



11th EUROPEAN INNOVATION SUMMIT

Implementing Horizon Europe: From Policy to Impact

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European Parliament | Brussels

UNDER THE PATRONAGE
OF THE EUROPEAN PARLIAMENT



Andreas Klossek

interim CEO, EIT KIC Raw Materials



EIT RawMaterials is supported by the EIT,
a body of the European Union

The 'New Bronze Age' – The Resurgence of Metals for a Low-carbon Future

Andreas Klosssek | Brussels | 4 February 2020



MINERALS AND METALS WILL SUBSTITUTE FOSSIL FUELS IN THE LONG RUN

LINEAR/BROWN ECONOMY

Fossil Fuels for combustion engines, generators and power stations: oil, gas, coal.

GREEN TRANSITION

CIRCULAR/GREEN ECONOMY

Functional Materials in e-motors, energy storage, energy conversion containing, for example, Co, Li, Pt, REE, Ge, Ga, Si, V



**RAW AND ADVANCED MATERIALS ARE KEY ENABLERS
FOR THE GREEN TRANSITION**

IMMENSE INCREASE IN DEMAND FOR MINERALS AND METALS TOWARDS 2050

	2015	2050
Electric passenger cars	1.2 million	965 million
Battery storage capacity	0.5 GWh	12 380 GWh
Solar photovoltaic capacity	223 GW	7 100 GW

Data from IRENA (International Renewable Energy Agency) 2018

CIRCULARITY CAN SUSTAIN ONLY A FRACTION OF THIS INCREASE
NEW SUSTAINABLE SOURCES AND SUPPLY CHAINS MUST BE SECURED



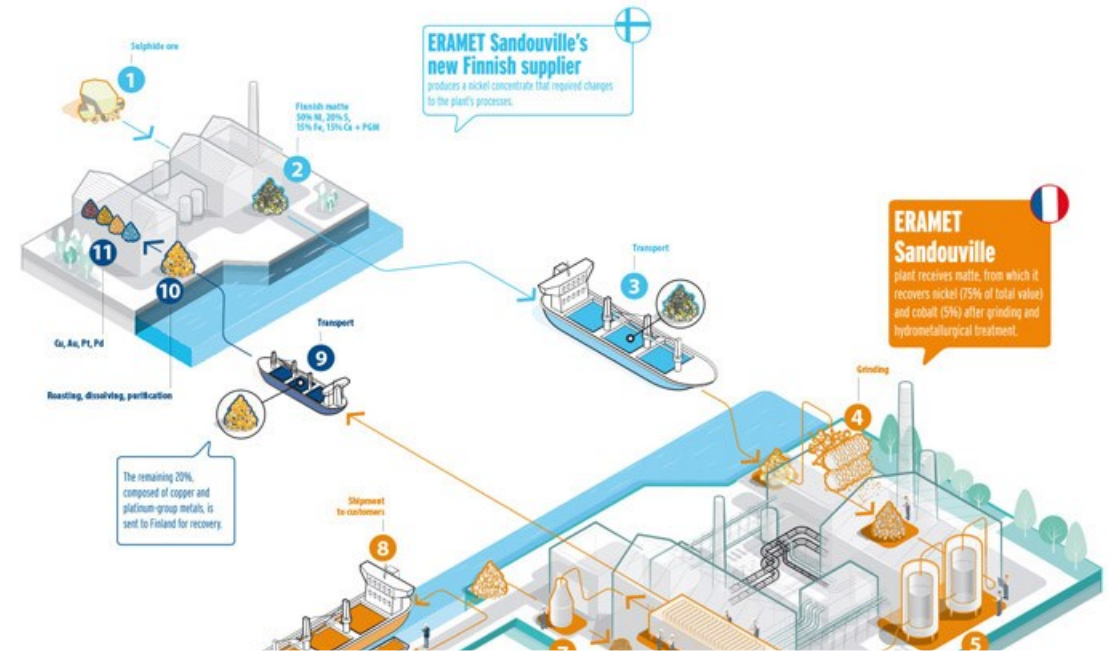
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ACCESS TO RESOURCES IS KEY

- Sourcing of Lithium, Nickel, Cobalt
- CO₂-efficient production of steel
- Sustainable production of goods
- Human Resources

ACCESS TO RESOURCES IS KEY

- Sourcing of Lithium, Nickel, Cobalt
 - New sourcing of Nickel Matte from New Boliden (FI) to Eramet (FR)
 - Process waste becomes new input
 - Diversification and integration of chain



NewEco project strengthens an entire European supply chain from mines to end products.

Olivier Sutterlin, Research and Environment Public Affairs Representative, Eramet

ACCESS TO RESOURCES IS KEY

- Sourcing of Lithium, Nickel, Cobalt
 - Collection and recycling of batteries for Lithium, Nickel and Cobalt
 - BASF (DE), Daimler (DE), Eramet (FR)
Umicore (BE), Samsung SDI (AT),
Suez (FR)



The ReLieVe project responds to the European Commission appeal to unite European players to position itself in the fast-growing lithium-ion battery market.

Laurent Joncourt, Chairman of Eramet Ideas

ACCESS TO RESOURCES IS KEY

- CO₂-efficient production of steel
 - New 'Hlsarna' steel smelter with use of Zinc as by-product, Tata Steel (NL), Nyrstar (NL) and CRM Group (BE)
 - New recycling start-up and plant for asbestos-contaminated steel, PMC (NL)



It was an intense process to connect the right parties to our ambitious plan for a circular solution for contaminated steel scrap. We are very grateful for the contribution of EIT RawMaterials that helped the success of this project.

Jan Henk Wijma and Bert Bult , Co-founders at PMC

ACCESS TO RESOURCES IS KEY

- Sustainable production of goods
 - First sustainable cell phone in the world, Fairphone (NL)
 - First certification scheme of entire supply chain, DMT & TÜV (DE), Fairphone (NL), Savannah (PT), VW (DE)



For us, EIT RawMaterials is a community that offers numerous possible avenues to explore, especially in finding smaller, potentially more innovative recyclers to partner with.

Miquel Ballester Salvà,
Circular Innovation Lead, Fairphone

ACCESS TO RESOURCES IS KEY

- Human Resources
 - RACE: Raw & Circular Economy Expedition, Outukumpu (FI), Audi (DE), Umicore (BE)
 - DIM Dubrovnik International Mining School with Austria, Bulgaria, Croatia, Hungary, Poland, Serbia, Slovenia, Slovakia, Ukraine



What an extraordinary journey through the whole value chain of the automotive industry with **#circulareconomy** of raw materials!

Anna Donczew,
**Sustainable Natural Resources Management
& Circular Economy**

EIT RAW MATERIALS VALUE TRIGGERS

> 1,000 professionals in 2018 at unit cost of 3k/participant

600 jobs saved for 2m of public EIT funding (3.5k/job)

70m invest raised for 120k of public EIT funding (1:600)

> 22m revenues created at KIC level 2016-18 (150k/FTE)





CONNECTING INNOVATION IN THE RAW MATERIALS SECTOR

18-20 MAY 2020, BERLIN

eitrmsummit.com [#RMSummit2020](https://twitter.com/RMSummit2020)



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Innovation and new technologies covering the entire raw materials value chain

Start-up and venture forum: showcase of the start-ups and pitching sessions dedicated to investors



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