

[All redactions in the document have been done in line with Art.4.1(b)]



# Opportunities for investment in the EU mining sector and business opportunities for technology



*Canada-EU Bilateral Dialogue on Raw Materials*  
16 November 2018, Brussels

*European Commission. Directorate-General for Internal Market, Industry, Entrepreneurship and SME's (DG GROW).  
Unit C2 - «Resource Efficiency and Raw Materials»*

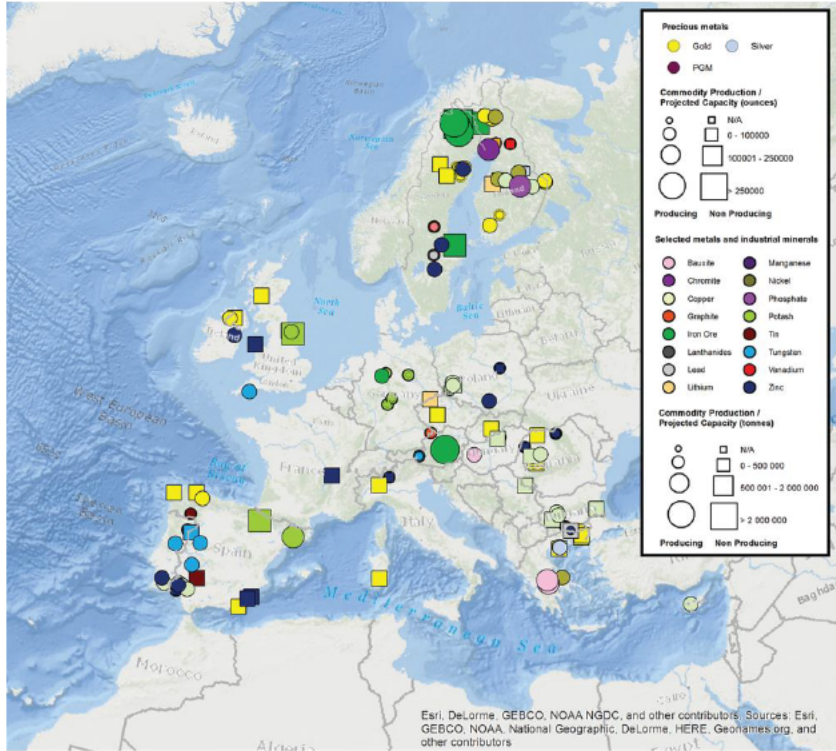
*[Redacted]* @ec.europa.eu

Raw  
Materials



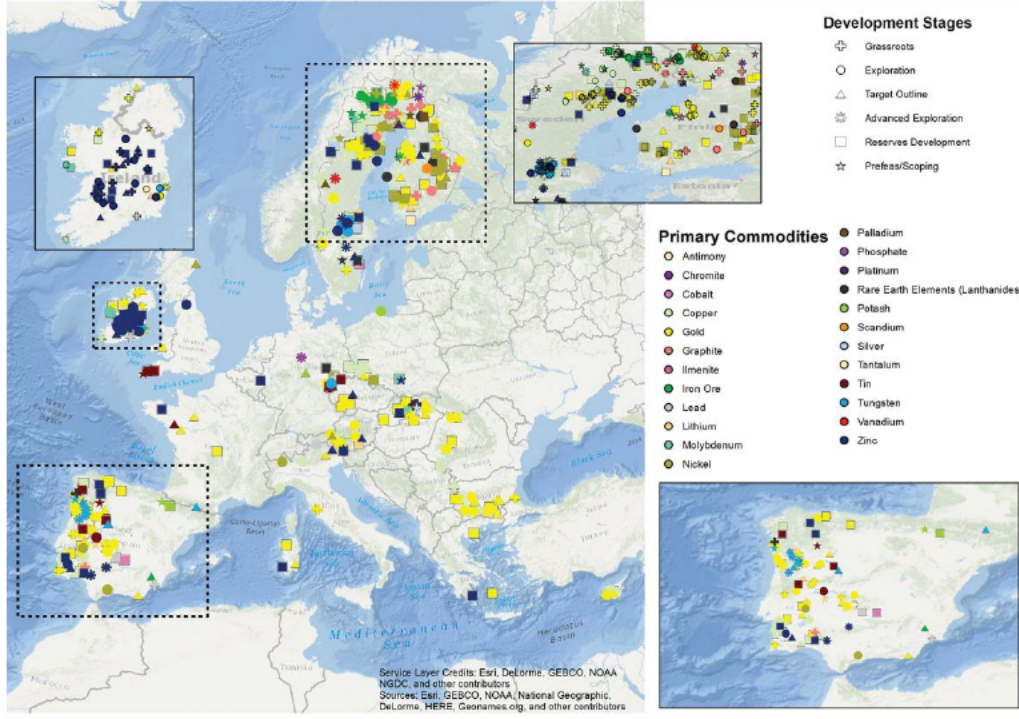
European Commission

Mine production of metal and selected industrial minerals in the EU, 2017



from European Commission, EIP on Raw Materials, Raw Materials Scoreboard 2018

Mineral exploration activities in the EU (2017)



from European Commission, EIP on Raw Materials, Raw Materials Scoreboard 2018



