



# Sustainability Report

➤ 2024





# Contents







## 01. Economy & Governance

- p.08* ➤ **1.1** *Aluminium Dunkerque our governance*
- p.14* ➤ **1.2** *Commercial strategy - Customer relations*
- p.18* ➤ **1.3** *ASI and ISO certifications*
- p.21* ➤ **1.4** *Responsible purchasing and long-term partnerships with our suppliers*
- p.28* ➤ **1.5** *Monitoring financial penalties and sanctions*



## 02. Environment

- p.24* ➤ **2.1** *Our environmental sustainability commitments*
- p.28* ➤ **2.2** *GHG - Decarbonation strategy*
- p.34* ➤ **2.3** *Energy efficiency*
- p.38* ➤ **2.4** *Our environmental performance*



## 03. Social

- p.64* ➤ **3.1** *Hygiene, Health, Safety and Security: a pillar of our corporate responsibility*
- p.70* ➤ **3.2** *Training and skills development*
- p.73* ➤ **3.3** *Building a culture of attractiveness and commitment*
- p.83* ➤ **3.4** *Our commitment to human and individual rights*
- p.84* ➤ **3.5** *Application of the anti-corruption law*
- p.85* ➤ **3.6** *Our communities & stakeholders*







# Editorial

## *From recycling to biodiversity, a wide range of sustainable and responsible actions*



Once again, 2024 was marked by major advances in our determination to be an ever more responsible player, committed alongside our stakeholders to respecting our environment and those who live in it.

Among the most significant achievements in terms of minimising our impact are the 5% reduction in gas consumption by the baking furnace, the installation of the first adiabatic tower to cool the compressors while saving water and, above all, a record achieved for the first time since the plant was created, with consumption of less than 13 MWh per metric ton of aluminium produced.

As part of our LowCAI decarbonisation project, we have launched the construction of a furnace reserved for aluminium recycling and have begun working with our partners on adapting carbon capture technology to the aluminium industry, projects supported by France 2030.

We also finalised our biodiversity protection strategy and conducted initial climate change adaptation studies.

Anchored in our trajectory and determined to maintain it over the long term, at our latest refinancing we negotiated new loan conditions indexing the interest rates on our environmental performance.

On the industrial relations front, we have initiated a Job and Career Management approach to encourage our employees' development and digitalised our recruitment process to make it faster and more effective.

We have also continued our initiatives to encourage more women to embrace our industrial trades, launched a new safety drive, and created a specific Quality of Life at Work department with a significant budget.

In terms of training, we have raised our teams' awareness of non-discrimination and, following the roll-out of the Climate Fresk to all staff, a '2-ton'<sup>1</sup> workshop has been tested.

Above all, we owe all these initiatives, all these successes, to the mobilisation of the Aluminium Dunkerque teams, whom I would like to thank for their unfailing commitment to a responsible and sustainable company.

However, we would never have been able to meet so many challenges without also relying on our partners and in particular the players in our region with whom we have further strengthened ties and collaborations to build a resilient, innovating and attractive industry together.

Enjoy!

**Guillaume de Goÿs**  
Chairman of Aluminium Dunkerque

<sup>1</sup> Training workshop to assess how to live while releasing less than 2 t of CO<sub>2</sub> per year / person.









01.

# Economy & Governance

- 1.1 *Aluminium Dunkerque our Governance*
- 1.2 *Sales strategy - Customer relations*
- 1.3 *AS1 and ISO certifications*
- 1.4 *Responsible purchasing and sustainable partnerships with our suppliers*
- 1.5 *Monitoring financial penalties and sanctions*





# 01. Economy & Governance

## 1.1

### Aluminium Dunkerque

#### ➤ OUR SHAREHOLDER A SHAREHOLDER-PARTNER ROOTED IN THE INDUSTRIAL ECONOMY

American Industrial Partners (AIP) is a private equity firm founded in 1989 that focuses on buying and improving industrial companies operating in domestic and international markets. The AIP team is deeply rooted in the industrial economy and manages around 10 billion dollars of private equity for financial institutions. Committed to corporate responsibility, AIP integrates financially relevant social and environmental considerations throughout the life cycle of each investment.

**American Industrial Partners, owner of Aluminium Dunkerque and a major supporter of sustainable industrial growth**

#### ➤ OUR COMPANY VIRTUOUS ALUMINIUM FOR A SUSTAINABLE PLANET

The last major European primary aluminium production plant in France, Aluminium Dunkerque is specialised in the production of slabs and ingots in a wide variety of alloys for high added value applications in the automotive, transport and packaging sectors in particular. A major primary aluminium production player, the production site has been based at Loon-Plage in northern France since 1991, at the heart of an area that is now strongly committed to decarbonising its industries.

The plant has 4 sectors:

- ▶ The Carbon sector that produces the anodes
- ▶ The Electrolysis sector, where the primary aluminium is produced
- ▶ The foundry that casts the slabs and ingots
- ▶ The Maintenance sector that maintains and operates the site utilities.

One of the world leaders in low carbon aluminium production, Aluminium Dunkerque has reduced its scope 1 and 2 emissions by 17% since 2013, and our greenhouse effect gas emissions are four times lower than the global average for the sector. Based on those achievements, the company intends to play a major role in European low-carbon aluminium production for the benefit of our customers and our communities. It is stepping up its energy and environmental transition as part of an ambitious decarbonisation project called LowCAI (Low Carbon Aluminium).

#### ➤ OUR RAISON D'ÊTRE

To sustainably produce low carbon aluminium in France for new consumer modes and mobility to create a world that is more respectful of the planet and those who live on it.





## ➤ KEY FIGURES



**+ 750**

employees



**450 Mw**

of electricity consumed  
(low-carbon)



**+ 850 M€**

Turnover



**65 ha**

surface area



**+ 300,000**

metric tons of aluminium  
produced per year



**50 M€**

of annual investments









## Aluminium, a strategic metal for the environmental transition



## ➤ ALUMINIUM, A STRATEGIC METAL FOR THE ENVIRONMENTAL TRANSITION

Demand for aluminium products, or products which contain aluminium, continues to grow year on year. Aluminium is gradually replacing other materials thanks to a unique combination of properties that make it a **strategic raw material for the environmental transition**.

**Three times lighter** than steel or copper, aluminium makes it possible to considerably reduce product weight, especially that of motor vehicles, in which the proportion of aluminium is continuously and significantly increasing.

**Very strong mechanically**, and naturally protected from corrosion, aluminium is also completely leak tight, even when very thin. Odourless and tasteless, it provides a strong, lightweight, leak tight casing that is highly appreciated, especially by the food packaging sector.

On the thermal side, it is used in many cooling systems. With twice the electrical conductivity of copper for the same weight, it is widely used in long-distance, high-voltage electricity transport applications.

- ▶ Malleable, it can be worked at low temperatures and shaped without breaking, making it possible to give it a wide variety of shapes.
- ▶ It improves the energy efficiency of towns and buildings in a world where energy is becoming scarce.
- ▶ It protects food and medication thanks to its unique sealing and barrier properties.

Finally, aluminium is 100% recyclable without any loss of its properties. Recycling, which requires only 5% of the energy used to produce it as a primary metal, is perfectly in line with the development of a low-carbon circular economy.







**AIP – A committed shareholder, driving our sustainable social, environmental and industrial progress.**





# 01. Economy & Governance

## 1.2

### *Sales strategy - Customer relations*



**Aluminium actively  
contributes to the transition  
to a greener planet**



## WHY ALUMINIUM IS A STRATEGIC METAL FOR THE ENVIRONMENTAL TRANSITION



### ➤ ENDLESSLY RECYCLABLE

Its recycling uses very little energy (5% compared to primary production).



### ➤ COMPATIBLE WITH LOW-CARBON PRODUCTION

When it is produced with decarbonised electricity, its impact is greatly reduced.



### ➤ LIGHTWEIGHT AND STRONG

It reduces vehicle weight and therefore CO<sub>2</sub> emissions.



### ➤ IMPROVES THE ENERGY EFFICIENCY OF BUILDINGS

Aluminium frames can easily be fitted with triple glazing or reinforced insulation glazing.



### ➤ EXCELLENT CONDUCTOR

Used in electric cables, batteries and renewable energy systems.



### ➤ PROTECTS AND PRESERVES

Ideal for food and pharmaceutical packaging, while remaining recyclable.



# Maintaining a sustained level of commercial relations with our customers

## HIGHLIGHTS

- ▶ Renewal of the IATF\* certification
- ▶ Purchase of equipment for the production of high-purity aluminium

## SALES GROWTH

2024 was a historic year for Aluminium Dunkerque: a record 284,000 metric tons of alloy slabs and ingots were sold to our customers!

Over 30 customers have put their trust in us and expressed an exceptional level of satisfaction (4.88/5)!

## KEY FIGURES



**284 Kt / 774 m€**

of value-added products, an all-time record for Aluminium Dunkerque!



**31**

customers in 14 countries



**50%**

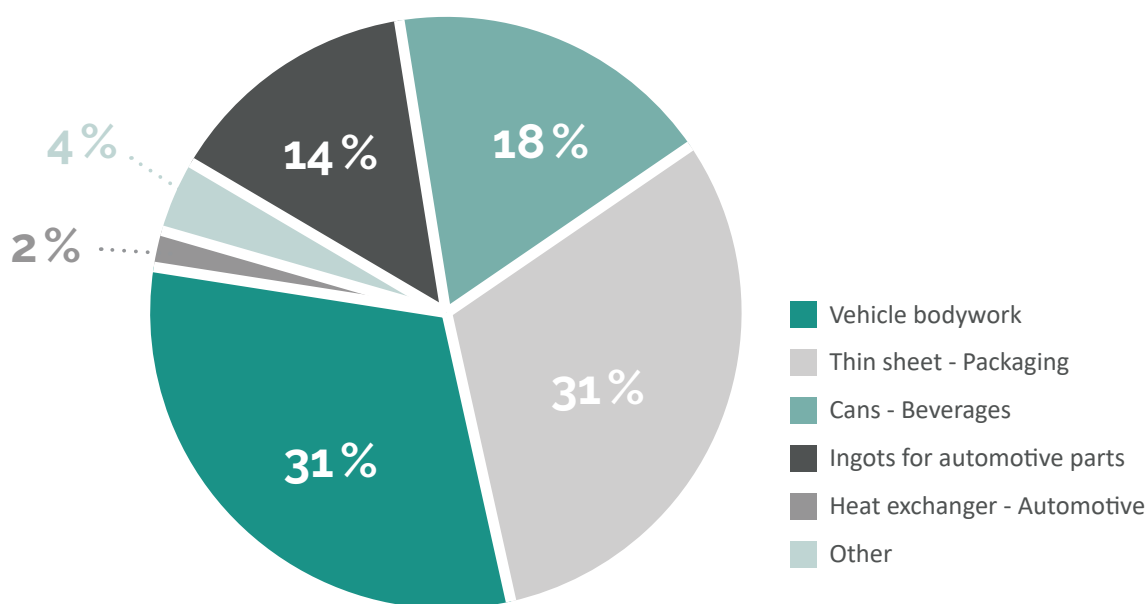
of our sales are to the automotive market



