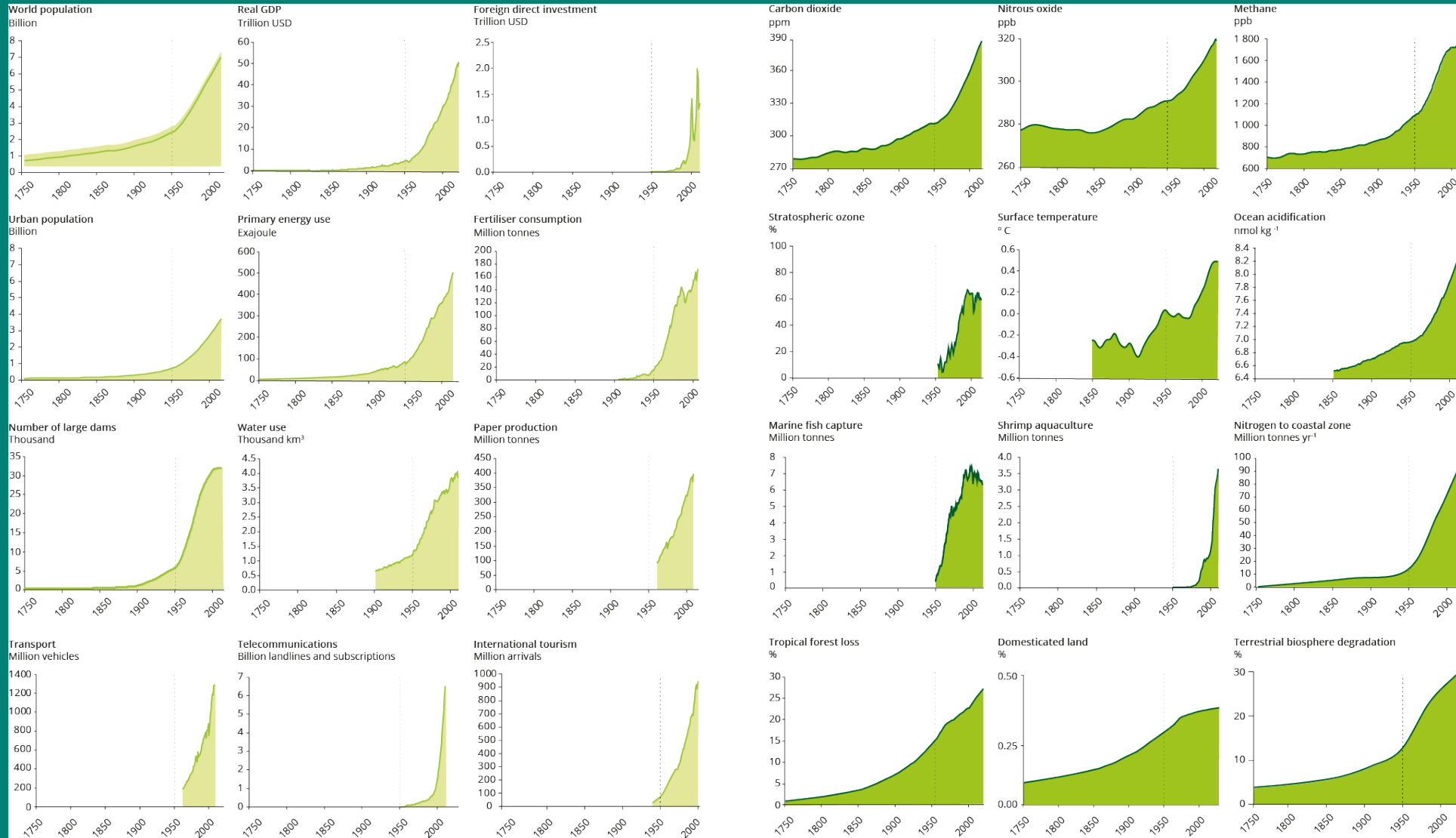


Assessing the effectiveness of European waste management policies within circular economy under the EU Green Deal



SEIS and the environmental dimension of the SDGs – webinar series
Webinar 3 - Waste Management Indicators and Policies

The great acceleration



Three main planetary crisis

IPCC report on global warming of 1.5°C

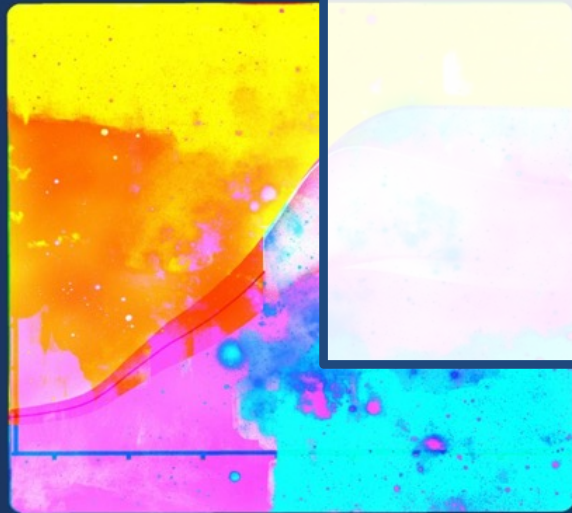
IPBES global report on biodiversity and ecosystem services

International Resource Panel global outlook 2019

- Urgent action needed
- Irreversibilities
- Tipping points
- Interconnected

Global Warming of 1.5°C

An IPCC special report on the impact of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.



