



Raw Materials in H2020

online workshop

Channelling knowledge from European projects into the Raw Materials Information System (RMIS)

3 December 2020

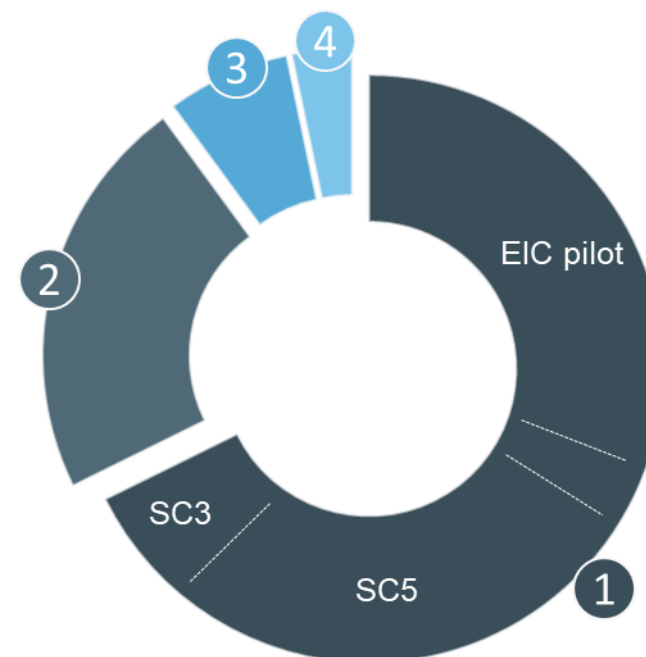
Marcin Sadowski

Head of Sector of Raw Materials and SILC II
EASME

EASME

- We aim to help create a **more competitive** and **resource-efficient** European economy based on knowledge and innovation
- December 2003: Intelligent Energy Executive Agency (IEEA)
- 2007: Executive Agency for Competitiveness and Innovation (EACI)
- 2014: Executive Agency for Small and Medium-sized Enterprises (EASME)
- 2021: New MFF and new mandate

4 programmes with a total budget of € 10.4 billion



① **Horizon 2020** - € 7 billion, SC5 – € 2.7 billion

② **LIFE** – € 2.3 billion

③ **COSME** - € 0.7 billion

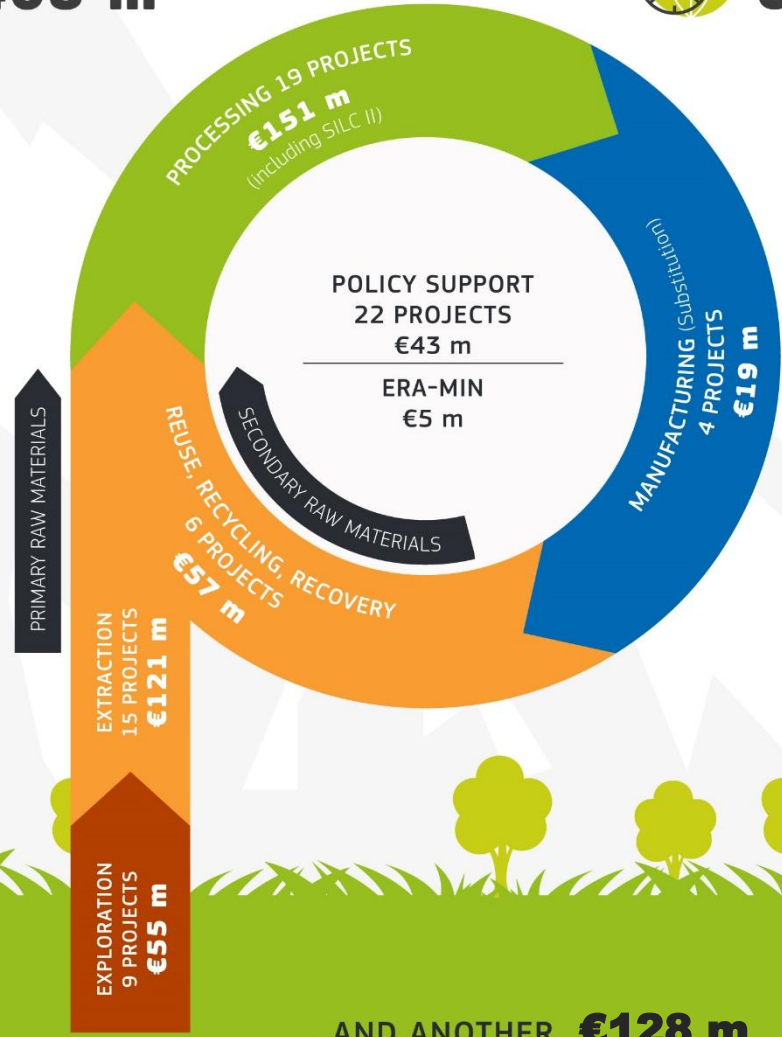
④ **European Maritime and Fisheries Fund (EMFF)** - €0.34 billion