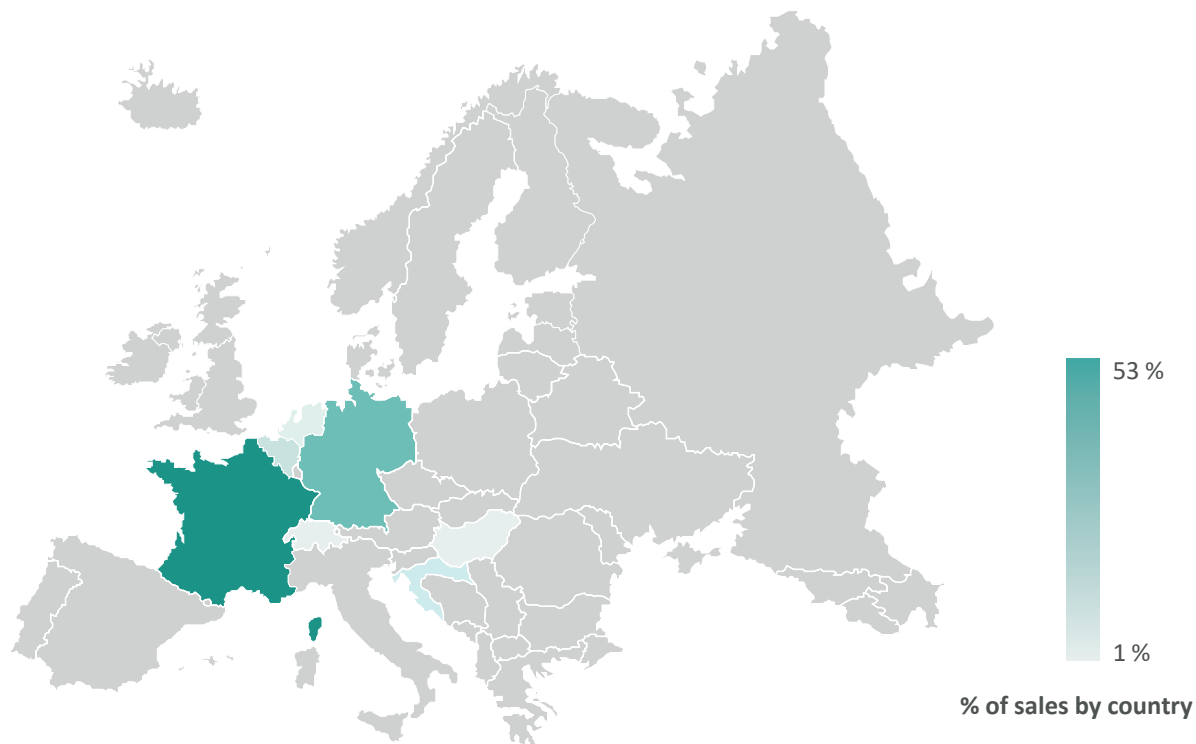
**4.88/5**

customer satisfaction score

## SALES BY PRODUCT - 2024







## RENEWAL OF THE IATF\* CERTIFICATION

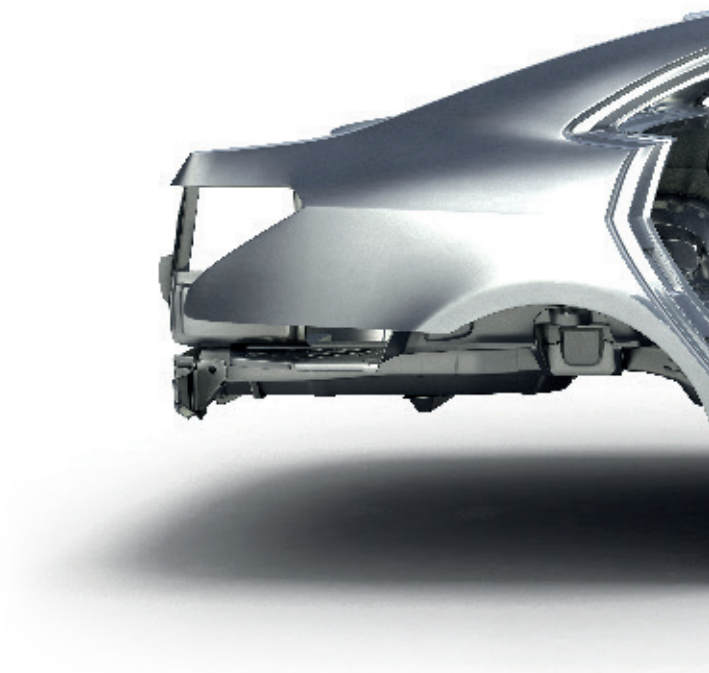
**IATF 16949** certification guarantees a high level of quality in the manufacture of products for the automotive industry. It encourages continuous improvement, the prevention of defects, and the reduction of waste, while meeting customers' growing demands in terms of sustainability. By harmonising quality standards on a global scale, this standard supports more responsible, more reliable production geared towards a low-carbon future.

This demanding automotive industry label illustrates Aluminium Dunkerque's commitment to serving automotive suppliers with the highest standards of quality and service.

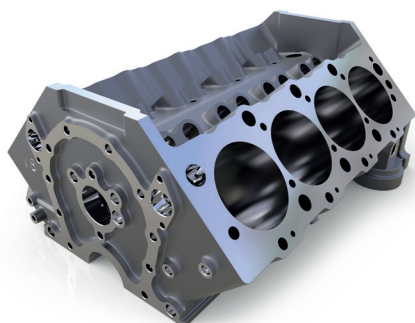
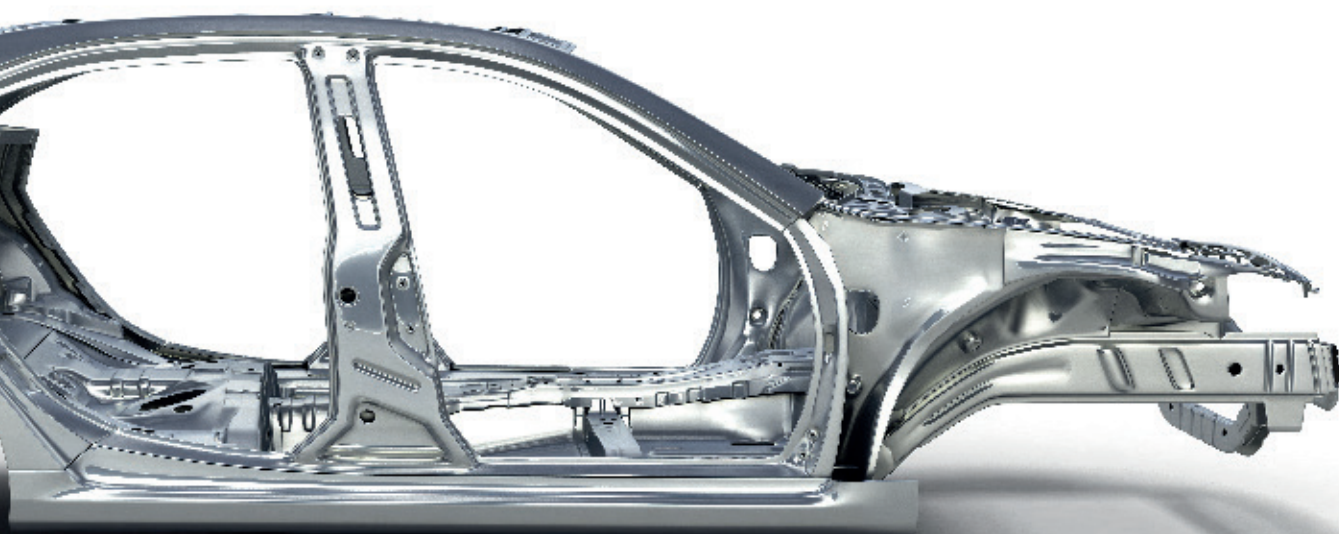
\* International Automotive Task Force

**Decarbonisation is identified as a key issue by 88% of customer satisfaction surveys**













# 01. Economy & Governance

## 1.3

### *ASI and ISO certifications*

#### ➤ **ASI ALUMINIUM STEWARDSHIP INITIATIVE PERFORMANCE STANDARD and ISO**

Aluminium Dunkerque maintained all its ISO and ASI\* (Aluminium Stewardship Initiative) certifications in 2024. The ISO 14001 (environment), ISO 50001 (energy) and ISO 9001-IATF Quality audits (follow-up 2) were successfully completed with no major non-conformities.

Aluminium Dunkerque's integrated management system, based on those standards and on solid governance, actively contributed to the site's performance.

Energy performance thus reached record levels in 2024, especially in the electrolysis and carbon sectors.

Customer satisfaction has been maintained at a very high level.



#### **ASI certification: producing aluminium responsibly**

The ASI (Aluminium Stewardship Initiative) certification guarantees that our aluminium is produced with respect for the environment, human rights and the industry's ethical rules.



#### **Why is that important for our customers?**

Because they want sustainable, traceable and responsible aluminium, in line with their CSR commitments.

ASI certification is a guarantee of confidence for them... and for the planet.







**A certified site,  
people permanently  
committed to a  
responsible future.**

🖱 The certificates are available on our website: <https://www.aluminiumdunkerque.fr/certification/>









# 01. Economy & Governance

## 1.4

### *Responsible purchasing and sustainable partnerships with our suppliers*

#### ➤ 2024 HIGHLIGHTS

- ▶ Objective: 90% of purchases made from suppliers committed through their own responsible sourcing charter or that of Aluminium Dunkerque.

Access to our responsible purchasing charter and general and corruption codes of conduct can be found in the appendix on p 107

- ▶ Redesign of our supplier pre-qualification questionnaire to reinforce CSR\* issues.
- ▶ Set up of an enhanced audit reference for Tier 1 suppliers, with a special focus on CSR\* issues.
- ▶ Transfer of stock between Aluminium Dunkerque and our stockholder by rail, replacing road transport, in order to reduce the carbon footprint.
- ▶ Continuation of studies looking into transporting our products by sea or river.

\* Corporate Social Responsibility.

#### ➤ 2024 KEY FIGURES



# 90 %

*of our purchases are from committed suppliers*



# 21

*audited suppliers*



# 62.4%

*sustainable transport of our products, with a target of 61% (rail and rapeseed oil)*



# 8,127 t CO<sub>2</sub>

*avoided Carbon footprint for rail freight*

**Optimisation of our finished product transport to our customers to limit their carbon impact**



## ➤ OUR NEW TIER 1\* SUPPLIER AUDIT STANDARD:

In 2024, the Purchasing team audited 21 Tier 1 suppliers. Those audits marked the gradual roll-out of the new standards, especially including the company's CSR pillars. To strengthen reasonable diligence, especially in sensitive, conflict or high-risk zones, the team drew on the expertise of a recognised external service provider in this field.

We can now highlight our suppliers' commitment to issues such as decarbonisation, environmental protection, natural resources and human rights.

No significant discrepancies were found.

This new standard now allows us to discuss and challenge our suppliers on the CSR issues associated with their own value chain.

Aluminium Dunkerque is committed to combating modern slavery, and that aspect is included in every audit.

