



Europe's Lithium Paradox:

New documentary on Europe's struggle to mine, refine and recycle its lithium for becoming the world's first climate-neutral continent



This 56-minute author's documentary film delivers a compelling exploration of lithium's crucial role in Europe's mission to become the world's first climate-neutral continent. It is a collaborative production between the KU Leuven Institute for Sustainable Metals and Minerals (SIM²) and Belgian filmmaking company Storyrunner—supported by the Horizon Europe framework's LITHOS and EXCEED projects. Designed to foster dialogue between European civil society and the mining and metals production industry, the documentary unravels the intricate challenges and opportunities surrounding lithium mining, refining, and recycling in Europe. It also examines the role of demand-side management strategies in shaping a more sustainable future. As Europe grapples with its lithium paradox, the film seeks to uncover whether a viable path forward is within reach. [The trailer for the thought-provoking documentary *Europe's Lithium Paradox*](#) is released on 12 May 2025!

The film

Lithium is the cornerstone metal driving Europe's transition to climate neutrality. Yet, despite the continent's rich lithium reserves, no operational lithium mines or full-scale refineries exist. In a rapidly shifting geopolitical landscape where critical minerals are increasingly weaponised, Europe's total reliance on third countries exposes it to significant vulnerabilities.

Europe's Lithium Paradox delves into this contradiction. The presenter embarks on a road trip, exploring potential mining sites across Europe. He gets the unique opportunity to visit and film Umicore's cutting-edge battery smelter recycling process (the first time ever a film crew was allowed in!) and Metso's innovative lithium refining approach, both of which sidestep many environmental pitfalls seen in traditional lithium processing and recycling methods elsewhere in the world.

Furthermore, the film also examines demand-side management strategies, including transport modal shifts, aimed at reducing reliance on primary lithium extraction. Through stunning footage from across Europe and thought-provoking discussions with a diverse range of stakeholders, *Europe's Lithium Paradox* presents a nuanced view of Europe's lithium dilemma while posing pressing questions for a world where simple solutions are no longer available:

- ✓ Are European companies truly leading the way in environmental and social standards?
- ✓ Will the EU's Critical Raw Materials Act and its Strategic Projects pave a sustainable path forward?
- ✓ Can Europe resolve its lithium paradox while balancing its climate ambitions with the need for local environmental and cultural preservation?

Why this film?

The film's presenter Peter Tom Jones, Director of the KU Leuven Institute for Sustainable Metals and Minerals, explains the rationale for this film:

"Through this authors' documentary, we aim to (re)build bridges between European civil society and the mining and metals production industry—rather than polarise and antagonise. Only by working together can we move forward and overcome Europe's lithium paradox.

Achieving this requires bold action—strengthening legal frameworks, advancing innovative technologies, enhancing communication, and fostering genuine public engagement. Multi-stakeholder initiatives like the Initiative for Responsible Mining Assurance (IRMA) demonstrate how responsible mining can move beyond past questionable practices in the global industry. Prioritising environmental stewardship, fair labour conditions, and meaningful local community involvement, responsible mining can offer a path forward.

By embracing this new model, Europe has the opportunity to reconcile its ambitious climate targets with the need to protect local environments and cultures. But as time presses on, we must act swiftly—yet deliberately."

The film's launch

Following the launch of the film's trailer (12 May 2025), the documentary will be disseminated through a series of avant-première events. In the pipeline: Belgium (May); The Netherlands (May); Portugal (June); Estonia (Sep); France, Finland and Germany (dates to be finalised). More details about these events will be communicated in a later stage. After the completion of these events, the film will be made available to the general public through a suite of channels, in agreement with the film's distributor, Journeyman Pictures.

Supporting organisations



This documentary was co-developed by SIM², the KU Leuven Institute for Sustainable Metals and Minerals. This interdisciplinary institute spans fields such as geology, chemistry, metallurgy, engineering, law, and economics. As one of the leading academic institutes in Europe, SIM² is dedicated to advancing the sustainable production and recycling of critical metals through research, education, and wider-society learning. The latter includes the creation of science communication films & author's documentaries. Notable examples are the award-winning *Made In Europe: From Mine to Electric Vehicle* (2023), *The Sami Perspective* (2024), *Europe's Mining Renaissance: A Catalyst for Climate Neutrality* (2024), and *Not In My Country, Serbia's Lithium Dilemma* (2025). Recently, SIM² was formally endorsed and commended by the International Panel that evaluated all official KU Leuven Institutes, including SIM² ('Strong Pass' received), for its wider-society learning strategy.

For the *Europe's Lithium Paradox* documentary, SIM² leverages its internationally recognised expertise in lithium exploration, extraction, processing, refining, and recycling. SIM² has been and continues to be involved in numerous fundamental science, strategic basic science, and applied research projects at KU Leuven, as well as Flemish-funded, EU-funded, and bilateral projects. SIM² has a track record in all possible primary and secondary lithium sources, including lithium hard-rock ores, (salt lake and geothermal) lithium brines, lithium-clay deposits, and end-of-life lithium-ion batteries and derived black mass.

