



The global outlook of the demand and supply of minerals

TIME FOR CHANGE



Enhancing EU mining regional ecosystems to support green transition and secure mineral raw materials supply – kick-off meeting (Évora, 21-22 September 2023)



Portuguese Mineral Resources

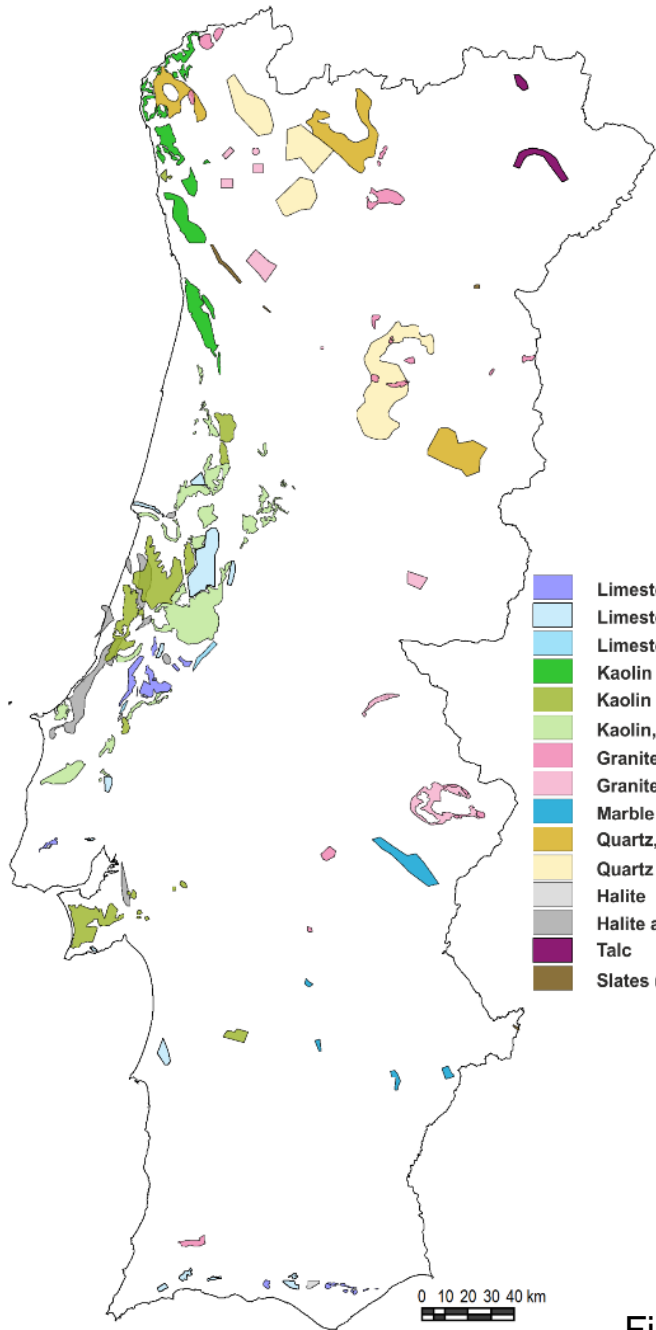
A complex and diverse geology provides Portugal with relevant mining potential;

Mineral deposits of metallic ores, industrial minerals, and construction minerals;

Mining at Neves-Corvo and Aljustrel (copper, lead, and zinc) and Panasqueira (tungsten and tin); other mines producing salt, feldspar, quartz, kaolin, special clays and sands; and ornamental and industrial stones quarries;

Portugal is currently one of the European Union's (EU) leading producers of copper, zinc, and tungsten concentrates and a major global producer of ornamental stones.