GLOBAL RESOURCES OUTLOOK 2019

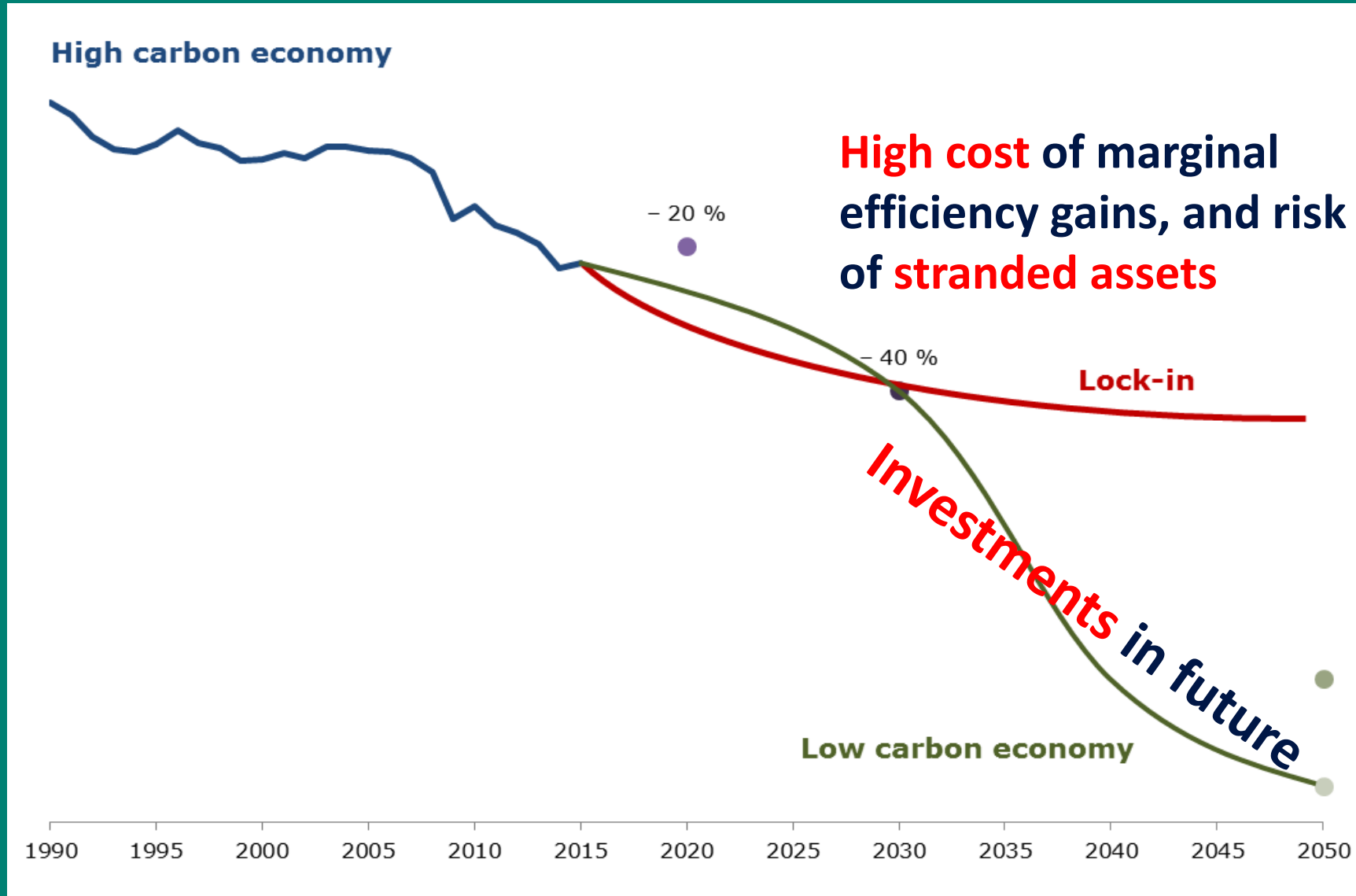
NATURAL RESOURCES FOR THE FUTURE WE WANT



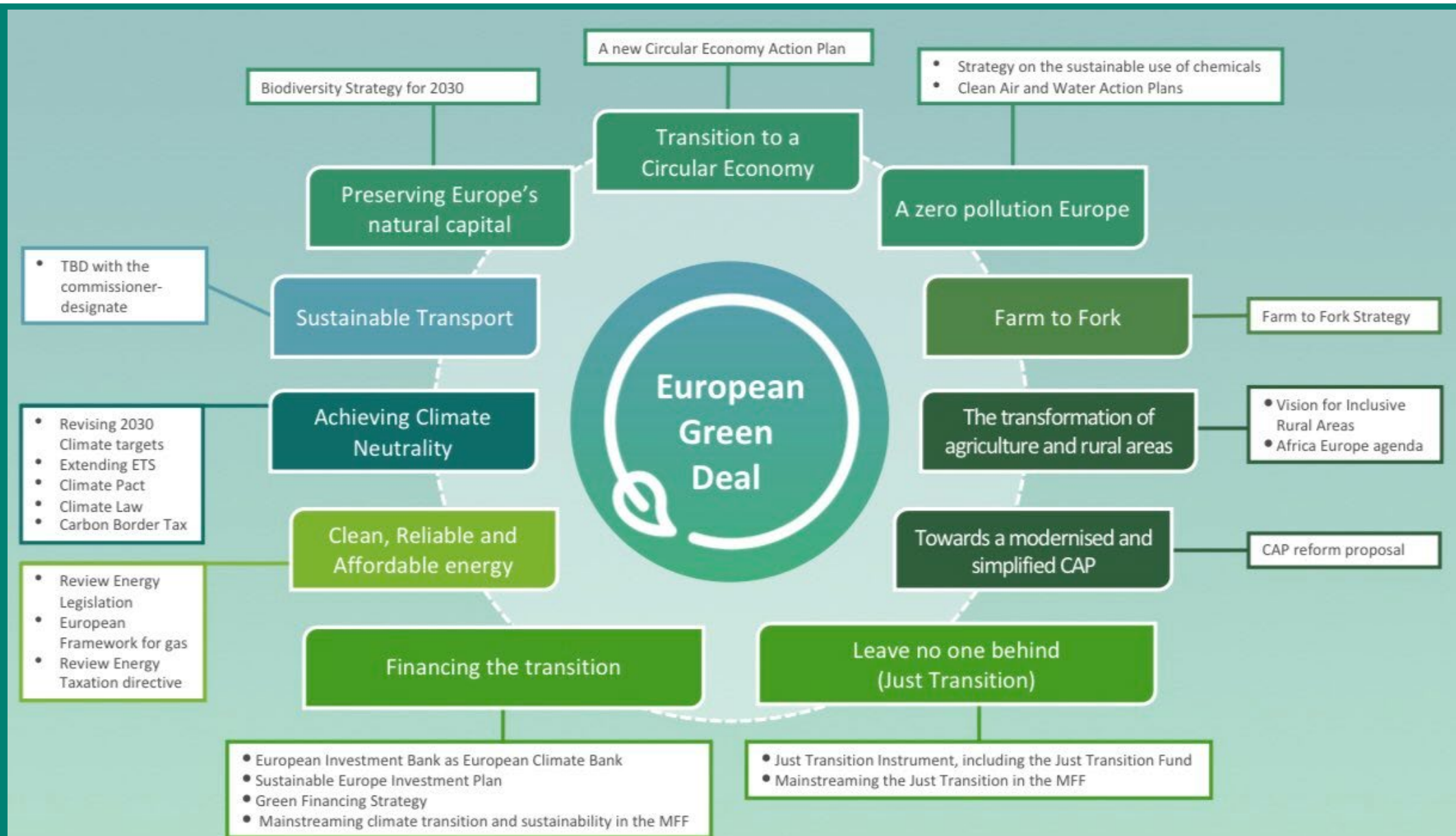
UN environment International Resource Panel

