



EUROPEAN ALUMINIUM UNVEILS SCIENCE-BASED DECARBONISATION PATHWAYS TO FULLY DECARBONISE THE ALUMINIUM INDUSTRY BY 2050

Brussels, 14 November 2023

Press Release

Today, European Aluminium launched its report, [*Net-Zero by 2050: Science-based Decarbonisation Pathways for the European Aluminium Industry*](#), during a high-level event with Kerstin Jorna, Director-General at the European Commission's DG Grow. The report offers a comprehensive, realistic framework for achieving net-zero emissions across the entire aluminium value chain, from primary production and semi-fabrication to recycling.

As an energy-intensive, though highly electrified, and hard-to-abate industry, the European aluminium industry is responsible for approximately 24 million tonnes of CO₂ equivalent emissions annually. At the same time, aluminium is an essential material in the transition to a fully decarbonised economy, supporting countless clean technologies, including solar PV, wind power, heat pumps, and electric vehicles. As the European demand for aluminium is expected to increase by 30% by 2040, and with the EU aiming to satisfy 40% of its annual consumption using domestically sourced raw materials for processing, the European aluminium industry is committed to ensuring that this growth is sustainable and does not contribute to a spike in global emissions.

Paul Voss, Director General of European Aluminium, stated: *"It's abundantly clear that our operations must align with the environmental limits set by our planet. Achieving net-zero isn't a distant aspiration; it's an imperative that demands our immediate action. Our report presents concrete pathways tailored to fit the realities of our industry. Despite tough market conditions, the European aluminium industry is committed to taking purposeful steps and making the necessary investments towards a decarbonised and competitive future."*

The report underscores that maintaining compliance with the 1.5°C carbon budget for the industry and realising a reduction in emissions of over 90% by 2050 (compared to the 2021 base levels) is attainable with decisive action. Reaching this ambitious target relies on a swift transition to a low-carbon electricity grid, adopting inert anodes in smelters, and implementing alternative heat systems to mitigate direct process emissions, alongside intensified recycling efforts.

Xavier Le Den, Market Director at Ramboll Management Consulting, the consultancy firm that collaborated on the study, emphasised: *"Through our comprehensive analysis in collaboration with European Aluminium, Ramboll has identified scalable technologies, process innovations and policy actions that are pivotal for the industry's decarbonisation. Our approach is grounded in real-world application, ensuring that the pathways we recommend are not only theoretically sound but also practically attainable."*

TITLE OF THE DOCUMENT

The journey to net-zero is not one the industry can undertake alone. It requires a concerted effort supported by robust EU policies and leadership. European Aluminium has identified four critical policy areas to facilitate this transition:

"First of all, we need policies that stimulate the rapid development of cost-competitive renewable energy sources and support long-term power purchase agreements for energy-intensive industries such as ours. Just as crucial is the blend of policy and financial incentives that can fast-track the deployment of technologies to slash our process emissions while achieving a level playing field with our trade partners at production cost. Recycling is another cornerstone—there must be substantial incentives to enhance the recovery and recycling of aluminium scrap, driving down emissions further. And at the heart of all this lies the need for a bold industrial strategy that safeguards and boosts Europe's aluminium production, positioning us to meet increasing demand and lessen our import reliance sustainably," says Paul.

"We are looking forward to working hand in hand with EU policymakers and taking an active role in the Clean Transition Dialogues. Our goal is to produce the aluminium that Europe's green transition demands responsibly. We want to be part of the solution, not the problem," Paul concludes.

[The full report is available on the European Aluminium website.](#)

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About European Aluminium:

[European Aluminium](#), founded in 1981 and based in Brussels, is the voice of the aluminium industry in Europe. We actively engage with decision makers and the wider stakeholder community to promote the outstanding properties of aluminium, secure growth and optimise the contribution our metal can make to meeting Europe's sustainability challenges. Our 100+ members include primary aluminium producers; downstream manufacturers of extruded, rolled and cast aluminium; producers of recycled aluminium and national aluminium associations, representing more than 600 plants in 30 European countries. Aluminium products are used in a wide range of markets, including automotive, transport, high-tech engineering, building, construction and packaging.

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About Ramboll:

[Ramboll](#) is a global architecture, engineering and consultancy company founded in Denmark in 1945. Our more than 18,000 experts create sustainable solutions across Buildings, Transport, Energy, Environment & Health, Water, Management Consulting and Architecture & Landscape. Across the world, Ramboll combines local experience with a global knowledge base to create sustainable cities and societies. We combine insights with the power to drive positive change for our clients, in the form of ideas that can be realised and implemented.

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