RAW MATERIALS

SIX YEARS INTO HORIZON 2020

 **RESEARCH & INNOVATION**
€408 m

 **POLICY SUPPORT**
€43 m

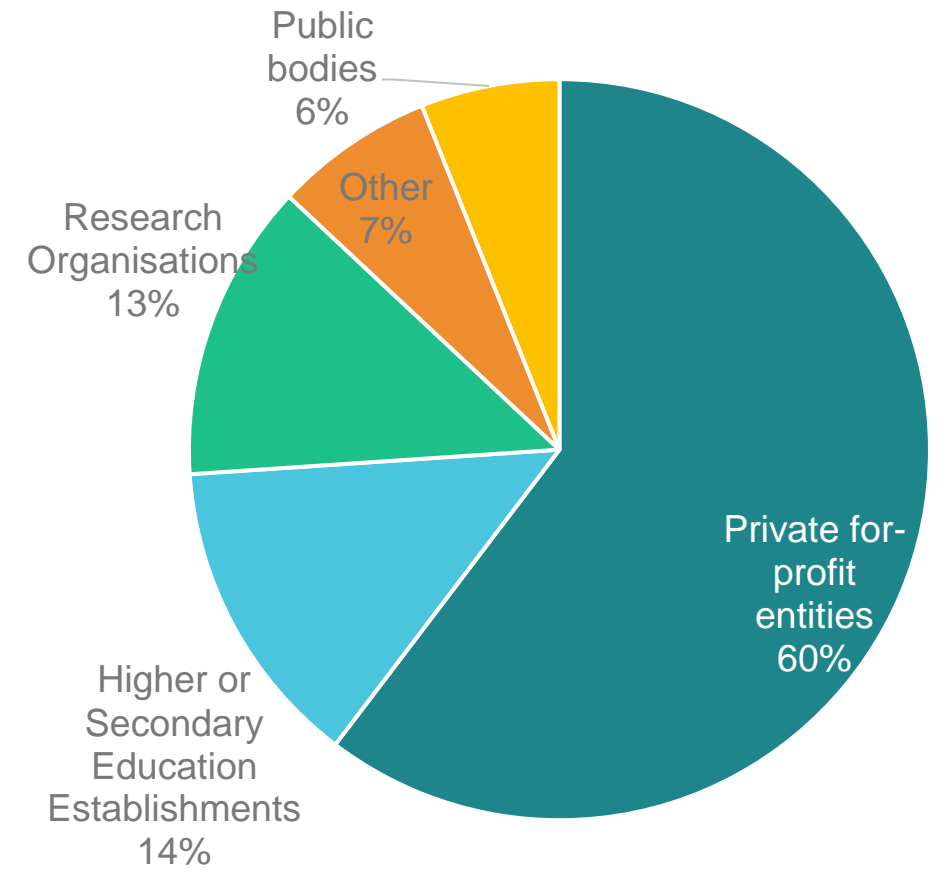


...AND ANOTHER **€128 m**
FUNDING FOR 2020



Raw Materials in Horizon 2020

1366 participations by 869 organisations

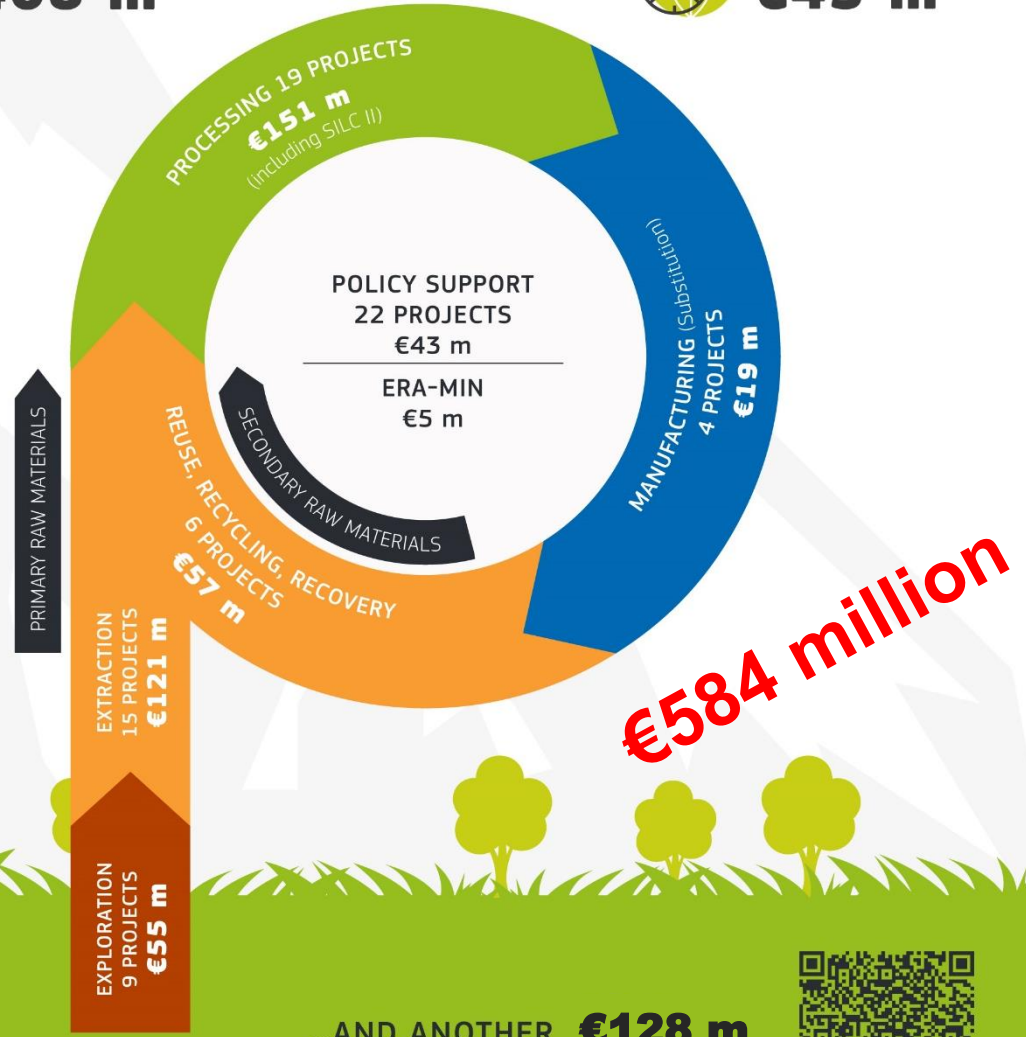


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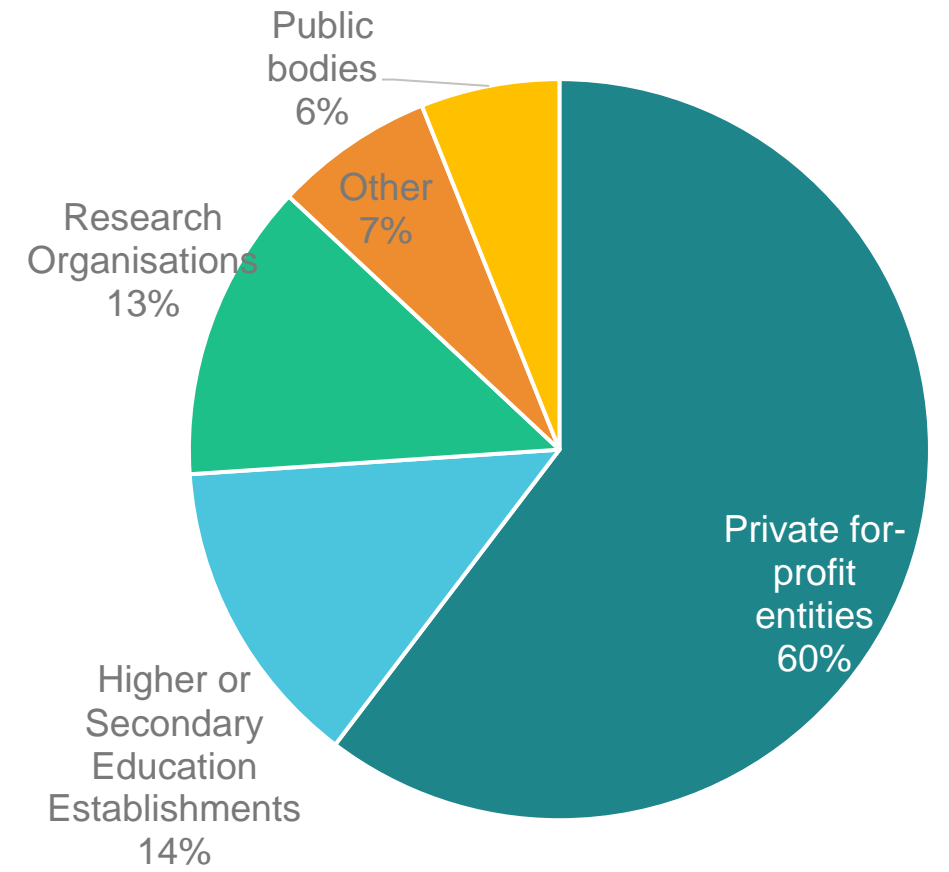


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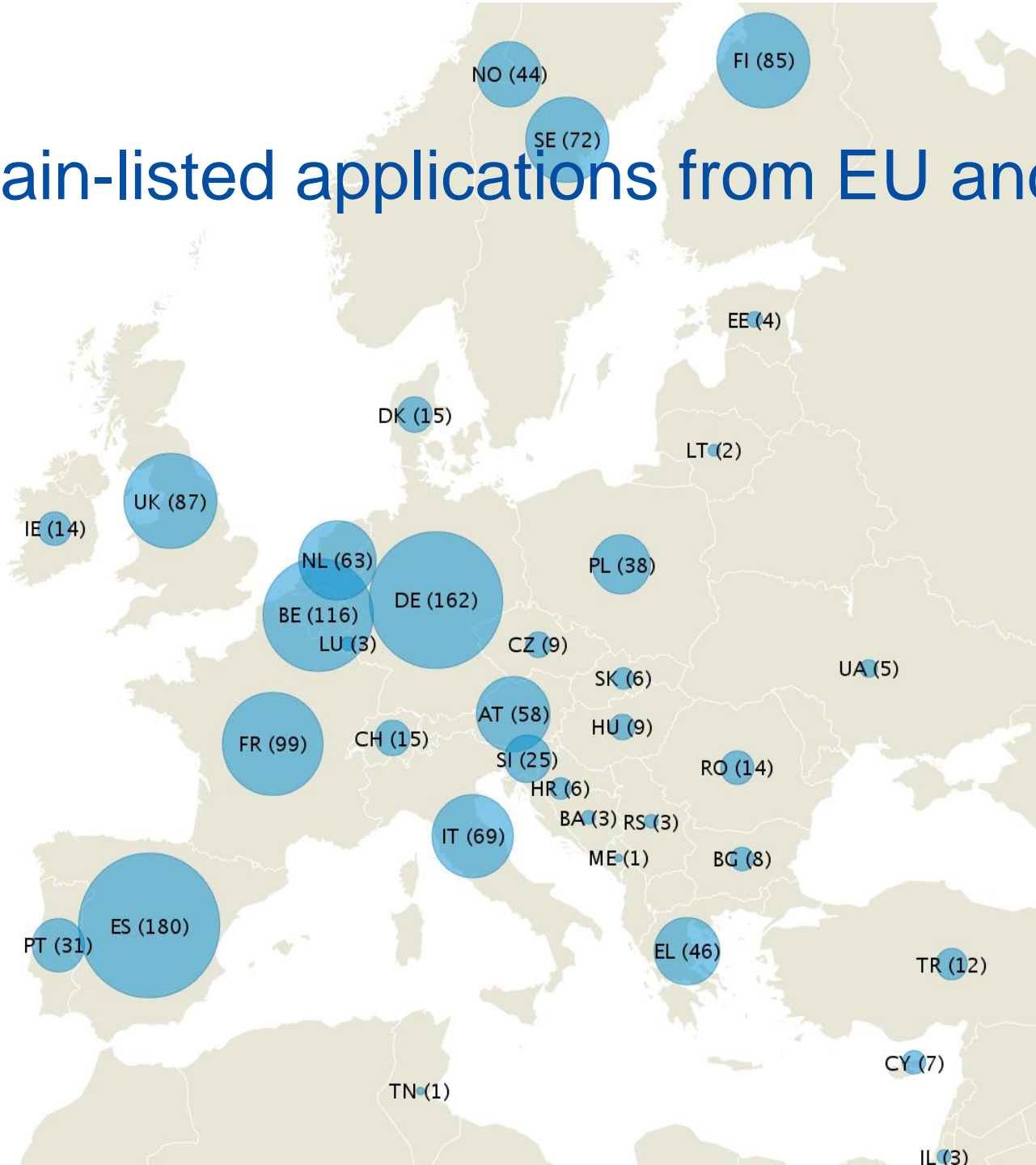
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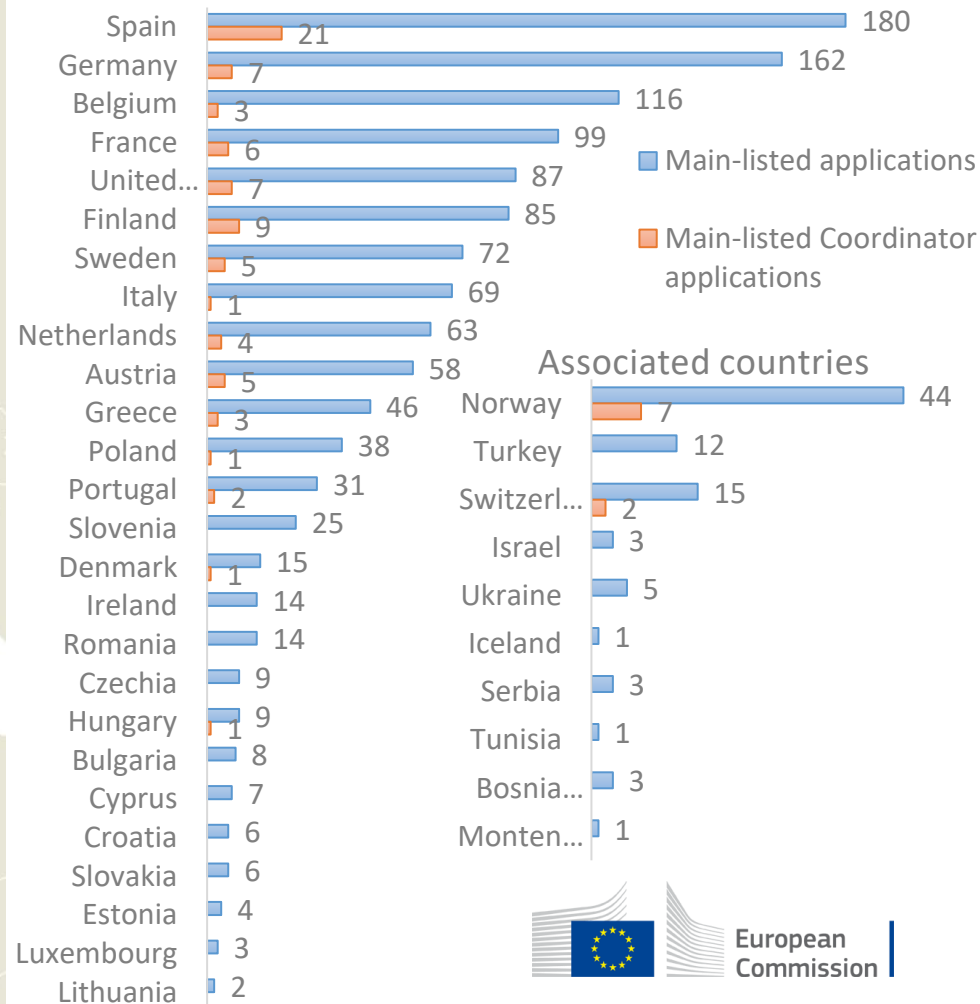


IS (1)

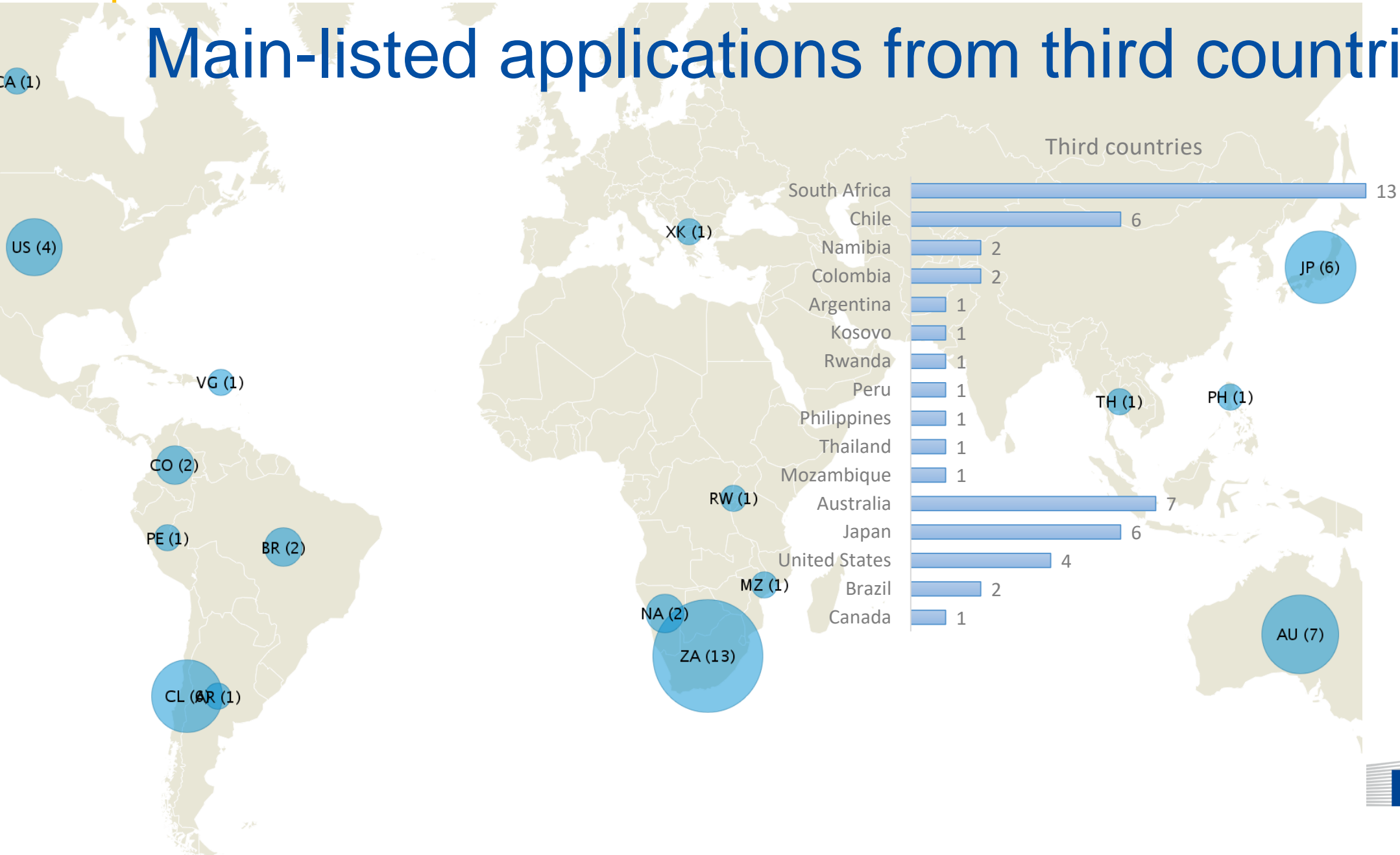
Main-listed applications from EU and associated countries



