



# European Union New Green Deal and Raw Material Vision

Milan GROHOL



Webinar on Sustainable and integrated natural resource management: Values, principles and requirements  
10 September 2020



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**10 September 2020**

*Milan GROHOL*

*European Commission. Directorate-General for Internal Market, Industry, Entrepreneurship and SME's (DG GROW).*

*Unit C2 - «Energy intensive industries and Raw Materials»*

*[milan.grohol@ec.europa.eu](mailto:milan.grohol@ec.europa.eu)*

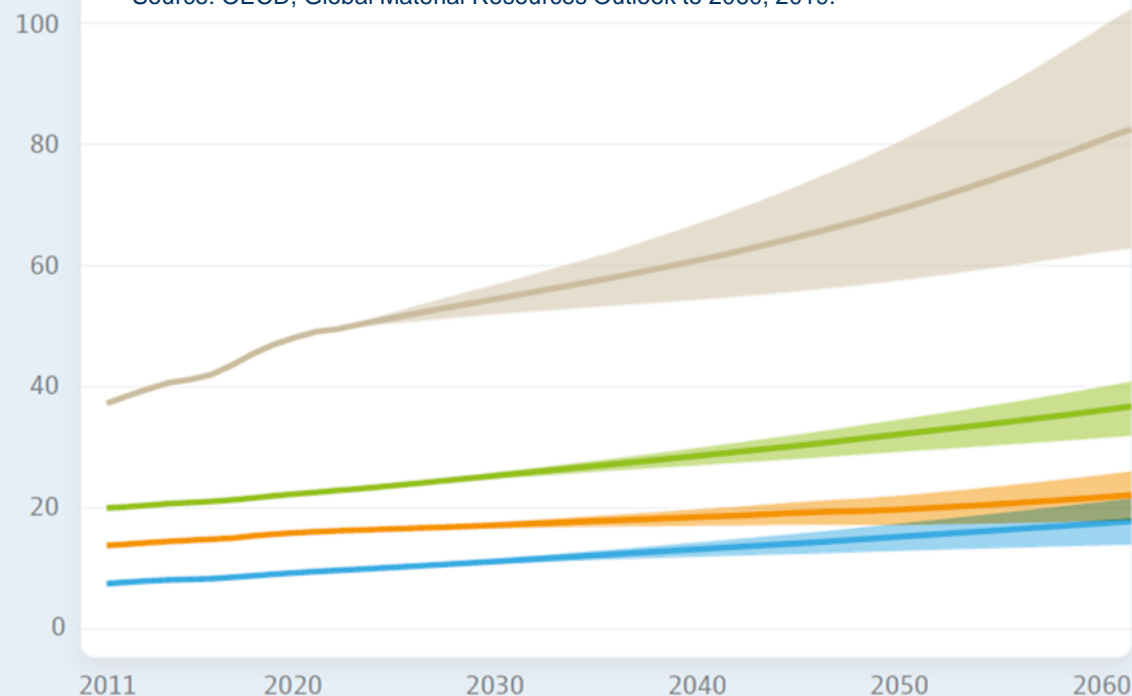
# Resource needs Future Outlook



 Biomass  Fossil fuels  Metals  Non-metallic minerals

Gigatonnes

Source: OECD, Global Material Resources Outlook to 2060, 2019.



**EU Green Deal's** ambition to transform the Union into a modern, resource-efficient and competitive economy, where

- there are no net emissions of greenhouse gases by 2050
- economic growth is decoupled from resource use
- no person and no place is left behind

**A New Industrial Strategy for Europe:** ...to become more competitive as it becomes greener and more circular, industry will need a secure supply of clean and affordable energy and raw materials.

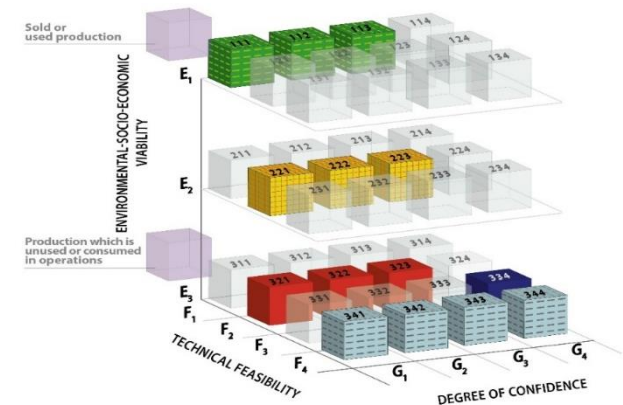
**European recovery plan:** more resilient EU in preparation for future shocks and to have more open strategic autonomy

