

Population and material footprint growth index, 2000-2017 (baseline 2000=100)

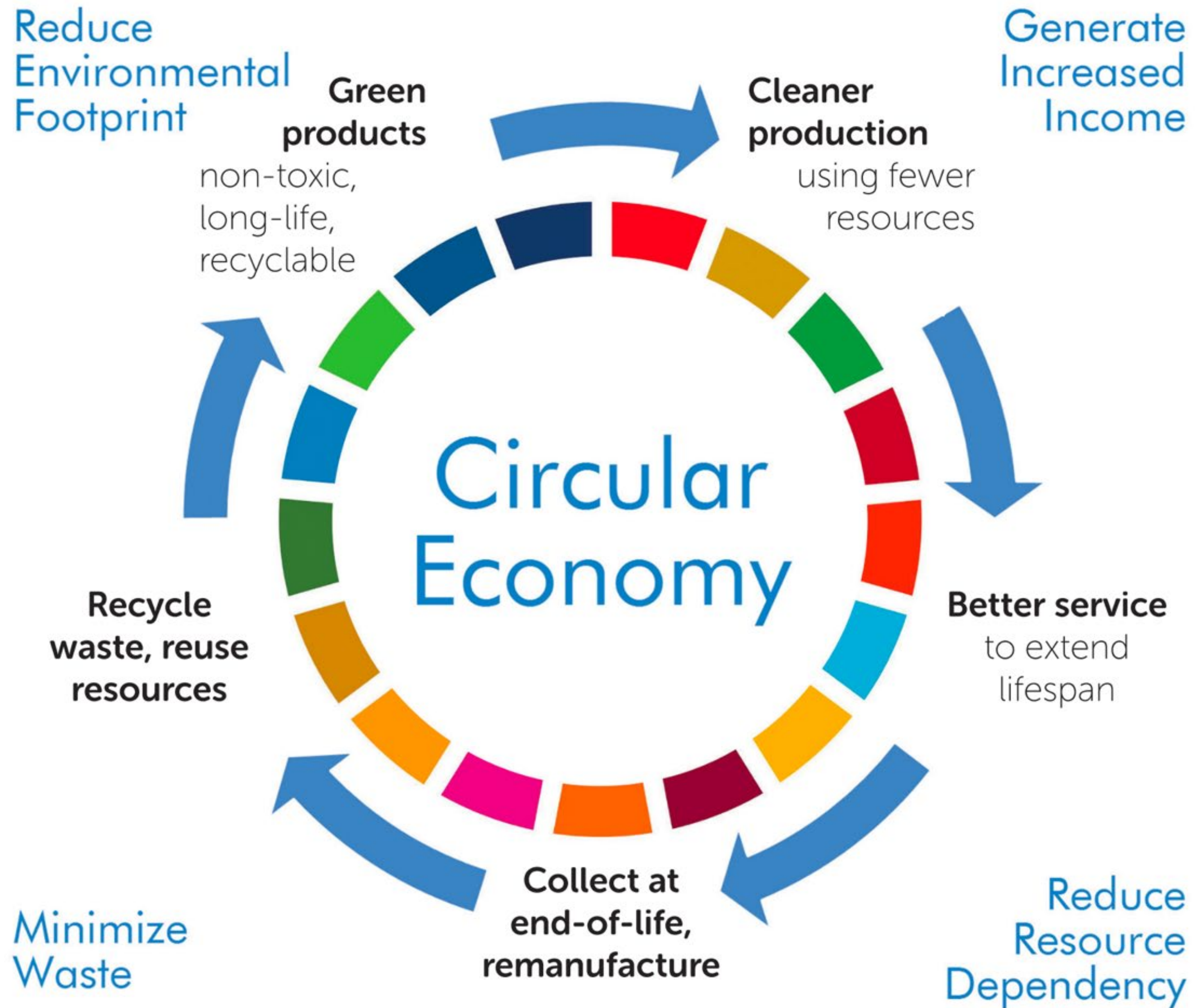


Adapted from: United Nations
(<https://unstats.un.org/sdgs/report/2019/goal-12/>)

Projected and current global waste generation



Source: Kaza et al. (2018) *What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050*. Washington, DC: World Bank, 2018.