EU Member States



Main-listed applications from third countries



Projects seek...

solutions developed through industrially- and user-driven multidisciplinary consortia

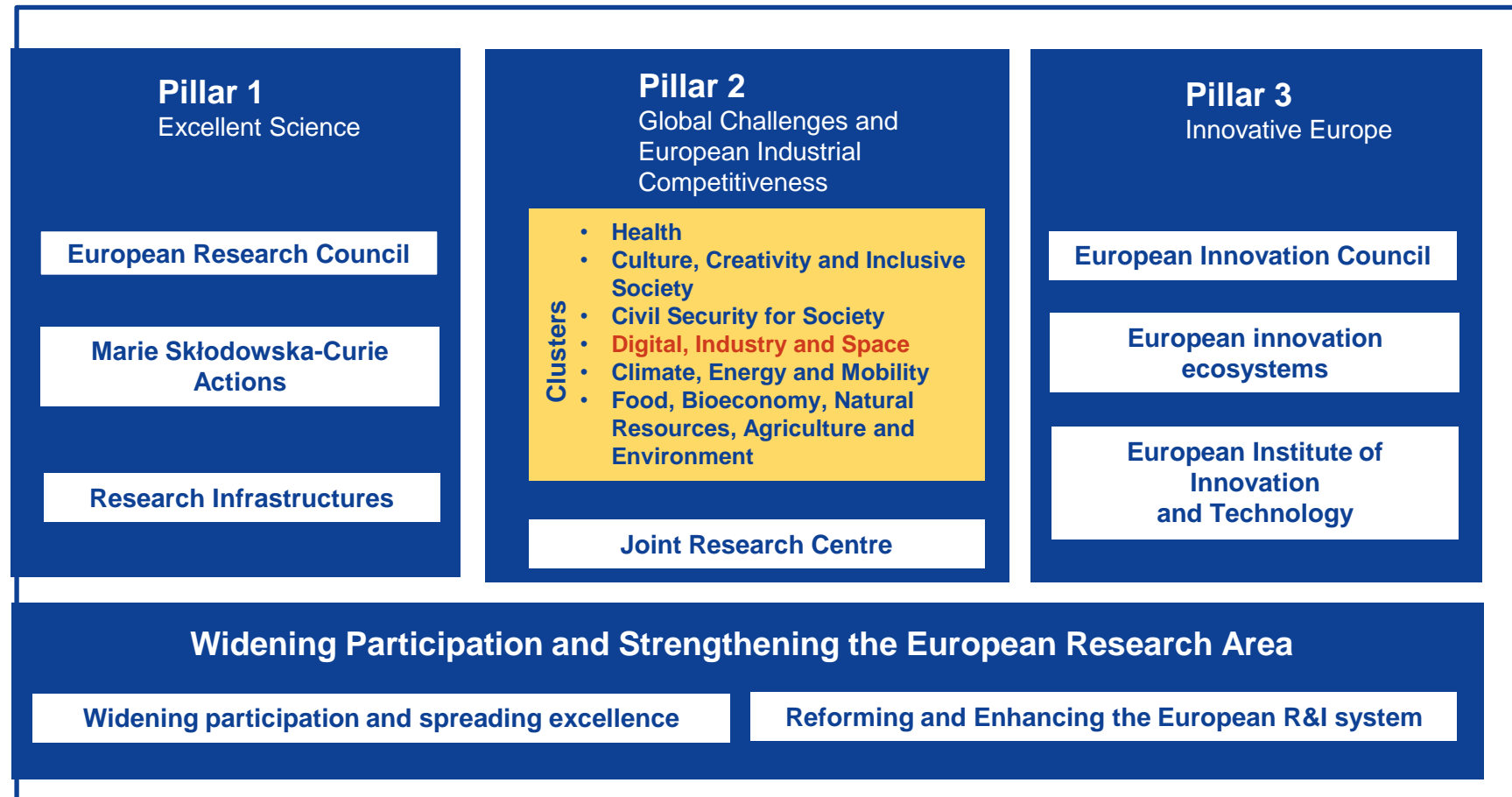



ALL projects have to...

- Contribute to the Raw Materials Information System
- Contribute to improving the awareness of relevant stakeholders about the importance of raw materials, and solutions that help to improve society's acceptance of, and trust in, sustainable raw materials production
- Lead to improving the environmental and health and safety performance of operations










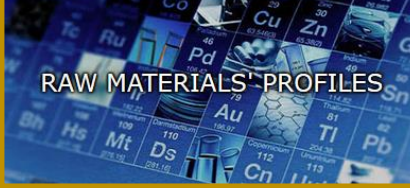



Raw Materials in Horizon Europe




EU SCIENCE HUB
 Raw Materials Information System (RMIS)

European Commission > EU Science Hub > RMIS

 OVERVIEW	 POLICY & LEGISLATION	 TERMINOLOGY & LIBRARY
 CRITICAL RAW MATERIALS	 RAW MATERIALS SCOREBOARD & SECONDARY RAW MATERIALS & CIRCULAR ECONOMY	 INDUSTRIAL VALUE CHAINS & MATERIAL FLOWS
 ENVIRONMENTAL & SOCIAL SUSTAINABILITY	 ECONOMICS & TRADE	 RAW MATERIALS KNOWLEDGE GATEWAY
 RAW MATERIALS' PROFILES	 COUNTRY PROFILES	



Horizon Europe

THE NEXT EU RESEARCH & INNOVATION INVESTMENT PROGRAMME (2021 – 2027)



2020 JRC-EASME technical workshop “Channeling knowledge from EU projects into the Raw Materials Information System (RMIS)”

Context, objectives and RMIS overview

C. Ciupagea (JRC D3 ‘Land Resources’, HoU) & **S. Manfredi** (RMIS wp leader)

December 3rd, 2020

Why a joint JRC-EASME workshop on raw materials?

- European projects, such as **Horizon 2020** and **EIT-KIC**, are among the most important knowledge providers to the RMIS;
- Through the RMIS, the JRC supports mapping, structuring and making further sense of this knowledge in order to meet knowledge needs identified by the EC;
- In support of this process, in 2018 the EC made it mandatory for certain H2020 projects to contribute to the RMIS development objectives;
- EASME (*as the managing agency of the vast majority of raw materials related calls*) facilitates the promotion of the initial steps of collaboration between the H2020 projects and the JRC.

Workshop specific objectives

- To facilitate technical dialogue (both IT and content wise) for efficient knowledge transfer into RMIS;
- To increase awareness of most relevant RM project outputs;
- To provide an overview of the RMIS current status and foreseen development milestones;
- To discuss how most relevant project outputs can best support RMIS development priorities.

The policy context



A Green Deal for Europe

- Transition to a carbon-neutral society
- Pillar dedicated to sustainable production and consumption
- A new Circular Economy Action Plan
- Mobilising research and fostering innovation

A stronger Europe in the World

- Secure and sustainable value chains
- Fair trade and responsible sourcing

A Europe fit for the Digital Age

- Industrial Strategy Package
- New technologies & materials for digital industries, space, etc.
- Ensure competitiveness

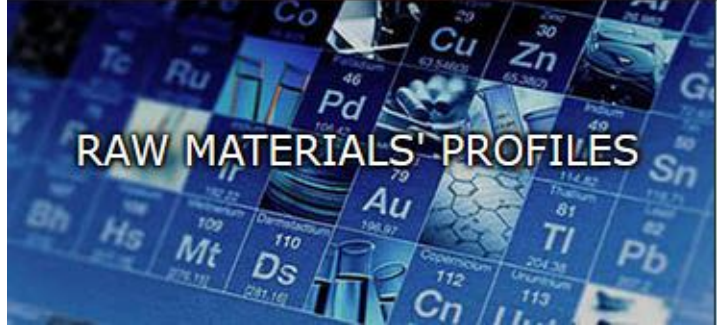


RMIS: overview & scope



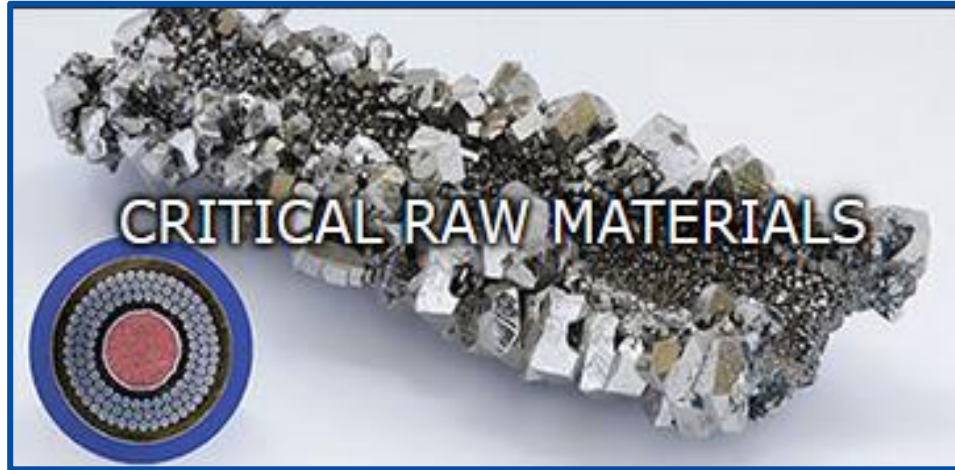
Since 2015, the RMIS is the EC's knowledge platform on non-energy, non-agricultural raw materials from primary (extraction/harvesting) to secondary (recycled/recovered) sources, along their entire value chains.

RMIS acts as the reference access point to the EU Raw Materials Knowledge Base and facilitates the availability, coherence, and quality of knowledge required by specific EU raw materials policies and EC services.