We are fully aware of our duty of care towards our suppliers.

a. Aluminium Dunkerque is committed to fighting modern slavery (forced labour). That commitment is formalised in our general code of conduct which we communicate internally and make available to all our partners. The site has a reasonable diligence management system to manage that risk.

b. We are also committed to using our influence to prevent abuses by others through risk-based Due Diligence of the supply chain, implementing the OECD's five-step framework for responsible supply chains of minerals from Conflict-Affected and High-Risk Areas.

*\* A Tier 1 supplier is a direct partner of the company, delivering products or services without an intermediary*

## ➤ DECARBONISATION OF OUR DOWNSTREAM SCOPE 3 (TRANSPORT OF PRODUCTS SOLD TO OUR CUSTOMERS)

At our service provider recognition ceremony, our service provider SDMT was awarded a distinction with a decarbonisation award.

## ➤ COLLECTION AND ANALYSIS OF OUR SUPPLIER QUESTIONNAIRES

The questionnaire includes an answer assessment system to check compliance with our requirements, including those relating to CSR.

In the event of drifts, additional investigations are conducted which may go as far as auditing the supplier. In the event of significant breaches of human rights or environmental requirements, a supplier's pre-qualification procedure may be suspended. No such cases were reported in 2024.

## ➤ OUR ACTIONS IN 2025 AND BEYOND

- In-depth analysis of the risks associated with raw materials, including a CSR dimension.
- Assessment of scope 3 upstream and downstream of our transport activities (raw materials and finished products) in order to identify leverage to reduce CO<sub>2</sub> emissions.
- Continuation of supplier audits, with greater focus on geographical areas with sensitive CSR issues.

**Aware of our role, we rigorously exercise our duty of care towards our suppliers.**













➤ **STOCK TRANSFER BETWEEN  
ALUMINIUM DUNKERQUE  
AND OUR STOCKIST**

**NOW PROVIDED BY RAIL,  
REPLACING ROAD TRANSPORT,  
TO REDUCE OUR CARBON  
FOOTPRINT.**





# 01. Economy & Governance







## 1.5

### *Monitoring financial penalties and sanctions*

#### ➤ ENVIRONMENTAL LAW

In 2024, the site was not subject to any environment-related financial penalties.

#### ➤ LABOUR LAW

In 2024, we were handed out a 25 k€ penalty under the regulations relating to the agreement on professional equality between men and women.

Aware of the stakes, we will be launching a new drive from 2025 and for the years to come. A strengthened and adapted organisation will be set up with dedicated human and financial resources, to ensure the effective implementation of our action plan in favour of professional equality between women and men at Aluminium Dunkerque.





## 02. Environment

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- **2.1** *Our Energy Climate sustainability commitments*
- **2.2** *GHG - Decarbonation strategy*
- **2.3** *Energy efficiency*
- **2.4** *Our environmental performance*













## Aluminium Dunkerque, an industrial benchmark looking to a sustainable future

### ➤ A COMPANY THAT ACTS FOR THE PLANET

Aluminium Dunkerque is committed to reducing its CO<sub>2</sub> emissions and water consumption by 30% by 2030, to constantly improving control of its atmospheric emissions, to achieving a target of zero non-recycled waste by 2050, to protecting biodiversity and to favouring low-carbon transport modes such as rail for our products and car-pooling for our employees.



## 2.1

### Our Energy Climate sustainability commitments

Aluminium Dunkerque has stood out for its pioneering spirit since 1991, combining industrial performance with respect for the environment. The strong commitment of senior management and employees is at the heart of this driving force. The company is stepping up its efforts to limit its impact through an ambitious decarbonisation strategy, the reduction of its greenhouse gas emissions, the optimisation of its energy efficiency, and the control of its consumption. As a locally-based company, it attaches great importance to listening to its stakeholders and protecting its local environment. Aluminium Dunkerque thereby intends to play a leading role in the transition to a sustainable future.

#### 2024 HIGHLIGHTS

- ▶ Signature of an ENGIE contract for 25% of our needs over the 2026-2029 period. This contract includes Guaranteed Origin (GO) renewables.
- ▶ Use of Guaranteed Origin biomethane
- ▶ Sustainable optimisation of specific electricity consumption
- ▶ The "Energy and Climate Integrator" position is created in the department
- ▶ Non-financial criteria taken into account when selecting projects

#### KEY FIGURES



**1500 t**

*less CO<sub>2</sub> through the purchase of biomethane*



*Specific electrolysis consumption*

**< 13MWh/t**  
*aluminium produced*



**0 notable**  
*environmental incidents*

#### A LONG-TERM ELECTRICITY CONTRACT

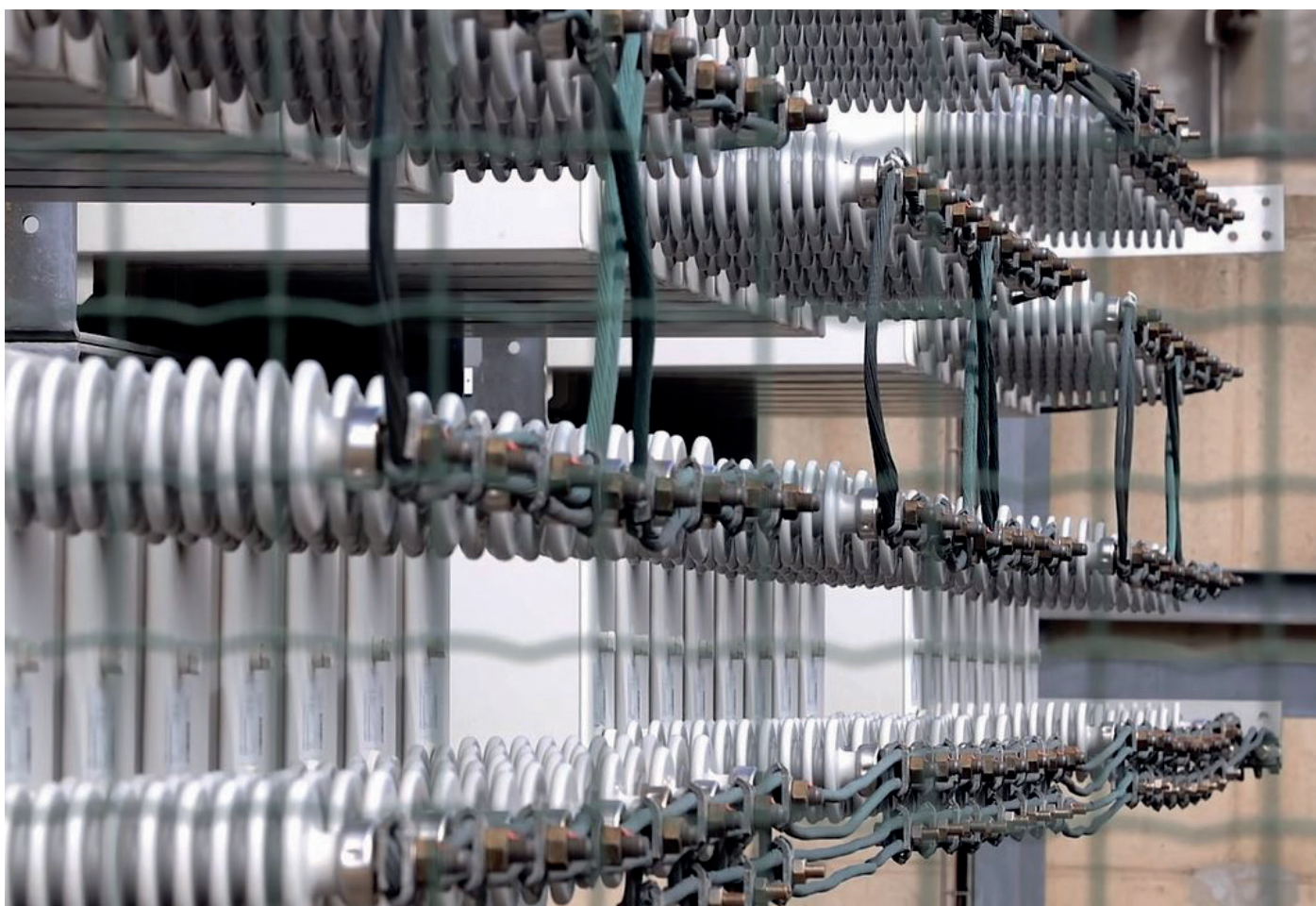
##### Our actions in 2024

We are an ultra-high electricity consumer, which means that the price of electricity has a huge influence on the company's results. As was the case at the company's beginnings, we need one or more long-term contracts to give us visibility so that we can invest in our decarbonisation projects. In 2024, we signed a contract with Engie that can cover up to 25% of our supply needs for a period of 4 years. The contract has the particularity of including renewable production volumes with consumption profiles that differ from the "classic baseload" volumes on the market. Four years is not really a long-term contract, but it is a first step that will encourage others.

##### Our plan, project 2025 and beyond

Following on from the ENGIE contract, we are in discussions with other parties to improve our cover over a longer period while remaining as carbon-free as possible.





## **ENERGY FLEXIBILITY**

Energy flexibility, key leverage for an electricity cost sensitive site. For an ultra-high electricity consumer site such as ours, energy flexibility means adapting our electricity consumption to the availability of energy on the grid. That means reducing our consumption during peaks in demand for example, or shifting it to times when electricity is more abundant and often greener.

Those actions help to better balance the electricity grid, limit the use of polluting power plants during high demand periods, and therefore reduce greenhouse gas emissions. They also participate in including renewables, which are variable by nature, by making our consumption more responsive and smart.

In short, energy flexibility allows us to consume more responsibly while actively contributing to the energy transition.

### **Our actions in 2024**

- +10MW participation in the so-called "rapid reserve" flexibility mechanism, which is a back-up mechanism to guarantee the integrity of the grid
- Doubling of our load shedding capacity as part of the capacity mechanism
- Peak/off-peak modulation to help balance the system, which has an increasing proportion of renewable but intermittent energy sources.