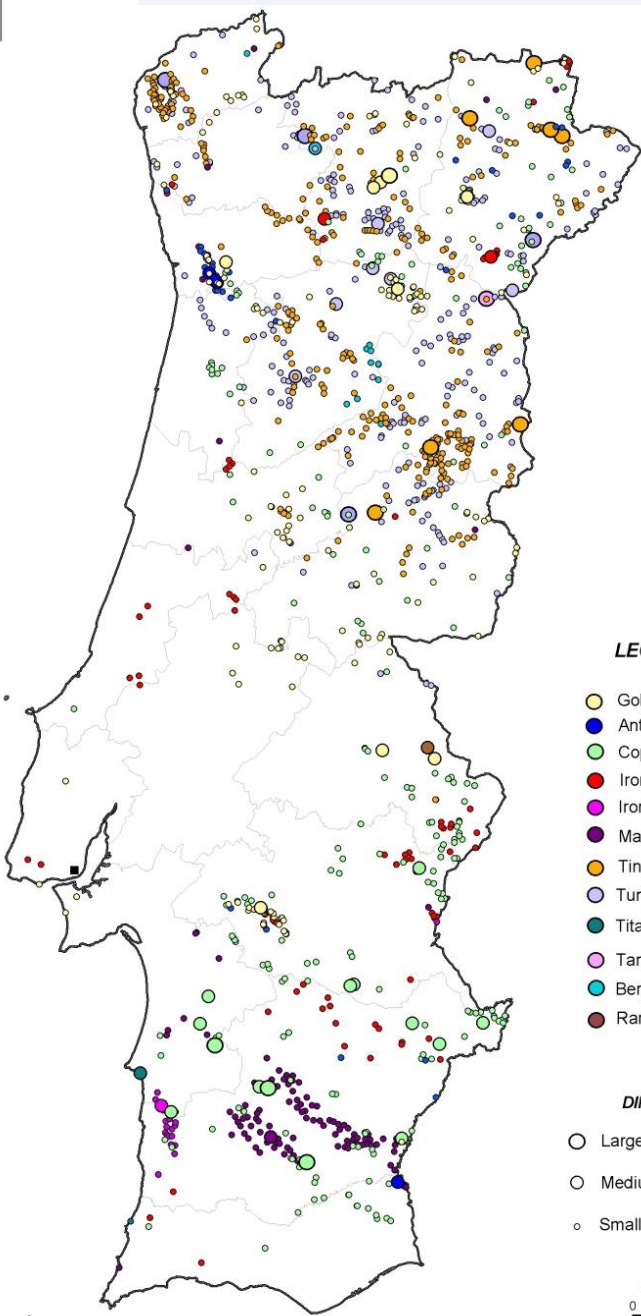
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- Limestone (ornamental)
- Limestone (aggregates)
- Limestone and dolostone (aggregates)
- Kaolin
- Kaolin and special sand
- Kaolin, sand and clay
- Granite (ornamental)
- Granite (ornamental and aggregates)
- Marble (ornamental)
- Quartz, feldspar and lithium
- Quartz and feldspar
- Halite
- Halite and gypsum
- Talc
- Slates (ornamental)

0 10 20 30 40 km

Filipe & Parra (2002)



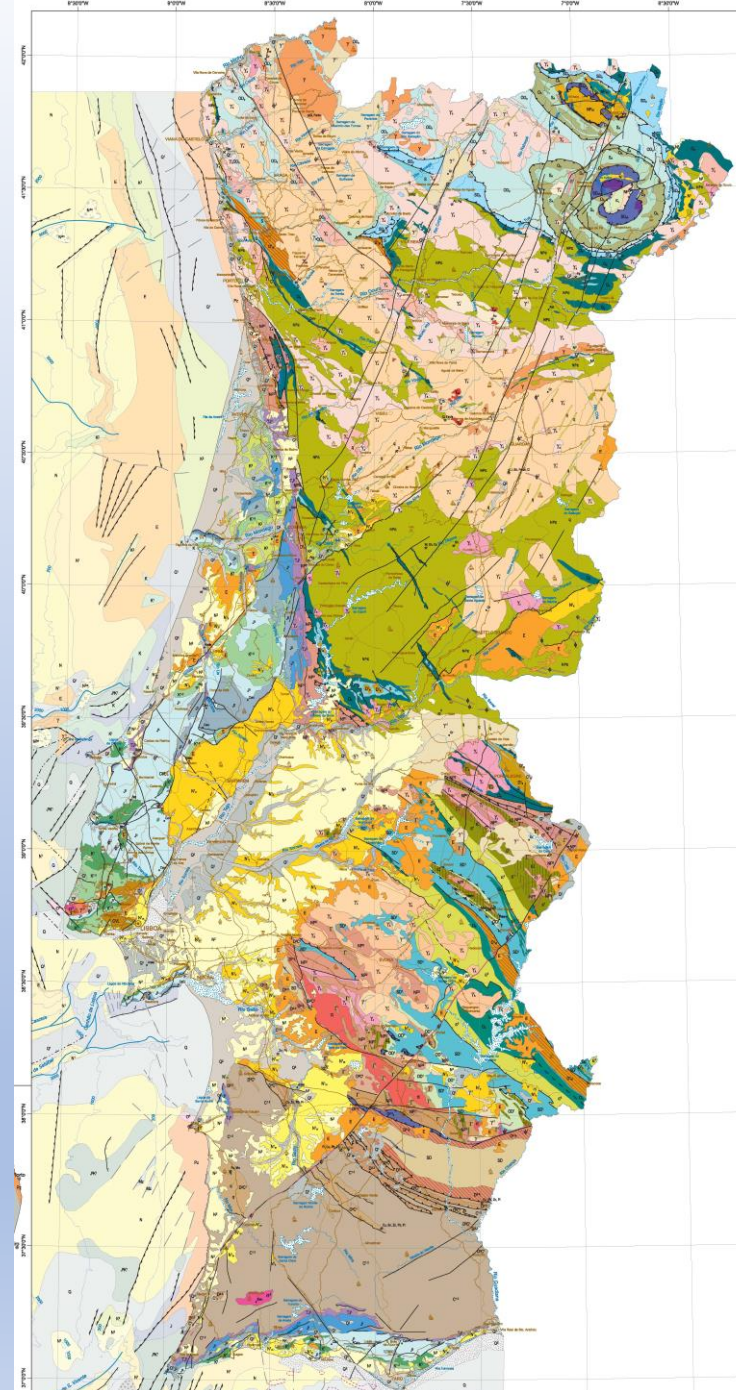
LEGEND

- Gold
- Antimony
- Copper, Lead and Zinc
- Iron
- Iron and Manganese
- Manganese
- Tin
- Tungsten
- Titanium
- Tantalum
- Beryllium
- Rare Earths