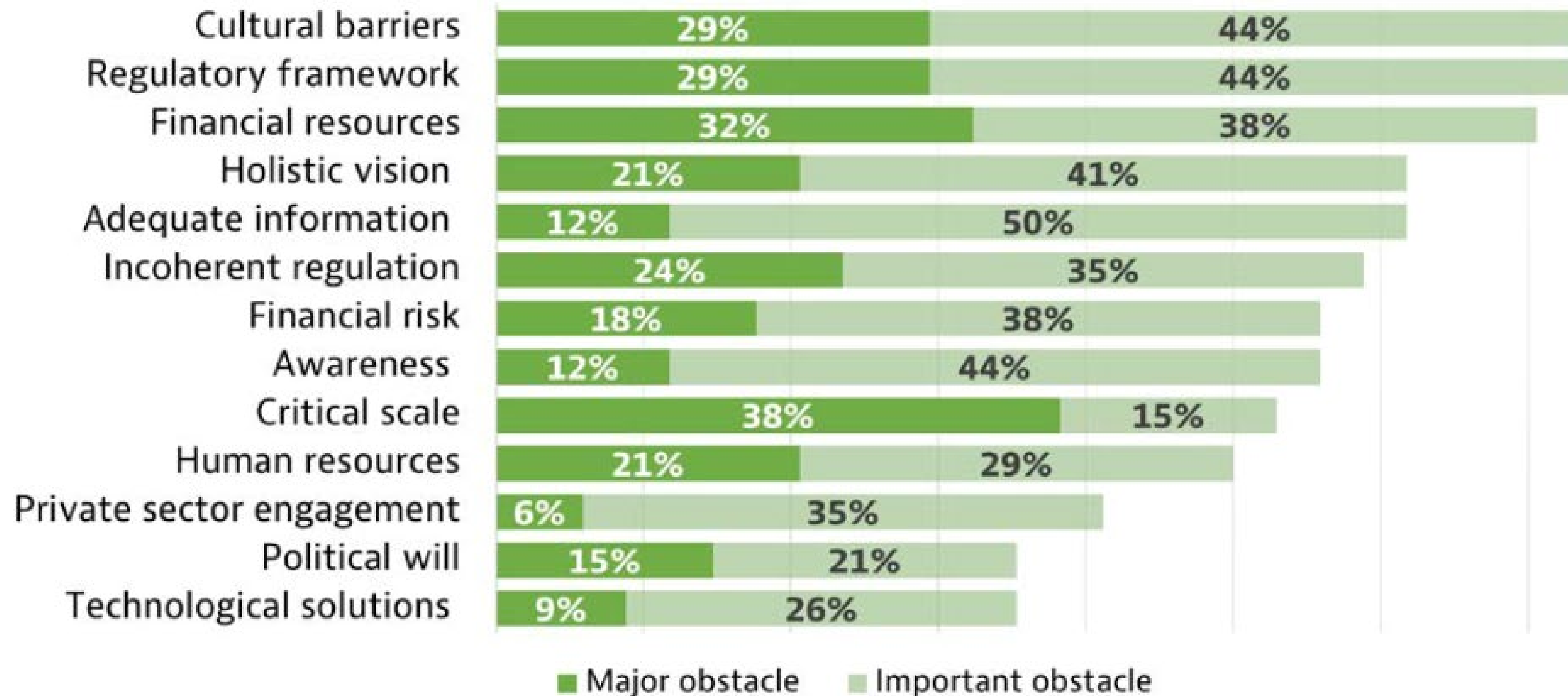


Science

Policy

Statistics

Obstacles to a circular economy transition



Source: OECD (2020) The Circular Economy in Cities and Regions – Brochure.