**Action Plan on Critical Raw Materials and 2020 List of Critical Raw Materials (3.9.2020)**



## 10 actions in four blocks = 30 CRMs

- Developing resilient value chains
- Reduced dependency through circularity
- EU sourcing and processing
- Diversifying from third countries



➤ [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_1542](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1542)

# Which materials we use for green technologies?



Developing resilient value chains

## Technologies

## Materials

Supply Risk  
(sorted largest to smallest)

Very high

LREEs  
HREEs

High

Magnesium  
Niobium  
Germanium  
Borates  
Scandium

Moderate

Vanadium  
Strontium  
Cobalt  
PGMs  
Natural graphite

Low

Indium  
Lithium  
Tungsten  
Titanium  
Gallium, Hafnium  
Silicon metal

Very low

Manganese  
Chromium  
Zirconium  
Tellurium  
Nickel, Copper

Batteries



Fuel cells



Wind



Traction Motors



PV



Robotics



Drones



3D Printing



ICT



## Sectors

Renewables



E-mobility



Defence & Space





# How much will we need for green transition?

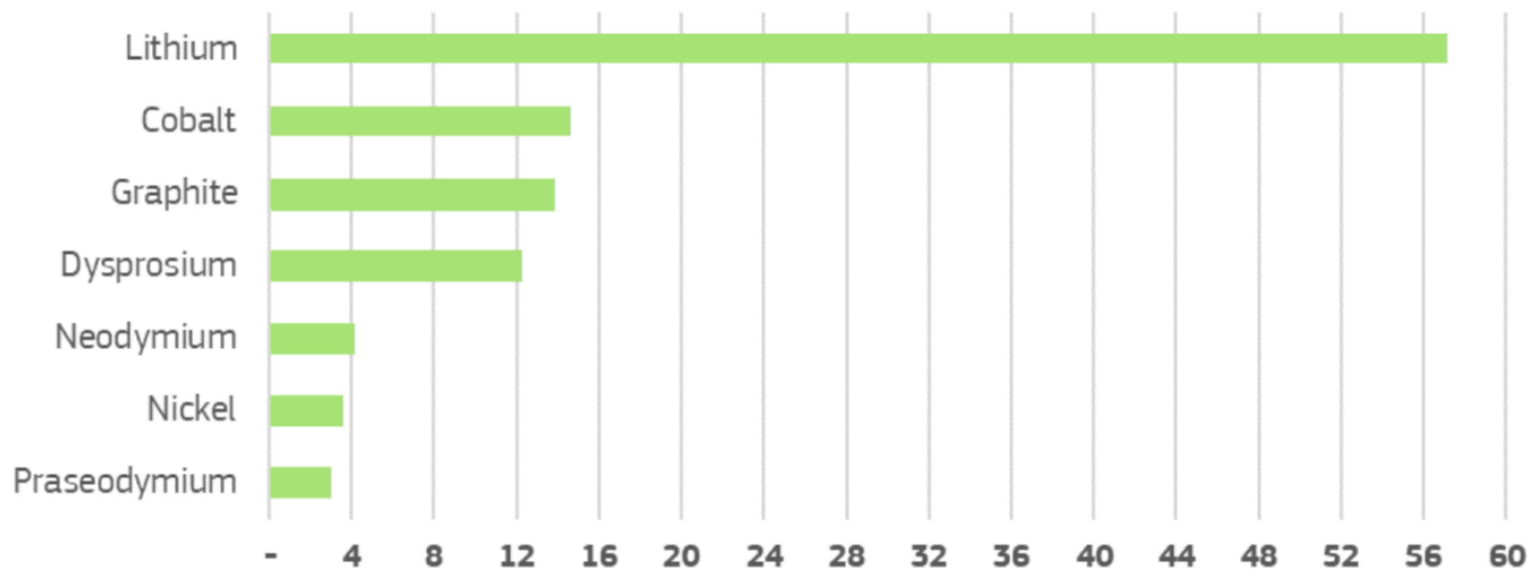


## Developing resilient value chains

The green and digital transitions will lead to a drastic increase in European demand for certain critical raw materials by 2050

**Additional** material consumption for batteries, fuel cells, wind turbines and photovoltaics in **2050** compared to current EU consumption of the material in **all** applications

- Launch European Raw Materials Alliance
- Develop sustainable financing criteria