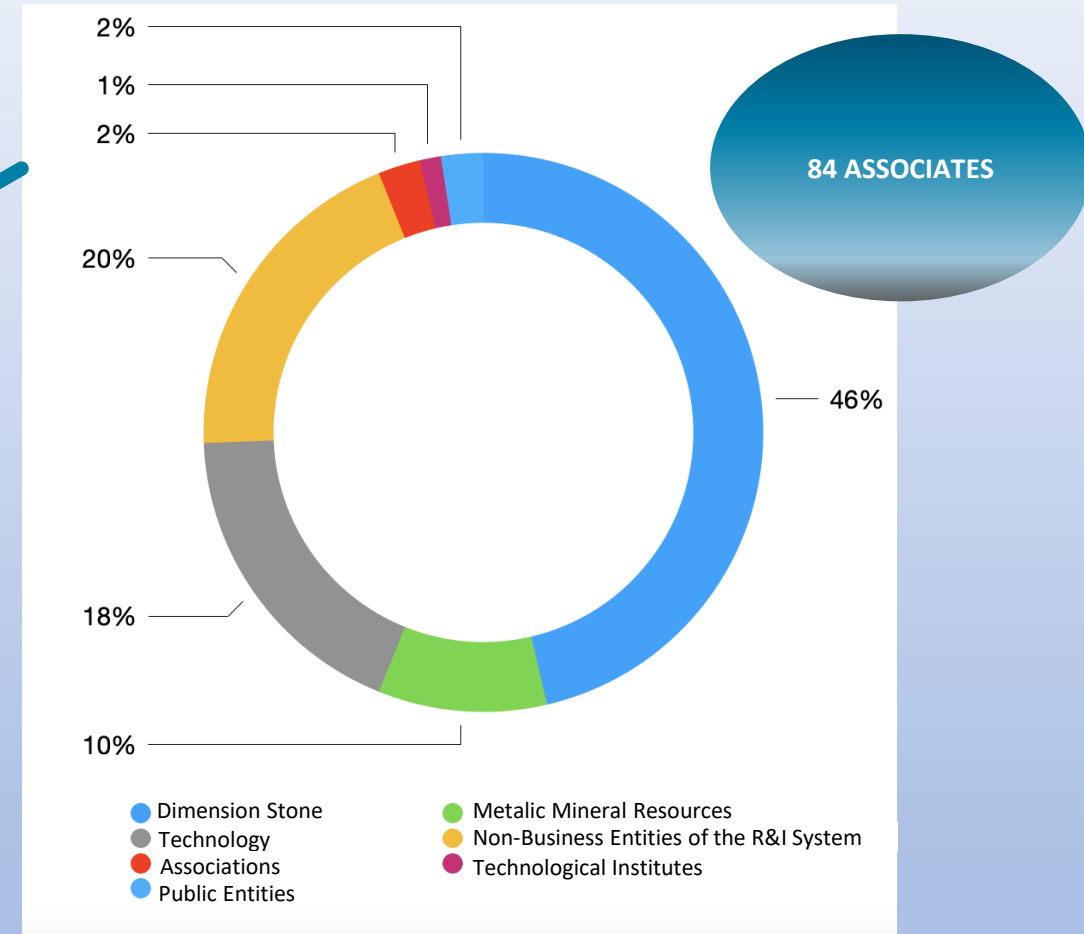
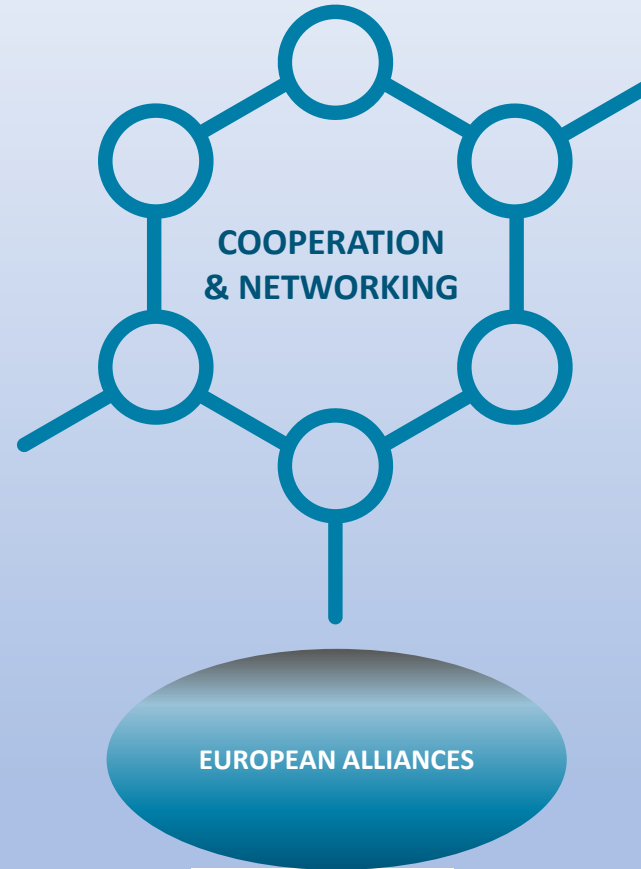
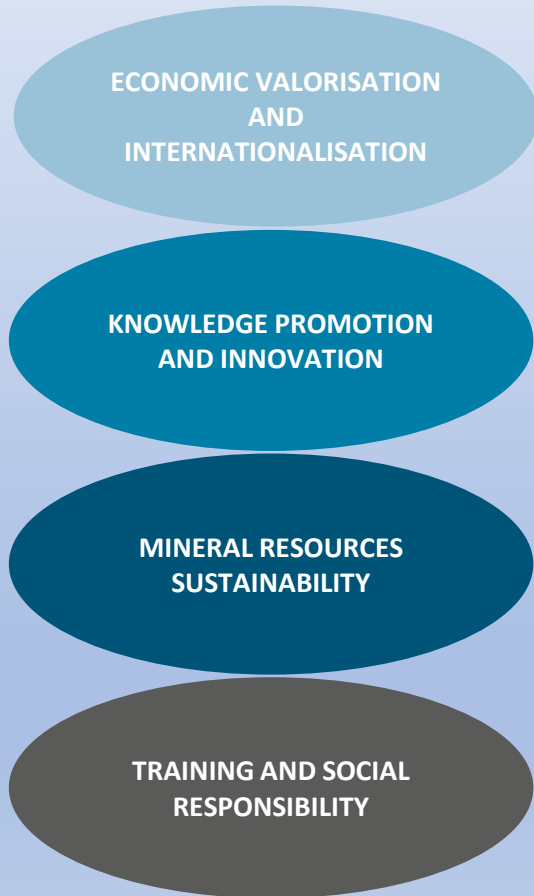
DIMENSION