Policy and legislation for a circular economy in the target countries



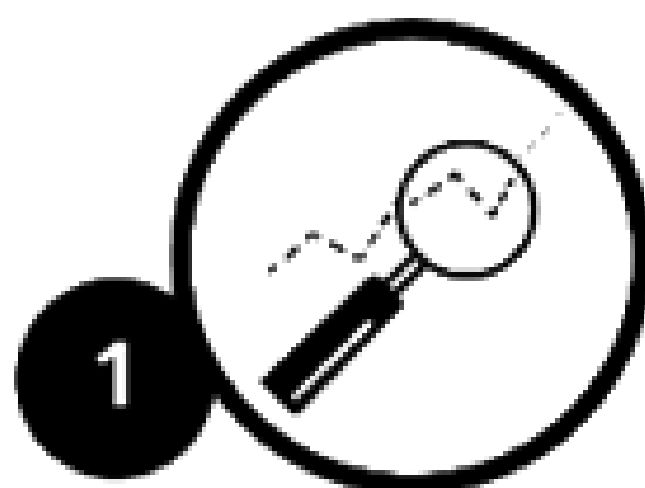
- Target countries are at different levels in developing specific policy and legislation for a circular economy
- Some countries already have specific policies towards a circular economy
- Some countries have policy/legislation related to a circular economy under other frameworks (e.g., environment and waste)

Science

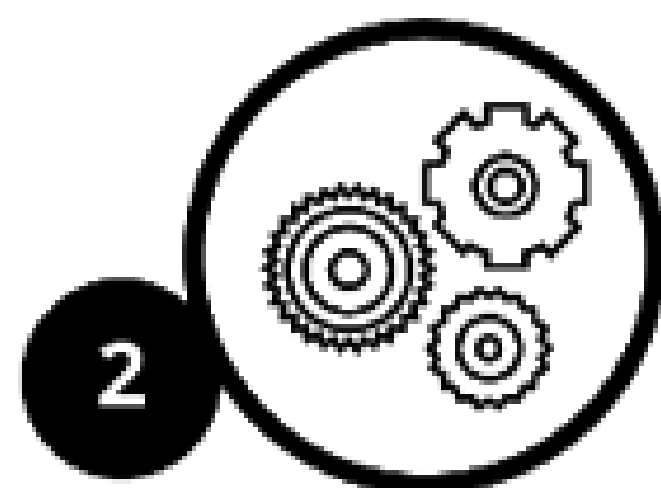
Policy

Statistics

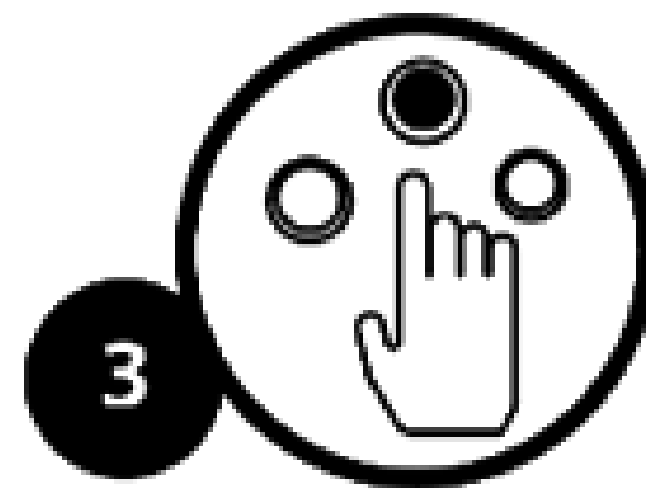
Bellagio process



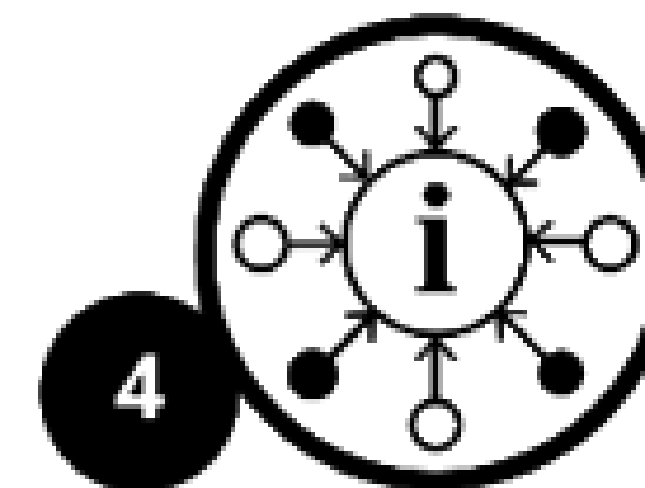
1
Monitor the circular economy transition