### **Our plan, project 2025 and beyond**

- Seek to highlight our consumption flexibility regarding CO<sub>2</sub> emissions (scope 2)
- Increase peak/off-peak modulation.
- Increase participation in the secondary reserve
- Include the entire plant in the flexibility mechanism rather than just the electrolysis sector (which accounts for 90% of our electricity consumption)



OBJECTIVES AND MAIN ACTIONS:

TARGETS:



## CO<sub>2</sub>

### Decarbonisation strategy:

- ▶ Capture
- ▶ Breakthrough technology (inert anodes)
- ▶ Operational control (net carbon - anode effects - natural gas consumption)
- ▶ Energy efficiency

**2025**

< than 1.79 t CO<sub>2</sub>e/t Al

**2025**

-5% (scope 1+2+3)

**2030**

-30%  
(scope 1+2+3)

**2050**

-70% (scope 1+2+3)

\*Reference 2019



## Water

### Monitoring:

- ▶ Measure and manage our water consumption (potable and industrial)
- ▶ Define water management and supervision roles and responsibilities

### Hunt for leaks and wastage:

- ▶ Regular network audits and reactions in the event of drifting consumption

### Recycling of our water:

- ▶ Identification and implementation of recycling projects (REUSE)

### New technology:

- ▶ Adiabatic cooling towers
- ▶ Automation of our cooling circuit purges

**2025**

244,227 m<sup>3</sup>

**2025**

20% reduction\*

**2030**

30% reduction\*

\*Reference 2019



## Biodiversity

### Inventory:

- ▶ Inventory of fauna
- ▶ Inventory of flora

### Challenge analysis:

- ▶ Flora-related challenges
- ▶ Phytoecological challenges
- ▶ Fauna-related challenges

### Mapping:

- ▶ Creation of GIS (Geographic Information System) mapping

### Ecosystem service analysis:

- ▶ Drafting of a strategy and actions

### Implementation of the actions

**2025**

30% of the plan in place

**2026**

Obtain the Companies committed to nature label

**2030**

100% of the action plan completed



## Stakeholders

### Foundry dust:

- ▶ More reliable foundry furnace door capture system
- ▶ In-depth analysis of our operational practices
- ▶ More reliable measurement for a more representative process
- ▶ Continuous measurement probes to support operational excellence on furnaces

### Nickel in the water:

- ▶ Reduction at source
- ▶ More reliable road cleaning and rainwater collection network

### Regulatory compliance:

- ▶ New organisation and leadership in the sectors

### Complaints from local residents:

- ▶ NOISE study, identification of the sources and the solutions to implement to reduce noise pollution

**2025**

1 recurrent NC\*

**2030**

0 recurrent NC\*

\* NC: Regulatory non-compliance with our operating licence





## Waste

### Operational excellence:

- ▶ Reduction at source
- ▶ Raise awareness of good sorting practices among our staff and contractors
- ▶ Regular sorting quality audits on all our skips

### Recovery channels:

- ▶ Identification of recycling sources for waste currently landfilled

- ▶ Identification of new recycling channels

- ▶ In-house recycling partnership

### Qualification of our waste:

- ▶ Audit of our waste processing channels
- ▶ Precise characterisation of our waste

### Technology watch - R&D:

- ▶ New refractory and carbonaceous liner and other contaminated liner recycling technique

**2025**

75 % of our waste recycled

**2030**

85 % of our waste recycled

**2050**

0 non recycled waste





02.

## Environment – GHG

### 2.2

## GHG - Decarbonation Strategy

### ➤ 2024 HIGHLIGHTS

#### ► Launch of the C4Capture Consortium

Aluminium Dunkerque joined the C4Capture consortium dedicated to developing industrial scale CO<sub>2</sub> capture solutions.

#### ► Adaptation to climate change

A climate vulnerability study was conducted on site to identify climate change-related risks and anticipate the necessary adaptation measures.

#### ► Transport and storage of CO<sub>2</sub> -

##### Feasibility study with Natran (ex-GRTgaz)

As part of the ZIBAC (Zone Industrielle Bas Carbone or Low Carbon Industrial Zone) funding for the Dunkirk area, Aluminium Dunkerque contributed to the feasibility study for a CO<sub>2</sub> transport network piloted by Natran. The study made it possible to define the route of a CO<sub>2</sub> collection network between the various industries in the area, a key step in the implementation of the site's carbon capture project.

#### ► Tank maintenance - installation of scales to

##### improve the reliability of net carbon measurement:

In order to improve the reliability of its GHG emission measurements relative to anode consumption, the main source of CO<sub>2</sub> emissions (scope 1), Aluminium Dunkerque has equipped itself with a measuring scale to weigh the anode butts from the electrolysis series and thus track the material flow. The equipment will make it possible to increase measurement frequency and improve our knowledge of anode deterioration factors.

#### ► Climate Fresk training:

Aluminium Dunkerque intends to speed up its transition by mobilising 100% of its employees through a wide-ranging training programme based on the "Climate Fresk" workshops, an educational tool designed to explain the ins and outs of climate change. This drive has made it possible for employees to take ownership of the site's LowCAI decarbonisation strategy and the impact of their investment in this transition.



Climate Fresk training





## Recycling aluminium means shaping the future while reducing our carbon footprint

### ► Start of the works on Furnace 8

The purpose of Furnace 8 is to increase the site's primary aluminium production capacity by 20kt by adding recycled metal. This increase in production will significantly reduce the site's carbon intensity. Work began in March with the installation of the framework, the new stack, the civil engineering to house the furnace, and the storage building to the south of the foundry. The first operations will be in 2025.

### ► KEY FIGURES



**-7%**

CO2 eq emissions (scope 1 + 2 since 2019) of 49,919 tCO2 or the equivalent of the annual carbon footprint of 25,000 vehicles



**-6%**

CO2 eq emissions (scope 1 since 2019)



**+20KT**

of annual production capacity from recycled aluminium



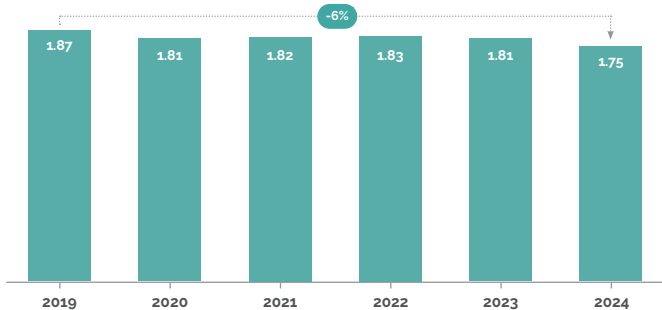
**100%**

employees trained on the Climate Fresk



## > 2024 CO<sub>2</sub> EQ SCOPE 1 PERFORMANCES

emissions\* of scope 1 CO<sub>2</sub> eq in metric tons/t Al since 2019



\* data certified under EUETS regulations by an accredited verifying body

## > CARBON CAPTURE

### ▶ CCUS technology: a way forward for Aluminium Dunkerque

At Aluminium Dunkerque, we are actively seeking the most innovating solutions to reduce our carbon footprint. Among those, CCUS (Carbon Capture, Utilization and Storage) technology is promising.

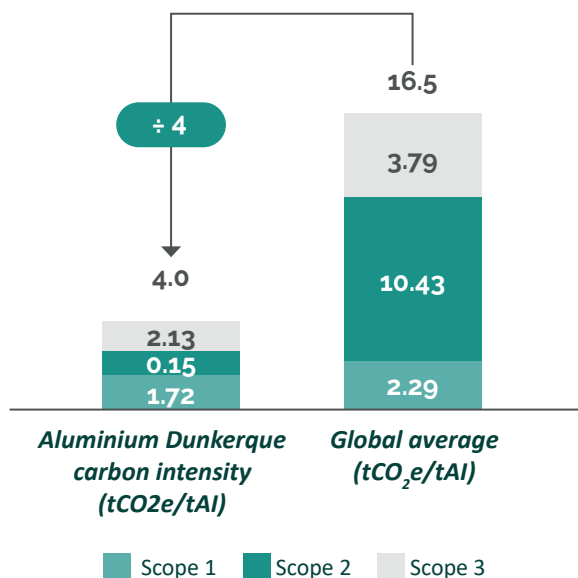
It involves capturing the carbon dioxide (CO<sub>2</sub>) emitted by our industrial activity before it is released into the atmosphere. That CO<sub>2</sub> can then be safely stored underground or reused by other industrial processes. As an ultra-high electricity consumer site committed to decarbonisation, we see CCUS as an essential complement to our energy efficiency efforts and the inclusion of renewables. In the long term, the technology could enable us to reduce our greenhouse gas emissions even further and to play an active part in building a more sustainable future for our region and our industry.



In 2024, Aluminium Dunkerque **joined the C4Capture consortium**, Collaboration for the Concentration and Capture of CO<sub>2</sub> in the Aluminium sector, which groups several French major primary aluminium industry players, began its works.

The engineering and design stages were completed so that prototypes can be started in 2025. In 2024, the project was presented at the Aluminov' annual conference, of which the edition covered decarbonisation. All the members collectively presented the technical challenges to be overcome to industrialise the technology.

## > Scope 1+2+3 CO<sub>2</sub> EQ EMISSIONS



Source: Carbon footprint calculation for the year 2024 by RDC Environnement and Pilario. Scope 2 was calculated using a market-based methodology. The calculation was independently verified.





**ALUM**innov'

► **Our plan, project 2025 and beyond**  
2025 will be decisive for the project, with the start-up of the prototypes to validate the carbon capture technology for emissions from the electrolysis pots.





## ➤ ADAPTATION TO CLIMATE CHANGE

### ► Our actions in 2024

The extreme weather events of recent years, including flooding in the Calais area, prompted Aluminium Dunkerque to study the site's exposure to future climate-related hazards. The company called on Carbone 4, renowned for its expertise and for its OCARA methodology. This risk analysis tool studies the convergence of factors linked to the criticality of operations, their levels of exposure to climate-related hazards, and the level of change in climate-related hazards depending on time horizons and the global warming scenarios drawn up by the IPCC.

Initially, the site chose to study the impacts on the site (scope A) and on nearby stakeholders (scope B). The analysis allowed the site to understand the associated challenges and the risk level on the site, and to initiate a transformation process.

### ► ASI alignment (Aluminium Stewardship Initiative - performance standard)

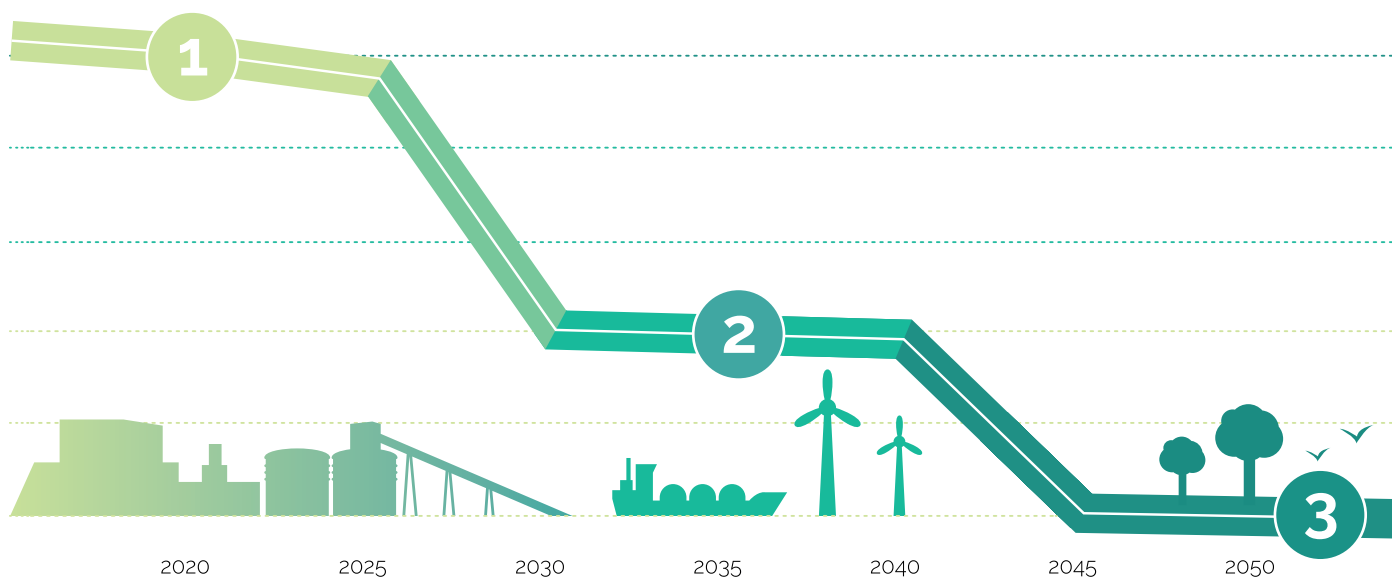
Aluminium Dunkerque's emissions reduction trajectory is aligned with the trajectory proposed by the ASI methodology, which aims to reduce emissions in line with a global warming scenario of +1.5°C. The site's carbon budget will thus be respected over the entire period up to 2050.