- Large mineral deposit
- Medium mineral deposit
- Small mineral deposit

SCALE
0 10 20 30 km



ACPMR - Association Cluster Mineral Resources



**Possible supply discontinuities;
in some cases, disruptions of longer duration.**

**Mitigating imbalances is challenging and
requires innovative ideas, methods and solutions
to restructure the current chains of
supply of mineral raw materials.**

Supply



Demand

**Continuous increase in
associated material intensity
to (r)evolution of technology in
course towards savings
digital, eco-efficient and low-C**

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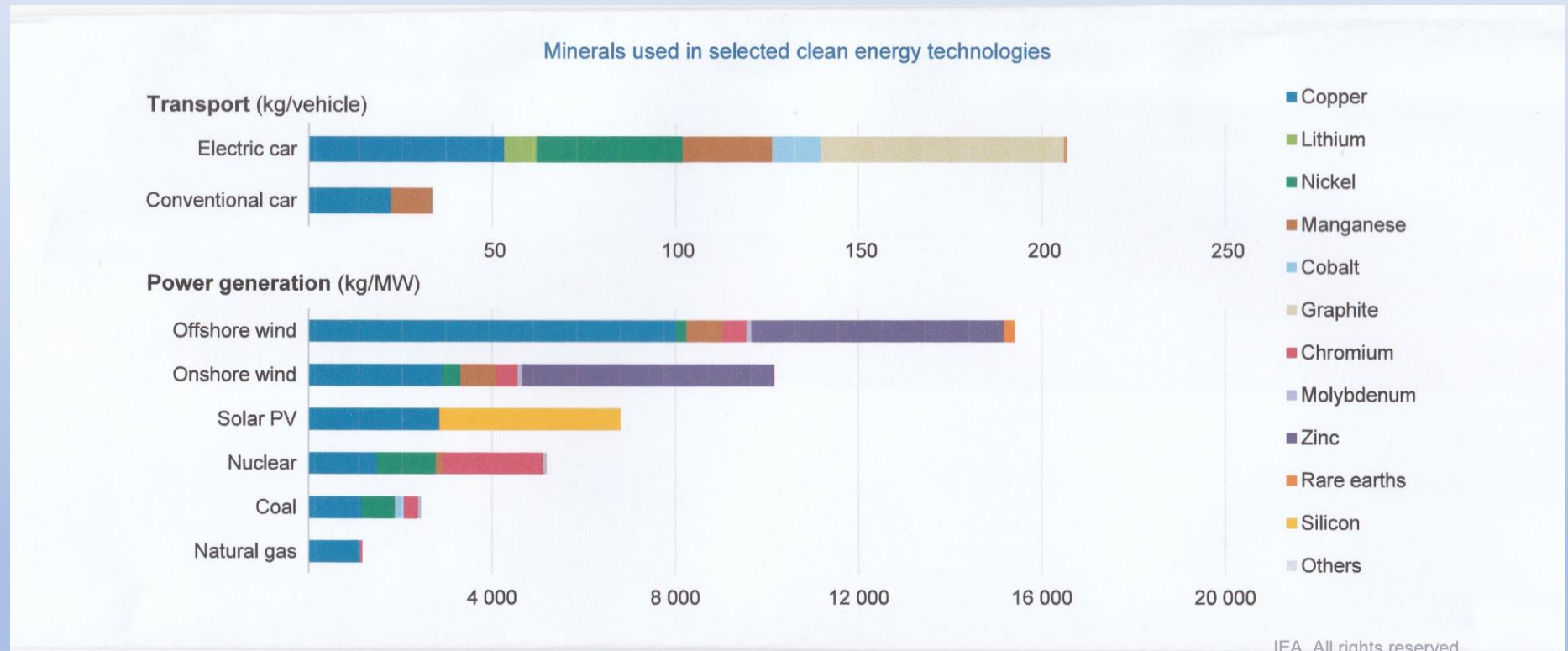
Materials use increase