2
Define indicator groups



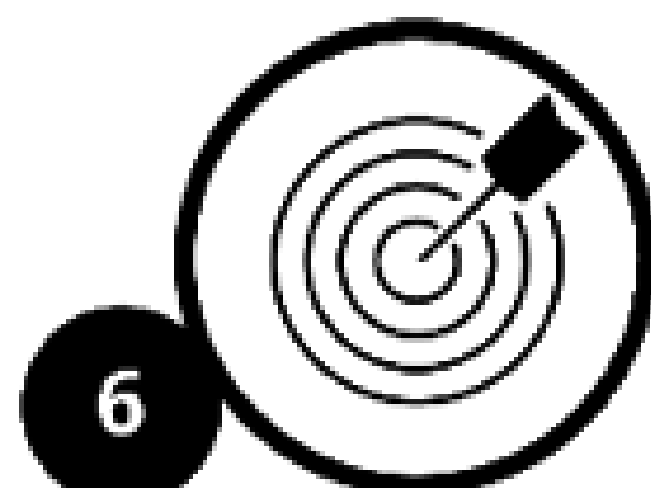
3
Follow indicator selection criteria



4
Exploit a wide range of data and information sources



5
Ensure multilevel monitoring



6
Allow for measuring progress towards targets



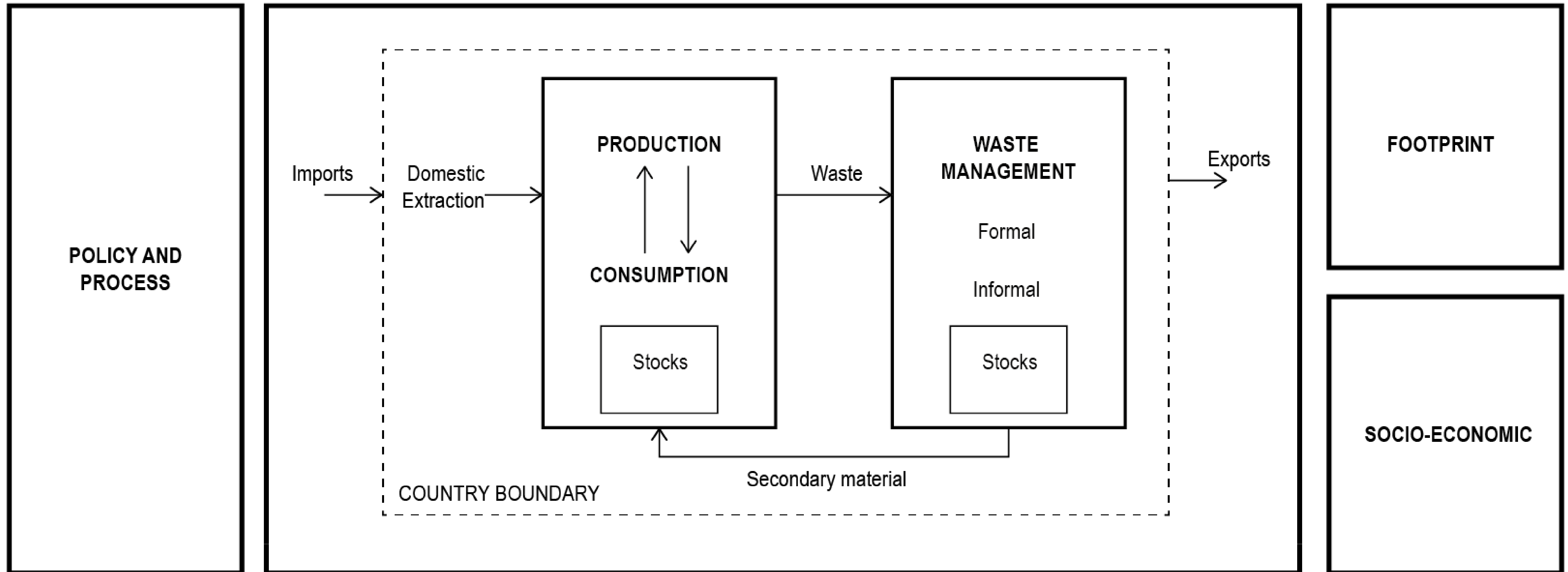
7
Ensure visibility and clarity








Simplified framework for national-level circular economy monitoring system

IMPLEMENTATION

FLOW OF MATERIALS WASTE

EFFECTS



Circular Economy indicators			Armenia	Bosnia and Herzegovina	Georgia	Kazakhstan	Kyrgyzstan	North Macedonia	Tajikistan	Classification Bellagio Declaration
										
Aggregated GHG emissions (CO ₂ equivalents)	1		Green	Green	Green	Green	Red	Green	Red	Footprint*
Aggregated GHG emissions per capita	1.1		Green	Green	Green	Green	Red	Green	Red	
Aggregated GHG emissions by sectors	1.2		Yellow	Green	Green	Green	Red	Green	Red	
Change in water use efficiency over time	2		Green	Yellow	Green	Green	Yellow	Green	Green	
Proportion of wastewater safely treated	3		Yellow	Green	Red	Green	Red	Red	Red	
Share of reused water in total freshwater use	4		Yellow	Green	Red	Green	Red	Red	Red	
Renewable energy share in the total final energy consumption within the national territory	5		Green	Green	Green	Green	Yellow	Green	Yellow	
Material footprint, material footprint per capita, and material footprint per GDP	6		Red	Red	Red	Red	Red	Red	Red	Material and waste flows
Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	7		Green	Green	Green	Green	Green	Green	Green	
Annual total waste generation	8		Green	Green	Yellow	Green	Green	Green	Red	
