



LOW CARBON TRAJECTORY



VIRTUOUS ALUMINIUM
FOR A SUSTAINABLE PLANET

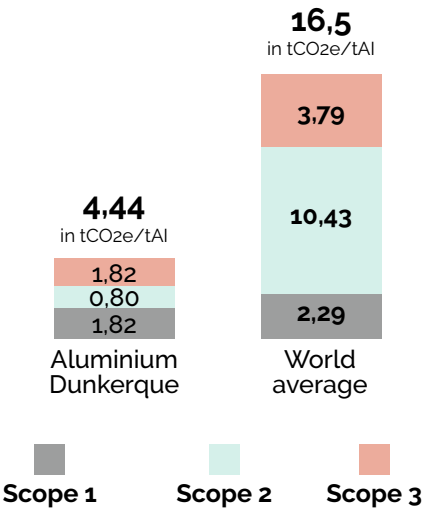




**HISTORICALLY
ON THE PATH TO
DECARBONISATION**

Aluminium Dunkerque is a **world leading low-carbon aluminium producer** that is certified compliant with the Aluminium Stewardship Initiative (ASI) CSR standards.

- We have already **reduced** our emissions (scope 1 and 2) **by 17%** since 2013.
- Our carbon intensity is **4 times lower** than the world average.



LOW-CARBON ALUMINIUM

Our ambition is to speed up the process to decarbonise our aluminium.

As the European Union's leading primary aluminium producer, Aluminium Dunkerque has begun the process of decarbonising its activity.

Aluminium is a strategic low-carbon transition material. It is used to reduce the weight of vehicles, in which its proportions should increase by 13% between 2014 and 2050*. The demand for aluminium for electrification will also increase, as will packaging sector needs as a consequence of the elimination of single-use plastics, due to its light weight and its excellent recyclability. In fact, aluminium is one of the most easily recyclable metals and is perfectly suited to the creation of a circular, low-carbon economy. Volumes are therefore expected to rise sharply in the years ahead.

If our product is unquestionably virtuous, the way we produce it must obviously also be virtuous. **Aluminium Dunkerque is a world leading low-carbon aluminium producer.** We have succeeded in **cutting our emissions (scope 1,2) by 17%** since 2013 and our greenhouse effect gas emissions are four times lower than the global sector average (scopes 1, 2 and 3). However, we have no intention of resting on our laurels. Aluminium Dunkerque contributes to French and European sovereignty in terms of strategic supplies and has a duty to set an example.

Which is why we are speeding up our energy and environmental transition.

Known as **LowCAL** (Low Carbon Aluminum), our roadmap is **ambitious and demanding**. It involves the use of disruptive technology and requires major long-term investments. If we are to succeed, we must secure our electricity supply, forge partnerships with other industrials, and enjoy strong support from the public authorities.

Fully aware of our responsibilities and faithful to our values, we are more than ever committed to fully playing our part in the collective drive to create a world that is more respectful of mankind and the environment.

Guillaume de Goÿs
CEO of Aluminium Dunkerque





Decarbonation is a major challenge

Decarbonisation is a **major issue if we are to guarantee future generations a sustainable future**. It is vital to develop industrial capacity and production techniques in line with this challenge. **Our business is at the heart of this objective, as aluminium is a key resource for the energy transition.**



High recyclability



Essential for the energy transition (PV panel structure, batteries, electric motors)



Reduction of product weight (vehicles, reduction of the weight of products and the energy used to transport them, etc.)

Aluminium production is therefore set to increase in the coming years, as it fits in perfectly with the development of a low-carbon, circular economy.

Scopes of emissions

They are grouped into 3 scopes that we have built into our decarbonisation plan.

SCOPE 1 these are direct emissions from the company's industrial activity (e.g. industrial process gases, fossil fuel combustion to power our furnaces, etc.).

SCOPE 2 these are indirect emissions associated with the production of the energy delivered to our production site.

SCOPE 3 these are other indirect emissions linked to the company's entire value chain (e.g. carbon content of raw materials, transport of raw materials to the site and of products to clients, etc.).

