European Aluminium

THE STRATEGIC ROLE OF **EUROPEAN ALUMINIUM**

An everyday essential and strategic material

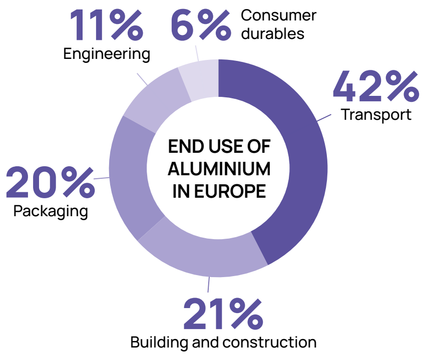
Officially designated a strategic raw material, aluminium plays a crucial role in the EU's transition to a more sustainable energy system and more circular economy.

An indispensable part of our daily lives, this lightweight material can be found in the phone you use, the car you drive, the can you drink from, the buildings you live in, and the pans you cook with. Its unique properties provide remarkable advantages and its recyclability, without the loss of inherent properties, makes aluminium indispensable in the EU's drive towards sustainable development.

Europe needs more aluminium

30%

increase in aluminium demand by 2040 compared to 2022*



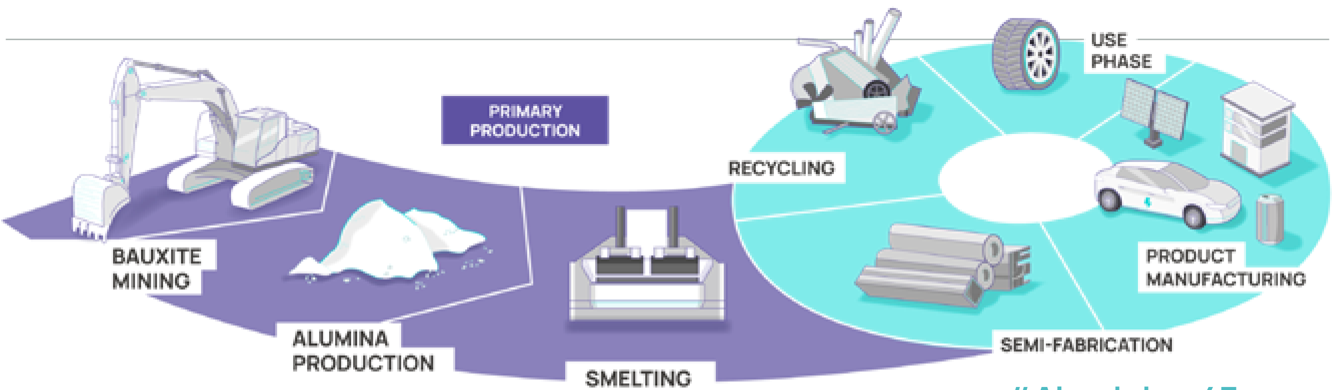
Aluminium was also declared a key component in clean technologies identified by the Net-Zero Industry Act, such as wind turbines, batteries and electric vehicles.

From mine to market: a sustainable European value chain

The aluminium value chain begins with mining bauxite and refining it into alumina, which is then smelted into primary aluminium. This energy-intensive process requires about 14.5 MWh of electricity per tonne. That is enough to power an electric car for over three years. Most emissions from this process stem from the electricity used, underscoring the need for abundant green energy.

The carbon footprint for European primary aluminium production (EFTA, UK, EU) is about a third of the world average, emitting approximately 6.3 kg of CO2eq per kg of aluminium produced compared to the global average of 16.8 kg of CO2eq.

After primary production, aluminium is further processed through rolling, extrusion and casting into various products. Thanks to its exceptional recyclability, scrap aluminium can be efficiently converted into secondary aluminium, using only 5% of the energy required for primary production.



* KU Leuven "Metals for Clean Energy" (2022)

#Aluminium4Europe

+82%

low-carbon electricity required annually in 2050 compared to 2022

10 million

tonnes of aluminium by 2030* needed to achieve the EU Solar Energy Strategy.

90%

of aluminium is recycled in the automotive and building sectors

76%

recycling rate for aluminium cans

Made in Europe: economic and industrial impact

The European aluminium industry plays a strategic role in the EU's economy, encompassing the entire value chain from aluminium and primary aluminium production, to semi-finished products and recycling. Europe is home to five alumina refineries and 20 primary aluminium smelters, with nine located within the EU. Additionally, one bauxite mine remains operational in Greece.

Despite its industrial capacity, Europe (EU27+UK+EFTA) is a net importer of both alumina and aluminium. The recent energy crisis in Europe has further exacerbated this dependency, leading to a decline in domestic primary aluminium production and increasing reliance on imports. The industry also faces significant market challenges, including unfair price competition driven by market distortions, particularly from China.

The growth of the European aluminium recycling industry is hampered by a shortage of available aluminium scrap. A significant portion of scrap is leaking out of Europe, especially to Asia, undermining the long-term sustainability of the industry. This outflow poses a serious threat to the future viability and competitiveness of Europe's aluminium sector.

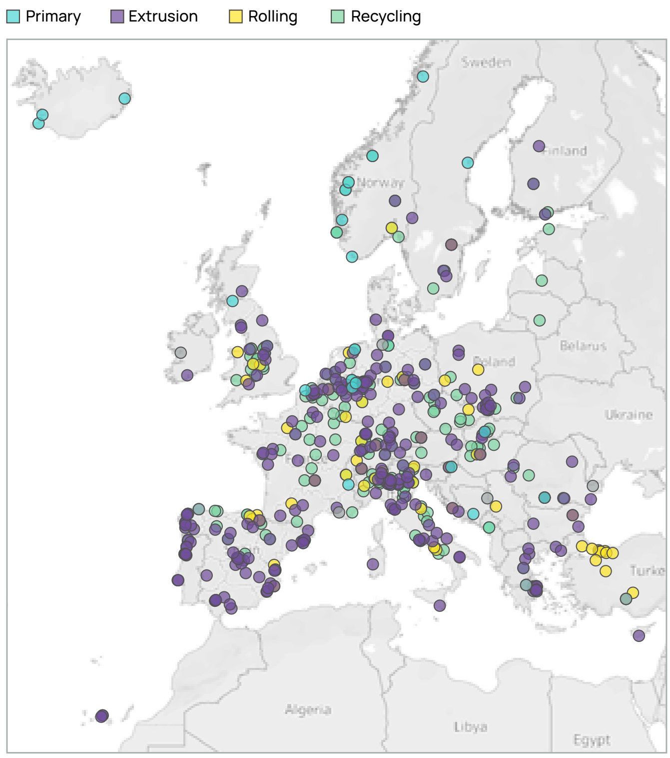
€40 billion annual turnover

Around 600 plants in 30 European countries**

+1 million direct and indirect jobs

The European aluminium industry accounts for just 6% of global primary aluminium production, with production evenly split between the EU and EFTA countries.

Building a resilient and competitive European aluminium industry



Given its importance to achieving Green Deal targets, we need to maintain and increase the production, processing, and recycling of aluminium in Europe. This will lower dependence on imports from countries with less robust environmental practices.

A complete European value chain will strengthen Europe's global competitiveness and resilience, securing its competitive edge while reducing exposure to future external shocks. Doing so benefits our environment, supports our workers, boosts our economy, and strengthens our strategic autonomy.

We invite policymakers and other stakeholders to work with us in building a resilient, sustainable, and globally competitive European aluminium industry that aligns with the principles of the European Green Deal.

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*Wood Mackenzie, 2021 | **EU, EFTA, UK, Turkey, BiH