Source: EU Report on Critical Raw Materials in technologies and sectors, 2020

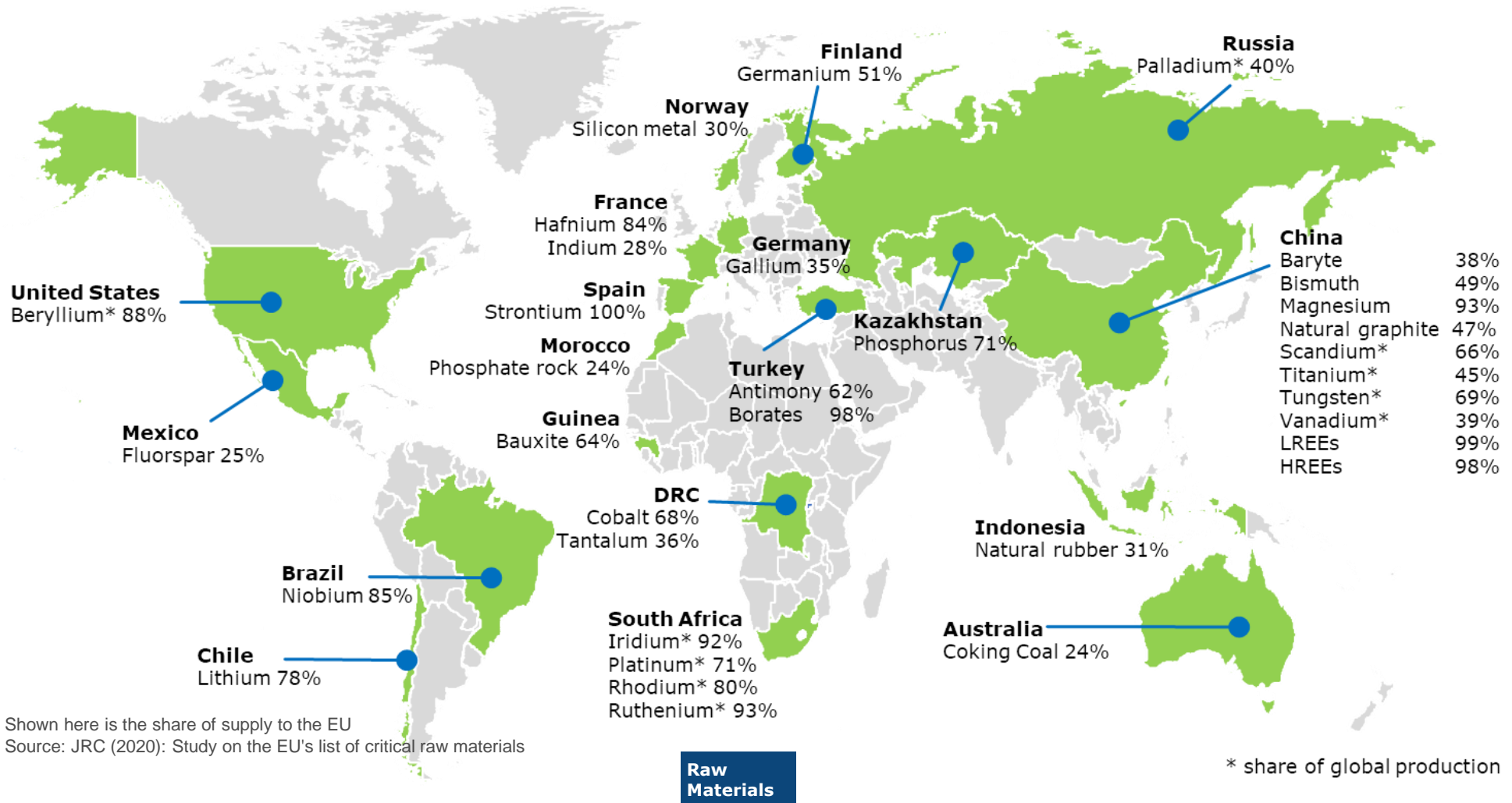
x times more

# Where EU sources from?



## Diversifying from third countries

- Develop strategic international partnerships
- Promote responsible mining practices