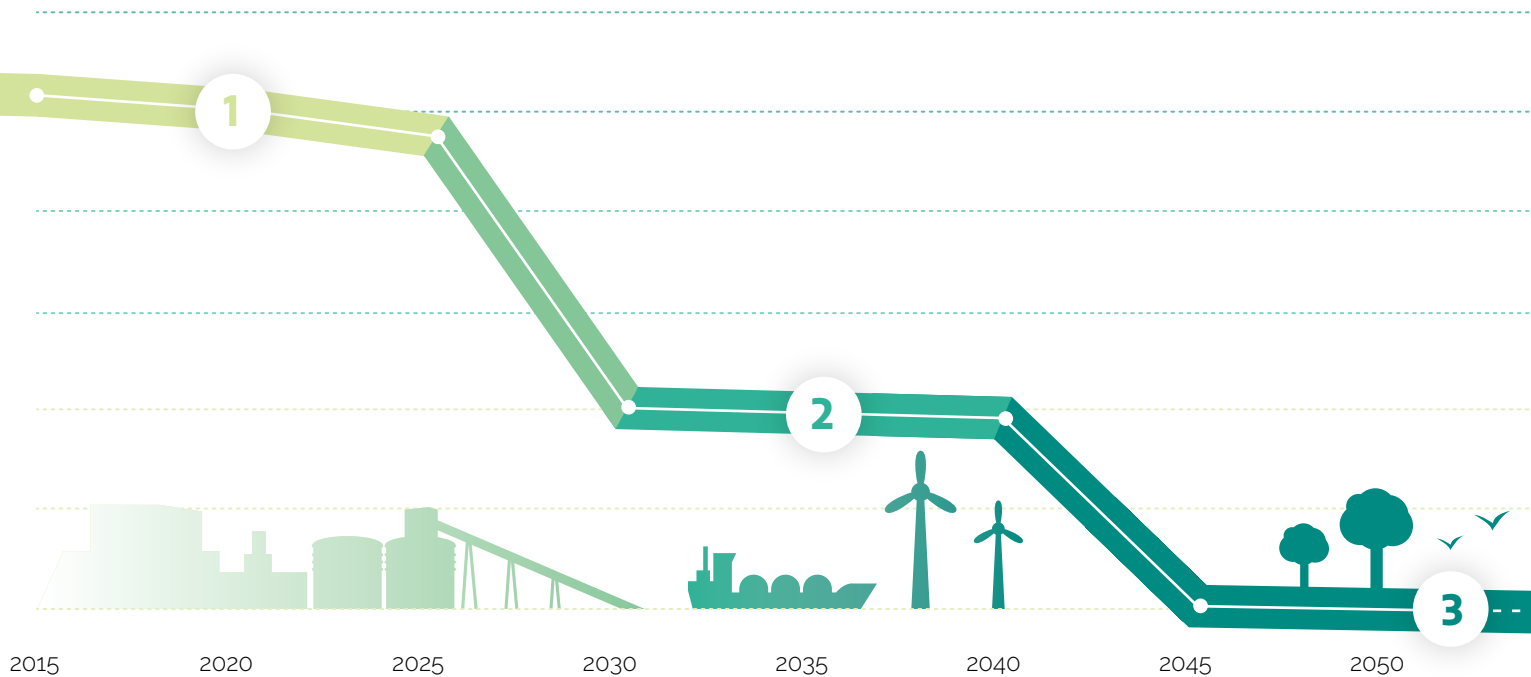
With this in mind, Aluminium Dunkerque is speeding up its energy and environmental transition by setting itself a roadmap to 2050 called:



To achieve it, the company is using the **Science Based Target initiative** (SBTi) and **is working with all its partners** to reduce the overall carbon footprint generated by its activity.

LOW-CARBON TRAJECTORY

OUR **THREE-PHASE** DECARBONISATION PLAN



2025
IMPROVE

Mobilised 100%

by taking ownership of the issues, of objectives for all, of "quick wins", and ramping up the mobilisation of resources

-5% by 2025

through operational excellence, energy efficiency, scope 3 reduction, and recycling

2030
ACCELERATE

-30% scope 1,2,3

Mainly through the use of disruptive carbon capture technologies (CCUS) and the new economic models (recycling and flexibility).

2050
ACCOMPLISH

-70% scope 1,2,3

Increased production using disruptive inert anode technology to contribute to a resilient and sovereign society.

THE **MAIN NEEDS** IDENTIFIED FOR THIS PLAN



1/ Secure the site's **low-carbon electricity supply**



2/ Develop **carbon capture technology** adapted to primary aluminium



3/ Access **inert anode technology** and secure additional electricity supply



4/ Reduce and substitute **fossil gas** used for **industrial heat**

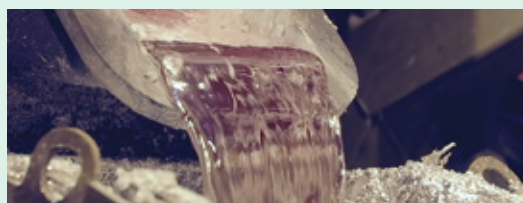


5/ Become part of a European **waste recycling sector**

The levers to achieve our goals.

Aluminium Dunkerque intends to continuously reduce its carbon footprint across all its activities by deploying the following:

- Securing our supply of renewable or low-carbon energy,
- Increasing operational performance to improve the site's energy consumption and reduce its process greenhouse effect gas emissions,
- Developing disruptive innovations, including carbon emission capture and permanent storage,
- Supporting the increase in the penetration rate of intermittent renewable energies on the grid by developing frequency balancing and site consumption elimination capacities,
- Favouring aluminium recycling to promote a circular economy by increasing the share of recycled metals in product composition,
- Having an annual audit conducted by an independent third-party organisation (ITO) on our compliance with the low-carbon trajectory,
- Reducing our value chain's carbon footprint by promoting low footprint, ASI certified suppliers, and low carbon transport,
- Building on the industrial projects under way in the Dunkirk area (Heat, H₂, CO₂) to speed up our transition.



Aluminium Dunkerque is launching a recycling activity.

To support its clients, particularly in the automotive sector, in their efforts to reduce carbon emissions and promote the circular economy, Aluminium Dunkerque is investing in the construction of a new smelting furnace. This innovating equipment will be used to **recycle 7,000 tonnes of aluminium every year to produce 20kt of additional metal** of which the environmental impact (CO₂ emissions and energy consumption) will be significantly reduced.

This production of 20kt of additional ingots represents 19% of French imports of primary aluminium ingots and 8% of European imports.

- **12 M€** of investments
- **-10% average CO₂ emissions** for ingot production
- **Start-up in late 2024**
- **96 GWhs of electricity consumption avoided per year**





Aluminium Dunkerque
Route de la ferme Raével
59279 Loon-Plage

ALUMINIUMDUNKERQUE.FR