### ► Our plan, project 2025 and beyond

In 2025, Aluminium Dunkerque wants to carry on its risk analyses by broadening the scope of the analysis to its value chain and raw materials, and by working closely with local stakeholders to increase its maturity on the challenges and risks of such a change.

Furthermore, it will provide input for in-house thought processes on structuring an action plan for the coming years to arbitrate and anticipate the investments needed to ensure the long-term future of the activities.





## 2025 IMPROVE

### 100% mobilised

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

### -5% by 2025

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

## 2030 ACCELERATE

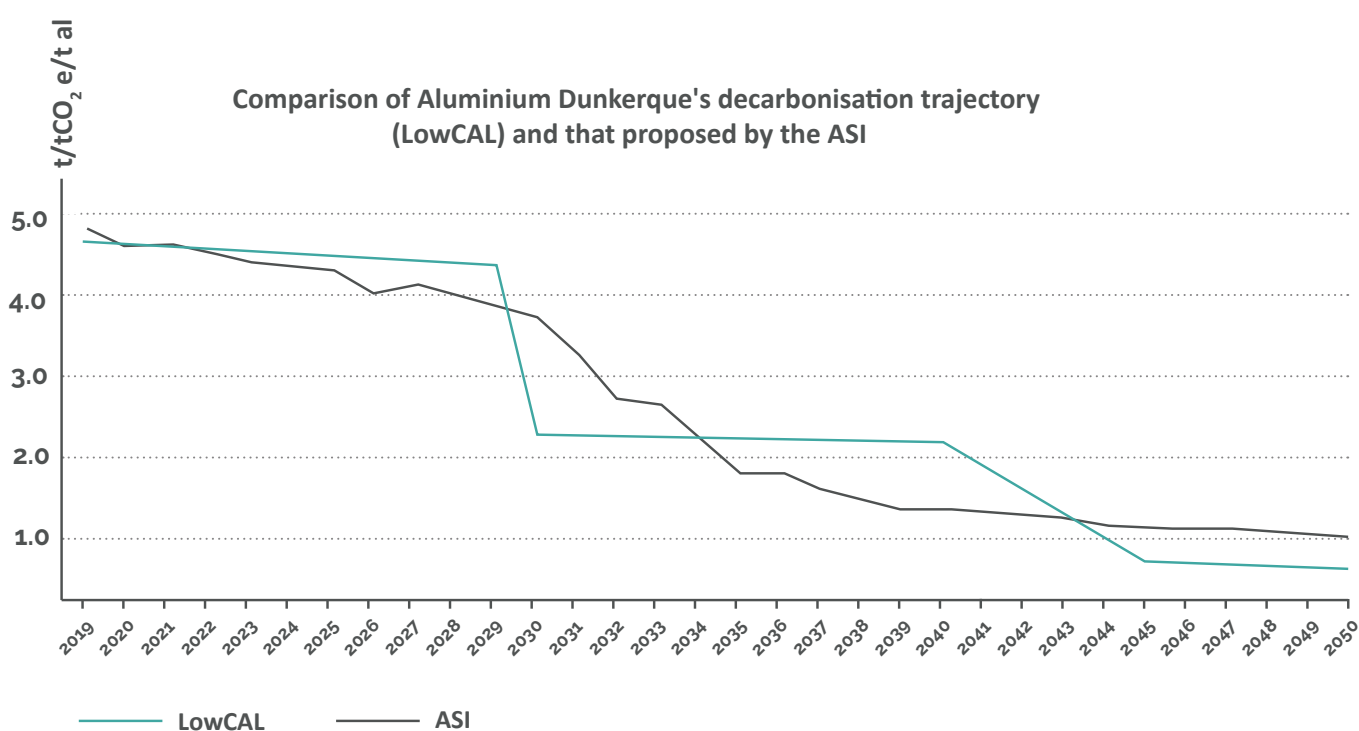
### -30% SCOPE 1,2,3

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

## 2050 ACHIEVE

### -70% SCOPE 1,2,3

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







02.

## Environment – *Energy*

**On an ultra-high electricity consumer site like ours, every kilowatt-hour counts: which is why energy efficiency is at the heart of our sustainable performance strategy**





## 2.3

### *Energy efficiency*


#### > 2024 HIGHLIGHTS

- ▶ The site's best ever performance since its creation!
- ▶ A 5% reduction in natural gas consumption in the baking furnace
- ▶ Deployment of energy efficiency projects across the sectors

#### > KEY 2024 FIGURES:

 **3.97TWh**  
*of electricity consumption*

**240 GWH**  
*of natural gas consumption*

 **12,989 kWh/metric ton of aluminium**  
*Electrolysis series energy efficiency (electricity consumption)*

 **807 kWh / t baked anodes**  
*Anode baking furnace energy efficiency*





### ► OPERATIONAL EXCELLENCE AND INITIATIVES - ANODE BAKING FURNACE

2024 had excellent gas consumption results for the baking furnace, while maintaining anode quality. The operational commitment delivered the best performance since 2013 (when the new furnace was commissioned).

The specific consumption is 2.61 GJ/t of anodes (equivalent to 124 GWh of gas in 2024)

**A big data management project** has been launched alongside a number of partners. The method has made it possible to build a solid database, contributing to faster analysis of detected anomalies, while improving the process to **optimise the anode baking furnace energy performance**.

**Other tests and initiatives have been undertaken with the same energy performance objective:**

- A test run for high-performance solenoid valves
- A water injection test

All this work will have to continue in 2025 to guarantee new performance levels.





## ➤ ELECTROLYSIS POT OPERATIONAL EXCELLENCE

The electrolysis series (264 cells) accounts for 95% of the plant's electricity consumption, i.e. 3.8 TWh/year. It is therefore essential to optimise the daily energy consumption of each cell.

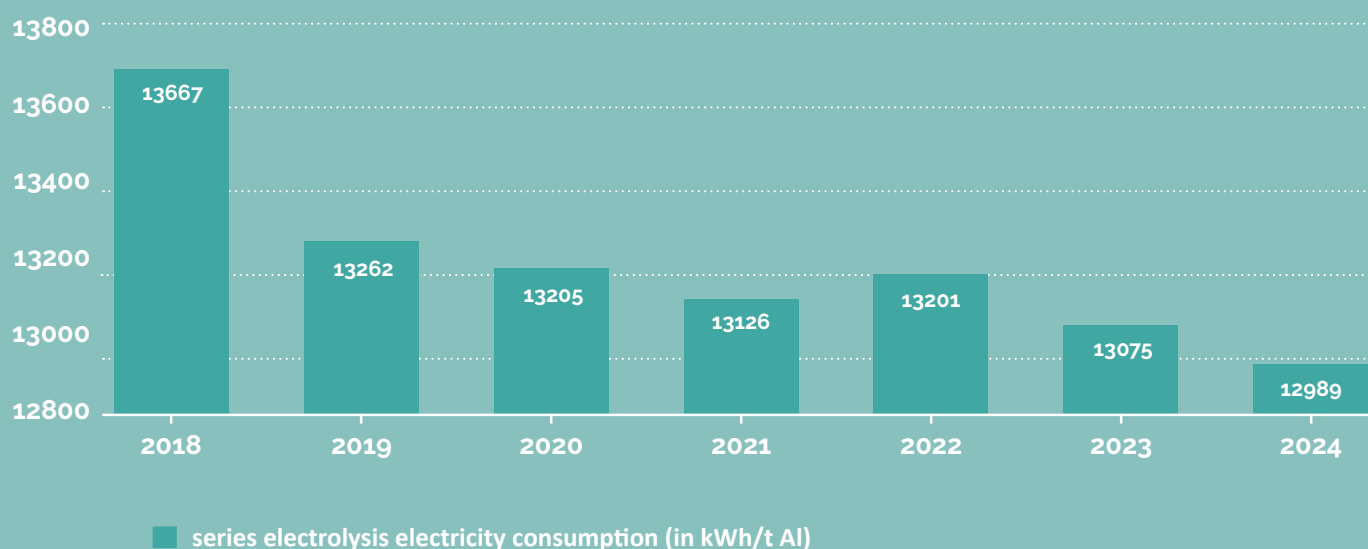
In 2024, specific consumption reached a record level at 12,989 kWh/t Al (the plant's best result since start-up in 1991).

Our operations, process and maintenance teams' operational excellence made it possible to achieve this remarkable performance, which is close to the world benchmark for this type of cell technology.

Projects to further reduce the cell energy consumption have been launched, such as enlarging the anode grooves, a new cap design, and modifications to the cell relining process.

Other field initiatives have also been conducted, such as greasing the rod connectors on the cell superstructure.

Over 5,000 connectors were brushed and then greased over a 2-month period. The resulting savings are estimated at 9,000 MWh. That operation will be scheduled annually to make sure the energy savings are maintained.







**A number of other energy efficiency or gas substitution projects were launched in 2024 (not all of which have been finalised):**

- ▶ The project to recover waste energy from the air compressors to heat the offices, warehouse and maintenance workshop.
- ▶ The electrification of anode log drying equipment in the sealing workshop.
- ▶ The partial electrification of the metal ladle and bath preheating workshop.
- ▶ The regulation of the oven and bar furnace in the cathode sealing workshop.

In addition to those projects, studies have been conducted on the recovery of waste energy, the installation of photovoltaic panels and shade screens in the car park, the installation of 12 electric vehicle charging points, and the installation of signage to indicate our energy consumption.