UNFC classification	Commercial projects (E1;F1;G1,2,3) <sup>1</sup>	Potentially commercial projects (E2;F2;G1,2,3) <sup>1</sup>	Non-Commercial projects (E3;F2;G1,2,3) <sup>1</sup>	Exploration projects (E3;F3;G4) <sup>1</sup>
<b>Cobalt</b>	--	<b>Total 3 SE(3)</b>	10 ES(1), FI(5), SE(4)	25 AT(2), CY(3), CZ(1), ES(7), FI(1), IE(1), NO(1), PL(1), SE(5), SK(2), UK(1)
<b>Lithium</b>	<b>Total 3 FI(1),PT(2)</b>	<b>Total 7 AT (1), CZ(1), DE(1), ES(1), FI(1), PT(2)</b>	3 AT(1), ES(1), UK(1)	16 (40) <sup>2</sup> CZ(1), DE(2), ES(2), FI(1), FR(2), GR(1), IE(3), NO(1), SE(3), PT(40) <sup>2</sup>
<b>Natural graphite</b>	<b>Total 1 SE (1)</b>	<b>Total 2 SE(1), SK (1)</b>	2 SE(2)	28 CZ(3), DE(1), FI(10), ES(4), SE(2), NO(8)
<b>Nickel</b>	--	<b>Total 3 SE(3)</b>	6 FI(3),SE(1), UK(2)	21 AT(2), CY(3), DE(1), ES(5), FI (4), LV(1), SK(2), SE(3)

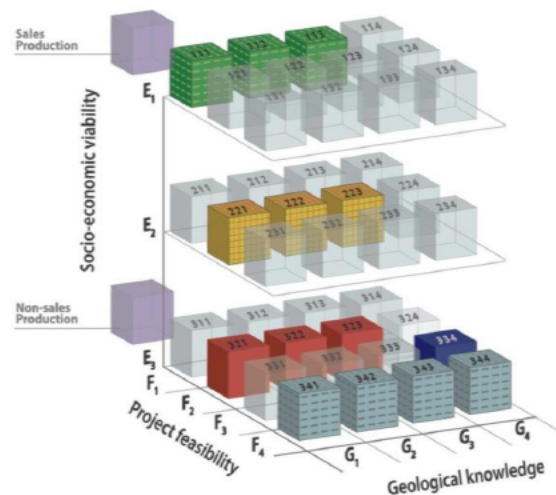
Note 1 – UNFC, Definition of categories (see United Nations Framework Classification (ECE ENERGY SERIES No. 42):

