Council of the European Union
General Secretariat

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MEETING DOCUMENT

From:	General Secretariat of the Council
To:	Delegations
Subject:	Green Deal Industrial Plan: Proposals for the Critical Raw Materials Act and the Net-Zero Industry Act - Powerpoint presentation (Coreper I 17.03.2023)

Delegations will find attached a powerpoint presentation on the Green Deal Industrial Plan: Proposals for the Critical Raw Materials Act and the Net-Zero Industry Act presented at the Coreper I meeting on 17 March 2023.

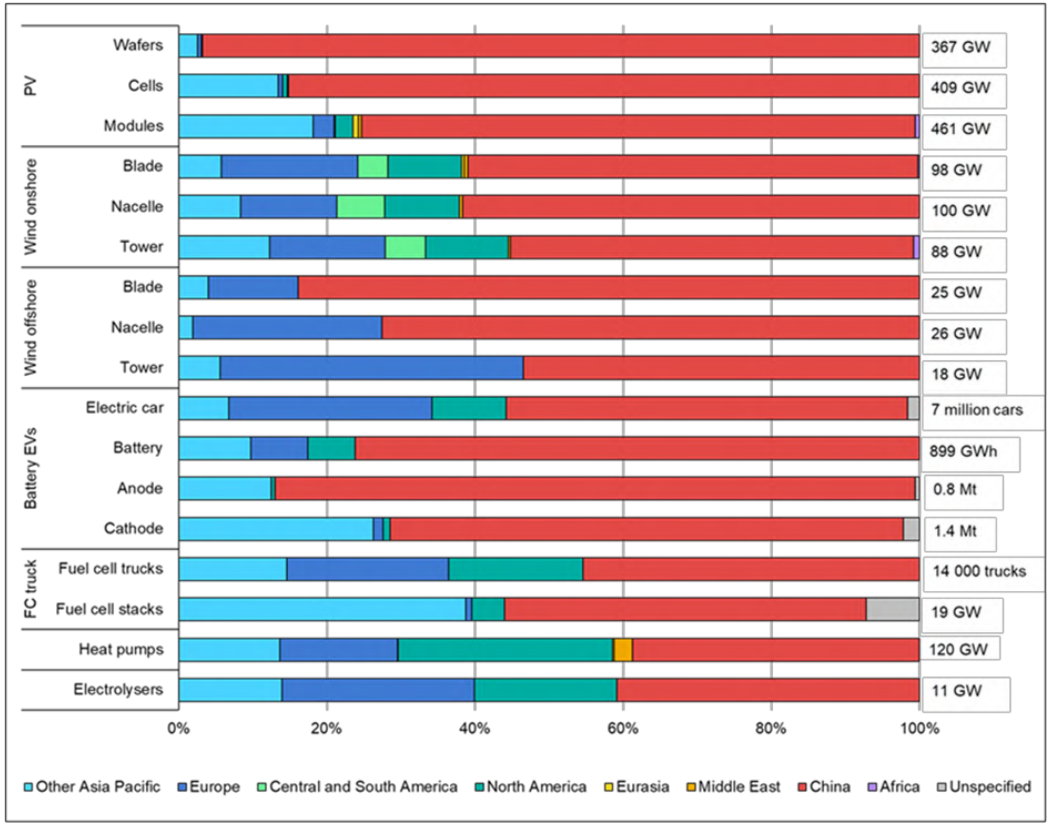
COREPER I

Green Deal Industrial Plan: Proposals for the Critical Raw Materials Act and the Net-Zero Industry Act

17 March 2023

Net-Zero Industry Act: "the why"

1.Dependencies



2.Investment needs

- USD 1.2 trillion required in clean energy technology supply chains for global 2030 targets.
- Fit for 55 objectives require annual investments of EUR 487 billion in the energy system in next 2 years

3.Barriers

- Global supply chain and price constraints: volatility in international material prices, more expensive transportation and financing, and continued supply chain bottleneck
- Long Lead times slowing down production: e.g. up to 5 years for EV batteries production
- Lack of skilled workforce: 180.000 skilled workers in the hydrogen sector and 66.000 for solar PV by 2030

Global market for key mass-manufactured net-zero technologies to triple by 2030 with an annual worth of around EUR 600 billion

Once in a generation opportunity to pave the way with speed and ambition to secure the EU's industrial lead in the fast-growing net-zero technologies sector with the Net-Zero Industry Act

Commission

Net-Zero Industry Act: "the what"

Twofold scope:
(1) net-zero technologies & (2) net-zero strategic technologies

Benchmark:
Manufacturing capacity of strategic net-zero technologies to reach at least 40% of EU's annual deployment needs by 2030

Permitting

- Streamlined permitting deadlines and procedures
- One-stop shops
- Information sharing

Investment

- Crowding-in private investments in net-zero strategic projects by Commission and MS
- Net-Zero Industry Europe Platform to advise on financing of projects

Markets

- Sustainability & resilience criteria in auctions
- Sustainability & resilience criteria in public procurement
- Sustainability & resilience criteria in public support measures

Skills

- Skills for quality jobs through Net-Zero Industry Academies
- Credentials for skills transparency, transferability & cross-border mobility

Innovation

- Regulatory Sandboxes to promote innovation and to test innovative net-zero technologies in a controlled environment for a limited amount of time