## 2.4

### Our environmental performance

#### > 2024 HIGHLIGHTS

- ▶ Water resources, in line with our 2024 reduction target - Commissioning of the first of our 4 adiabatic cooling towers
- ▶ Finalisation of our biodiversity strategy
- ▶ A rising waste recovery rate
- ▶ 20%\* reduction in our airborne dust emissions

\* Reference 2017

#### > 2024 KEY FIGURES



**80%**

reduction in water consumption for our first adiabatic tower



**12%**

reduction in our water consumption since 2019



**24%**

reduction in our dust emissions since 2017 (in kg/t al produced)



**71%**

of our waste is recycled



**100%**

of the biodiversity strategy is finalised







## 02. Environment – Water

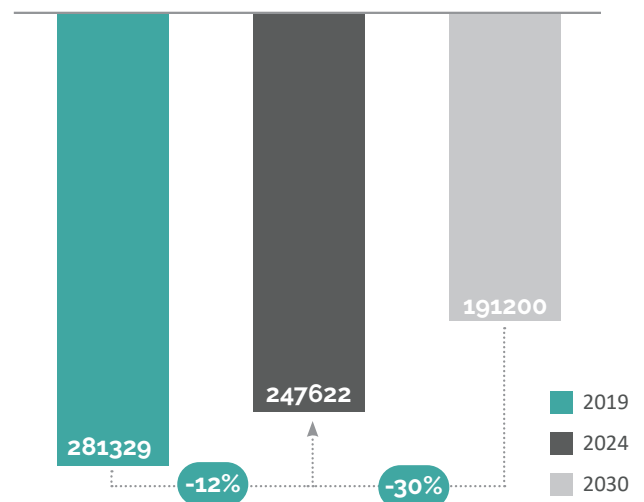




**Reducing our water consumption  
is essential to protecting the  
resource and adapting to the  
effects of climate change**

**➤ OUR AMBITION 30%\* REDUCTION  
IN WATER CONSUMPTION BY 2030**

Annual industrial + potable water  
consumption in m<sup>3</sup>

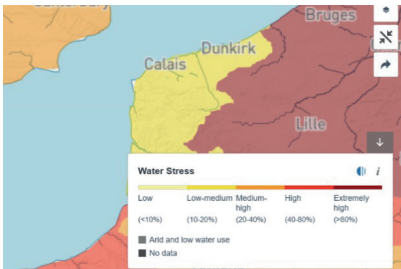


\* Reference year 2019 on total consumption of  
potable water and industrial water



Our site is located in a water stress zone classified as low to moderate, but it is surrounded by areas where the risk is considered very high.

**Through our actions, we are also contributing to protecting water resources for the benefit of neighbouring areas.**

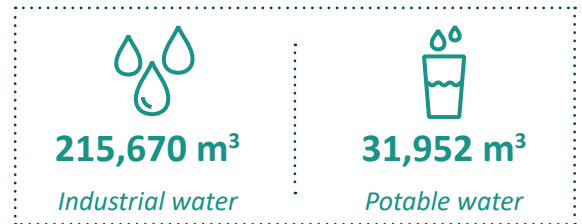


## **AQUEDUCT** WATER RISK ATLAS

 [Source website: Aqueduct](#)

### **OUR WATER RESOURCES AND THEIR USE**

**2024 consumption:**



### **OUR WATER CONSUMPTION**

**Site water consumption:**

Our water consumption complies with our prefectural operating authorisation.

### **OUR DIFFERENT USES OF WATER**

**Industrial water:**

- ▶ Cooling water for the anode manufacturing processes in the Carbon sector.
- ▶ Cooling water used to shape rolling slabs or cast ingots in the foundry sector.

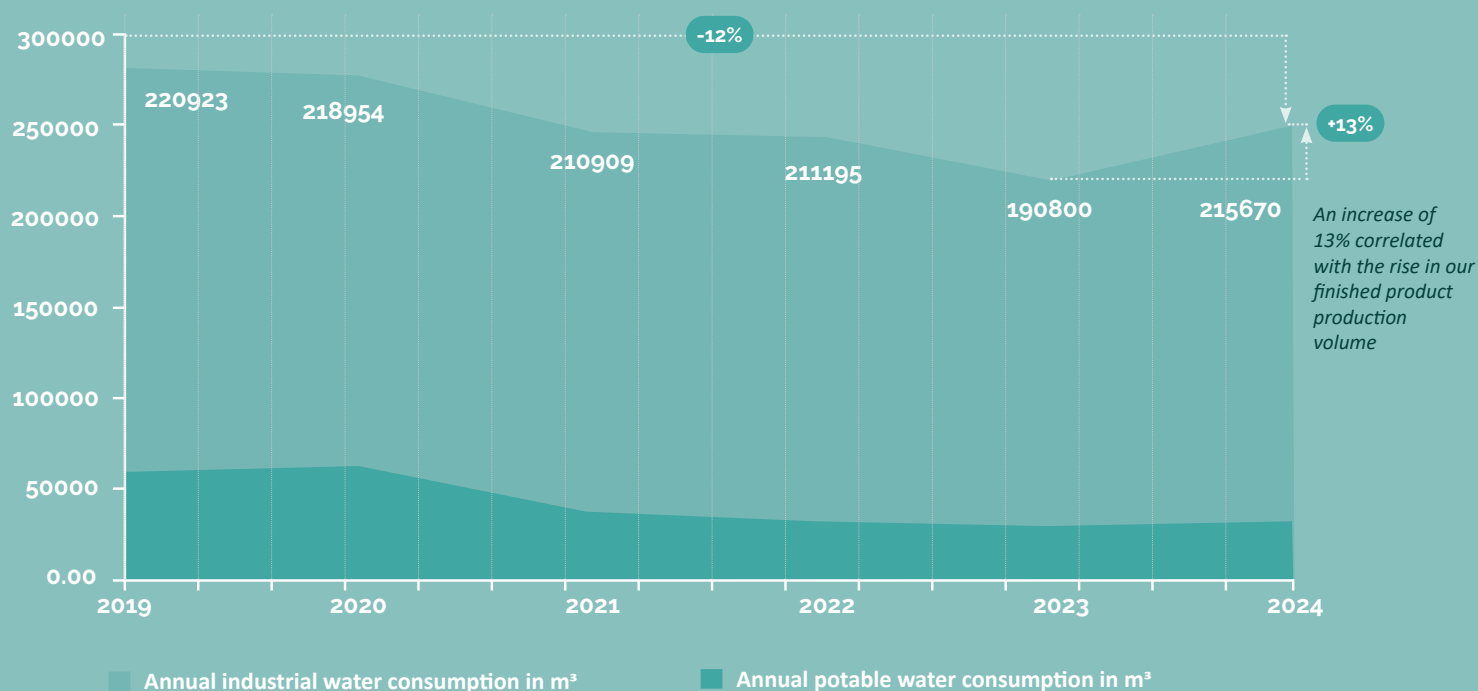
**Potable water:**

- ▶ Sanitary network water supply.
- ▶ Water fountains available to staff, changing room showers, toilets.
- ▶ Safety showers.
- ▶ Company canteen.
- ▶ Automatic watering of ornamental plants.
- ▶ Washing area for machinery and foundry moulds.
- ▶ Cooling of foundry refractory workshop saws.
- ▶ Fire-fighting water.
- ▶ Backup cooling water for the cooling tower, plant air compressors and junker furnace in the carbon sector.





Site WATER consumption in m³/year since 2019



## ► OUR ACTIONS IN 2024

- Launch of our first adiabatic tower
- Continued implementation of the new water treatment strategy (legionella bacteria control in our cooling circuits).
- Automation of carbon sector purges (sealing workshop), 2 cooling towers equipped.
- Improvement of the reliability of our site water treatment plant with the support of our new water treatment provider. This is a necessary first milestone in the project to recycle the unit's water. A saving of > 10,000 m³ per year is expected.
- Definition of specific performance targets for each site water-consuming sector.

## ► OUR PLAN, PROJECT 2025 AND BEYOND

- Monthly management of each water-consuming sector's performance
- Automatic purge of the site's cooling towers 100% deployed
- Scheduled commissioning of the site's 4 adiabatic towers
- REUSE project in the foundry sector finalised (recovery of filter washing water, an annual saving of at least 10,000 m³ is expected)

🖱 You can find the full WATER self-monitoring report sent to the authorities at the following address:  
<https://www.aluminiumdunkerque.fr/notre-strategie-rse/#politique-environnementale>







## 02. Environment – Air







## Aluminium Dunkerque is committed to controlling its emissions in order to protect air quality, general well-being, and the local environment

In a context of increased production (+7% in 2024 compared to 2023), we note that our control of our atmospheric emissions was maintained in terms of annual flows in 2024.

In 2024, the production of finished products was 279,541 metric tons.

**↓ 6%**

drop in our total fluorine emissions

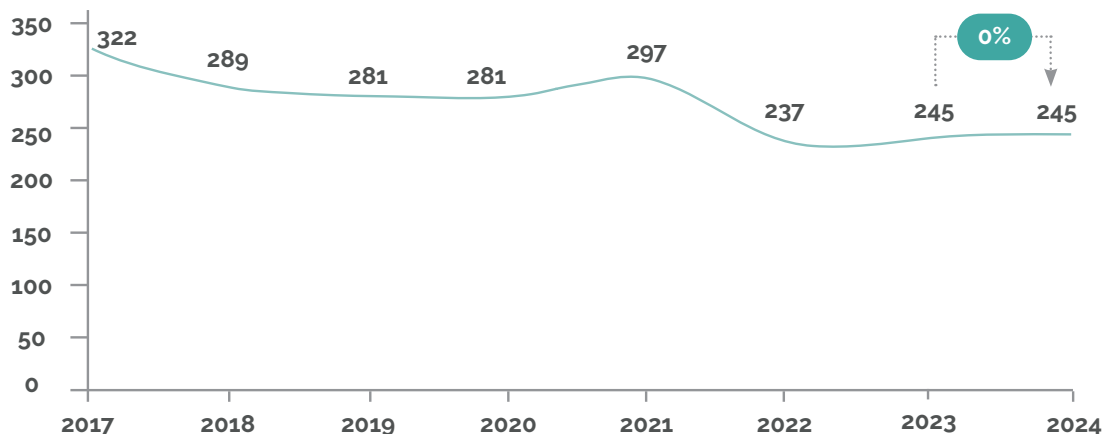
**↓ 6%**

drop in our total dust emissions in kg/t Al produced



## ➤ 2024, OUR MAIN ATMOSPHERIC EMISSIONS IN METRIC TONS PER YEAR

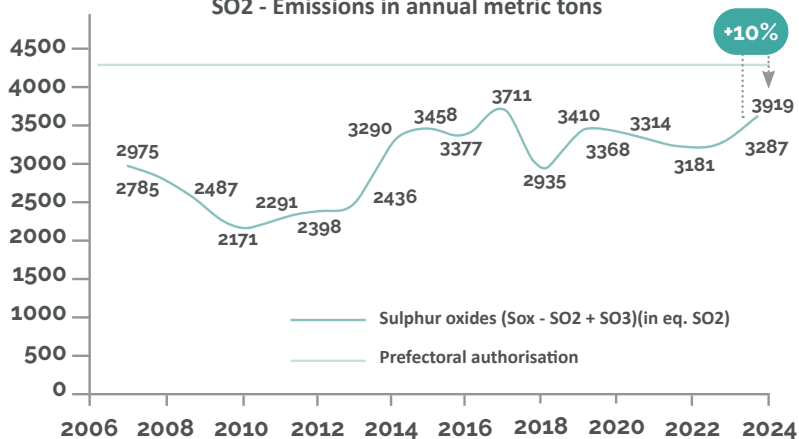
Total dust – Emissions in annual metric tons



Total fluorine (GTC + skylights + foundry + FAC bypass) - Emissions in annual metric tons



SO<sub>2</sub> - Emissions in annual metric tons

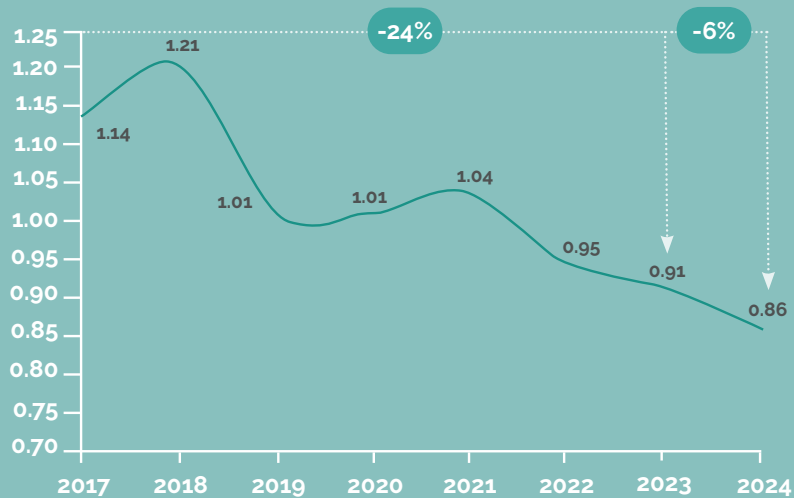


We are seeing a 10% increase in our SO<sub>2</sub> emissions. This increase is due to a higher percentage of sulphur in our raw materials (petroleum coke) in 2024. We remain compliant with our prefectoral authorisation.



