

A large, colorful pile of plastic waste, including bottles, containers, and debris, is shown on a beach. The waste is piled high, with various colors like blue, green, yellow, and red visible. The background shows a beach and the ocean under a cloudy sky.

Towards a resource-efficient, circular and low-carbon economy

Dr Hans Bruyninckx | European Resources Forum | 3 November 2020

International challenges

**Increasing global material use
& globalised value chains**

**Changing demographics
& incomes**

**Distribution of social
impacts of material use**

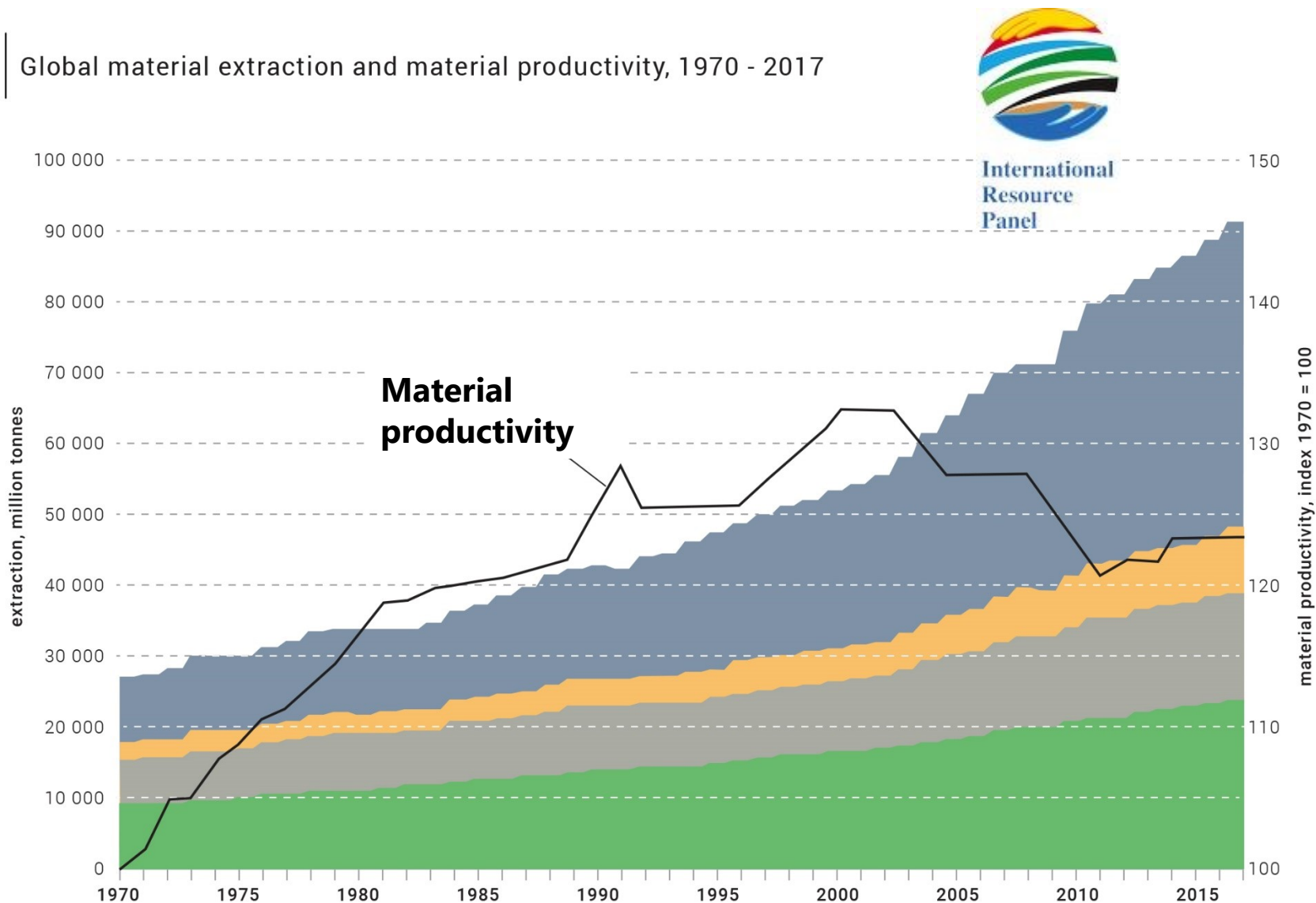
**Distribution of supply
chain know-how**

