Raw Materials Information System (RMIS)

Overview, latest developments & focus on Critical Raw Materials

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Joint Research Centre (JRC)

Our purpose

The JRC is the European Commission’s in-house science service. It provides independent, evidence-based knowledge and science, supporting EU policies to positively impact society.
JRC sites

Headquarter in **Brussels**
and research facilities located in **5 EU Countries**:  
Belgium (Geel)  
Germany (Karlsruhe)  
Italy (Ispra)  
The Netherlands (Petten)  
Spain (Seville)
Dealing with the information overload

Anticipate

Integrate

Impact

JRC

Web

Harvest best scientific practices

Crowd sourcing data for citizens

Industry

Experts

Data bases

Industrial knowledge

ABUNDANCE OF KNOWLEDGE SCIENTIFIC COMPLEXITY

JRC KNOWLEDGE MANAGEMENT

POLICY MAKING COMPLEX PROCESS

Two-way process
Raw Materials Information System (RMIS): Context & scope

- Scope includes metals & minerals from primary & secondary sources.
- Facilitates availability, coherence and quality of knowledge at EU level to support EU raw materials policy – especially for critical & strategic materials.
- Facilitates & complements interactions with Member States & key EU / extra-EU stakeholders
- 2024 RMIS roadmap just published!

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The **Raw Material Information System (RMIS)**

Further strengthening EU Raw Materials Knowledge Base for industrial competitiveness

**KNOWLEDGE PRODUCTION**

- Data collection & analysis (incl. forecast) on raw materials trade, supply (*risk/de-risking*), demand, and sustainability
- Focus on **Critical/Strategic** RMs, and related sectors & technologies
- Focus on **strategic value chains** (mobility, batteries, …)

**KNOWLEDGE INTEGRATION**

- Across **JRC** Directorates & teams
- Across **DGs**: GROW, ESTAT, TRADE, ENV, RTD, INTPA,…
- From **EU-funded / Horizon** projects
- From other entities at EU level (EIT-RM, EGS, HaDEA, EEA,…), MSs, and non-EU (USGS, UN,…)

**POLICY SUPPORT**

- Data and analysis for **Impact assessment** (e.g. for CRM Act), implementation, and monitoring of policies
- Data & analysis for ad-hoc request/briefings (individual countries, raw materials, etc.)

**KNOWLEDGE DISSEMINATION & OUTREACH**

- **RMIS** among the most visited science/knowledge platform of the EC
- Continuous interactions with broad stakeholders’ network via various meetings & events
- Reports, briefs, newsletters, roadmaps
Example of Policy Support: the CRM Act

- The **Critical Raw Materials Act** is supported by analysis and **projections of materials demand** necessary to meet our energy and digital transition targets and security/defence agenda.

- JRC performed these projections, together with analysis of supply chain vulnerabilities in the **Foresight study** that helped to underpin scientifically the CRM Act. The definition of **Strategic Raw Materials** is based on this study.

Examples of other JRC sectorial analyses of material demand projections:
- Wind and Solar PV, Dual-Use Techs, Substitution, batteries, e-vehicles
Foresight Analyses on EU’s supply-risk
Focus on Russian invasion of Ukraine

Material-specific briefs for potash, titanium, coking coal, rare gases, nickel, PGMs,…

Trade-related country fiches for Ukraine, Russia, Belarus, Kazakhstan, China…
Various types of "profiles" in RMIS

- Technologies and Sectors profiles
  - 5 strategic sectors
  - 15 technologies

- Country profiles
  - EU27 (forthcoming!)
  - Africa
  - Latin America & Caribbean

- Raw Materials’ profiles
  - 100 raw materials, including all critical and strategic RMs

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Analysis on the supply chain structure of 15 key technologies for 5 strategic sectors:

- relevant materials, components and assemblies;
- potential bottlenecks;
- supply risk;
- future demand;
- policy-relevant scenarios or market trends.
Country Profiles
Available for Africa, LAC and soon... EU 27!

Country profiles coverage:
- EU27 (forthcoming!)
- Africa
- Latin America & Caribbean

Country profiles – clusters of indicators included:
- Trade: 5+ indicators
- Trade policies: 3 indicators
- Investments & regulatory framework: 3 indicators
- Governance & social aspects: 4 indicators
- Environment: 3 indicators
- Waste & Circular Economy: 4 indicators
- GIS based maps including active/inactive projects and their characteristics, as well as info related to various environmental aspects
Raw Materials’ Profiles
Covers 100 materials, complements EC Critical Raw Materials assessment

Dashboard

Production module

Resources & reserves module

Recycling indicators module

Forthcoming modules:
Trade
Uses / demand
GIS-maps
…& more
Raw Materials’ Profiles
Dashboard
Raw Materials’ Profiles
Resources & Reserves module (mass)
Raw Materials' Profiles

Recycling indicators
Plans for 2024 and beyond

- **Advanced modelling of stocks and flows of critical raw materials in the battery value chain** (as an enabler of the climate neutral and digital transition)

- Analysis and monitoring of supply disruption risk, its impacts, risk mitigation measures and measures for risk preparedness, including for stress-tests and early warning, in support to the Critical Raw Materials Act.

- Analyses on substitution of CRMs with advanced materials, supporting the ongoing Advanced Materials Initiative (AMI 2030).

- Clean energy materials and support to the relevant Taskforce of SETplan (Strategic Energy Technologies plan) on advanced materials, substitution and recycling.

- Expand coverage of Country Profiles to support needs of DG TRADE/INTPA/GROW and selected EU Delegations and strategic partnerships; including for EU Enlargement Countries

- **Refinement of circularity provisions concerning Critical Raw Materials contained in vehicles**: building on a recent JRC study

- Building on the example of battery modelling: develop advanced modelling of Critical Raw Materials stocks and flows in other strategic value chains (e.g. vehicles, electronics); support related sectorial policies.

- Better coverage of environmental aspects along supply chains (in collaboration with EEA) + Develop the **Environmental Footprint accounting of CRMs**, based on the EU Product Environmental Footprint

- Strengthen 2-way interactions with EU-funded Projects in relation to high-priority topics/dossiers and mutual interests
THE VIEWS EXPRESSED ARE THOSE OF SIMONE MANFREDI – EC’S JOINT RESEARCH CENTRE (JRC) AND DO NOT NECESSARILY REFLECT THE VIEWS OF THE UNITED NATIONS.

Thank you!

Name Surname  
Position  
UNECE  
Date 23 I 04 I 2024, Geneva
Thank you

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