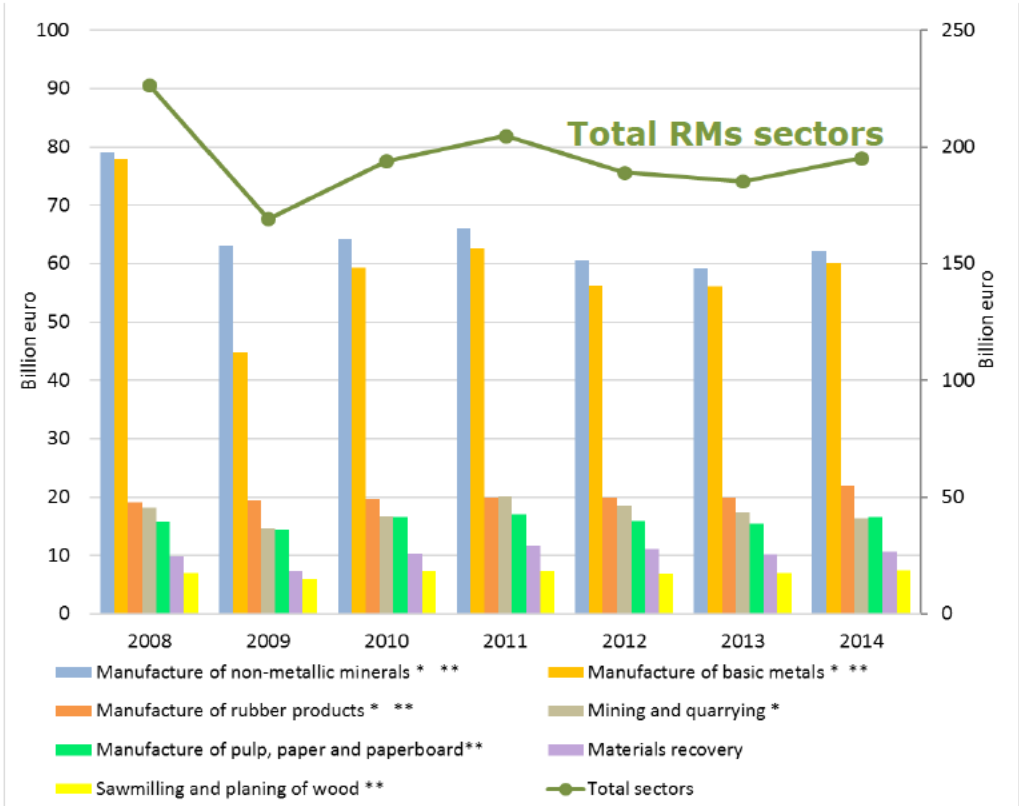
E axis: E1, extraction and sale has been confirmed to be economically viable; E2, expected to become economically viable; E3, not expected to become economically viable or evaluation is at too early a stage.

F axis: F1, feasibility of extraction by a development project or mining operation has been confirmed; F2, feasibility is subject to further evaluation; F3, feasibility cannot be evaluated due to limited technical data.

G axis: G1, quantities associated with a known deposit that can be estimated with a high level of confidence (G1), moderate level of confidence (G2), a low level of confidence (G3)

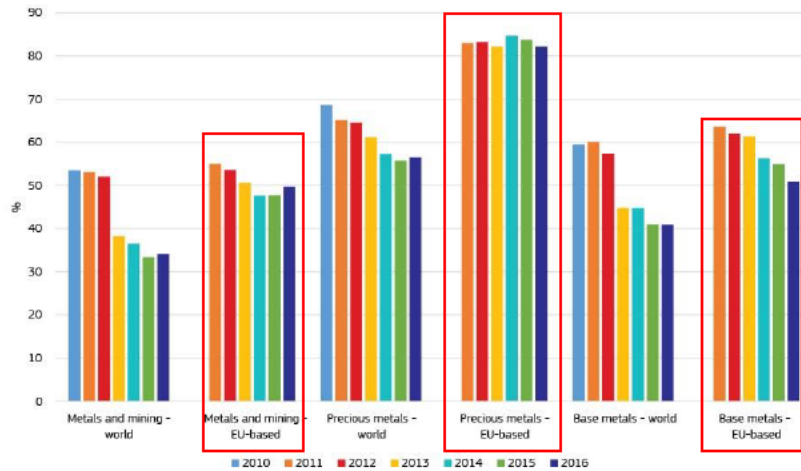
Note 2 – 40 applications for lithium exploration have been submitted; 12 blocks have been defined for lithium exploration in the Centre and North of Portugal. Public tenders are going to be launched in 2018.