**Virgin vs recycled
materials**



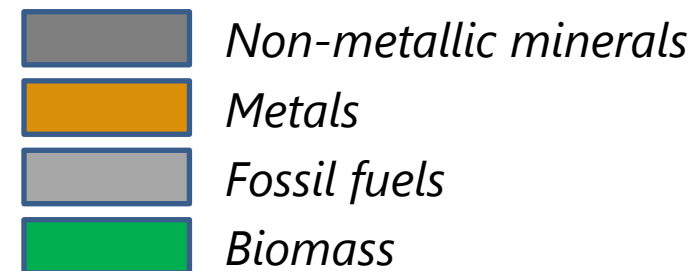
Resource use and its upward trend

Global material extraction and material productivity, 1970 - 2017



International
Resource
Panel

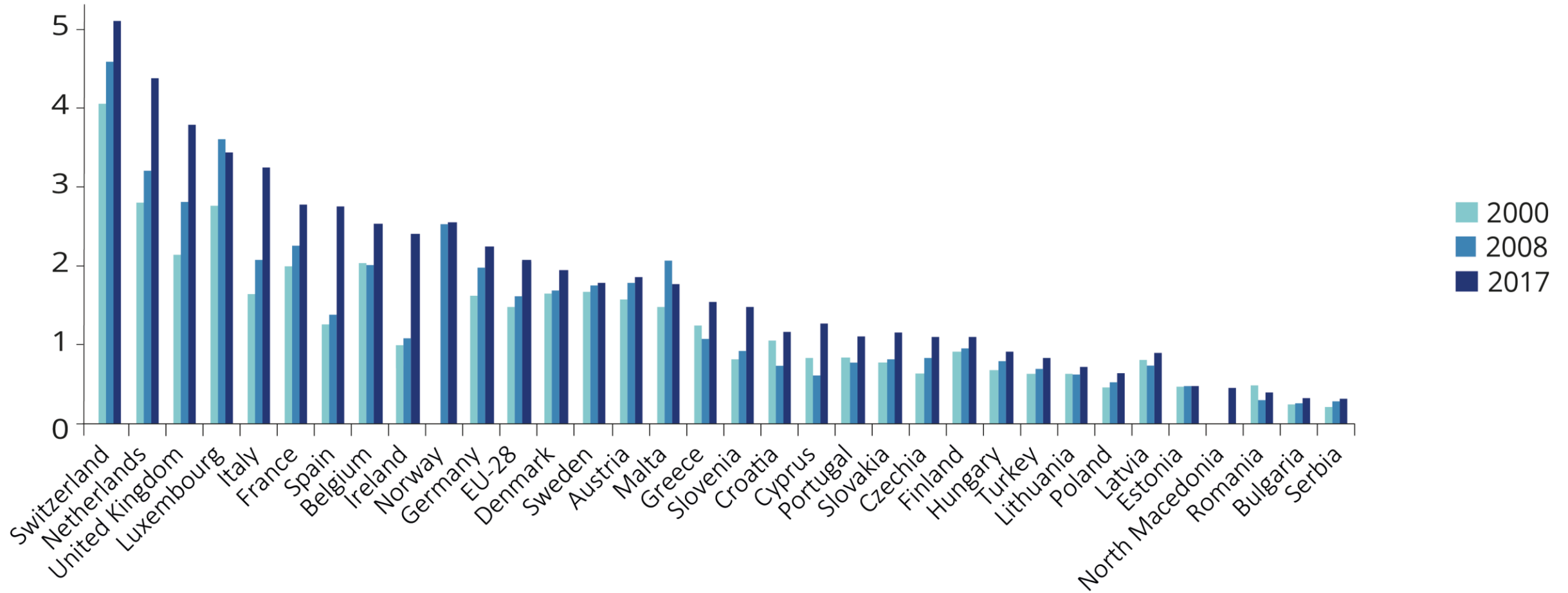
- **Global resource use:** more than tripled since 1970
- **Global material demand per capita:** 7.4 tonnes in 1970; 12.2 tonnes in 2017
- **Material productivity:** started to decline around 2000 and stagnated in recent years