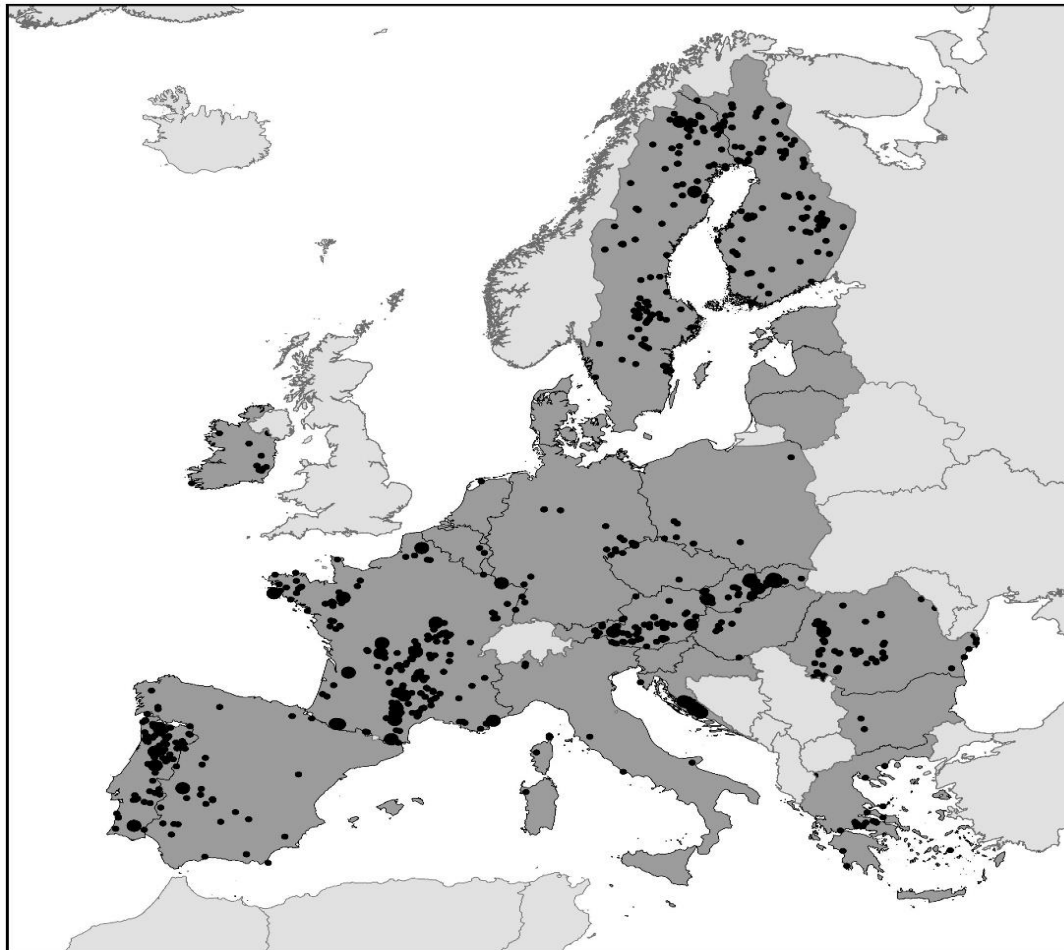


# What do we have in the EU?



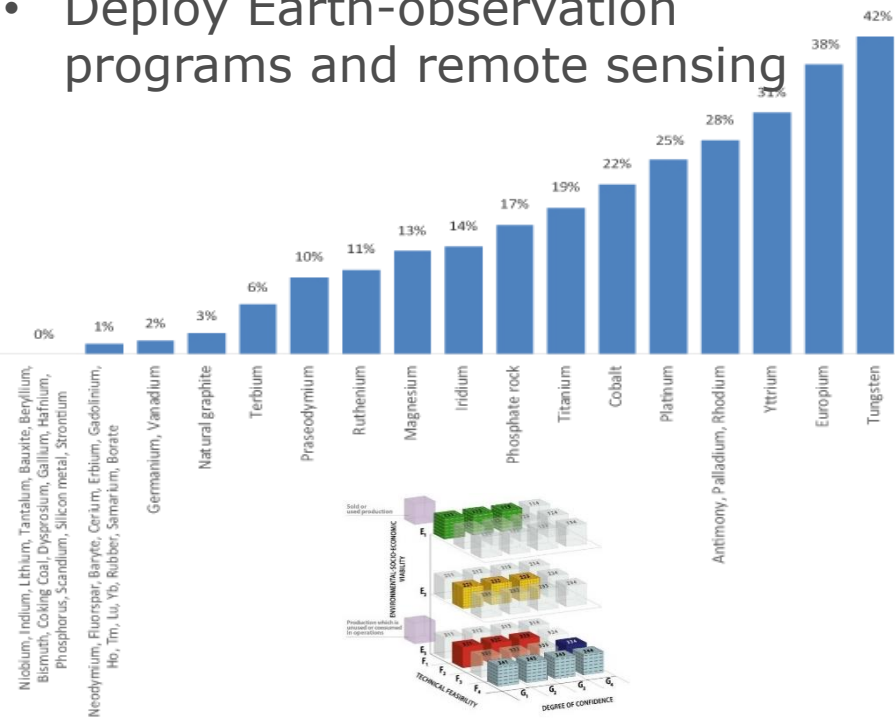
## Domestic sourcing circularity and primary raw materials

The EU has substantial unused domestic potential of CRMs.



Data provided by EuroGeoSurveys combined with other EU data sources

- Support research and innovation
- Identify mining and processing projects and investment needs
- Map the potential supply of secondary critical raw materials
- Develop expertise and skills in mining, extraction and processing technologies
- Deploy Earth-observation programs and remote sensing





# Thank you

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European Commission  
Directorate-General for Internal Market,  
Industry, Entrepreneurship and SME's (DG  
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