



Impacts of Permitting on CRM Primary Production

Selected findings from MINLEX study and SCRREEN
project WP7 preliminary findings

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Challenges to Primary & Secondary Production of CRMs

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Contents

MINLEX Findings

- Overview of the content
- EU dimension
- MS level – Legal Framework
 - Permitting Regime/Mineral Ownership
 - Authorities and permitting process

SCREEN WP7 Preliminary Findings

- EU Consumption vs. Production of CRMs
- Which issues are undermining CRM sector?
- Norra Kärr heavy REE deposit
- National legal framework around CRMs (potential for improvement)

Results

the Report constitutes „the most complete and comprehensive study in the subject of laws and permitting procedures governing the non-energy extractive industry in the 28 Member States of the European Union“

28 country reports

48 country experts

(mining/environmental lawyers, geologists, engineers, etc.)

65 reviewers (authorities, ministries, industry associations, etc.)

95 Fact Sheets on EU legislation

Over **1000 laws** collected

- **EU dimension**
 - Analysis of **TFEU**
 - EU legislation - **Internal Market** (Services Directive, Concession Directive, PPD, TD, AD, PQD), **Nature Protection** (EIA, Habitats and Birds D., EWD) and **Health and Safety**, (OHS, CMD)
- **Permitting in MS**
- **SWOT analysis** of EU and MS legislation and implementation
- **Annexes** (Country Reports, EU aquis Fact Sheets, Court Cases analysis)

EU dimension

- The analysis of the **EU legislation** shows that the TFEU, relevant conventions, and the EU Internal Market, Environmental, Nature Conservation, Water, Emissions, Chemical Safety, Extractive Waste and Occupational Health & Safety Directives **provide an adequate legal framework for the NEEI sector** and establish principles and guarantees **aligned with globally accepted mineral investment criteria**.
- ***This legal framework combined with the EU's Raw Materials Strategy framework (RMI, EIP-RM), provide a strong basis for achieving a sustainable supply of minerals from European sources and sets the right conditions for the MSs to streamline their NEEI permitting procedures.***
- **The implementation of EU legislation differ by country** – some of them are applying even stricter conditions.