RMIS homepage overview

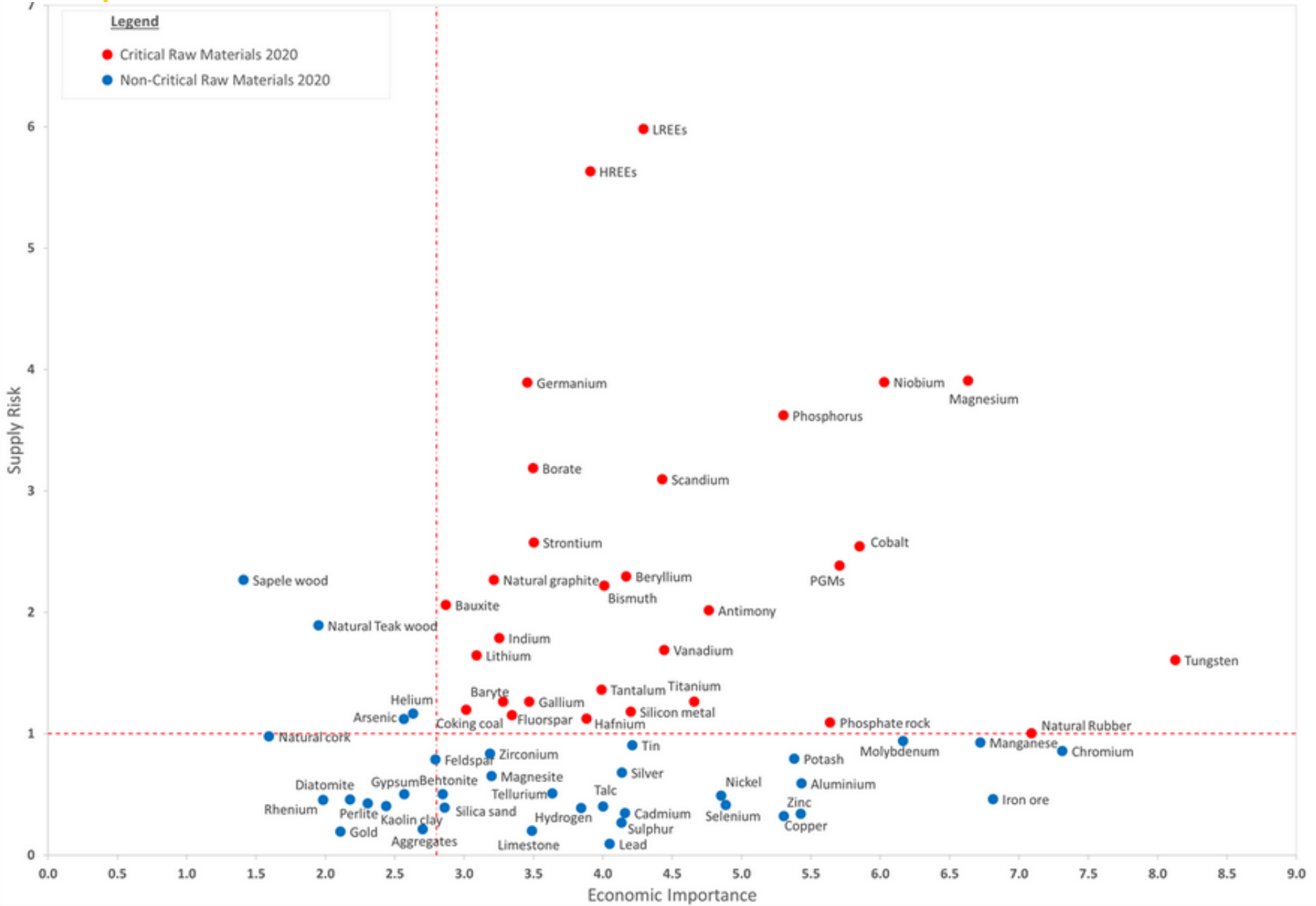
RMIS: overview of selected thematic tiles (1/3)

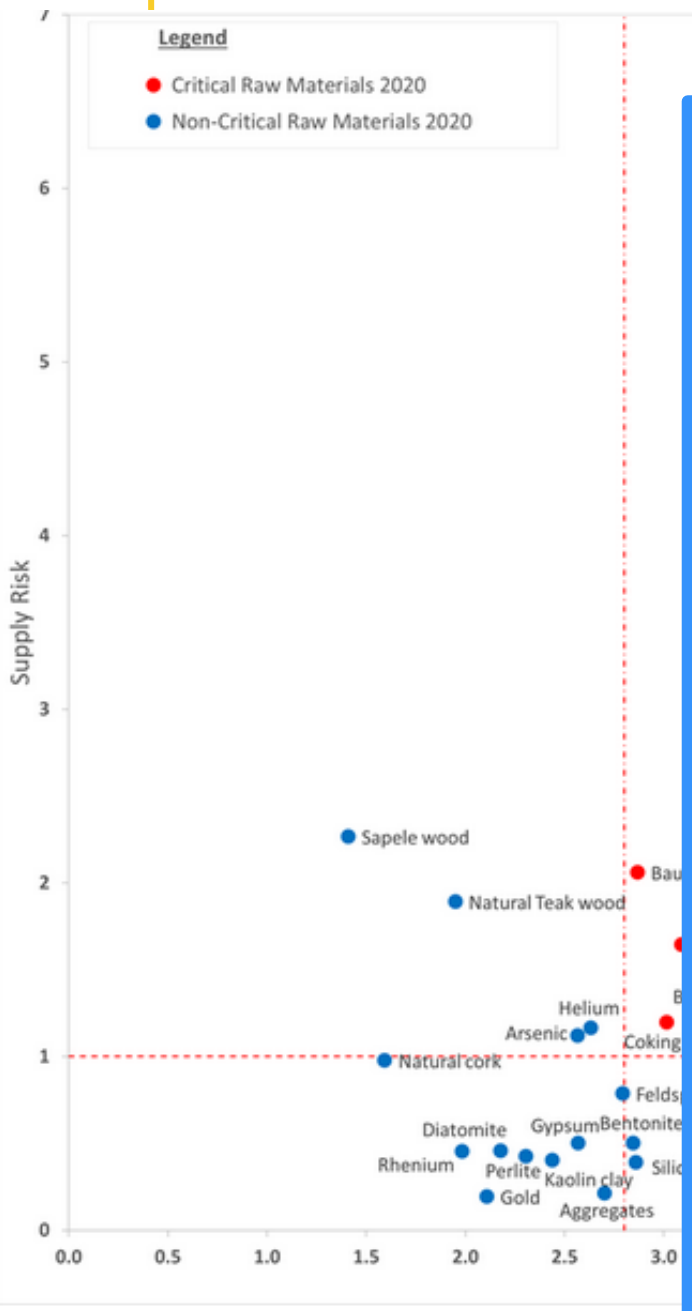


- JRC was in the frontline of the 2020 CRM exercise for the EU (lead: GROW);
- 2020 CRM list + CRM factsheets available here (as well as previous CRM assessments);
- Brand-new CRM dashboard, providing visual understanding of CRM analysis results since 2011.



- Includes all editions of the RM Scoreboard (2016 / 2018).
- 2020 RM Scoreboard is upcoming!
- Sub-section specifically focused on CE monitoring
- Info on the EIP Monitoring & Evaluation Scheme





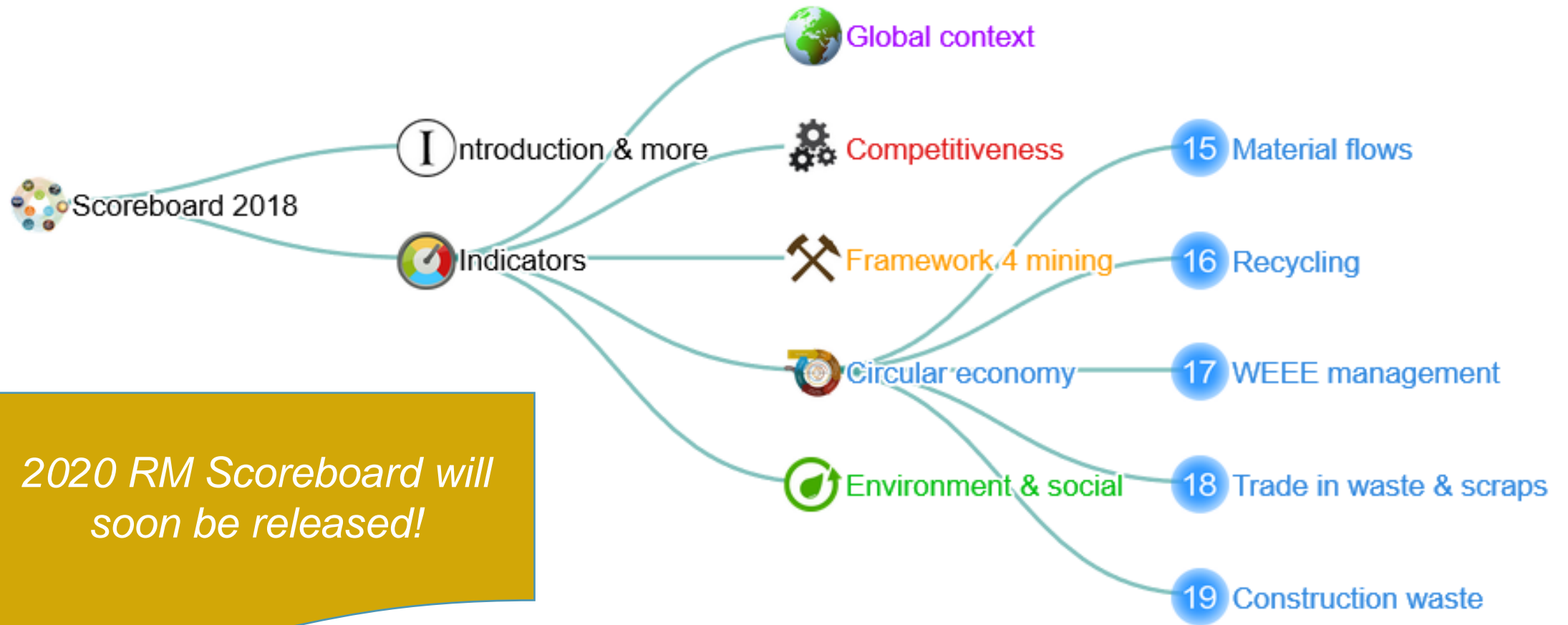
Supply Risk

raw material	2011	2014	2017	2020	trend
Aggregates	Grey	Grey	Light	Light	→
Aluminium	Light	Light	Light	Light	↗
Antimony	Star	Star	Star	Star	~
Arsenic	Grey	Grey	Grey	Light	→
Baryte	Light	Light	Star	Star	↘
Bauxite	Light	Light	Light	Star	↗
Bentonite	Light	Light	Light	Light	~
Beryllium	Star	Star	Star	Star	~
Bismuth	Grey	Grey	Star	Star	↘
Borate	Light	Star	Star	Star	↗
Cadmium	Grey	Grey	Grey	Light	→
Chromium	Light	Star	Light	Light	~
Cobalt	Star	Star	Star	Star	↗
Coking coal	Grey	Star	Light	Star	~
Copper	Light	Light	Light	Light	↗
Diatomite	Light	Light	Light	Light	~
Feldspar	Light	Light	Light	Light	↗
Fluorspar	Star	Star	Star	Star	~
Gallium	Star	Star	Star	Star	↘

Economic Importance

raw material	2011	2014	2017	2020	trend
Aggregates	Grey	Grey	Light	Light	↗
Aluminium	Dark	Dark	Dark	Dark	↘
Antimony	Star	Star	Star	Star	~
Arsenic	Grey	Grey	Grey	Light	→
Baryte	Light	Light	Star	Star	~
Bauxite	Dark	Dark	Light	Star	~
Bentonite	Light	Light	Light	Light	~
Beryllium	Star	Star	Star	Star	~
Bismuth	Grey	Grey	Star	Star	↗
Borate	Light	Star	Star	Star	~
Cadmium	Grey	Grey	Grey	Light	→
Chromium	Dark	Star	Dark	Dark	~
Cobalt	Star	Star	Star	Star	~
Coking coal	Grey	Dark	Light	Star	~
Copper	Light	Light	Light	Light	~
Diatomite	Light	Light	Light	Light	~
Feldspar	Light	Light	Light	Light	~
Fluorspar	Star	Star	Star	Star	↘
Gallium	Star	Star	Star	Star	~

Raw Materials Scoreboard 2018



2020 RM Scoreboard will soon be released!

RMIS: overview of selected thematic tiles (2/3)



- Environmental dimension includes info on e.g. climate change / air pollution, water pollution, land use & soil
- Social dimension includes info on e.g. ASM, employment, SLO, occupational safety, good governance
- Specific section focused on SDGs
- Specific section focused on Responsible Sourcing

