



Made in Europe, from mine to electric vehicle: new documentary on challenges faced by European electric vehicle industry

Just recently, the European Commission launched an investigation into cheap Chinese electric vehicles 'flooding' our market. This is just one of the challenges that Europe is facing in its transition towards electric mobility and reducing CO₂ emissions. On 13 November, the KU Leuven Institute for Sustainable Metals and Minerals (SIM²) will be releasing a documentary that advocates for Europe's independent value chain, from responsible mining of raw materials to a clean re-industrialisation of Europe for building cars. The documentary was developed with support from two cutting-edge European projects dealing with critical metal extraction, processing and refining: Horizon Europe ENICON and EXCEED.

In the documentary, SIM² manager Peter Tom Jones travels to the Far North and visits the Kiruna and Aitik mines in northern Sweden, where important raw materials are mined. Kiruna is also home to the largest rare earth deposit in Europe. Although the mining activities have an impact on the local people, they understand the necessity of it: "Without the mine, there is no Kiruna". One-third of the town is even being relocated to allow for the expansion of the mine.

"A degrowth scenario, a reduction in consumption and production, is not feasible in a globalised world which is expected to have a population of nearly 10 billion people by 2050," says Peter Tom Jones, manager of the SIM² Institute. "Instead, we must aim for responsible, selective growth and strive to reconcile economy and ecology as much as possible. The Nordic countries are already leading the way."

The documentary serves as a wake-up call for Europe, as swift action is needed to prepare our continent for the new realities of resource nationalism and protectionism. Significant investments are required in order to work towards a carbon-neutral re-industrialisation of Europe, and measures should be taken to ensure fair competition with "dirty" raw materials or products.

For example, refining mined nickel ore in Finland is notably more efficient and emits less CO₂ than in Indonesia. Finland is also investing in its battery production and flexible vehicle assembly processes, which will ultimately allow it to compete with the cheap Chinese cars.

The documentary features Maros Sefcovic, the European commissioner responsible for the Green Deal, the EU Battery Alliance and the Critical Raw Materials Act, ensuring Europe's access to critical and strategic raw materials. "In Europe, we are in favour of free trade, but we also want fair trade," the commissioner emphasises, and he does not rule out the implementation of price compensation measures.

The launch of the documentary coincides with the start of [European Raw Materials Week](#) (13-17 November), an annual event organised by the European Commission that gathers all industry stakeholders.

The documentary *Made in Europe: From Mine to Electric Vehicle* will premiere in Leuven on 13 November. It will also be screened during the EU Raw Materials Week on 16 November and will be made available to the general public on the [SIM² Vimeo channel](#) starting 17 November.

More information and contact details:

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- The trailer for *Made in Europe: From Mine to Electric Vehicle* is available here: <https://vimeo.com/878563219>
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Horizon Europe ENICON

ENICON is a Horizon Europe-funded Research and Innovation Action project. ENICON stands for “Sustainable processing of Europe’s low-grade sulphidic and lateritic nickel/cobalt ores and tailings into battery-grade metals”. In view of a “domestic and foreign sourcing” procurement model, ENICON exploits the potential of (low-grade) Ni/Co resources within Europe – i.e. sulphidic Ni/Co ores and derived Ni/Co-bearing pyrite and silicate tailings, and laterite Ni(/Co) ores – while improving and developing the Ni/Co-refining capacity that can process imported ores, concentrates and intermediates. ENICON comprises both major improvements to existing Ni/Co metallurgical unit operations in Europe as well as the development of a new HCl-based route for both Ni/Co sulphide concentrates and laterites. More information: <https://enicon-horizon.eu/about/>

Horizon Europe EXCEED

EXCEED’s meta-objective is to unleash the full CRM and industrial mineral potential of Europe’s vast Li LCT-pegmatite and Rare-Metal Granite hard-rock resources. Using four premier European pegmatite and RMG case studies, EXCEED develops, upscales & demonstrates cost-effective, sustainable and responsible extraction routes for recovering the CRMs and industrial minerals as by-products from Li-bearing hard-rock ores. A suite of CRMs will be extracted and refined, while diverse industrial minerals will be refined and valorised in low-carbon building materials. More information: <https://exceed-horizon.eu/>

SIM² KU Leuven

SIM² KU Leuven is the KU Leuven Institute for Sustainable Metals and Minerals, one of the flagship KU Leuven Institutes formally endorsed by the KU Leuven Academic Council. SIM² KU Leuven’s mission is to develop, organise and implement problem-driven, science-deep research and future-oriented education, contributing to the environmentally friendly production and recycling of metals, minerals and engineered materials, supporting the transition to a climate-friendly, circular-economy. More information: <https://kuleuven.sim2.be/about/>

SOLVOMET

SOLVOMET is KU Leuven’s Research and Innovation Centre for Circular Hydrometallurgy. We support mining, metallurgical and recycling companies in the development of more sustainable (circular, low-energy input) hydrometallurgical processes, using state-of-the-art lab and mini-pilot scale experimental facilities and modelling capabilities. SOLVOMET’s vision is that metallurgical chemistry expertise allows to develop more efficient eco-friendly hydrometallurgical and solvometallurgical processes to provide the critical metals that are needed for the transition to a climate-neutral society. More information: <https://solvomet.eu/>