MS level – Legal Framework

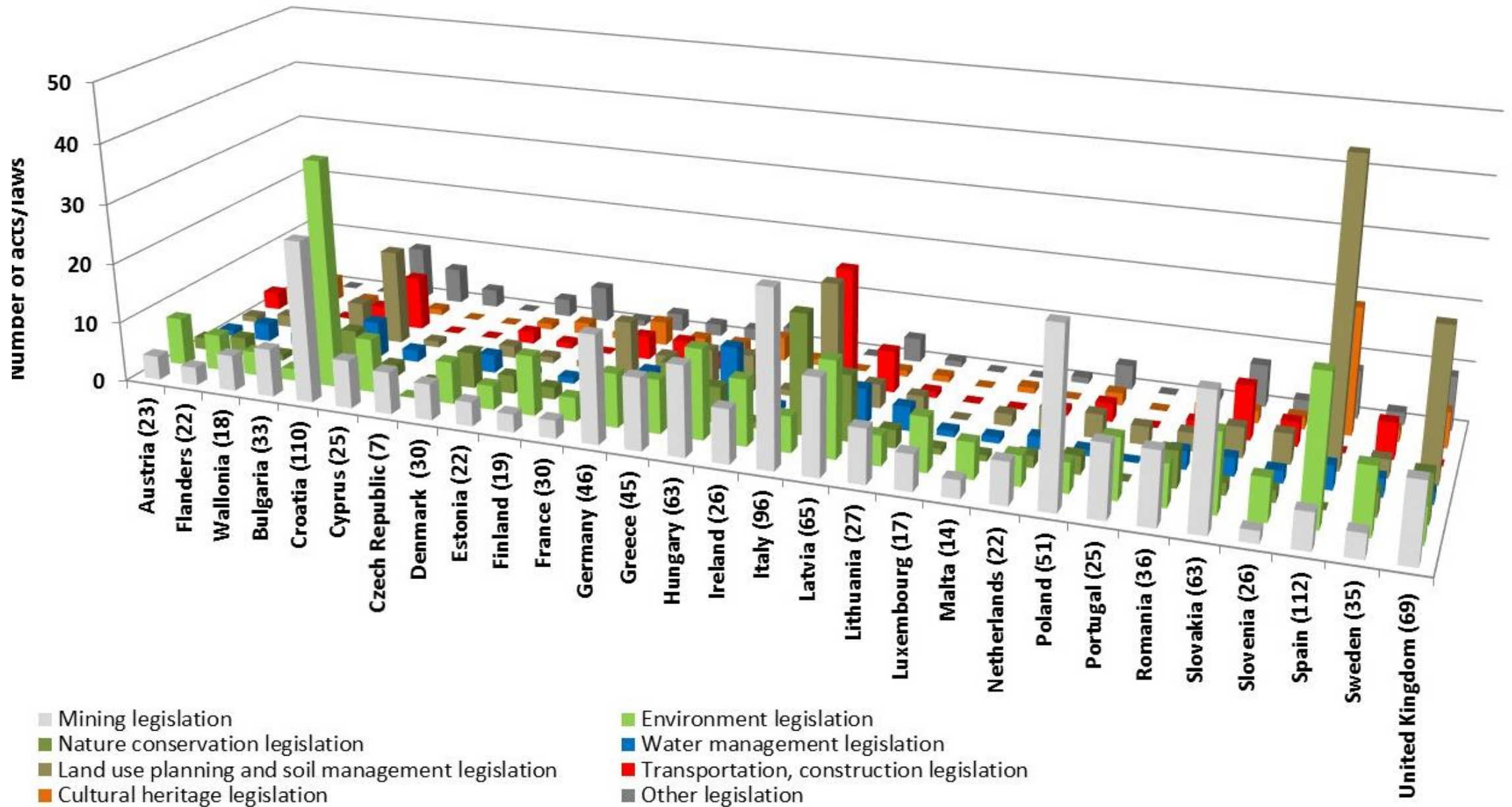
- **The structure of legal framework in MSs is very heterogeneous**, however there exist some similarities (e.g. principal mining act, definition of ownership, establish provisions for permitting)
- On the other hand, **the number of laws** relevant for NEEI permitting procedures per MS **varies widely**. ES and HR are those MSs with the highest number of relevant laws (112 and 110 respectively), followed by IT (96), UK (69) and LV (65), far higher than the average (40). In contrast, the CZ (7) and MT (14) appear as those jurisdictions with the lowest amount of laws. **Differences** can be explained by the administrative divisions of MSs or by the level of fragmentation of the relevant acts.
- In general, **legal pieces are not easily found translated into English**, and if they exist, they are often unofficial translations (only informative - cannot be used for legal purposes)

Permitting regimes, Mineral ownership

- **Permitting regime** – centralised, decentralised or a mixed one **is determined by the administrative division of the MSs** and depends on type of mineral resources
- **Onshore** – majority mixed (12) or centralised (11); **Offshore** – centralised (21), only DE decentralised
- ***Only 9 jurisdictions have one-stop shops*** – even though the concept of one-stop shop has been promoted for years as “good practice”
- **Mineral ownership** – ***In 9 MSs high-value minerals are state-owned and low-value minerals are landowned*** (CZ, FR, IE, IT, LU, PL, PT, SK, UK). While the ***state claims ownership of all mineral resources in eight MSs*** (BG, CY, HR, HU, LT, RO, SI, ES), ***in six MSs*** (BE, EE, DK, LV, MT, NL) all (onshore) **mineral resources belong to the landowner** (except for offshore minerals which also belong to the state). The fourth group are five MSs (AT, DE, EL, SE, FI) where low-value minerals belong to the landowner and the rest are free for any operator to request a concession to the state

Authorities and permitting process

- **The number of co-authorities is smaller for exploration than for extraction permits** – permitting procedures differ not only by the type of mineral and its ownership, but also according to the mineral development phase.
- **Exploration and extraction permits have different procedures** (e.g. in CZ, EE, EL, SE) (except for MT which has an integrated procedure) and are often controlled by a different number of authorities. The **number of authorities involved** depends on the type of mineral, the size and complexity of the (planned) operation, the location of the works (e.g. protected areas) and the mineral ownership.
- **Permitting success rates are higher for exploration than for extraction** – the reasons for the rejection of applications are manifold and depend on the context of each MS.
- **Delays of permitting procedures may be caused by one or a combination of the following factors**: a lack of statutory timeframes (deadlines), lack of specialised staff and technical capacity, insufficient competence and ability to handle conflicts of interest and seek compromises, lack of knowledge to apply existing guidance documents (e.g. on EC's guidance on NEEO and Natura 2000).