For more information, visit <https://kuleuven.sim2.be/>



This documentary was co-funded through the Horizon Europe project LITHOS. LITHOS directly contributes to the 1st and 2nd CRMA benchmarks (10% domestic extraction; 40% domestic processing). LITHOS processes and refines the ores from three "Strategic Projects" in terms of domestic battery-grade LiOH·H₂O production: two spodumene-bearing pegmatite cases (Keliber's deposits in the Kaustinen region, Finland; Savannah's Barroso Lithium Project, Portugal) and one Rare-Metal Granite (RMG) case (Imerys' Beauvoir mine in France). LITHOS triggers innovations along the value chain – mineral processing, concentrate pre-treatment & hydrometallurgical refining – making it possible to deal with different levels and types of impurities in non-spodumene Li minerals (lepidolite & petalite). LITHOS gives specific attention to closed-loop water systems in the mineral processing.

More information: <https://lithos-horizon.eu/lithos-project/>



This documentary was co-funded through the Horizon Europe project 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/>

Additional information

Trailer & full documentary

The trailer is available here. The film will not be made public before all avant-première events have been completed. Journalists can ask for a protected link to the film for reviewing purposes only. Alternatively, journalists can obtain images or footages. Contact [Journeyman Pictures](#) directly or Peter Tom Jones through his [LinkedIn profile](#).

Key info

Film crew: Director/Script: Stijn van Baarle (STORYRUNNER), Presenter/Co-scriptwriter: Peter Tom Jones (SIM² KU Leuven), Cameramen: Michael Van de Velde & Jochen Maes; Sound technicians: Casimir De Kimpe, Jeroen De Vriese.

Featuring, amongst many others, Julia Poliscanova (T&E), Alexandre Lima (University of Porto), Hildegard Bentele (Member of the European Parliament), Janne Karonen (Metso), Charles Stuyck (Umicore), Toni Eerola (Finnish Geological Survey, GTK).

Funding and disclaimer

Funding for this documentary comes from Horizon Europe project funding (LITHOS & EXCEED), supplemented by internal SIM² funding and additional crowdfunding managed through KU Leuven's crowdfunding platform (<https://donate.kuleuven.cloud/crowdfunding/kuleuven>). No external company commissioned or financed this film.



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Disclaimer SIM²: SIM² has no financial interest in the publication of this documentary. It will not receive royalties or commercial income from the airing of this film on television stations, streaming platforms, or social media channels. The production and dissemination of this documentary are solely part of SIM²'s mandated commitment to wider-society learning and its role as communication & dissemination Work Package leader in the Horizon Europe projects LITHOS & EXCEED. The producers of this film undertook all reasonable efforts to present the message of the interviewees in an accurate and fair manner. Any views and opinions expressed by the interviewees are their own. Interviewees bear no responsibility for statements of other interviewees nor for any representations made or conclusions drawn in this documentary.

Storyrunner

Storyrunner is a video production agency with a strong focus on “science & sustainability”. Turning complex information into a fascinating stories for a wide audience is our specialty. We make documentaries but also shorter videos with (or without) graphic animations for TV channels, universities and European research projects.

For more information: <https://www.storyrunner.be/about>

Journeyman Pictures

The film is distributed by Journeyman Pictures. For over twenty years Journeyman has distributed and co-produced, provocative, profound and original factual content, working with the top players in the industry. Journeyman is one of the leading independent suppliers of award winning stories to the global theatrical, broadcast, digital and educational markets.

For more information, visit <https://www.journeyman.tv/about/about-us>

About the film's presenter

Dr. Peter Tom Jones earned his Master's degree in Environmental and Chemical Engineering from KU Leuven in 1996, followed by a PhD in metallurgy (stainless steelmaking) in 2001. After working as a postdoctoral researcher until 2008, he secured a permanent position through KU Leuven's Industrial Research Fund as a Research & Innovation Manager specializing in Sustainable Metallurgy. Since 2020, Jones has served as the director of the KU Leuven Institute for Sustainable Metals and Minerals (SIM²), an interdisciplinary research hub of more than 400 experts dedicated to the exploration, extraction, processing, refining, and recycling of energy-transition metals crucial for clean energy and mobility. He has co-authored or contributed to around 40 granted European projects on critical metals and sustainable metallurgical processing, with a strong emphasis on lithium, cobalt/nickel, and rare earth elements. His deep-rooted interest in the intersection of environmentalism and metallurgy has shaped his work for over 30 years, focusing on the role of critical metals in achieving climate neutrality. He has (co-)authored seven books addressing climate and environmental crises, as well as the transition to climate neutrality (*Het Klimaatboek*, *Klimaatcrisis*, *Terra Incognita*, *Terra Reversa*, and others). Since 2022, Jones has expanded his impact by presenting authors' documentaries that explore the connection between metals and the climate transition. His filmography includes *Responsible Mining in Europe* (2022), *Made in Europe: From Mine to Electric Vehicle* (2023 & 2024), *The Sami Perspective* (2024), *Europe's Mining Renaissance* (2024), *Not In My Country: Serbia's Lithium Dilemma* (February 2025), and *Europe's Lithium Paradox* (May 2025). Committed to living his values, Jones has been an environmentally motivated vegetarian for 30 years and is an avid urban cyclist.