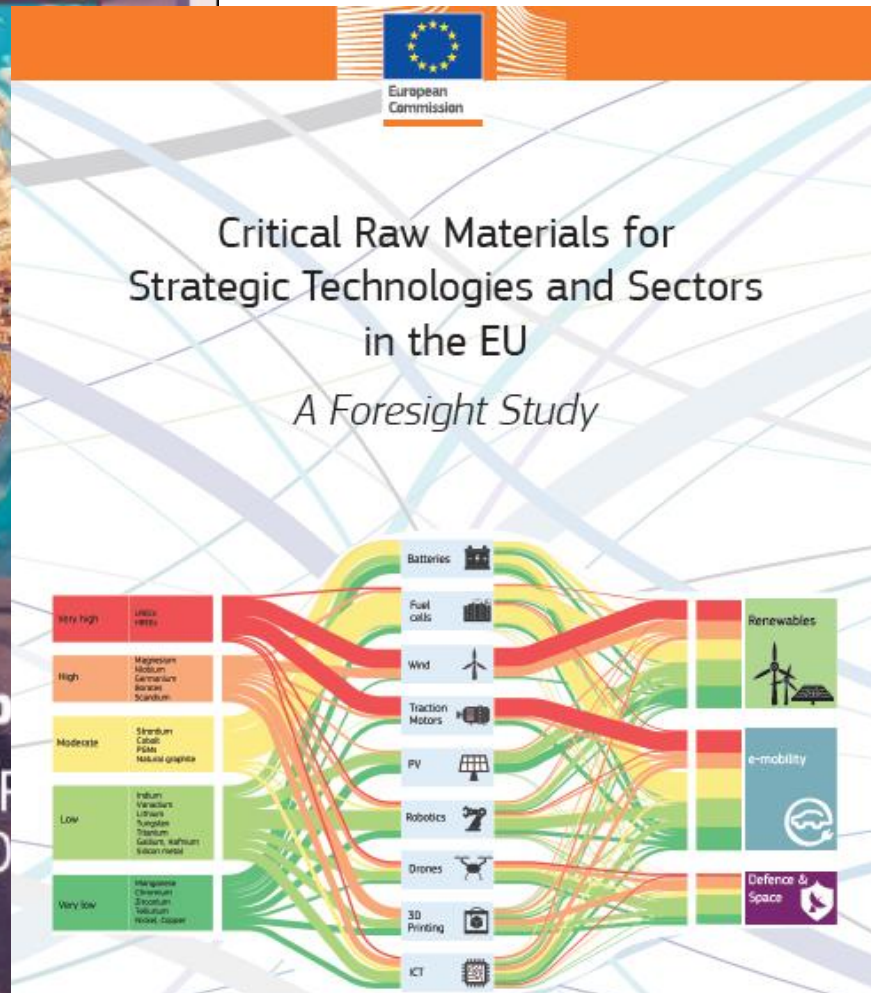


- New section on Foresight Analysis for CRMs in strategic sectors & technologies
- Specific section on MFA & MSA
- Supply Chain Viewer: visual understanding of 80+ RM supply chains networks
- RM analysis in the battery value chain! (dedicated application)

The EC has recently adopted its first-ever **Strategic Foresight Report**, aiming to identify emerging challenges and opportunities to better steer the European Union's strategic choices.



2020 Strategic Foresight Report
 CHARTING THE COURSE TOWARD
 A MORE RESILIENT EUROPE



The EC 2020 **Strategic Foresight Report** builds on insights and examples from the Report “**Critical Raw Materials for Strategic Technologies and Sectors in the EU - A Foresight Study**”, which development was supported by the JRC.

Existing MSAs & MSA under development

(full MSA data inventory only available to selected EC servants, through ECAS account)

MSAs developed in 2015 and 2017

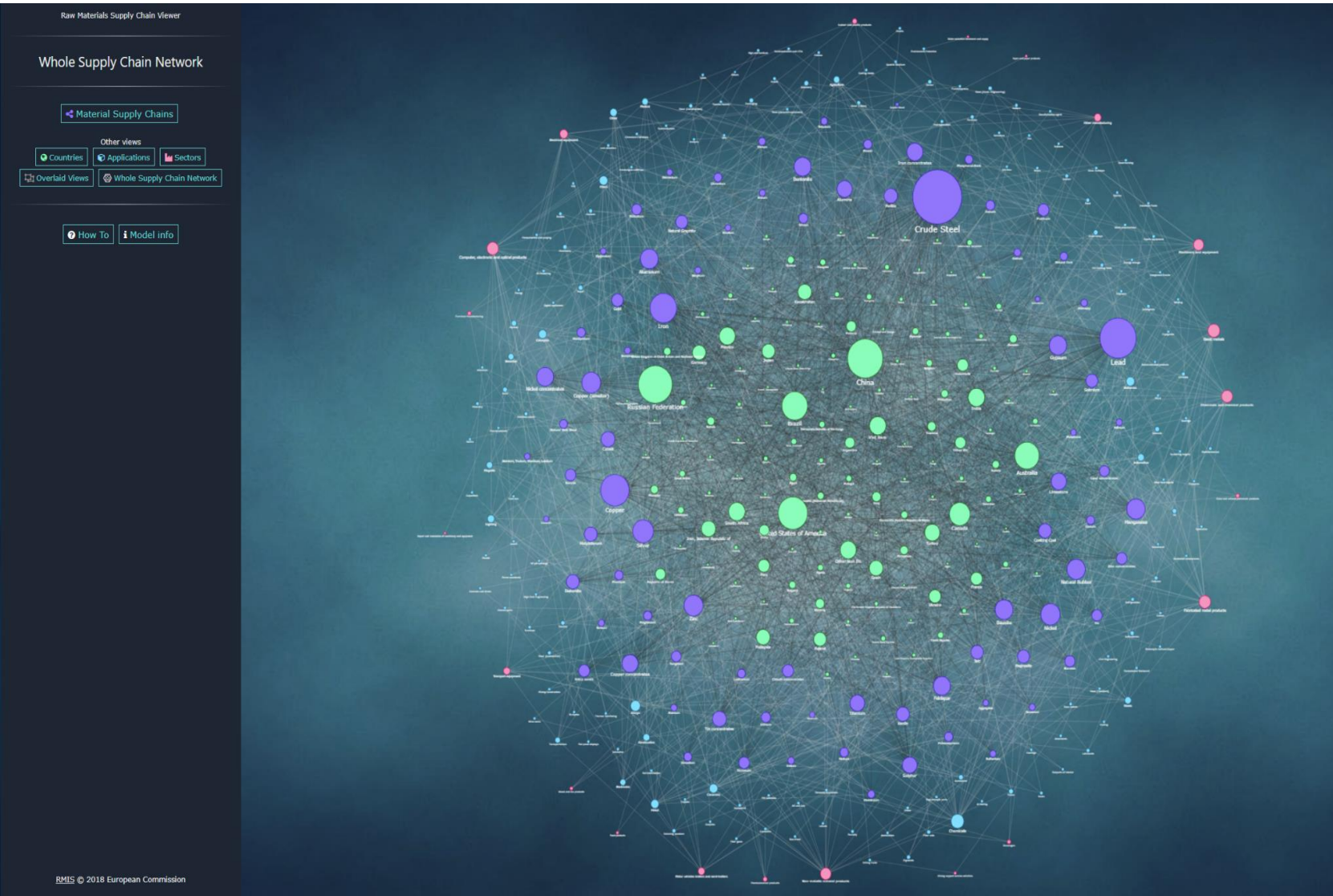
Aggregates	Aluminium	Antimony	Beryllium	Borate	Chromium
Cobalt	Coking Coal	Copper	Dysprosium	Erbium	Europium
Fluorspar	Gallium	Germanium	Indium	Iron	Lithium
Magnesite	Magnesium	Natural Graphite	Neodymium	Niobium	Palladium
Phosphate Rock	Platinum	Rhodium	Silicon	Terbium	Tungsten
Yttrium	Baryte	Bismuth	Cobalt	Hafnium	Helium
Lithium	Manganese	Natural Graphite	Natural Rubber	Nickel	Phosphorous
Tantalum	Scandium	Vanadium			

NEW MSAs in 2020/2021

2020 Outputs:

- Technical report: Review of the specifications for the MSAs;
- Report on MSAs for the selected materials relevant for the production of batteries and for decarbonising technologies (**recently published!**)

RMIS - Supply Chain Viewer



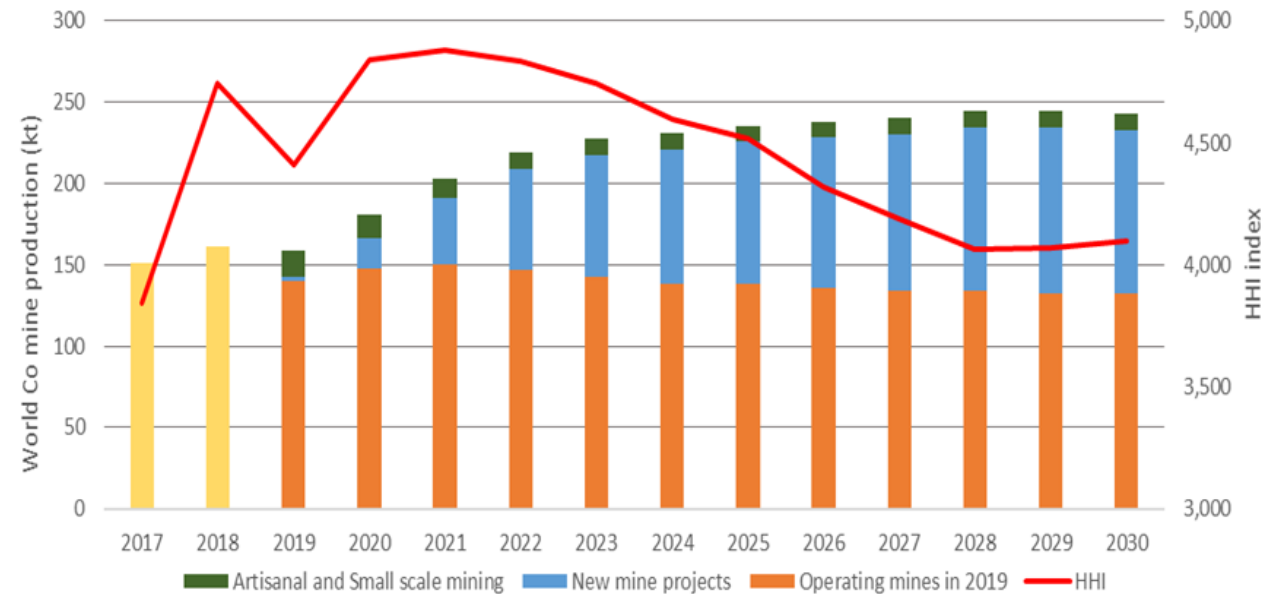
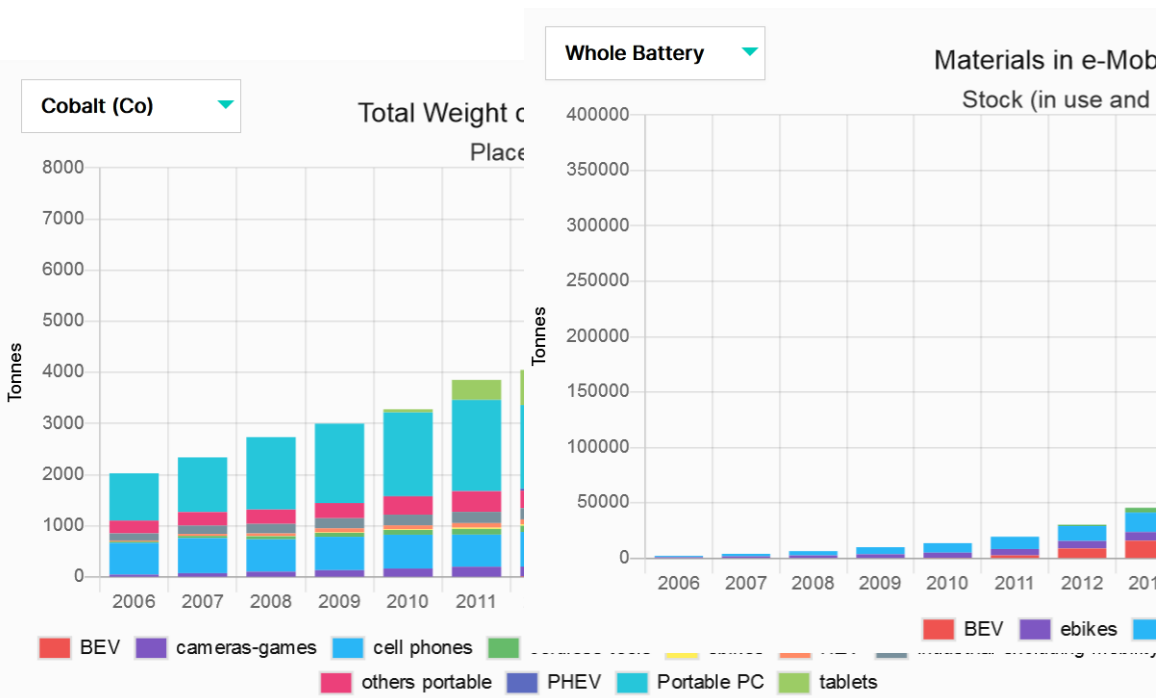
The **supply chain viewer** in RMIS provides an interactive overview of the raw materials' supply chain network consisting of *countries, materials, applications, and sectors* (underlying data come from the **2017 EC criticality assessment**)

Ongoing update of SCV based on 2020 EU analysis of CRM!