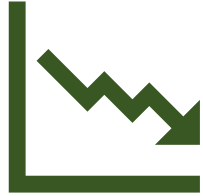


The time for a new paradigm



The European Green Deal – a comprehensive response

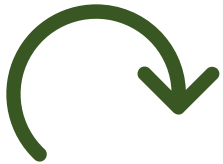




Resource down
Productivity up



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

Circular Economy Action Plan (2020)



- Focus on product policy
- More solid waste prevention
- A key-product value chain approach
- Waste management continues at the centre
- Enhance monitoring/indicators

EEA priorities on CE

Green industry

IED Review, PRTR Review
Sevilla process, BAT-AEPs

Monitoring CE

Bellagio process
8th EAP
EEA Indicator Set

Consumption and circular economy

Plastics
Textiles
Electronics
Buildings
Food

Key value chains

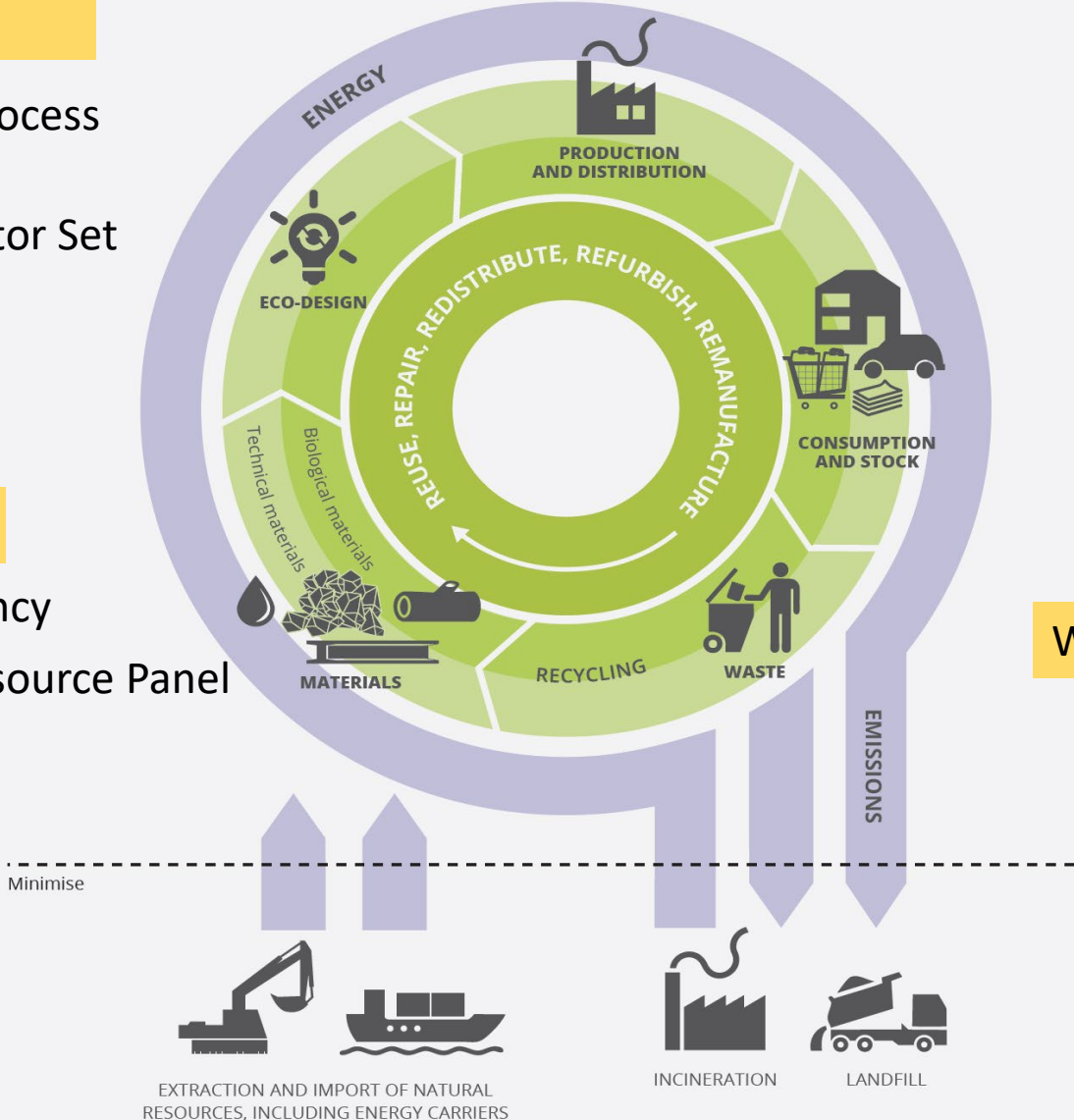
Circular business models

Raw materials

Resource efficiency
International Resource Panel
Cooperation JRC

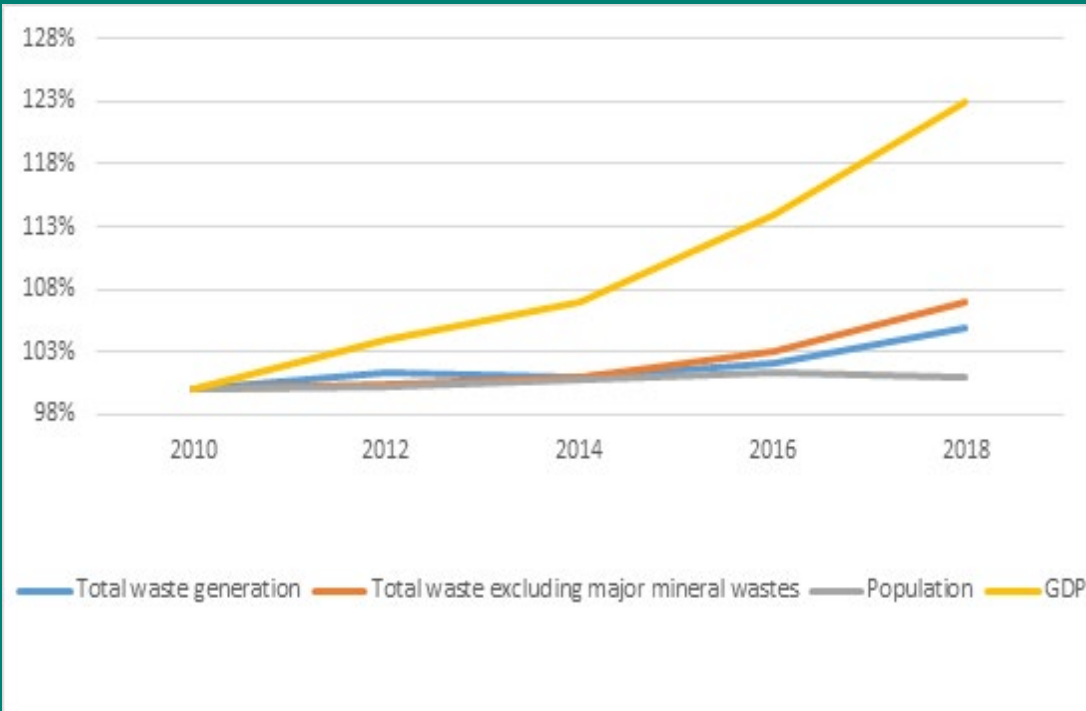
Waste

Waste prevention
Waste management
Waste as a resource



Waste generation (EEA)

Total waste excluding major mineral wastes



- **Policy question:** achieve waste prevention
- Decoupling from economic growth
- Account for population growth

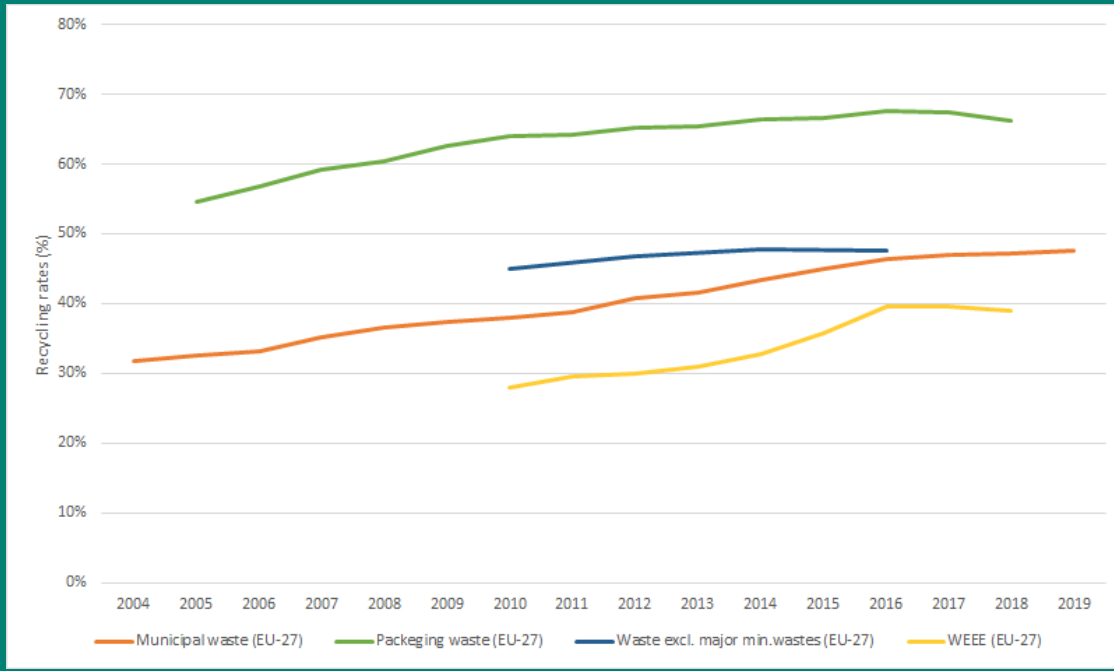


Policy question:

- achieve waste prevention
- Individual country performance
- Change over certain period

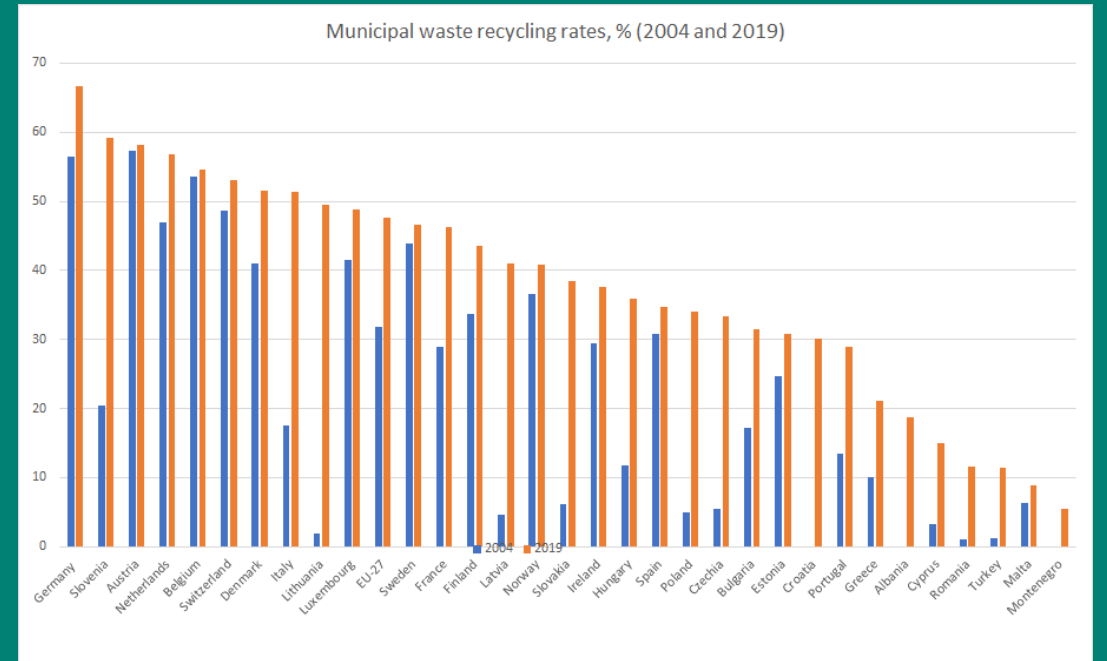


Waste recycling (EEA)