	2011	2060
Metals	8Gt	20Gt
Fossil fuels	14Gt	24Gt
Biomass	20Gt	37Gt
Non-metallic minerals	37Gt	86Gt

OCDE, 2018

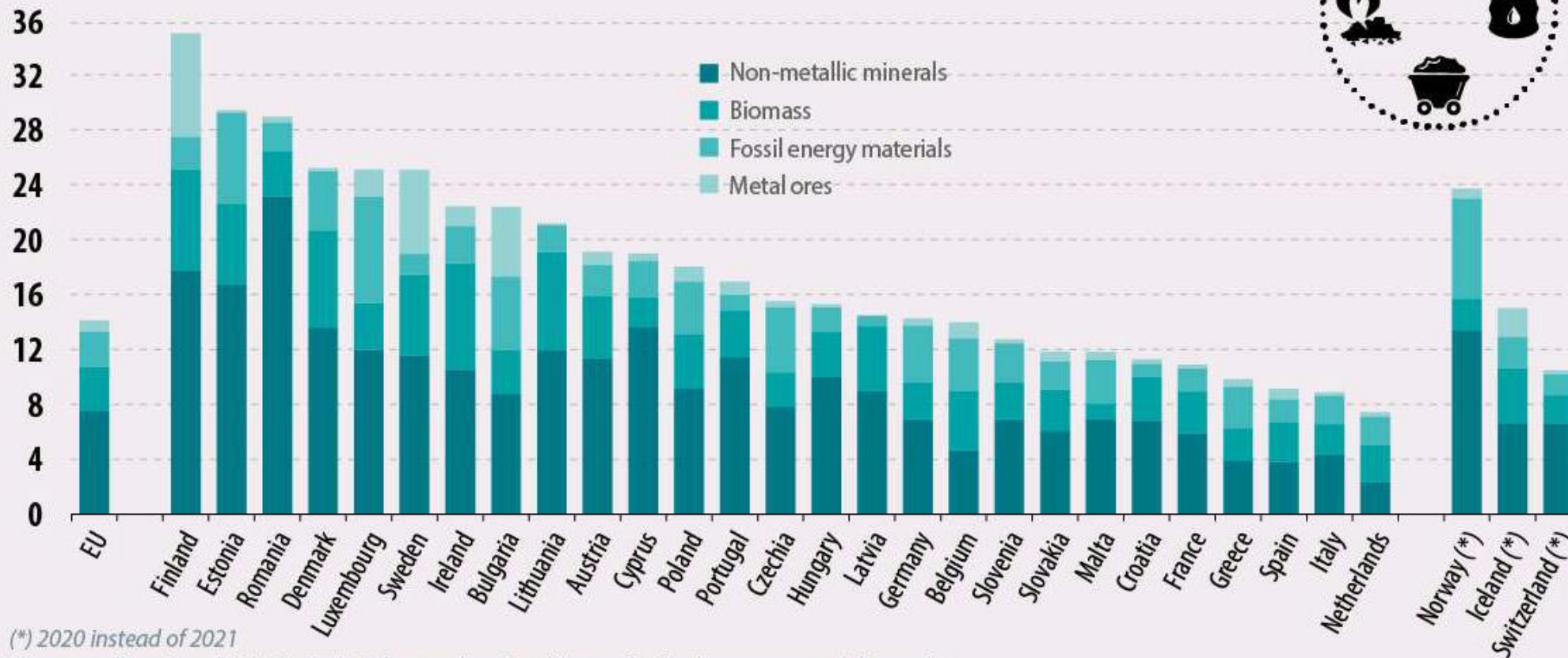
IEA, 2022



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Domestic material consumption by main material category, 2021

(tonnes per person)



(*) 2020 instead of 2021

'Non-metallic minerals' also include 'other products' and 'waste for final treatment and disposal'.

ec.europa.eu/eurostat

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Development of domestic material consumption in the EU, by main material category, 2000-2021 (index 2000 = 100)