EU – Consumption vs. Production of CRMs

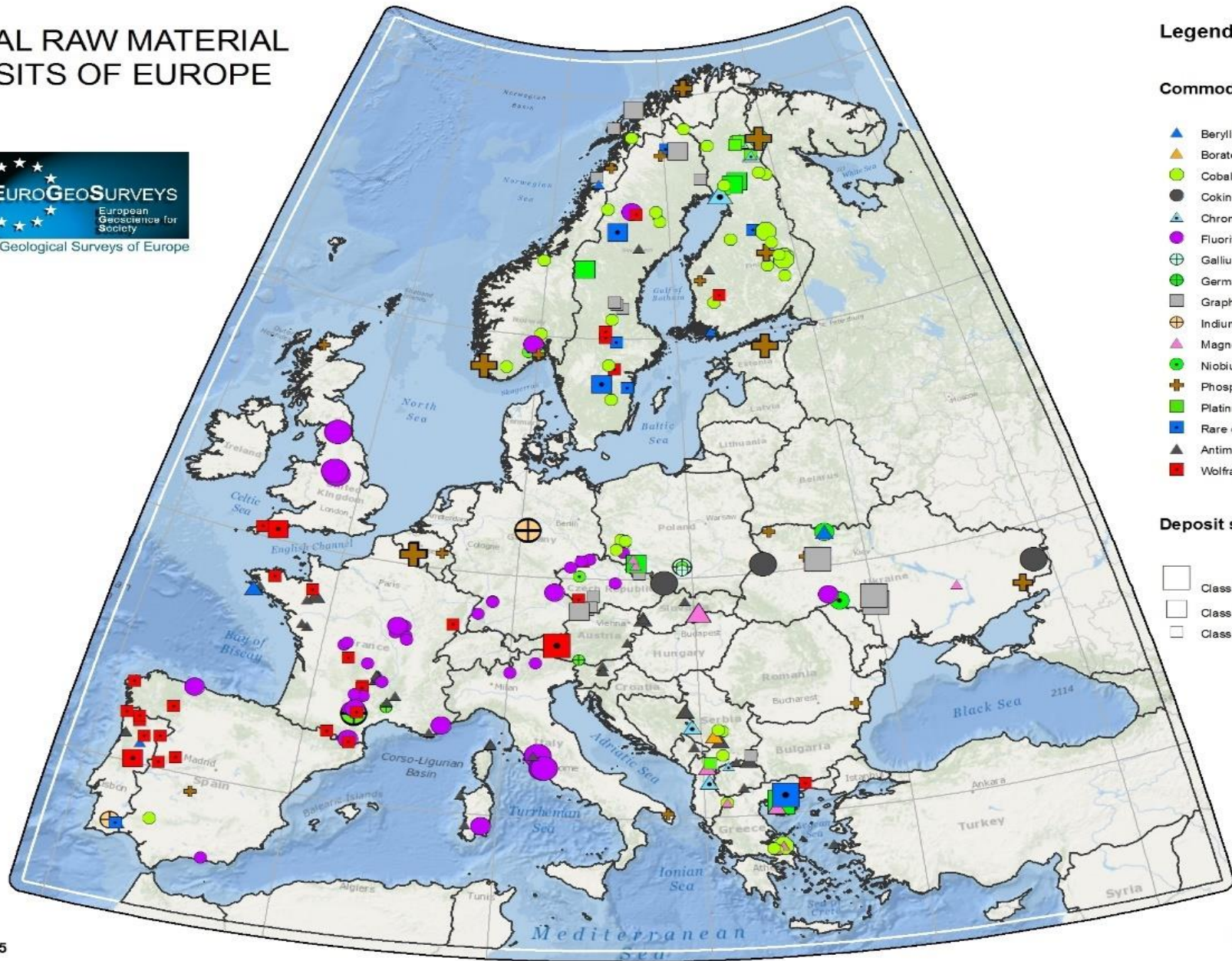
Current status

- EU consumed (2012) 7% and 25% of world's CRM demand,
- EU's share in world production (2015) between 0% and 17%;
- Currently 12 CRMs (out of 20) produced in EU.
- Concentration of production & reserves in few countries (China, South Africa, USA, Brazil, DRC) > high risk of supply disruptions