Policy question:

- Recycling targets per waste stream
- Levels of recycling compared with generation
- Progress over time



Policy question:

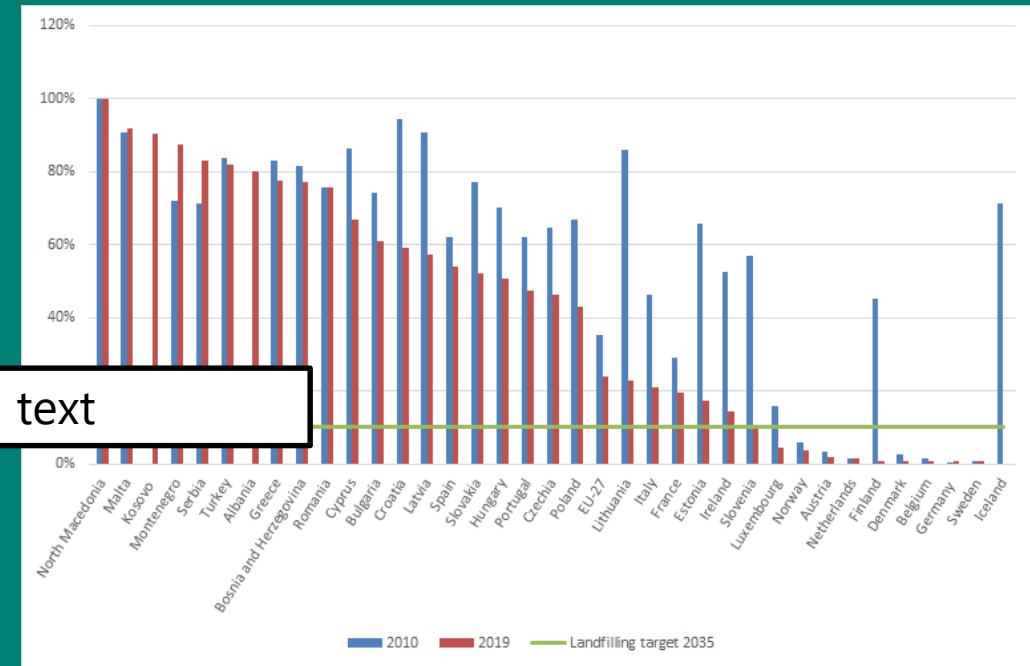
- Municipal waste recycling targets
- Individual country performance
- Change over certain period

Diversion of waste from landfill (EEA)

Total waste excl. major mineral wastes



Municipal waste



Policy question:

- Overall reduction of landfilling
- Which waste streams drive change?
- Progress over time

Policy question:

- Individual country performance
- Change over certain period
- Progress towards EU landfill target



How can indicators help?

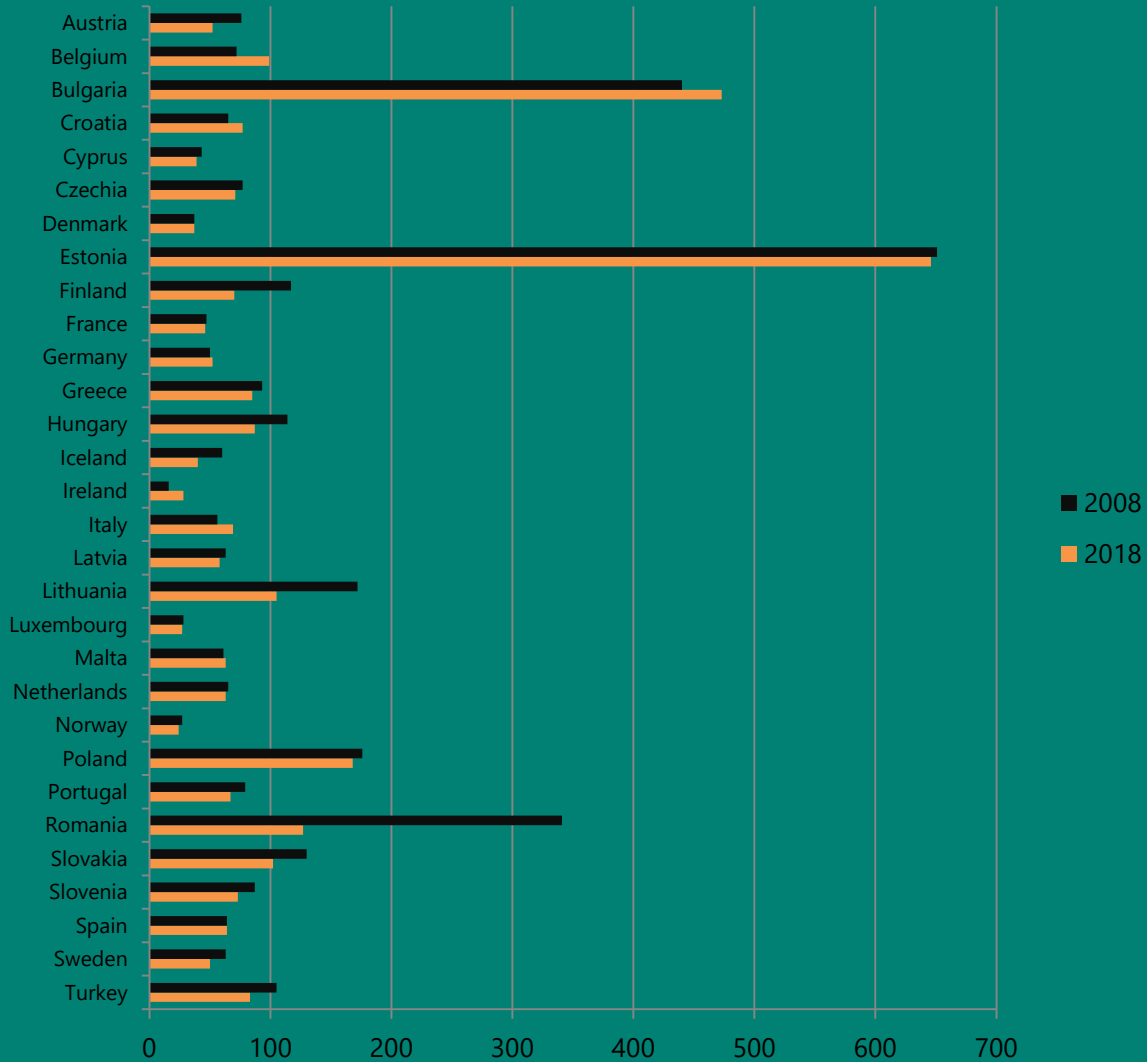
- Monitor progress towards targets/policy objectives
- Assess trends and design new policy instruments
- Background for assessments
- Identify data gaps