Governance

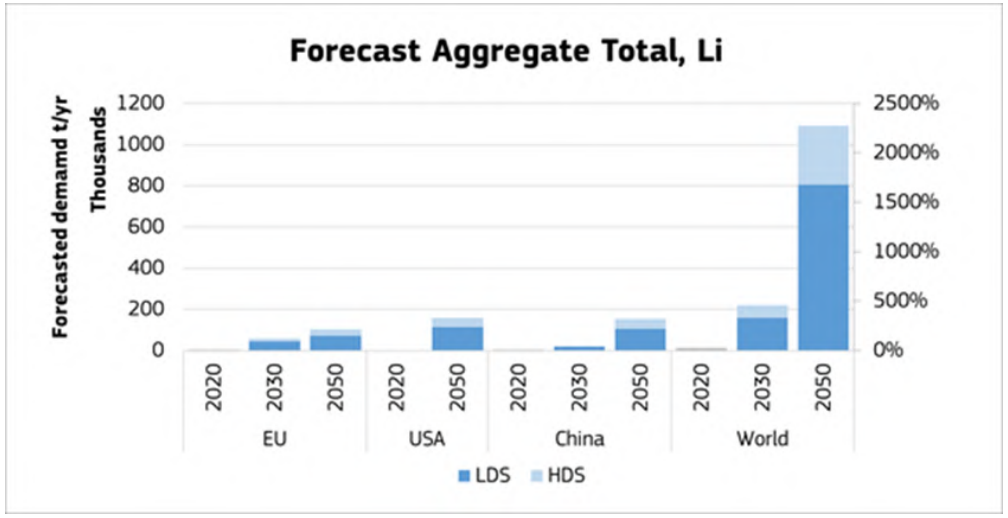
- Net-Zero Europe Platform as a reference body for the Commission to coordinate actions jointly with Member States

International Partnerships

- Adopting net-zero technologies globally and to support the role of EU industrial capabilities in paving the way for the global clean energy transition

Critical Raw Materials Act: "the why"

1.Dependencies



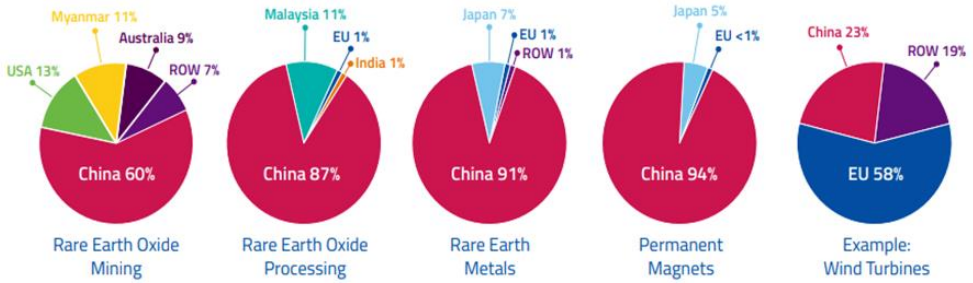


Fig. 3: From rare earths mining to wind turbine manufacturing: estimated market shares in 2019. Sources: Team analysis and Roskill 2018; Adamas Intelligence 2019; Peteves 2017; Carrara et al. 2020; IEA 2021; USGS 2021.

In 2030, global demand is likely to outstrip supply for Net-Zero Industry technologies – like cobalt, lithium, nickel and manganese, as well as for rare earth elements.

2.Growing demand

- 89-fold increase in global demand for lithium used to manufacture batteries for mobility and storage (21-fold for EU demand);
- 18-fold increase in global demand for cobalt, used for electrification ;
- 10-fold increase in EU demand for copper used for electrification;
- 6-fold increase in EU demand for aluminium;
- 6 to 7-fold increase in EU demand for rare earth elements (Nd and Dy)

3.Investments needs – the batteries example

- **Investment needs** to ensure some ratio of domestic sources for extraction, processing and recycling of the European demand are enormous.
- Investment needs to ensure the **processing of 40% and recycling of 15%** of the European demand for the **five main raw materials for batteries** (lithium, cobalt, nickel, manganese and natural graphite) from domestic sources amount to **EUR 8.5 billion by 2030 and 14.9 billion by 2040.**
- The investment needs to ensure the **supply of 25%** of European demand of the same raw materials for batteries from domestic sources amount to **EUR 7 billion by 2030 and 13.2 billion by 2040**.
- Assuming a share of public spending to realise these projects comparable to the American Battery Materials Initiative, **public support of EUR 2.7 billion by 2030 and 4.7 billion by 2040 would be required.**

Driven by the twin transition and defence needs, significant growth in CRM demand, with risk of global supply/demand imbalance

Critical Raw Materials Act: "the what"

Twofold scope:
(1) critical raw materials & (2) strategic raw materials

Benchmark for domestic capacities of the EU's annual consumption: at least 10% for extraction, at least 40% for processing, at least 15% for recycling.
Not more than 65% dependency from a single third country.

Permitting

- Transparent information on process and during process
- One stop shop
- Digital by default
- Predictable Deadlines
- National geological exploration programmes

Investment

- Strategic project labelling as signalling for access to finance
- Public/Private financing (w/ blending)

Markets

- Secondary Raw Materials markets
- Focus on Permanent Magnets
- Certification schemes
- Benchmarks on domestic value chain
- Benchmark on international dependency from single country

Skills

- Skills for quality jobs through Raw Materials Academy (geologists, metallurgists, mine workers, etc)
- Credentials for skills transparency, transferability & cross-border mobility

Sustainability

- Environmental CO2 footprint information on CRM
- Promote CRMs circular economy – increase waste collection, recycling and use of secondary RMs
- Focus on extractive waste and use its potential for CRMs
- Development of standards for CRM value chain operations

Governance

- CRM Board (EC+MSs)
- Stress-tests for CRM supply chains
- Mitigation of risks (by audits, stocks and joint purchasing)
- Monitoring and coordination

International Partnerships

- International strategic partnerships
- Trade and investment agreements
- Creation of CRMs 'Club'

European Commission