## ➤ 2024, OUR MAIN ATMOSPHERIC EMISSIONS IN KG / METRIC TON OF ALUMINIUM PRODUCED

Total dust - Emissions in kg/t of aluminium produced



Total fluorine - Emissions in kg/t aluminium produced



SO<sub>2</sub> - Emissions in kg/t aluminium produced





## ➤ 2024 ATMOSPHERIC EMISSION ASSESSMENT:

### ► Our actions in 2024

- More reliable dust emission capture unit at the foundry furnace doors
- Continued operational excellence in the operation of our atmospheric emission treatment facilities
- Total fluoride: performance target of 0.46 kg/t Al with continuous measurement management
- Objective of maintaining 5 mg/Nm<sup>3</sup> for TAP filters and 10 mg for ancillary filters at all times, with monitoring of total filter media replacement schedules
- Continuation of the full filter sleeve replacement strategy on our GTC filters (7 filters scheduled in 2025)
- Launch of a technical study to continuously measure total dust emissions from the foundry furnace stacks
- Continuous dust measurements at the unloader with reporting to the supervision system, allowing for systematic maintenance to be carried out as quickly as possible and use of reinforced filter media
- More reliable representativeness of skylight measurements by extending the sampling duration

### ► Our actions in 2025

- Commissioning of a portable fluorine gas measuring device in the second half of the year
- Finalisation of the installation of measurement platforms for the ancillary filters with flow rates >10,000 m<sup>3</sup>/h. The 2 port alumina silos will therefore be equipped
- Continuous improvement of measurement and sampling methods

🖱 You will find the complete AIR self-monitoring report sent to the authorities at the following address:  
<https://www.aluminiumdunkerque.fr/notre-strategie-rse/#politique-environnementale>

**We continued to comply with our prefectural authorisation throughout 2024, except for the concentrations and flows of total dust in the foundry sector stacks (see p73 of this report detailing the ongoing compliance actions). However, since 2017 we have reduced our dust emissions by 24% in t/t Al produced.**

# We remained compliant with our prefectural authorisation throughout 2024













## Recycling our waste means taking concrete action to reduce our environmental impact

### ➤ WASTE RECYCLING

Thanks to the design of our processes, Aluminium Dunkerque recycles almost all of its manufacturing waste in-house. The quantities that cannot be reused are treated in three ways: recycling (mainly aluminium waste), recovery (especially energy recovery) and landfill.

2024 was a key milestone with the resumption of refractory potlining recovery and the confirmation of the stability of the carbonaceous potlining recovery channel.



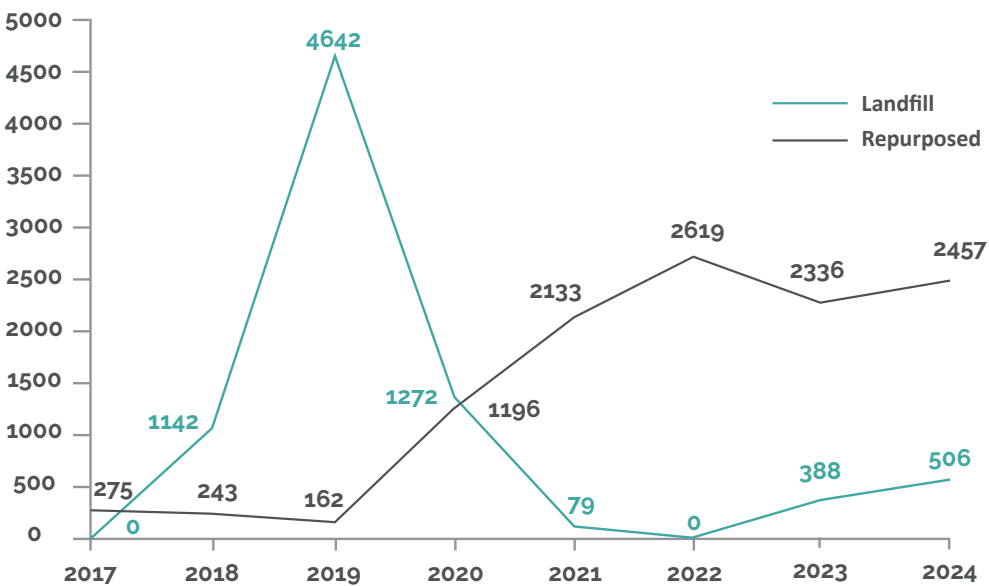


**Our target for 2025  
is to recover 75%  
of the waste we  
generate.**

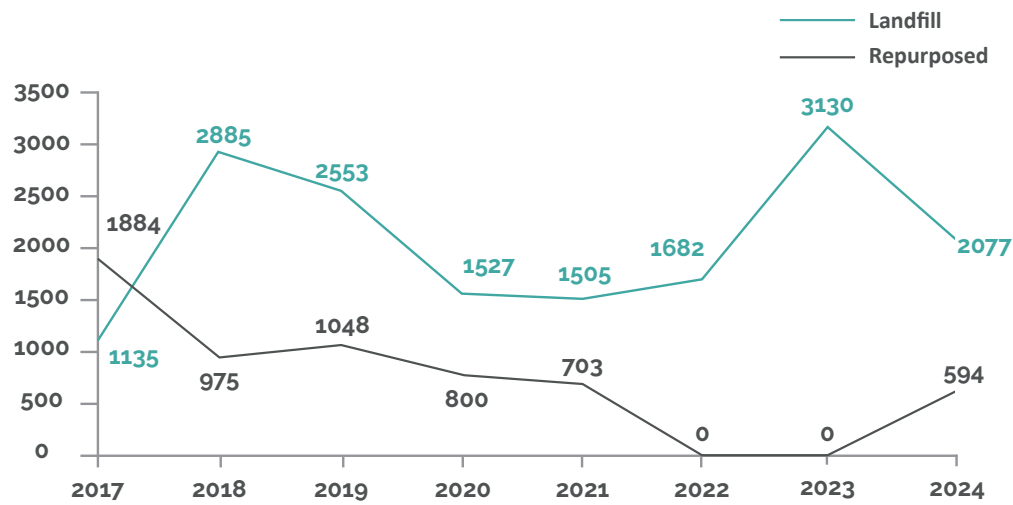
Storage of carbonaceous potlining awaiting recovery

**➤ CHANGE IN THE PROPORTION OF OUR CARBONACEOUS POTLINING SENT TO LANDFILL AND RECYCLED IN METRIC TONS PER YEAR**

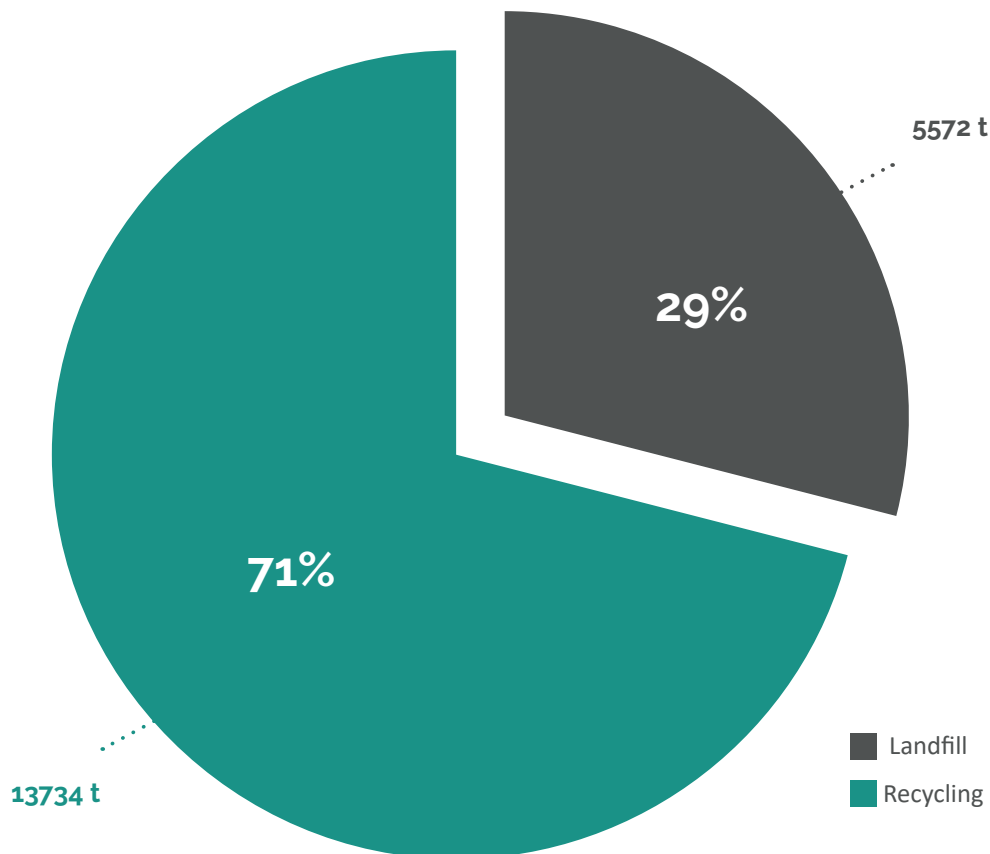
(the exceptional tonnage for 2019 was due to the rebuilding of 35% of our production capacity following a major incident)