Potential in Europe

- EU holds a considerable geological potential to produce CRMs, also those nowadays 100% imported (antimony, beryllium, borates, magnesium metal, natural graphite, niobium and REE).
- EU is capable not only of extracting but also of refining CRMs, both from primary (virgin ores, CRMs often as by-products) and secondary (scrap) sources.

CRITICAL RAW MATERIAL DEPOSITS OF EUROPE



Legend

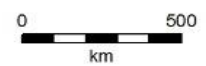
Commodity

- ▲ Beryllium
- ▲ Borates
- Cobalt
- Coking coal
- ▲ Chromium
- Fluorite
- ⊕ Gallium
- Germanium
- Graphite
- ⊕ Indium
- ▲ Magnesite, magnesium
- Niobium
- ⊕ Phosphate
- Platinum, platinoids group metals
- Rare earths elements
- ▲ Antimony
- Wolfram

Deposit size

- Class A (super-large)
- Class B (large)
- Class C (medium)

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EuroGeoSurveys (2016) "New Map of Critical Raw Materials in Europe", <http://egsnews.eurogeosurveys.org/?p=668>.

Which issues are undermining CRM sector?

Unstable market

- Prices formation > non-transparent
- Many CRMs are by-products and in small amounts > price volatility greater than base metals
- Some CRMs are used by few technology applications, demand may be suddenly modified by a new product. Certain CRM markets, particularly low volume ones, are instable / volatile – innovative product technologies may reduce (e.g. LED) or enhance (e.g. electric vehicles) need for CRMs suddenly.
- Quick changes to demand / supply (e.g. export restrictions) may cause price volatilities which affects SMEs.

Which issues are undermining CRM sector?

Lack of supply chain inside Europe

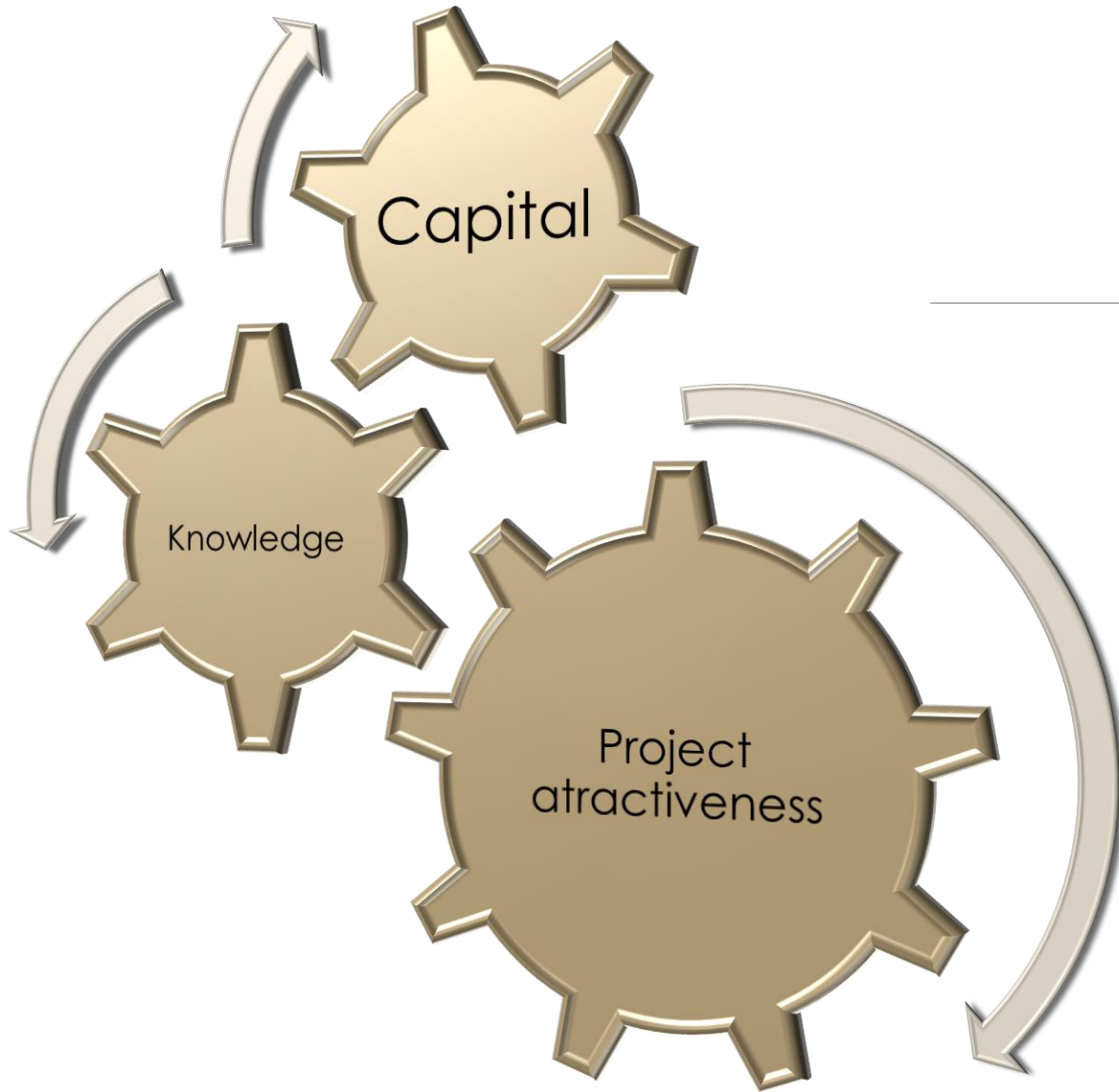
- Enhancing EU supply via development of domestic CRM deposits does not mitigate supply risks since primary materials still need to be processed elsewhere, e.g. for intermediate products.
- No guarantee that CRMs produced in EU will be supplied to EU market.
- Developing CRM supply in Europe may not be enough if next 2-3 tiers of supply chain still are dominated by China etc. (e.g. beneficiation and making magnets as intermediates in case of neodymium)