Resource efficiency is improving in Europe

SOER2020

Euro (chain-linked volumes 2010)/kg DMC



Europe: 40 % increase 2000-2017

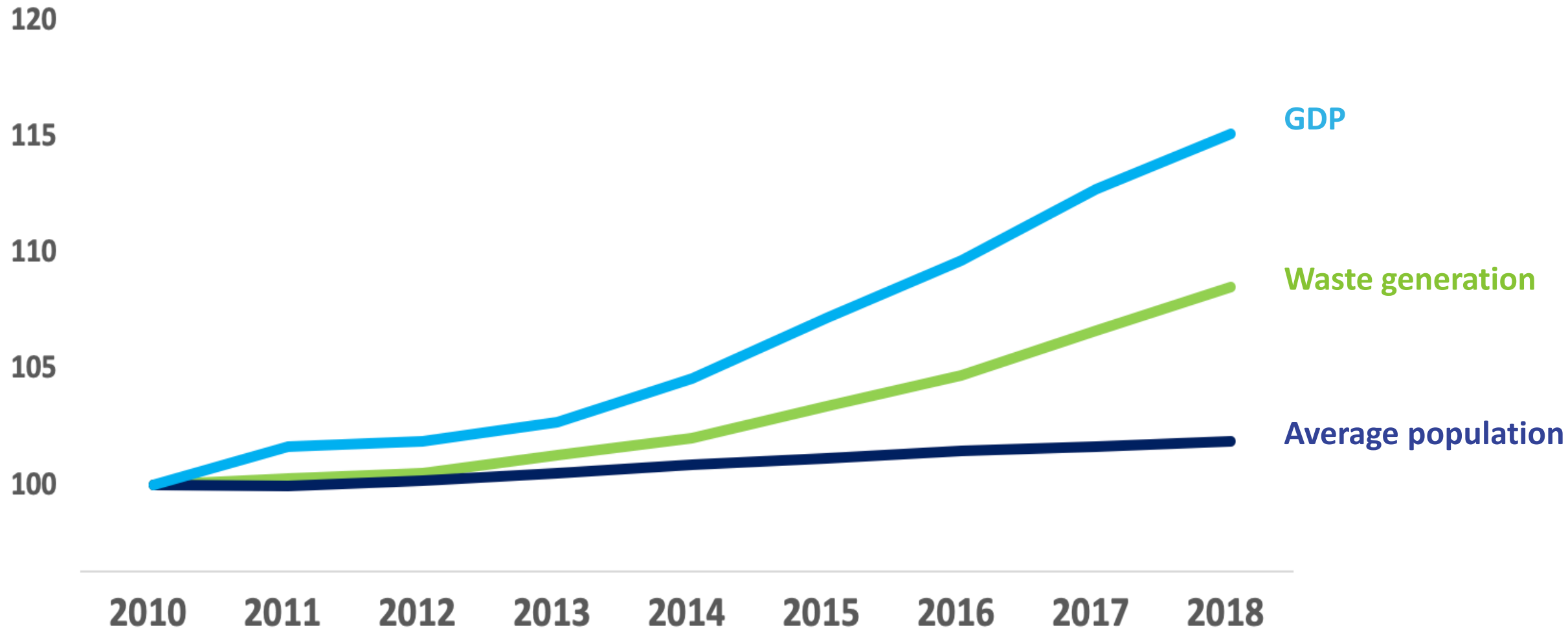
European Environment Agency



Waste generation is still increasing

SOER2020

Trends in waste generation, economic development and population, EEA-33