Other Eurostat indicators to complete the picture

Indicator	Data source	Indicator set
Generation of waste excluding major mineral wastes	Waste Statistics Regulation	Sustainable Development indicators Resource efficiency indicators Circular economy indicators
Management of waste excluding major mineral wastes (pilot data)	Waste Statistics Regulation; COMEXT (or national import/export data)	-
Material prices for recyclates	COMEXT	-
Municipal waste generation & treatment, by treatment method	Voluntary data collection	Sustainable Development indicators Resource efficiency indicators Circular economy indicators
Recycling rate of e-waste	Data collected under WEEE Directive 2012/19/EU	Resource efficiency indicators Circular economy indicators

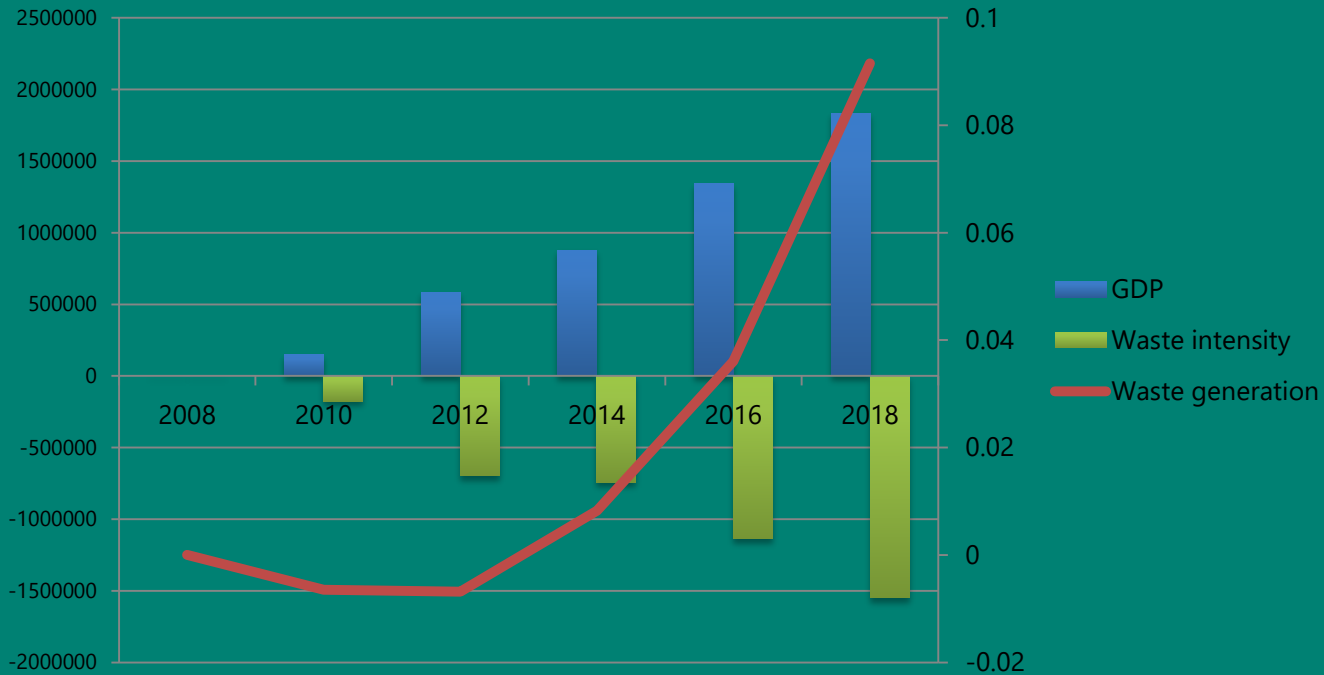


Monitoring effectiveness of waste prevention



- Waste intensity: waste generation per unit GDP
- Only 7 countries show waste grows faster than GDP
- The rest show relative decoupling

Monitoring effectiveness of waste prevention



- Overall relative decoupling
- No absolute decoupling (waste closely follows GDP)
- Relative decoupling not necessarily attributed to prevention
- e.g. documented increase in tertiary sector means less economic activity in waste intensive sectors



Assessing municipal waste performance

Assessment elements in the upcoming EEA assessment on municipal waste in the Western Balkan countries



New EU waste targets and 'Early warning' mechanism

Overview of new targets



Targets are set in the 2018 revised

- Waste Framework Directive
- Landfill Directive
- Packaging and Packaging Waste Directive



Purpose: 3 years before the target date

- Identify countries at risk to not meet the targets
- Identify best practice
- Policy recommendations for improvement



Key factors influencing target achievement

Current situation and past trends

- Distance to the target
- Past trends

Legal instruments

- Timely transposition of targets into national law
- Clear responsibilities for meeting objectives and targets, enforcement mechanisms, fines for non-action
- Waste Management Plans define the implementation of the new targets

Economic instruments

- Taxes or bans for landfilling of residual waste or biodegradable waste
- Pay-as-you-throw or similar systems in place, giving incentives for separate collection

Separate collection systems

- Convenience and accessibility of separate collection systems
- Quality management system and national standards for compost and digestate



Key factors influencing target achievement

Extended Producer Responsibility schemes

- Existence and functioning of Extended Producer Responsibility
- Fees designed to incentivize design for recycling in EPR schemes
- Deposit-return schemes for certain waste streams, e.g. bottles and cans

Treatment capacity

- Enough capacity for bio-waste treatment
- Capacity for residual waste treatment

Data quality

- Methods to collect data
- Quality checking
- Data verification process



Waste from electrical and electronic equipment

e-waste

10.3 million tonnes (Mt)
of waste generated in EU (2015)

40 %
is officially
collected

60 %
is lost



LOSSES OF E-WASTE



0,75 Mt
thrown in
waste bin



2,2 Mt
collected with
metal scrap



0,95 Mt
recycled under
non-compliant
conditions



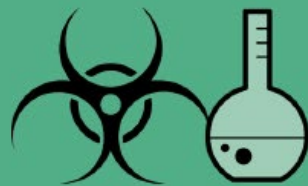
0,75 Mt
scavenged
for valuable
parts



1,5 Mt
exported



E-waste contains precious metals and several critical raw materials such as gold, silver, antimony, beryllium, cobalt, neodymium and indium. A higher recycling rate of these materials would reduce their supply risk.