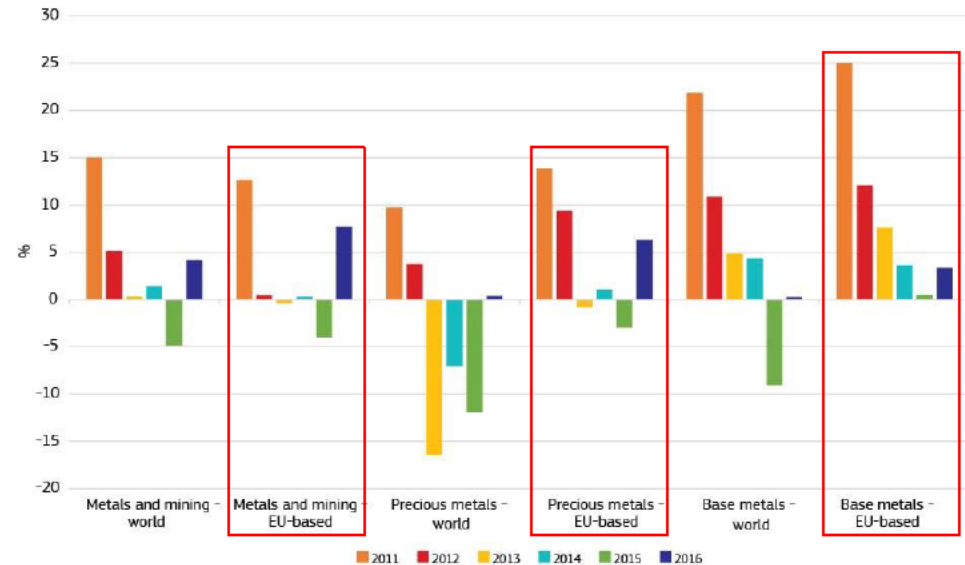


- Moderate sector recovery
- expansion of CE sectors
- increasing investments and attractiveness of some sectors
- downward trend for patents

Share of total equity in total assets of companies from the metals and mining sector and its two sub-sectors (world and EU-28-based company aggregates, 2010-2016)

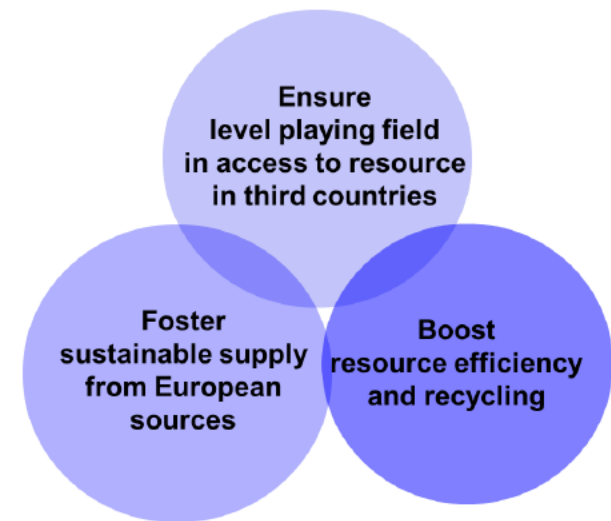


Return on average equity in the mining sector and its two sub-sectors (world and EU-28-based company aggregates, 2011-2016)





- EU policy framework: Raw Materials Initiative and other related policies
- EU legal framework: TFEU, relevant conventions, EU Internal Market, Environmental, Nature Conservation, Water, Emissions, Extractive Waste, Chemical Safety, Occupational Health and Safety Directives.
- The legal framework in MSs is heterogeneous, but there are some similarities:
  - All MSs have a principal mining act,
  - defining the mineral ownership, providing permitting provisions and deadlines (legal timeframes).



# Legal framework in MSs



# Regulatory framework



- **Permitting regime**
  - Onshore – majority mixed (12) or centralised (11);
  - Offshore – centralised (21), only DE decentralised
  
- One-stop shops are considered as a “good practice” (a third of MS)
  
- **Mineral ownership**
  - high-value minerals are state-owned and low-value minerals are land owned (CZ, FR, IE, IT, LU, PL, PT, SK, UK).
  - State ownership of all mineral resources (BG, CY, HR, HU, LT, RO, SI, ES),
  - all (onshore) mineral resources belong to the landowner (BE, EE, DK, LV, MT, NL)
  - low-value minerals belong to the landowner and the rest are free for any operator to request a concession to the state (AT, DE, EL, SE, FI)