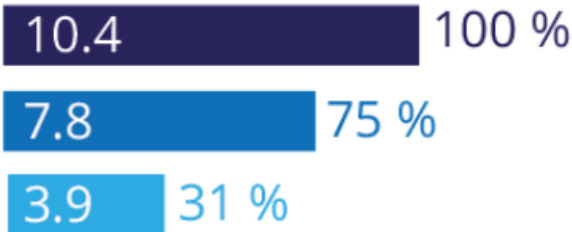
Potential for increased recycling



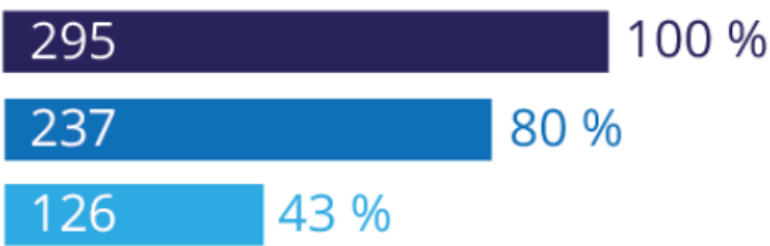
Construction and
demolition waste
in Mt
(2016)



Electrical and
electronic
equipment waste
in Mt (2017)



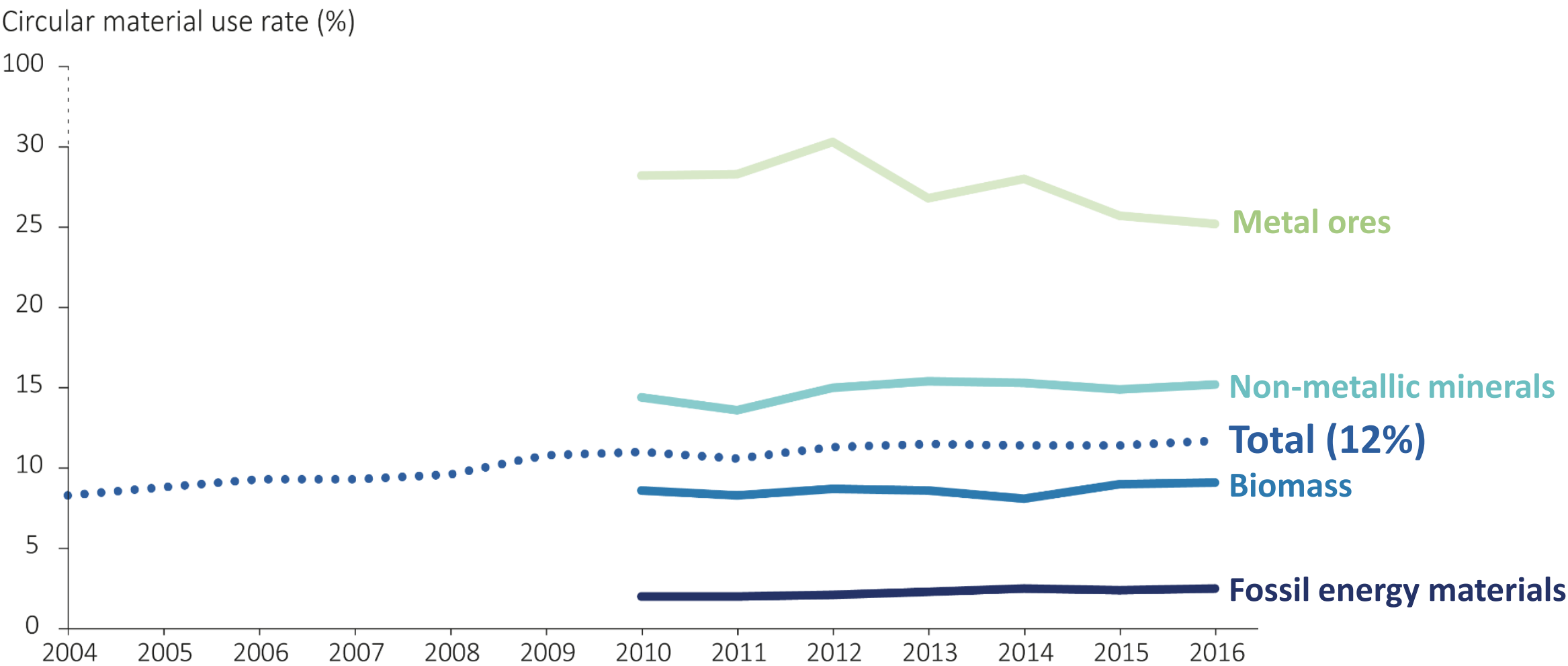
Municipal
waste
in Mt
(2018)