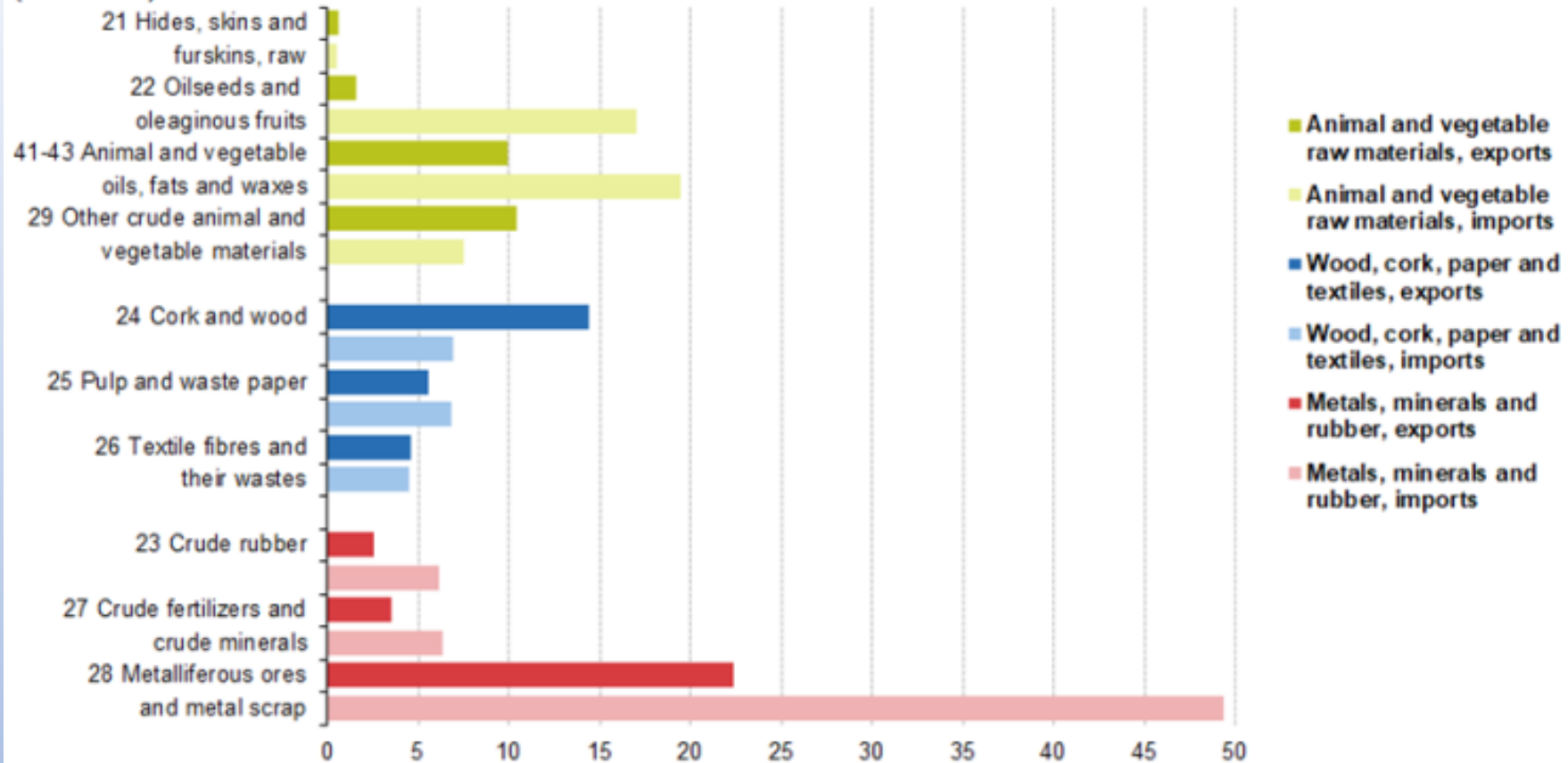


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EU exports and imports of raw materials by product categories, 2022

(€ billion)