Strategic Industrial Value chains

Example of Batteries

- Analyses of CRMs in batteries value chains
- Security of supply, recycling features, technology dependence
- Foresight and trends via supply – demand balances per material

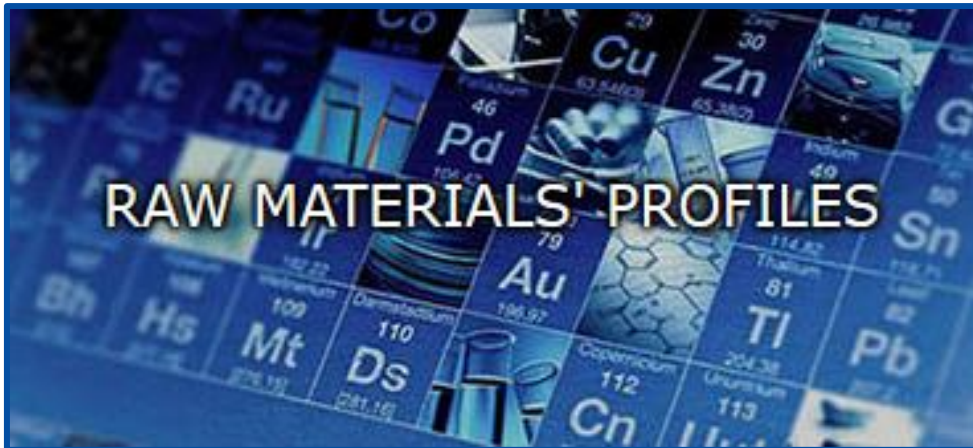


Global cobalt supply forecast until 2030 including shares of ASM and new mine projects. Future supply concentration is highlighted on the secondary axis (HHI) (dominated by a high dependency on the DRC)

RMIS: overview of selected thematic tiles (3/3)



- Includes 17 EU country-specific profiles
- Each html-profile in RMIS is linked to a pdf-report that users can download (coming soon!)
- Profiles include info on e.g. resources& reserves, supply, use, trade, environment, social...



- Now includes 15 EU material-specific profiles, based on peer-reviewed / official data sources
- Structure & content of RM Profiles are being revised
- New structure: a dashboard-like summary (covering aspects of e.g. criticality, resilience, circularity, foresight, trade / value chain considerations) + a pdf report

RMIS - Raw Materials' Profiles

Raw material supply chain - Cobalt

RAW MATERIALS' PROFILES

EU COUNTRY PROFILES

RAW MATERIALS KNOWLEDGE GATEWAY

Cobalt

Key facts and figures

Overview

Resources and reserves

Supply

Demand

Raw Material Supply Chain

Market

Research & Development

Environmental and Social sustainability aspects

References and Methodological Notes

RAW MATERIALS' PROFILES >>

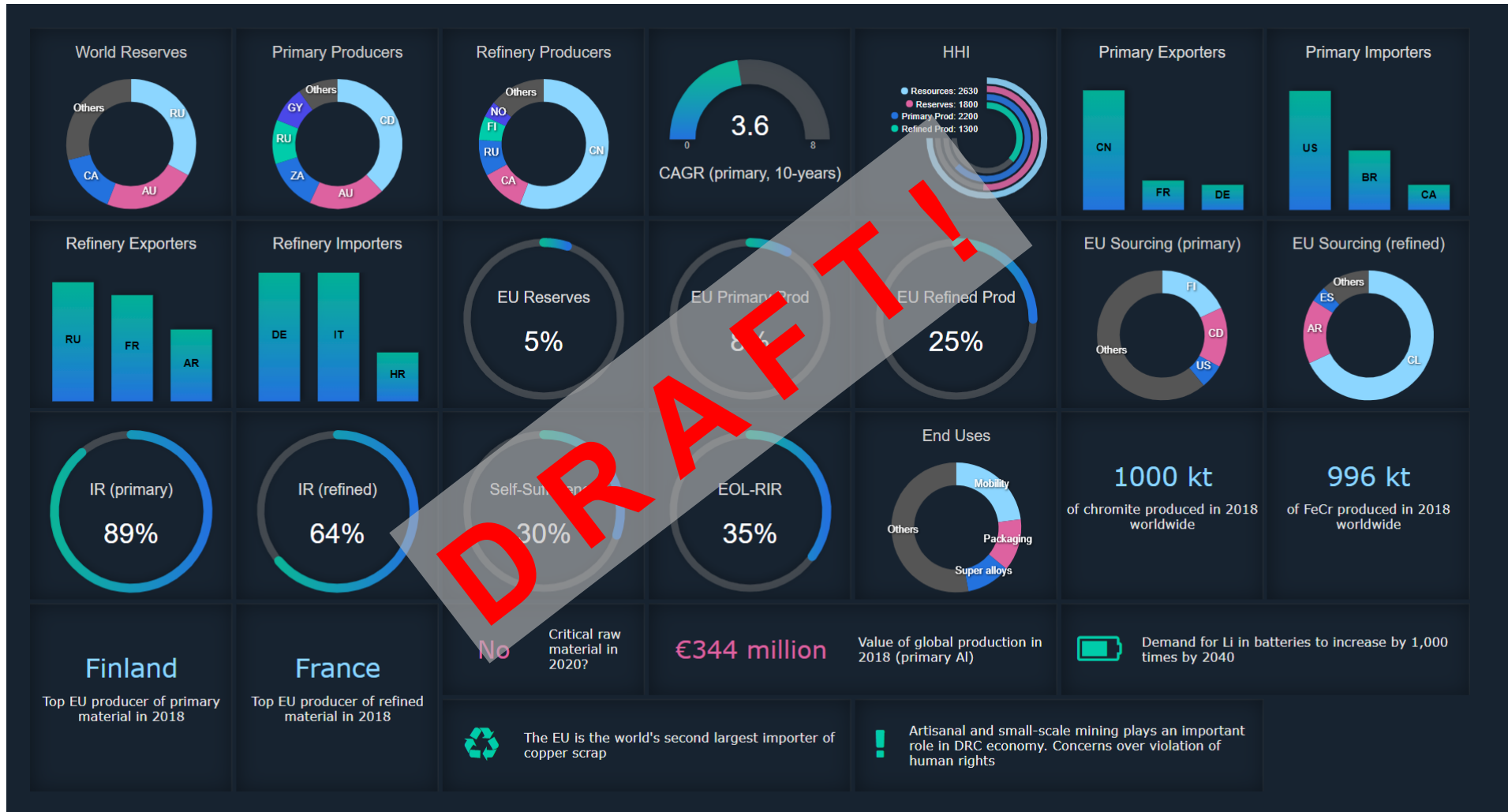
Raw Materials' Profiles

Alphabetically

By groups

Aggregates	Aluminium	Antimony	Beryllium	Bentonite	Beryllium	Bismuth
Borates	Cerium	Chromium	Cobalt	Coking coal	Copper	Diatomite
Dysprosium	Erbium	Europium	Fluorspar	Fluorspar	Gadolinium	Gallium
Germanium	Gold	Gypsum	Hafnium	Helium	Holmium	Indium
Iridium	Iron	Kaolin clay	Lanthanum	Lead	Limestone	Lithium
Lutetium	Magnesite	Magnesium	Manganese	Molybdenum	Natural cork	Natural graphite
Natural Rubber	Natural Teak wood	Neodymium	Nickel	Niobium	Palladium	Perlite
Phosphate rock	Phosphorus	Platinum	Potash	Praseodymium	Rhenium	Rhodium
Ruthenium	Samarium	Sapele wood	Scandium	Selenium	Silica sand	Silicon metal
Silver	Sulphur	Talc	Tantalum	Tellurium	Terbium	Thulium
Tin	Titanium	Tungsten	Vanadium	Ytterbium	Yttrium	Zinc

RM Profiles: upcoming Dashboard / overview



RMIS Newsletter



JOINT RESEARCH CENTRE (JRC) RAW MATERIALS INFORMATION SYSTEM (RMIS) RMIS Newsletter n.1 (November 2019)

This newsletter is a bi-annual summary of the main developments related to the European Commission's Raw Materials Information System (RMIS). It provides key highlights on raw materials knowledge support to

Raw Materials Information System (RMIS): Goal & Scope



The **Raw Materials Information System (RMIS)** Commission's reference knowledge platform on non-fuel materials from primary (extraction / harvesting) to secondary (recovered) sources, along their entire value/supply chain: abiotic and biotic materials.

Responding to a specific action point of the 2015 **Commission's Economy Action Plan**, the RMIS acts as a key interface for Commission services in relation to issues such as Climate Action Plan, the Circular Economy, the Battery Strategy, Renewed EU Industrial Policy, EU Trade Policy and Free Trade Agreements (FTAs), as well as the EU Raw Materials criticality assessment.

1. Annual International RMIS workshops

To further strengthen communication and knowledge sharing with the broad range of stakeholders within the raw materials sector, annual workshops are held at the JRC site in Ispra, Italy.

The 1st international RMIS workshop (March 2017) brought together key stakeholders of the raw materials sector and RMIS knowledge providers.

The 2nd workshop (May 2018) facilitated the further development of key RMIS thematic sections, including [raw materials' profiles](#)¹, [country profiles](#)², and the [knowledge network](#)³.

The 3rd RMIS workshop was held on 11-12 June 2019. It attracted 70+ participants from some 20 countries, 4 European Commission Directorates General (JRC, GROW, ENV, DEVCO), 2 EU agencies (EASME, EEA) and the EIT Raw Materials. Discussion topics included social and environmental issues associated with raw materials supply chains, national legislation, good governance, and a more in-depth focus on secondary raw materials.

More information on the workshop structure and content is available on the [RMIS website](#)⁴.



2. Policy and legislation news

Several recent EU policy documents highlight RMIS:

- According to the 2018 [Commission's monitoring framework for the RMIS](#) will improve the knowledge of data for measuring progress in and deliver improved data to co-statistics.
- The 2018 [implementing regulation on conflict minerals](#)⁵ should provide information on p



JOINT RESEARCH CENTRE (JRC) RAW MATERIALS INFORMATION SYSTEM (RMIS) RMIS Newsletter n.2 (April 2020)

This newsletter is a bi-annual summary of the main developments related to the European Commission's Raw Materials Information System (RMIS). It provides key highlights on raw materials knowledge support to

4th International RMIS Workshop: announcement and themes



Building on the success of the previous editions, the 2020 International RMIS workshop will be held again at the JRC-Ispra, Italy. **The measures against the Coronavirus (Covid-19) currently enforced in Europe – affecting citizens' mobility and impeding all types of gatherings & events – do not allow to continue the organisation of the 2020 RMIS Workshop for the time being. As the situation improves, the official announcement will be made through the RMIS news & event section.**

The current development state of the RMIS contents will be presented, with a view of stakeholders' the most important knowledge needs could facilitate their fulfilment. Ultimately, the JRC formulate clear and inclusive development RMIS. The 2020 RMIS workshop will include sessions focusing on:

- the "sustainable supply of primary materials, with a focus on climate change"
- selected "strategic raw materials value"

As an highlight of this forthcoming 4th edition will include a specific session – co-organised by the Agency for Medium and Small-sized Enterprises (ANAS) to present how outputs from European projects (2020s) can factually help meeting identified knowledge needs to be further disseminated through the RMIS.