- Waste generated
- Maximum potential
- Currently recycled

Circular use of materials is still low

Trends in the circular material use rate, EU-28



Bellagio process



European
Environment
Agency



EPA
Network



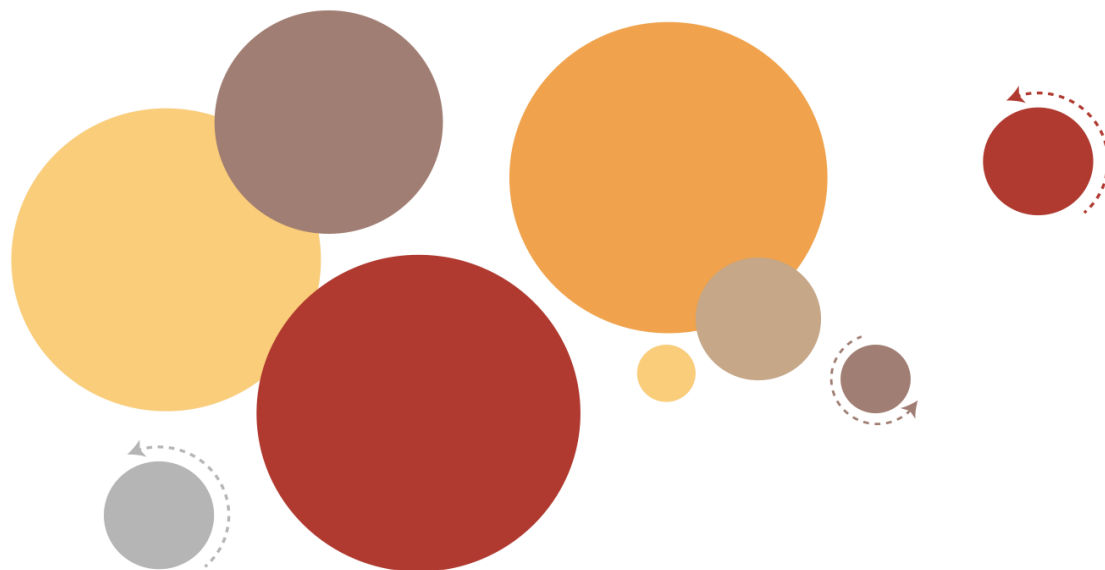
ISPRA
Istituto Superiore per la Protezione
e la Ricerca Ambientale



Ministero Nazionale
per la Protezione
dell'Ambiente

MONITORING PROGRESS IN EUROPE'S CIRCULAR ECONOMY

The Bellagio Process



- Expert dialogue involving private and public stakeholders across Europe
- Seven principles for the monitoring of Circular Economy
- Fostering innovation and collaboration
- Across the economy and jurisdictions
- Material flows, footprints, socio-economic aspects and policy



A new policy context: The European Green Deal



- Key supply chains
- Waste prevention
- Empowering consumers
- Secondary materials internal market
- Hazardous substances as a barrier to CE
- Science-based approach
- Interlinkages with energy transition, industrial transformation, etc.

A large, colorful pile of plastic waste, including bottles, containers, and toys, is shown next to a brown tarp. The waste is piled high and appears to be a collection of discarded items. The background shows a body of water and a cloudy sky.

Thank you

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