

A new recycling center to foster circular economy



Construction of a new aluminum recycling center at our Neuf-Brisach site. It will enable us to produce aluminum sheets and coils for the automotive and packaging markets with more recycled aluminum, including used beverage cans and automotive production offcuts. The key stages will be construction, commissioning by 2024 and ramp-up in 2024 and 2025.

Starting date of the project	2021	
Project Localisation Places of implementation of the project at this stage and targeted geography if replicable.	Neuf-Brisach, in Alsace	
Project objectives Type of climate innovation of the project with a description of the problem/issue addressed	<p>The objective is to reduce by almost 90% the greenhouse gas emissions contained in the metal used by recycling our customers' production scrap and end-of-life products and thus avoiding the purchase of primary aluminum, which is electricity-intensive and a source of emissions. (source: European Aluminium Association)</p> <p>It is also to promote the circular economy, the can at the end of its life being recycled to make a new can and the scrap of automobile production to make new hoods for example.</p>	
Detailed project description	<p>The Neuf-Brisach site includes a recycling process, a foundry and the production of semi-finished products resulting from the lamination of aluminium plates into coils or sheets. The project consists of investing in 2 recycling furnaces capable of processing 130,000 tons of scrap and feeding the foundry furnaces and then the rolling lines, to produce coils or sheets for the production of cans or car bodies.</p> <p>The Neuf-Brisach site already has a recycling capacity of 150,000 tons</p> <p><i>On average, for 1 ton of scrap, we obtain 930 kg of recycled aluminum.</i> <i>NB: this amount may vary depending on the type of scrap (quality, size, alloy)</i></p>	
Main project's drivers for reducing the greenhouse gas emissions Enter the information in the appropriate boxes	Reduction levers	Details on the aspects of the project
	<input type="checkbox"/> Energy and resource efficiency (including behaviour)	
	<input type="checkbox"/> Energy Decarbonisation	
	<input checked="" type="checkbox"/> Energy efficiency improvements	It is about improving energy efficiency upstream in the value chain. Recycling consumes about 20 times less energy than manufacturing primary aluminium (source: European Aluminium)
	<input checked="" type="checkbox"/> Improving efficiency in non-energy resources	.By avoiding the production of primary aluminum, we avoid the extraction of bauxite and the unavoidable environmental impact that it generates
	<input type="checkbox"/> Emissions absorption: creation of carbon sinks, negative emissions (BECCS, CCU/S, ...)	
	<input type="checkbox"/> Financing low-carbon producers or disinvestment from carbon assets	
<input type="checkbox"/> Reduction of other greenhouse gases emission		

<p>Emission scope(s) on which the project has a significant impact and quantification of GHG emission reductions per emission scope</p> <p>Indicate the aspects of the project that contribute to the reduction of emissions per category of emissions considered (left-hand column) and the quantification of associated emissions.</p> <p>Indicate the main hypotheses and calculation steps in the intended section (below the table)</p> <p>For further details, please refer to the methodology guidelines.</p>	<p>Aspects of the project contributing to the reduction of emissions by emission category</p>	<p>Quantification of associated GHG emissions by emission category</p> <p>Please follow the quantification methodology used in the Afep guidelines.</p>	
	<p>Reduction of the company's carbon dependency</p>		
	<p>Scope 1 <i>Direct emissions generated by the company's activity.</i></p>		
	<p>Scope 2 <i>Indirect emissions associated with the company's electricity and heat consumption.</i></p>		
	<p>Scope 3 <i>Emissions induced (upstream or downstream) by the company's activities, products and/or services in its value chain.</i></p>	Avoid using primary aluminum	Reduction of 450 000 T of eq CO2
	<p>Increase of carbon sinks</p>		
	<p>Emissions Absorption <i>Carbon sinks creation, (BECCS, CCU/S, ...)</i></p>		
<p>GHG emissions avoided by the company at third parties</p>			
<p>Avoided Emissions <i>Emissions avoided by the activities, products and/or services in charge of the project, or by the financing of emission reduction projects.</i></p>			
<p>Clarification on the calculation or other remarks:</p> <p>The average primary aluminum in Europe has a footprint of 6.8 tons of CO2 per ton of primary aluminum produced and low carbon suppliers reach levels of 4 tons. These emissions are mainly related to energy use during production (bauxite mining, refining, electrolysis).</p> <p>The planned facilities will produce an additional 130,000 tons of recycled aluminum. To be conservative, we have considered that they would replace the lowest carbon equivalent of primary aluminum, i.e. with a footprint of 4 tons of CO2/tonne. Considering that the carbon footprint of recycling (0.5 TCO2/tonne of recycled aluminium), we obtain a reduction of the order of : 130,000 tons x (4 - 0.5) = 450,000 TCO2/year</p>			
<p>Modality of verification of the quantification.</p>	<p>Calculation standard used (ADEME base, GHG protocol, etc.): GHG Protocol</p> <p>Verification of the calculation (internal or external): not externally verified</p>		
<p>Other environmental and social benefits of the project</p> <p>If possible, list the impacts and Sustainable Development Objectives concerned</p>	<p>By avoiding the production of primary aluminum, we avoid the use of bauxite mining (impact on biodiversity but also on indigenous populations, given its location), the production of alumina and the storage of bauxite residues. We promote the circular economy.</p>		
<p>Project maturity level</p> <p>Tick the corresponding current maturity level</p>	<p><input type="checkbox"/> Prototype laboratory test (TRL 7)</p> <p><input type="checkbox"/> Real life testing (TRL 7-8)</p> <p><input type="checkbox"/> Pre-commercial prototype (TRL 9)</p> <p><input type="checkbox"/> Small-scale implementation</p> <p><input checked="" type="checkbox"/> Medium to large scale implementation</p> <p>Remarks: click here to enter the level of maturity of the project</p>		
<p>Capacity and conditions of the</p>	<p>We can launch this project in other aluminium transformation plants with of course adaptations in terms of size and technology of furnace according to the treated scrap and produced alloys.</p>		

project reproducibility, with associated climate impact mitigation potential	
Amount of investment made (in €)	150 M
Economic profitability of the project (ROI)	<input type="checkbox"/> ST (0-3 years) <input type="checkbox"/> MT (4-10 years) <input type="checkbox"/> LT (> 10 years) Remarks: Not disclosed
Engaged partnerships	The project has received support from the France 2030 stimulus plan. We have carried out a public consultation, notably for the environmental assessment of the project, and we are working with a network of equipment suppliers and subcontractors.
Open comments from the project owner	This project is taking place on a site that is already very committed to recycling (current capacity of 150,000 tons) and also to the responsible production and transformation of aluminum. In 2020, it was certified by the Aluminium Stewardship Initiative (a voluntary multi-stakeholder standard) on the basis of a compliance audit that analyzed the site's ESG performance on more than 70 criteria. These criteria include consideration of the social and environmental impacts of any major project on site.
More about the project	
Contact the company carrying the project Please specify an ad hoc e-mail address that will allow the reader to contact the project company directly	antti.laakkonen@constellium.com
Project URL links	xxx
Titre SEO	New aluminum recycling center
Méta Description	Constellium is building an aluminum recycling center that will produce aluminum sheet and coil for the automotive and packaging markets

Illustrations of the project

3 photos/videos minimum (in HD format to be attached)