1. Recent policy with key focus on raw materials

The **European Green Deal**¹ – the new growth strategy for Europe – published on December 11th 2019 by the von der Leyen Commission, aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are zero net emissions of greenhouse gases by 2050 and where economic growth is decoupled from resource use.

Raw materials are implicitly embedded into several key pillars of the Green Deal, such as clean energy, smart mobility, climate ambition, fostering innovation. Raw materials are more explicitly dealt with under the pillar "Mobilising industry for a clean and circular economy", which highlights that only 12% of materials use comes from recycling. This pillar calls for developing a sustainable product policy, actions on resource-intensive industry sectors, further waste reduction, establishing a robust and integrated single market for secondary raw materials and by-products.

The document acknowledges that access to resources is key for Europe's ambition to deliver the Green Deal's objectives. Ensuring a sustainable supply of raw materials, in particular of critical raw materials necessary for clean technologies, digital, space and

defence applications, by diversifying supply secondary sources, is therefore one of the key priorities for this transition happen. The Green Deal will also address future knowledge needs and on the further development of the RMIS.

As a prompt follow up, the new **Industrial Strategy** on March 10th, 2020. Within its frame, the Commission

- adopt a "White Paper" by mid-2020 effects caused by foreign subsidies
- introduce comprehensive measures to decarbonise energy-intensive and sustainable and smart mobility industry
- enhance Europe's industrial and innovation capacity and securing the supply of critical raw materials
- Action Plan on Critical Raw Materials
- support Alliances on Low-Carbon and Digital Industries and Platforms and

Following the 2015 Circular Economy Action Plan and the 2018 CE Package⁴, on March 11th 2020

¹ https://ec.europa.eu/commission/presscorner/detail/en/ip_19_2385
² https://ec.europa.eu/easme/easme/1145-0-387-01aa75ed71a1001202/DOC_1860
³ <https://ec.europa.eu/commission/publication>



JOINT RESEARCH CENTRE (JRC) RAW MATERIALS INFORMATION SYSTEM (RMIS) RMIS Newsletter n.3 (September 2020)

This newsletter is a bi-annual summary of the main developments related to the European Commission's Raw Materials Information System (RMIS). It provides key highlights on raw materials knowledge support to policy.

The fourth list of Critical Raw Materials (CRMs) for the EU has been published!



The fourth list of Critical Raw Materials (CRMs) for the EU has been published on 3 September 2020, with a **major contribution from the JRC**.

The Communication can be accessed from the dedicated [DG GROW web page](#). It explicitly foresees a further strengthening of the RMIS, and lays out:

- the challenges posed to a secure and sustainable supply of raw materials;
- presents the outcome of the 2020 criticality assessment – the 2020 Critical Raw Materials List for the EU;
- sets out an Action Plan of how to overcome said challenges.

A JRC team has elaborated the "Study on the EU's list of Critical Raw Materials (2020) - Final Report" and two dedicated reports containing "critical and non-critical raw materials factsheets" for all the 83 candidate CRMs. All these reports, as well as other info on the 2020 EU CRM assessment can be downloaded from the [RMIS' CRMs section](#).

A [CRM-dashboard](#) was also recently included in the RMIS, reporting on the evolution of the assessment results (2011 to 2020) for all candidate raw materials selected for criticality assessment.

1. JRC supports the 2020 list of CRMs for the EU

The fourth list of Critical Raw Materials (CRMs) for the EU has been published on 3 September 2020¹, with a **major contribution from the JRC**². The Communication lays out (1) the challenges posed to a secure and sustainable supply of raw materials; (2) presents the outcome of the 2020 criticality assessment – the 2020 Critical Raw Materials List for the EU; and (3) sets out an action plan of how to overcome said challenges.

The **New Circular Economy Action Plan**³ and the New Industrial Strategy for Europe⁴, two of the main building blocks of the

European Green Deal⁵, have announced such an Action Plan on Critical Raw Materials (2020 list), as well as stressed on the role of CRMs to achieve a climate-neutral, circular and competitive economy.

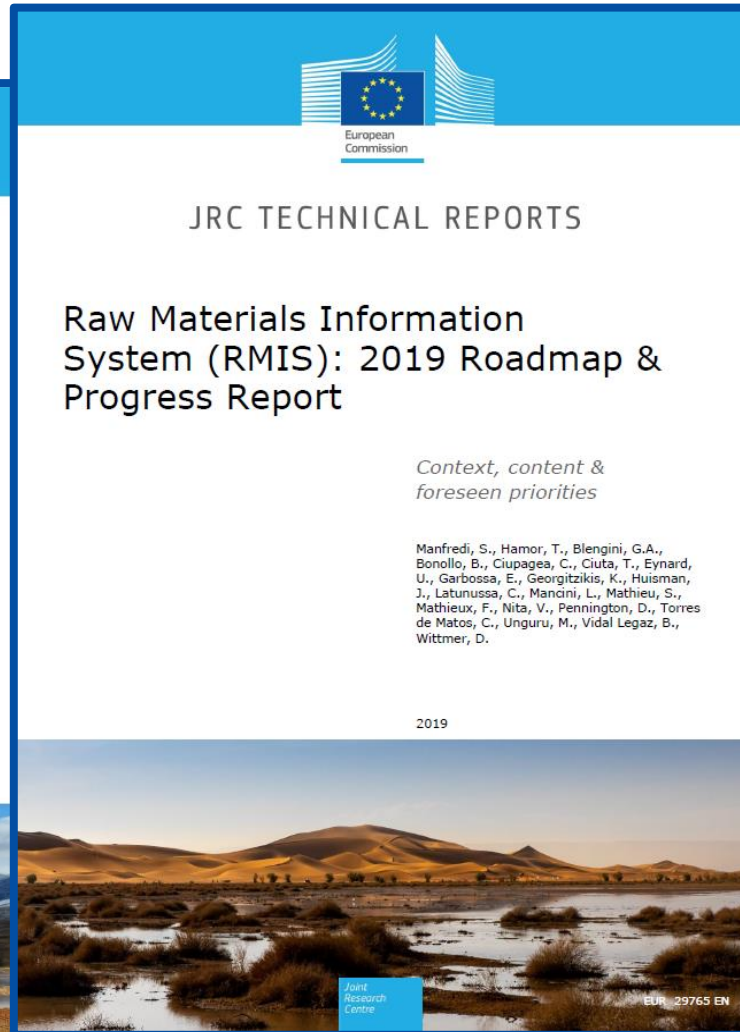
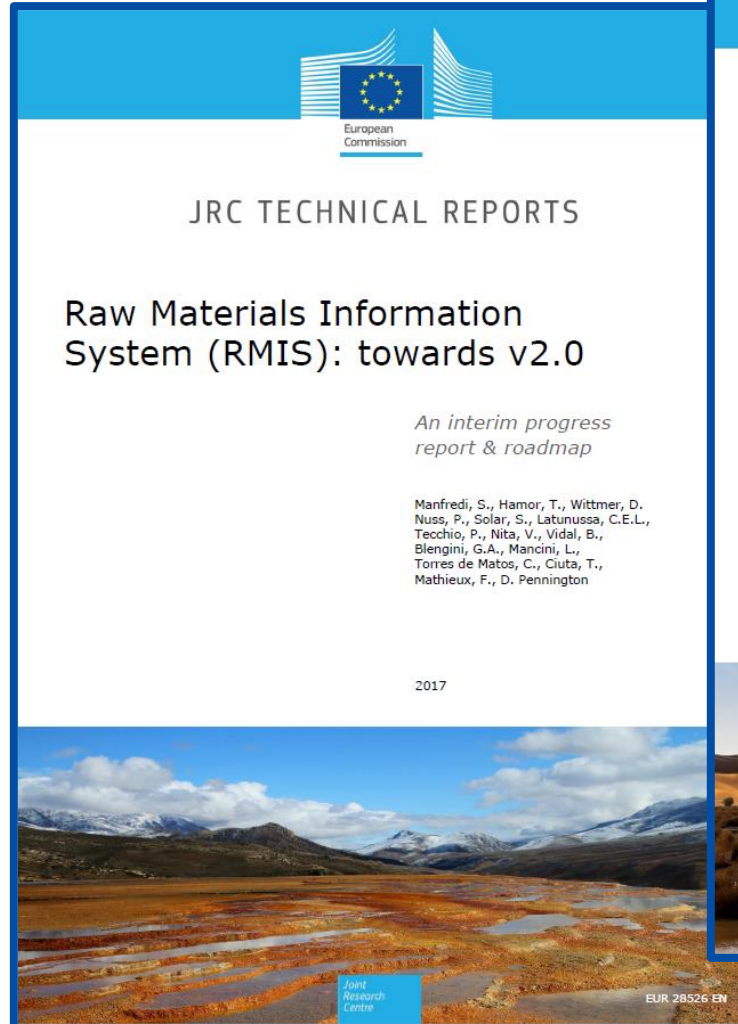
The list of CRMs for the EU and the underlying criticality methodology are in fact key instruments in the context of the EU raw materials policy, a precise commitment of the Raw Material Initiative (2008). Since the publication of the first list in 2011 and subsequent updates (European Commission 2010, 2014, 2017), the EC criticality methodology has responded to the needs of governments and industry to better monitor raw materials and inform decision makers on how security of supply can be achieved through diversification of supply, resource efficiency, recycling and substitution. In order to prioritise needs and actions at the EU level, the list supports in negotiating trade agreements, challenging trade distortions and in programming the research and innovation funding under the Horizon 2020 and Horizon Europe schemes.

The JRC has been a key player since the revision of the EC methodology throughout 2015⁶, where targeted improvements have been introduced, based on the most recent scientific developments

¹ COM/2020/474 final "Critical Raw Materials for the EU's Resource Security - The Supply and Sustainability Challenge"
² <https://ec.europa.eu/jrc/en/news/jrc-assesses-critical-raw-materials-europe-green-and-digital-future>
³ 2020 Critical Raw Material list: Antimony, Baryte, Bauxite, Beryllium, Bismuth, Borates, Cobalt, Coking Coal, Fluorspar, Gallium, Germanium, Hafnium, HREEs, Indium, Lithium, LREEs, Magnesium, Natural Graphite, Natural Rubber, Niobium, PGMs, Phosphate rock, Phosphorus, Scandium, Silicon Metal, Tantalum, Titanium, Vanadium, Tungsten, Strontium.
⁴ https://ec.europa.eu/environment/circular-economy/pdf/new_circular_economy_action_plan.pdf
⁵ COM/2020/102

⁶ COM/2019/640
⁷ JRC Report, Assessment of the Methodology for Establishing the EU List of Critical Raw Materials, Publications Office of the European Union, Luxembourg, 2017, 978-92-79-69612-1, doi:10.2760/73303, JRC106997

RMIS Roadmap reports: 2017, 2019, ...2021



Thank you



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JRC's 2021/22 Raw Materials Portfolio

Meeting Policy Knowledge Needs Coherently Together

Presented by: Dr. David Pennington,
Raw Materials Portfolio Leader



- **DG JRC's Vision:**

- "To play a central role in creating, managing and making sense of the collective scientific knowledge for better EU policy."

- **DG JRC's Mission:**

- "As the science and knowledge service of the Commission our mission is to support EU policies with independent evidence throughout the whole policy cycle."