Waste generation intensity per unit of GDP	8.1		Green	Green	Red	Green	Red	Green	Red	
Households waste generation intensity per capita	8.2		Green	Green	Red	Green	Red	Green	Red	
Food Loss Index	9		Yellow	Red	Red	Red	Red	Red	Red	
Proportion of hazardous waste treated, by type of treatment	10		Green	Green	Red	Green	Green	Green	Red	
Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban waste generated, by cities	11		Yellow	Yellow	Yellow	Red	Yellow	Yellow	Red	
National recycling rate, tons of material recycled	12		Red	Yellow	Red	Green	Red	Yellow	Red	
Circular material use rate	13		Red	Yellow	Red	Yellow	Red	Red	Red	
CE sectors: Gross investment in tangible goods	14.1		Yellow	Yellow	Yellow	?	?	Yellow	?	Socio-economic impacts
CE sectors: Number of persons employed	14.2		Yellow	Yellow	Yellow	?	?	Yellow	?	
CE sectors: Value-added at factor cost	14.3		Yellow	Yellow	Yellow	?	?	Yellow	?	
No. of new circular business (e.g. companies, start-up, etc.) created to implement the circular economy initiative	15		Red	Red	Red	Red	Red	Red	Red	
No. of businesses (e.g. companies, start-ups, etc.) adopting circular economy principles	16		Red	Red	Red	Red	Red	Red	Red	
To be defined at the country level	17									Policy and process implementation

Conclusions and recommendations

Science → Policy → Statistics

- There isn't a widely accepted framework for measuring the circular economy
- Policy goals can give direction on the selection of indicators
- Existing indicators can provide an initial overview of the circular economy
 - Aspects of circular economy can be measured
 - Information is much aggregated
 - Some indicators need to be country-specific