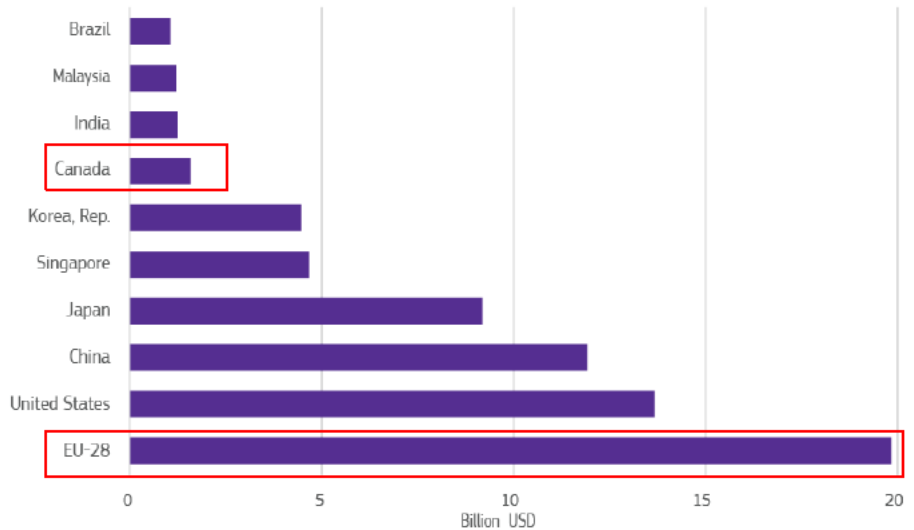
Permitting	Onshore	Offshore
<b>Centralised</b>	11 (Flanders, BG, HR, CY, EE, LV, LT, MT, NL, RO, SI)	21 (Flanders, BG, HR, CY, DK, EE, FI, FR, EL, IE, IT, LV, LT, MT, NL, PL, PT, RO, SI, SE, UK)
<b>Decentralised</b>	5 (DK, DE, IT, ES, UK)	(DE)
<b>Mixed</b>	12 (AT, Wallonia, CZ, FI, FR, HU, EL, IE, PL, PT, SK, SE)	

Source: MINLEX study 2017

# Mining equipment

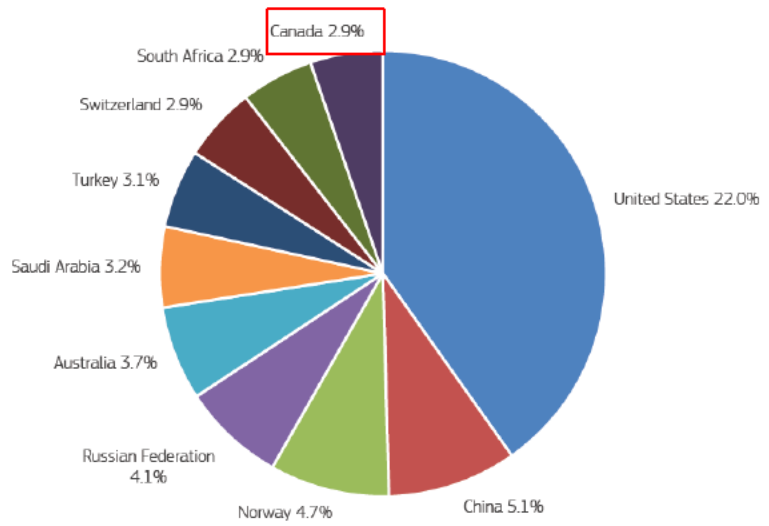


Top Ten global exporters of mining equipment (EU-28 as trade bloc, 2015)



from European Commission, EIP on Raw Materials, Raw Materials Scoreboard 2018

Top Ten destinations of EU-28 exports of mining equipment to the rest of the world (2015)



from European Commission, EIP on Raw Materials, Raw Materials Scoreboard 2018





**>120 partners, 23 countries**  
**€400 million (2015-2021)**

- HQ: Berlin, Germany
- Northern CLC: Luleå, Sweden:
- Eastern CLC: Wrocław, Poland
- Southern CLC: Rome, Italy
- Western CLC: Metz, France
- Central CLC: Leuven, Belgium
- Baltic Sea CLC: Espoo, Finland

**Regular calls every year**



RawMaterials



# Thank you!



## **EU Raw materials, metals, minerals and forest-based industries:**

[https://ec.europa.eu/growth/sectors/raw-materials\\_en](https://ec.europa.eu/growth/sectors/raw-materials_en)

## **Critical raw materials for the EU:**

[http://ec.europa.eu/growth/sectors/raw-materials/specific-interest/critical\\_en](http://ec.europa.eu/growth/sectors/raw-materials/specific-interest/critical_en)

## **EIP on Raw Materials:**

<https://ec.europa.eu/growth/tools-databases/eip-raw-materials/en>

## **Horizon 2020 - raw materials and calls:**

<http://ec.europa.eu/programmes/horizon2020/en/area/raw-materials>

<https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/index.html>

## **Horizon 2020 – experts:**

<http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html>

## **Raw Materials Week 2018**

[eurawmaterialsweek.eu](http://eurawmaterialsweek.eu)

## **Raw Materials Information System:**

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

**EIT Raw materials:** [www.eitrawmaterials.eu](http://www.eitrawmaterials.eu)