Value chain > to be included in mineral policies

Which issues are undermining CRM sector?

Risk capital availability

- Availability of risk capital > important but often lacking, e.g. no alliance exists to fund important domestic mine developments including its value chain
- Funding of exploration campaigns mainly reflect short-term price volatilities.
- Hardly any funds are made available for CRM-exploration, based on the fact that they may attract higher prices in the future



Investment security?

- (Not) streamlined procedures (No. of Acts and competent authorities)
- Delays in getting permit
- Success rate (?)
- Social acceptance (?)
- Policy strategy and priorities

Norra Kärr heavy REE deposit/ TasmanMetals (Sweden)

- explored by (Canadian) Leading Edge Materials Corp,
- TasmanMetals Economic Assessment study (2012) > mining 1.5 Mt / year (mineral resource base of 59 Mt) with 80% total recovery of 3 “critical” REOs (Y, Dy and Tb) > correspond to current demand.
- production prognosed for early 2017
- dependent on environmental permitting procedure
- TasmanMetals did not get permit; (re)submission to Swedish Mining Inspectorate December 2017.
- Mining Lease already granted in 2013
- Delays in obtaining permits from government > Questionable investment security

National legal Framework around CRMs

- No specific CRM policies, > less input in regulatory mining framework
- no specific CRM exploration provisions (e.g. giving priority), which could support a company or facilitate CRM protecting (based on LUP).
- nearly no concrete CRM minerals planning policies identified.
- No mining law allocates CRM as special group i.e. is allocating special rules for exploration/extraction/processing

National legal Framework around CRMs

Potential for improvement

- ~~No~~ specific CRM policies, > ~~has~~ **more** input in regulatory mining framework
- ~~No~~ specific CRM exploration provisions (e.g. giving priority), which could support a company or facilitate CRM protecting (based on LUP).
- ~~need~~ no specific CRM minerals planning policies identified.
- ~~No~~ mining law allocates CRM as special group i.e. is allocating special rules for exploration/extraction/processing



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Thanks for your attention!

Thank you!

Get in touch for more information!



All of the reports produced in the project will be available for download on the SCRREEN website.



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