The EU Policy Context



A Green Deal for Europe

- Transition to a carbon-neutral society
- Pillar dedicated to sustainable production and consumption
- A new Circular Economy Action Plan
- Mobilising research and fostering innovation

A stronger Europe in the World

- Secure and sustainable value chains
- Fair trade and responsible sourcing

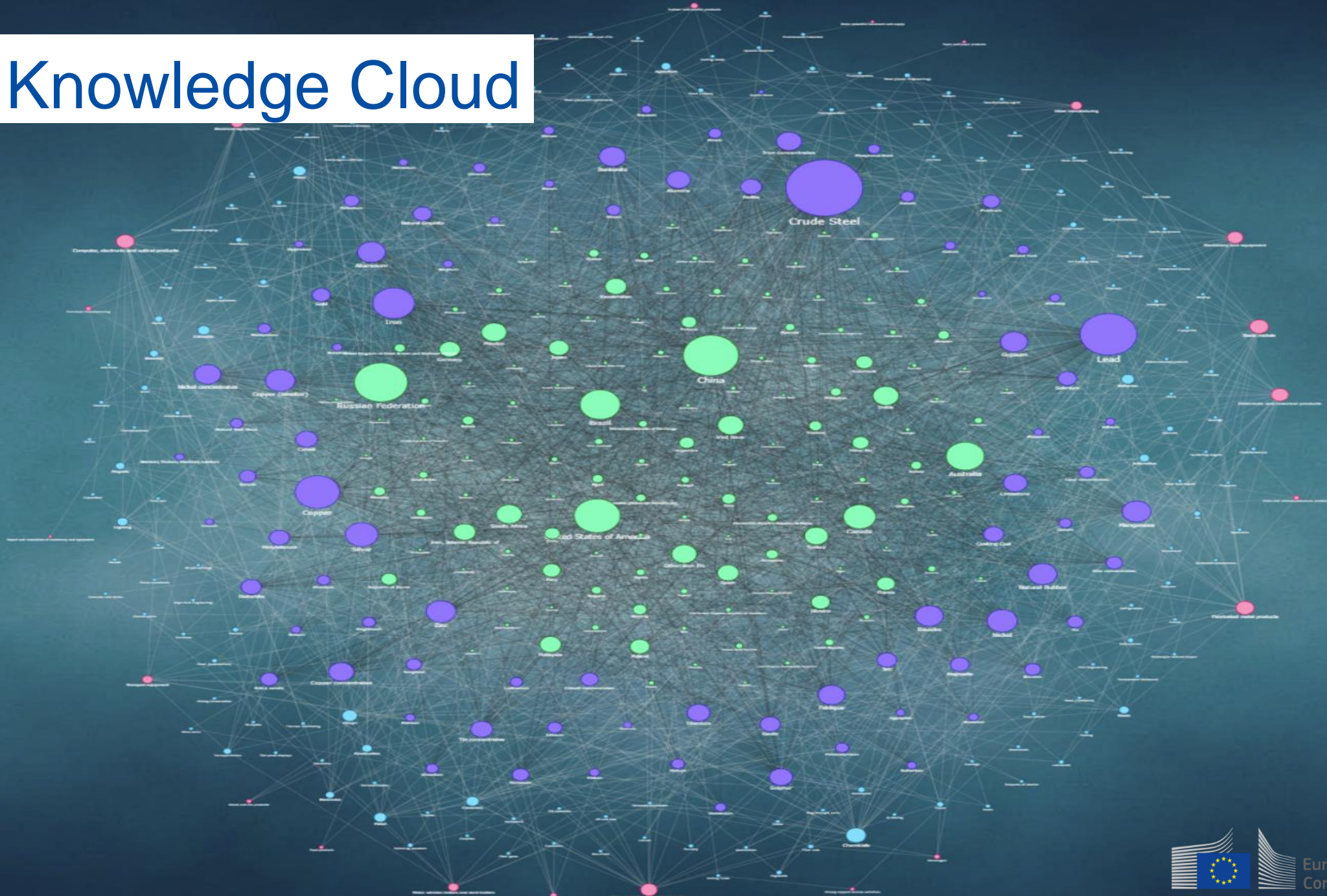


A Europe fit for the Digital Age

- Competitive industry
- Industrial Strategy Package



Our Knowledge Cloud



Our Interlinked EU Knowledge Needs

Climate Change

Circularity
(recycling, waste, ...)

Resilience

Foresight

**Digitilisation,
Space, Defence,
Transport, Energy,
Mining, ...**

**Social
Considerations**
(jobs, child/slave
labour, ...)

Competitiveness
(fair playing field, ...)

Autonomy (security-of-
supply, criticality, ...)

Raw Materials Information System (RMIS)

Climate Change

Foresight

Social Considerations
(jobs, child/slave labour, ...)

Circularity
(recycling, waste, ...)

Resilience

Digitilisation,
Space, Defence,
Transport, Energy,
Mining, ...

Autonomy (security-of-supply, criticality, ...)

Competitiveness
(fair playing field, ...)

The screenshot shows the EU Science Hub Raw Materials Information System (RMIS) website. At the top, it features the European Commission logo and the text 'EU SCIENCE HUB Raw Materials Information System (RMIS)'. Below this is a navigation bar with the text 'European Commission > JRC > RMIS > Resilience'. The main content area is a grid of 12 tiles, each with a different background image and text: 'OVERVIEW' (with a globe), 'POLICY & LEGISLATION' (with the EU flag), 'TERMINOLOGY & LIBRARY' (with a word cloud), 'CRITICAL RAW MATERIALS' (with mineral samples), 'RAW MATERIALS SCOREBOARD & MONITORING' (with charts), 'SECONDARY RAW MATERIALS & CIRCULAR ECONOMY' (with metal pipes), 'ENVIRONMENTAL & SOCIAL SUSTAINABILITY' (with hands holding soil), 'ECONOMICS & TRADE' (with a bar chart), 'INDUSTRIAL VALUE CHAINS & MATERIAL FLOWS' (with a molecular model), 'RAW MATERIALS PROFILES' (with a periodic table), 'EU COUNTRY PROFILES' (with a globe and flags), and 'RAW MATERIALS KNOWLEDGE GATEWAY' (with a dark background).

One EU/EC Raw Materials Information System



<https://rmis.jrc.ec.europa.eu/>

- support EU/EC knowledge needs
- support member states
- support community

- support needs across policy themes in a coherent manner
- quality assurance, verification, ...

- build on EU/EC work
- build on member states work
- build on community work

Monitoring, Analyses, Reporting in RMIS



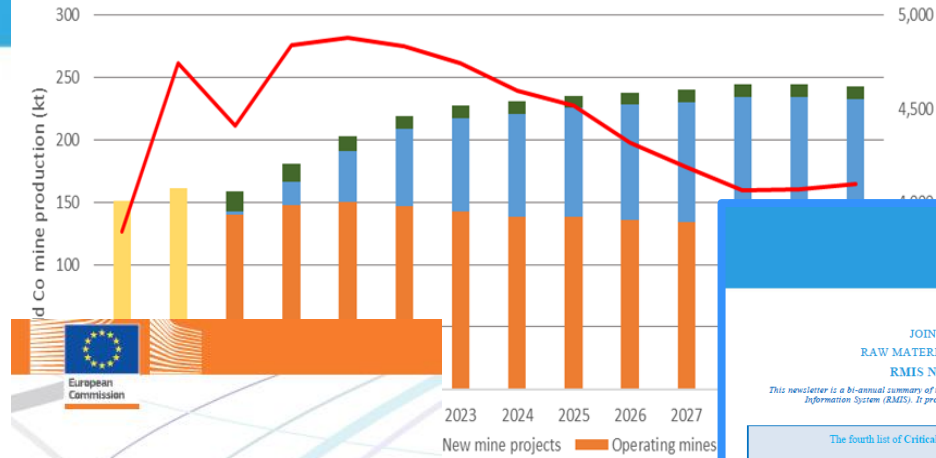
JRC TECHNICAL REPORT

EU Country profiles in the Raw Materials Information System (RMIS): Czechia

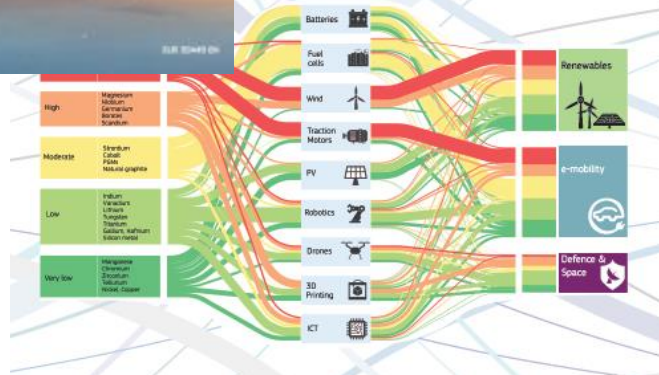
Country-level key data and information related to non-food, non-energy raw materials

Mila, V., Emberson, E., Cui, T., Benetto, B., Mariani, L., Ušák-Lepetz, B., Lukarsson, C., Wilman, D., Hansen, T., d'Elia, E., Unguru, M. and Manfredi, S.

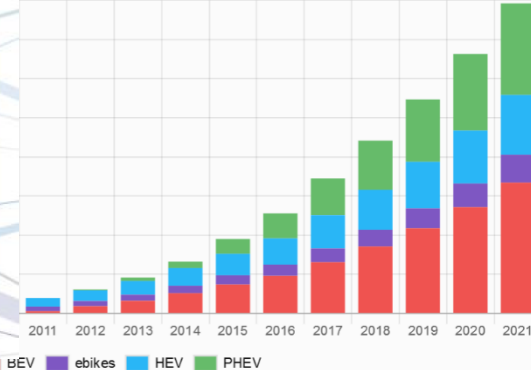
2020



Raw Materials for Technologies and Sectors in the EU Foresight Study



Raw materials in e-Mobility Batteries lock (in use and hybridated)



JOINT RESEARCH CENTRE (JRC)
RAW MATERIALS INFORMATION SYSTEM (RMIS)
RMIS Newsletter n.3 (September 2020)

This newsletter is a bi-annual summary of the main developments related to the European Commission's Raw Materials Information System (RMIS). It provides key highlights on raw materials knowledge support to policy.

The fourth list of Critical Raw Materials (CRMs) for the EU has been published!

The fourth list of Critical Raw Materials (CRMs) for the EU has been published on 3 September 2020, with a [press conference from the JRC](#). The Communication can be accessed from the dedicated [DG GROW web page](#). It explicitly foresees a further strengthening of the RMIS, and lays out:

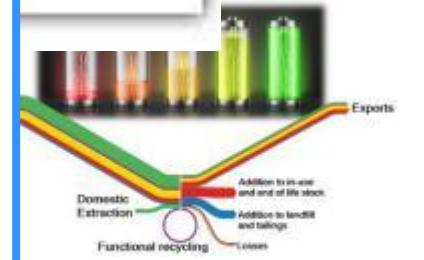
- the challenges posed to a secure and sustainable supply of raw materials;
- the outcome of the 2020 criticality assessment – the 2020 Critical Raw Materials List for the EU;
- sets out an Action Plan of how to overcome said challenges.

A JRC team has elaborated the "Study on the EU's list of Critical Raw Materials (CRM)", Final Report, and two dedicated reports containing "critical and non-critical raw materials factbooks" for all the 83 candidate CRMs. All these reports, as well as other info on the 2020 EU CRM assessment can be downloaded from the [RMIS CRM section](#).

A CRM [dashboard](#) was also recently included in the RMIS, reporting on the evolution of the assessment results (2011 to 2020) for all candidate raw materials selected for criticality assessment.

of five battery-critical, Lithium, Cobalt, Nickel

of five battery-critical, Lithium, Cobalt, Nickel



European Green Deal, have announced such an Action Plan on Critical Raw Materials (2020 list), as well as stressed on the role of CRMs to achieve a climate-neutral, circular and competitive economy.

The list of CRMs for the EU and the underlying criticality methodology are in fact key instruments in the context of the EU raw materials policy, a precise commitment of the Raw Material Initiative (2008). Since the publication of the first list in 2011 and subsequent updates (European Commission 2010, 2014, 2017), the EC criticality methodology has responded to the needs of governments and industry to better monitor raw materials and inform decision makers on low security of supply can be achieved through diversification of supply, resource efficiency, recycling and substitution. In order to prioritize needs and actions at the EU level, the list supports in negotiating trade agreements, challenging trade distortions and in programming the research and innovation funding under the Horizon 2020 and Horizon Europe schemes.

The JRC has been a key player since the revision of the EC methodology throughout 2015, where targeted improvements have been introduced, based on the most recent scientific developments.

#COM2019640
#JRC Report: Assessment of the Methodology for Establishing the EU List of Critical Raw Materials. Publications Office of the European Union, Luxembourg, 2017, 978-92-79-6961-24, doi:10.2760/73003, JRC108997

Thank you



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