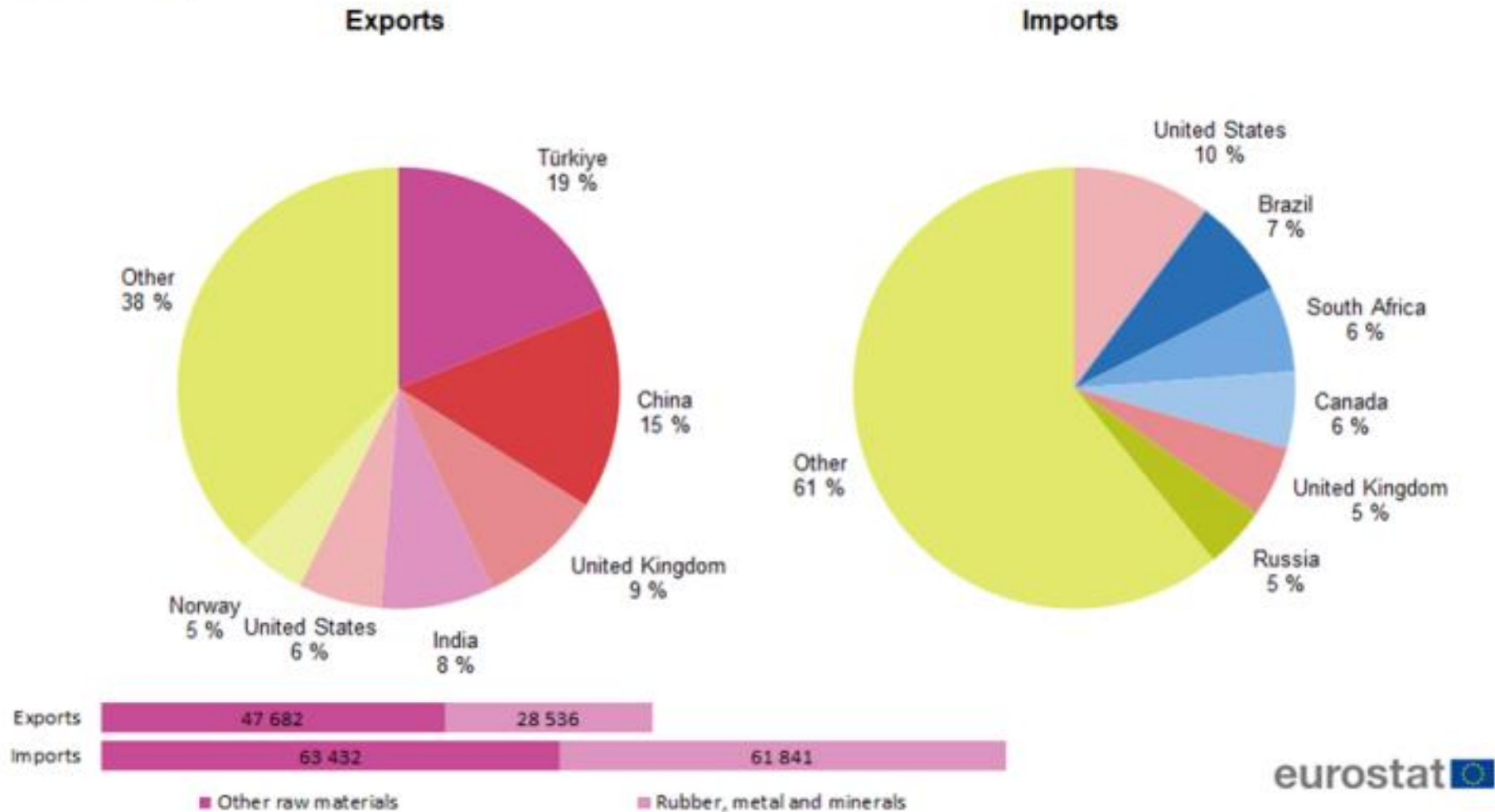


Source: Eurostat (online data code: DS-018995)

eurostat 

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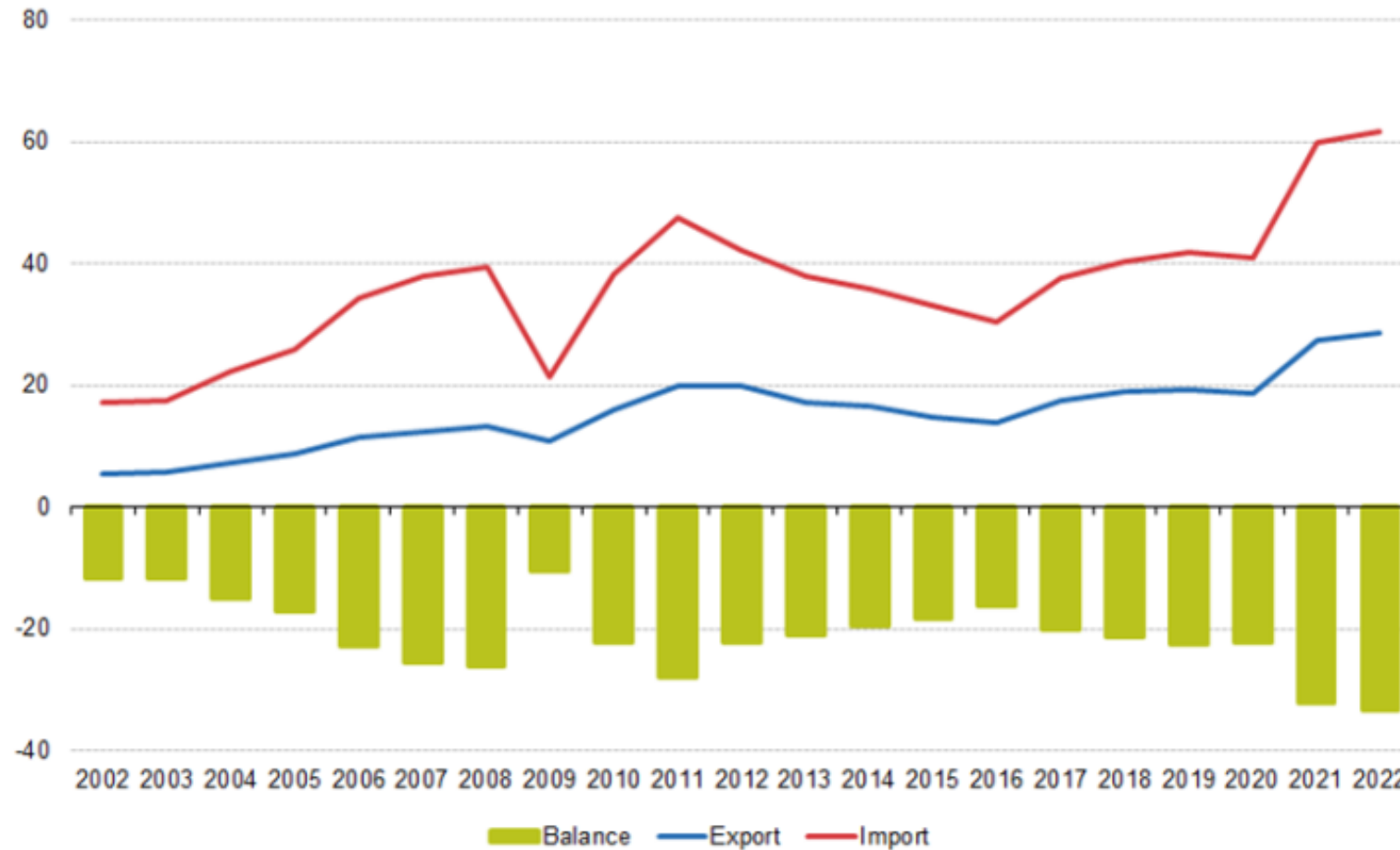
EU exports and imports of rubber, metal and minerals by main partner, 2022 (% and € billion)