E-waste also contains several hazardous materials and chemicals such as halogenated compounds, radioactive substances, heavy metals and other metals that pose environmental and health risks if not managed adequately.

Source: EEA/ETC-WMGE

Reducing loss of resources from waste management is key to strengthening the circular economy in Europe

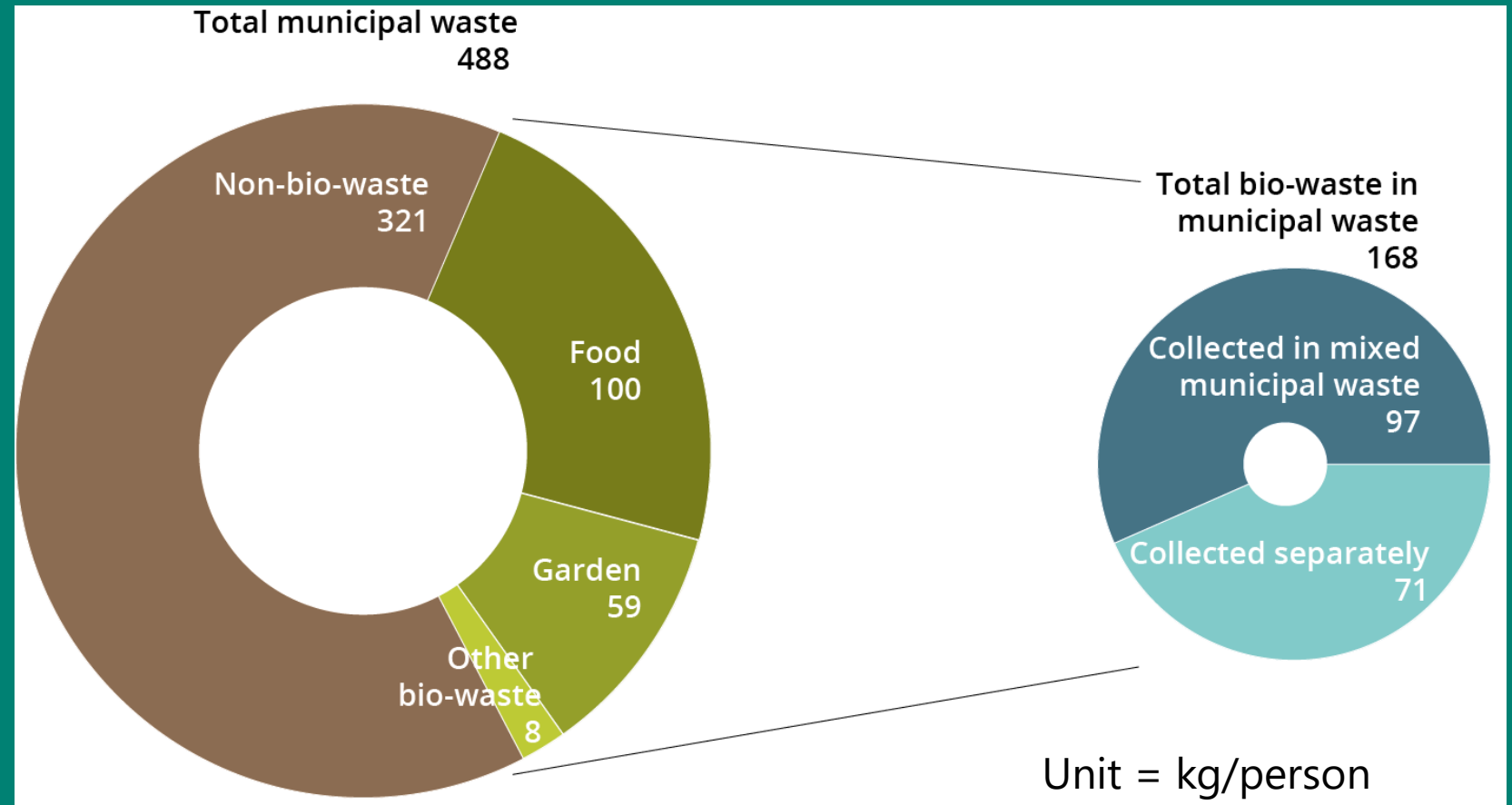
<https://www.eea.europa.eu/publications/reducing-loss-of-resources-from>



Bio-waste: opportunities and challenges

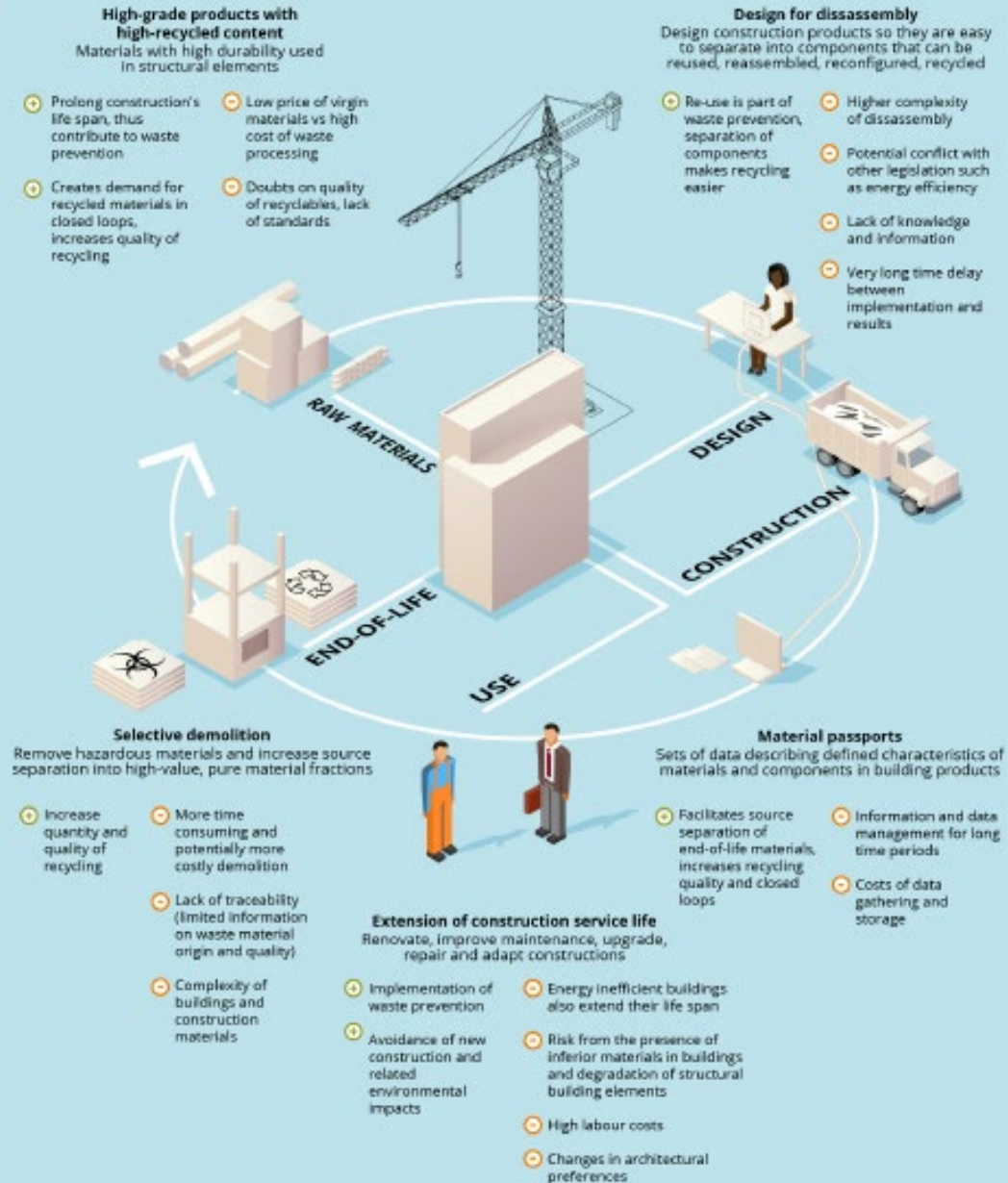
Collecting bio-waste separately:

- Reduces methane emissions from landfills
- Anaerobic digestion generates renewable energy
- Composting is cheaper than incineration
- Compost = fertiliser and soil improver



<https://www.eea.europa.eu/publications/bio-waste-in-europe>

Construction and demolition waste and CE



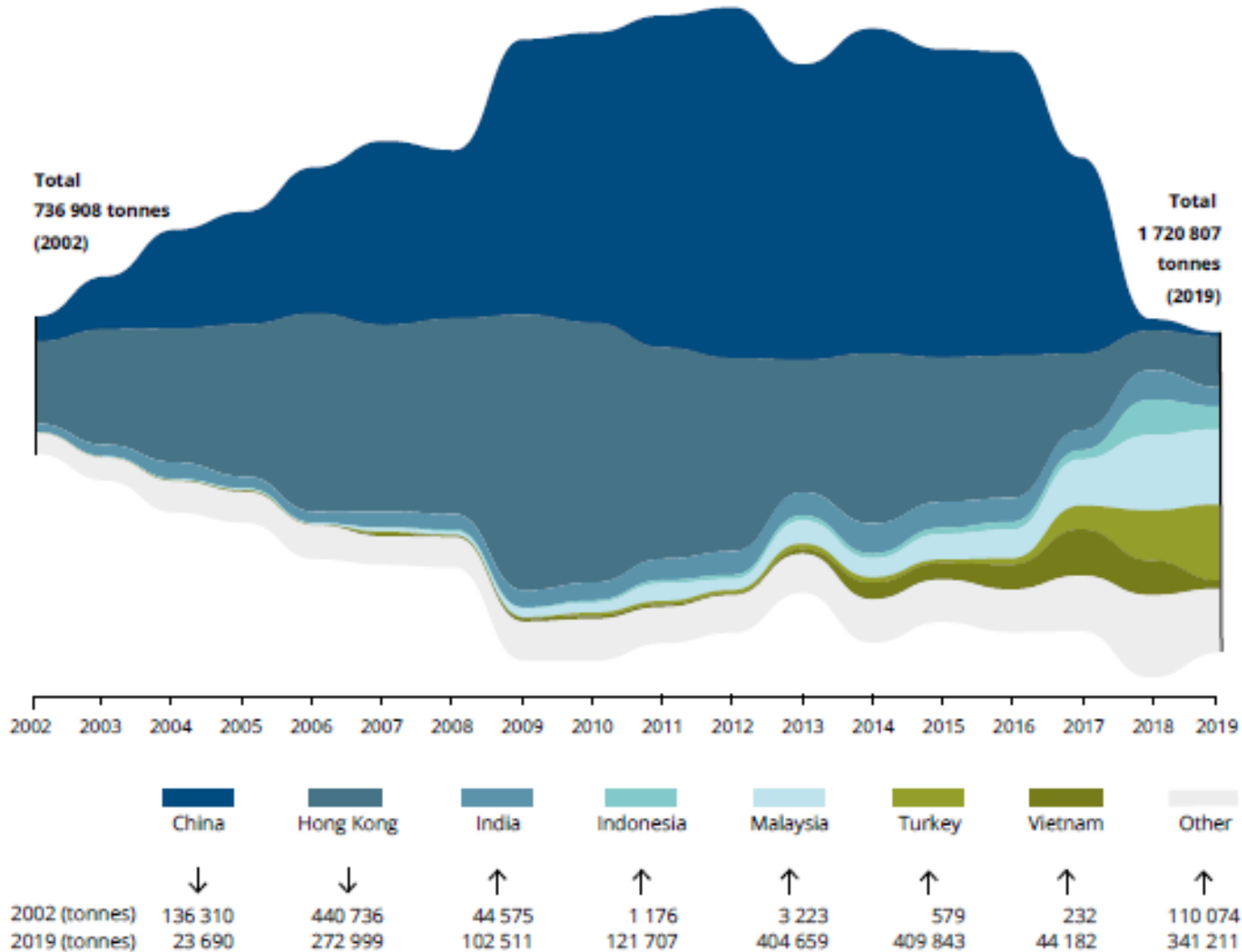
Waste generation and management influenced by interventions during

1. Raw material sourcing
2. Building design
3. Construction of buildings
4. Use of the building
5. Demolition/End-of-Life

<https://www.eea.europa.eu/publications/construction-and-demolition-waste-challenges>



Plastic waste exports out of the EU



- Plastic waste exports **dramatically fall** in 2018
- Alternative **destinations** identified
- Opportunity for the EU to make use of plastic **waste as a resource** in a circular economy

<https://www.eea.europa.eu/publications/plastics-the-circular-economy-and/>