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EU trade in rubber, metal and minerals, 2002-2022

(€ billion)

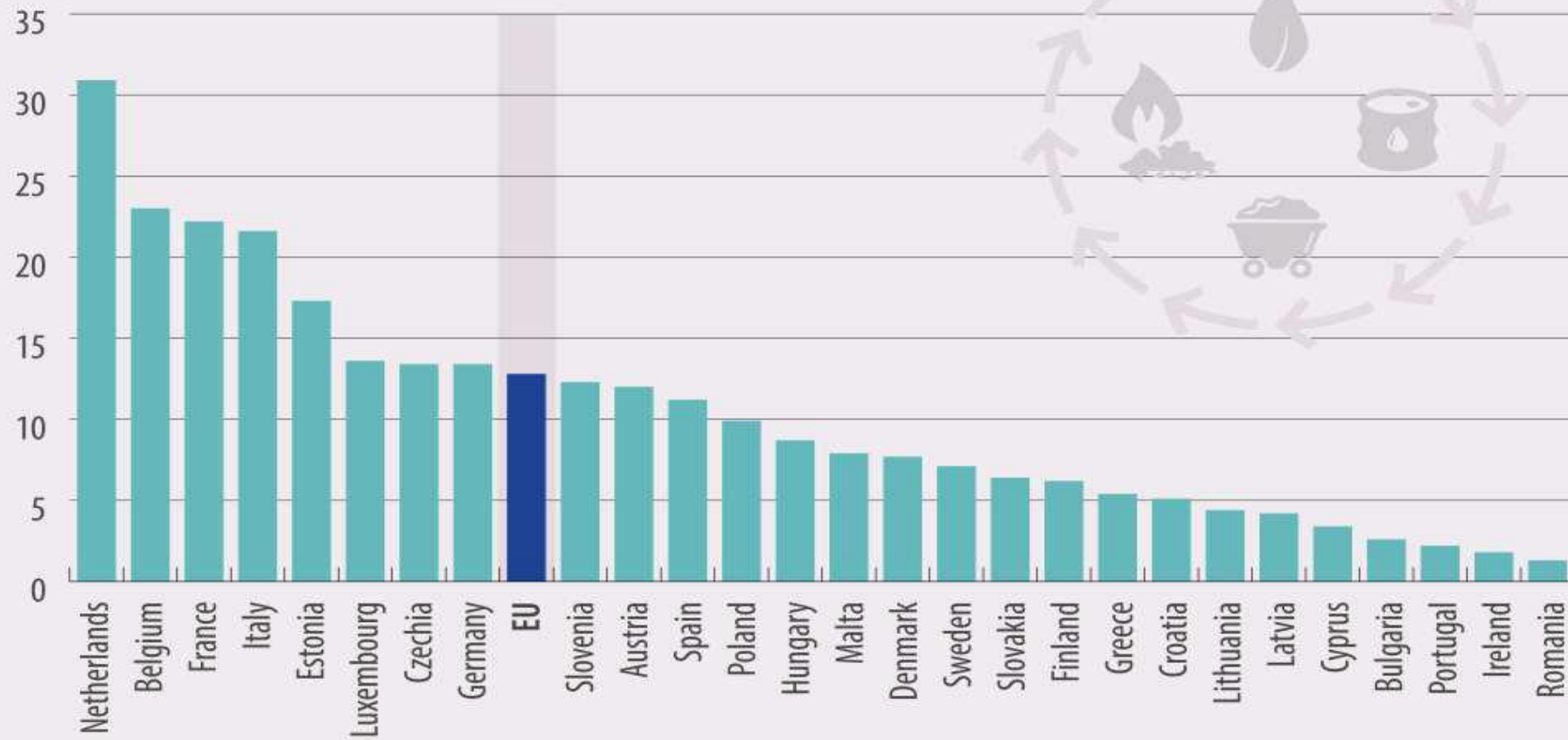


Source: Eurostat (online data code: DS-018995)

eurostat 

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Circular material use rate in the EU, 2020 (%)



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TIME FOR CHANGE!

TIME FOR ACTION!

TIME FOR THE CRM ACT!

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