➤ **CHANGE IN THE PROPORTION OF OUR REFRACTORY POTLINING SENT TO LANDFILL AND RECYCLED IN METRIC TONS PER YEAR**

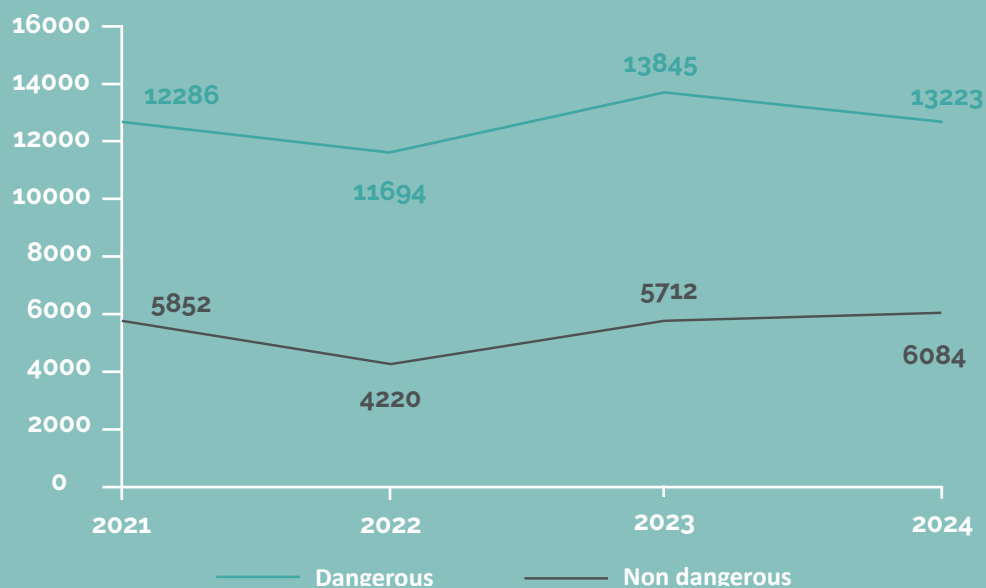


➤ **TOTAL PLANT - PERCENTAGE OF RECYCLED WASTE IN 2024**

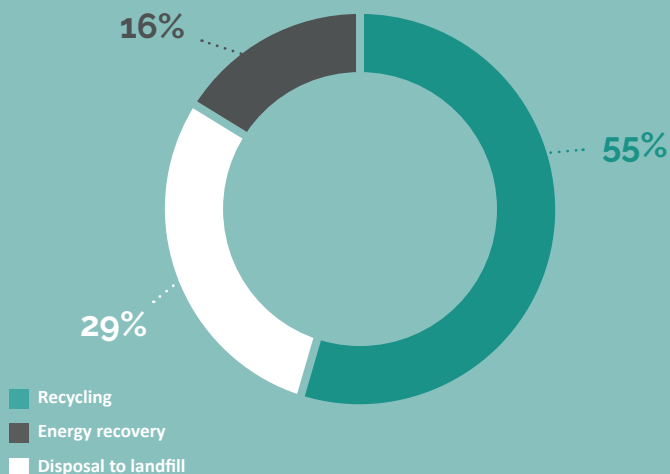




## > TOTAL PLANT DANGEROUS / NON DANGEROUS WASTE BREAKDOWN



## > WASTE PROCESSING METHODS AT THE ALUMINIUM DUNKERQUE SITE - 2024



### ► Our actions in 2024:

- Set up of new recovery channels, including for our refractory potlining
- Continuation of our recovery channel audits to ensure their compliance and CSR performance
- Securing of our foundry dross recovery processes with the installation of two dross presses making inerting possible in 15 minutes! This produces dross that is richer in aluminium
- Improvement of the quality of our waste sorting by raising staff awareness (posting of displays and educational tools at sorting sites)
- Implementation of a high-performance waste characterisation process to support our strategy to achieve 90% waste recovery
- Continuation of the securing of our current recycling channels and implementation of new ones

2025 should have a record recovery rate.





*New cross press in the foundry sector.*



*Storage of refractory potlining awaiting recycling*









## Protecting biodiversity means protecting the natural wealth of our region: a strong commitment for Aluminium Dunkerque

### BIODIVERSITY

Our ambition is to make the Aluminium Dunkerque site a link in the region's ecological continuity chain.

Ecological continuity refers to the connection between natural environments to allow animals and plant species to move, feed, reproduce and adapt. It aims to avoid habitat fragmentation, which is essential for maintaining biodiversity.



► **Our project:**

- To allow the mobility of crawling species by creating corridors
- To manage the habitat of species to halt their decline
- To manage the site's green spaces to restore the sandy grass
- To restore characteristic coastal habitats favourable to local flora and fauna
- To combat invasive exotic plants
- To plant sea buckthorn thickets and hedges for local wildlife

► **Our actions in 2024:**

- The site's biodiversity strategy was fully defined
- A new organisation was set up for the management of green spaces and the link with QLW (Quality of Life at Work)

► **Our actions in 2025:**

- Raising staff awareness, production of a film with Écosphère
- Creation of a group of ambassadors to promote actions to protect biodiversity and conduct species census campaigns
- Participation in joint initiatives with our industrial neighbours and associations
- Creation of two sheep grazing areas
- Plantations

► **ENVIRONMENTAL EVENT ASSESSMENT:**

**We reported one environmental incident to the authorities in 2024:** A stoppage in the capture and processing of the emissions from our raw anode baking furnace that lasted 15h17.

The cause analysis was conducted and the resulting actions were all implemented to ensure that a duration of this order of magnitude does not happen again.

Below is a list of the actions implemented:

- Equipment control
- Organisation and communication
- Training
- Emergency plan review











## 02. Environment – *Community relations, complaints and their follow-up*







## Responsible and attentive to the region

Aluminium Dunkerque maintains a close relationship with its local area and takes care to integrate the expectations of its local stakeholders. We are proud to be able to say that the dialogue with our communities is structured and transparent. A complaints system is in place and accessible to all. Every report is dealt with rigorously and followed up formally. This approach helps to strengthen Aluminium Dunkerque's trust and responsibility towards its communities.





► **Year 2024:**

We received noise-related complaints made in 2020 since September 2024 from our local residents.

► **NOISE complaint, our actions:**

- An acoustic impact study was conducted to rank our noise sources (2023 Sim Engineering study)
- Allocation of an engineering resource dedicated to noise issues
- Requests for proposals for technical solutions to reduce noise emissions from our most significant sources
- Finalisation of the selection of one or more contractors, who after further measurements in 2025 will finalise their technical proposals
- 2026: start of implementation of the solutions on our equipment

The dust-related issues we have been facing in recent years seem to be diminishing. We were responsible for an inconvenience in May 2024, which was admittedly a limited event, but to which Aluminium Dunkerque contributed 65%. We identified a leak in the filter of one of our items of equipment during the episode. That malfunction has since been eliminated, and we are working to reduce the occurrence of downgraded modes.

► **DUST pollution, our actions:**

- Maintaining of operational control over our atmospheric emission treatment equipment (resistance and integrity of filter media)
- Immediate halt to unloading of raw materials from ships if dust levels are exceeded at the unloader filter (alarm reported to the supervision system)
- High-flow filters (>10,000 Nm<sup>3</sup>/h) measured and replaced if dust measurements are exceeded



## ► MAJOR NON-COMPLIANCE AND ADMINISTRATIVE PENALTIES

Compliance with regulatory and environmental requirements is a priority for the Aluminium Dunkerque site. Non-conformities (NC) are subject to in-depth analysis and rigorous in-house monitoring. Major non-conformities are monitored by the Management Committee.

We declared three recurring NCs to the authorities, one of which was the subject of a formal notice order dated 11 October 2024.

The non-conformities notified in the formal notice are as follows:

- Non-compliance with emission limit values for total dust concentration and flow at the foundry sector stack emissions
- Failure to comply with stack ejection speeds
- Atmospheric emissions diluted before being discharged into the furnace 7 stack

The other two recurring NCs concern:

- Nickel concentrations in the discharge water
- Fluorine gas emissions from the TAC (equipment used to treat aluminium prior to its production in foundry furnaces)

## ► OUR 2024-2025 ACTIONS:

- Creation of a task force and monitoring of actions by a steering committee comprising the technical department and the site chairman
- Improvement of the reliability of dust and ejection speed measurements in foundry stacks
- Study and installation of continuous measurement probes on the foundry sector stacks
- In-depth analysis of our furnace operations and their impact on foundry stack dust emissions
- Implementation of identified operational control actions at all times
- Regular audits to ensure that production teams properly implement the actions identified to control dust emissions from the foundry stacks
- Construction of a new stack for furnaces 7 and 8, with elimination of the air intake identified during the inspection. The dilution of atmospheric emission phenomenon has been eliminated.



## ► NON-COMFORMITY NICKEL IN THE DISCHARGE WATER

- Mapping of nickel sources completed
- Mapping of regulatory emission limits for neighbouring industrial sites and French primary and secondary aluminium production sites
- Research into and control of coke fines leaks from our processes
- Two areas identified as priorities for order, tidiness and cleanliness

It appears that we have one of the lowest ELVs for nickel in France for the aluminium industry. The limit is also well below that set for neighbouring industries.

## ► NON-COMFORMITY TAC FLUORINE GAS

- Purchase of a portable HF (fluorine gas) analyser to improve measurement and understanding of this discharge.

► You can find the full self-monitoring report sent to the authorities at the following address:  
<https://www.aluminiumdunkerque.fr/notre-strategie-rse/#politique-environnementale>









## 03. Social

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- **3.1** *Hygiene, Health, Safety Security:  
A challenge that is central to our  
sustainable performance*
- **3.2** *Training and skills development*
- **3.3** *A culture of attractiveness and commitment*
- **3.4** *Commitment to human and individual  
rights*
- **3.5** *Application of the anti-corruption law*
- **3.6** *Our communities & stakeholders*









03.

## Social – Safety

### 3.1

# Hygiene, Health, Safety, Security: A challenge that is central to our sustainable performance

#### ➤ 2024 HIGHLIGHTS

- ▶ Launch of the "Safety is EVERYONE'S business" project
- ▶ Installation of new machinery/pedestrian detectors in the metal yard (Eleksen technology)
- ▶ Tailored 3D-printed lock-out boxes
- ▶ The launch of spot first-aid drills conducted by the Health Department alongside the H3S (Hygiene, Health, Safety and Security) Department.
- ▶ Creation of a QLWC (Quality of Life and Working Conditions) department

#### ➤ KEY 2024 FIGURES



**5,123**

*critical checks carried out,  
twice as many as last year*



**7**

*first aid drills organised by the  
health department*



**4,572**

*health, safety,  
security declarations*



**15**

*questions, **374** participants (54% of whom  
were operators) QLWC\* questionnaire*



**124**

*Fire drills from  
01 June to 31 December*

**25**

*First aid drills from  
01 June to 31 December*

**2 M€** for project  
deployments in 2025

*(improvement of the employee catering service,  
refurbishment of the changing rooms, toilets, creation  
of outdoor areas combining QLWC\* and biodiversity,  
sector projects)*

\* Quality of Life and Working Conditions











## ➤ OUR 2024 HEALTH AND SAFETY RESULTS

- ▶ TF1\*AD + temporary staff result: 7.74 for a target of <4
- ▶ TF2\*\* AD + temporary staff result: 28.05 for a target of <15
- ▶ Number of fatal accidents AD + Temporary staff = 0
- ▶ Number of treatments AD + Temporary staff = 83
- ▶ 1 occupational illness declared

Breakdown by company	AAA***	ASA****	1 <sup>st</sup> aid	Lost days
Aluminium Dunkerque	8	18	43	663
Temporary staff	0	3	3	0
Contractors	3	5	24	122

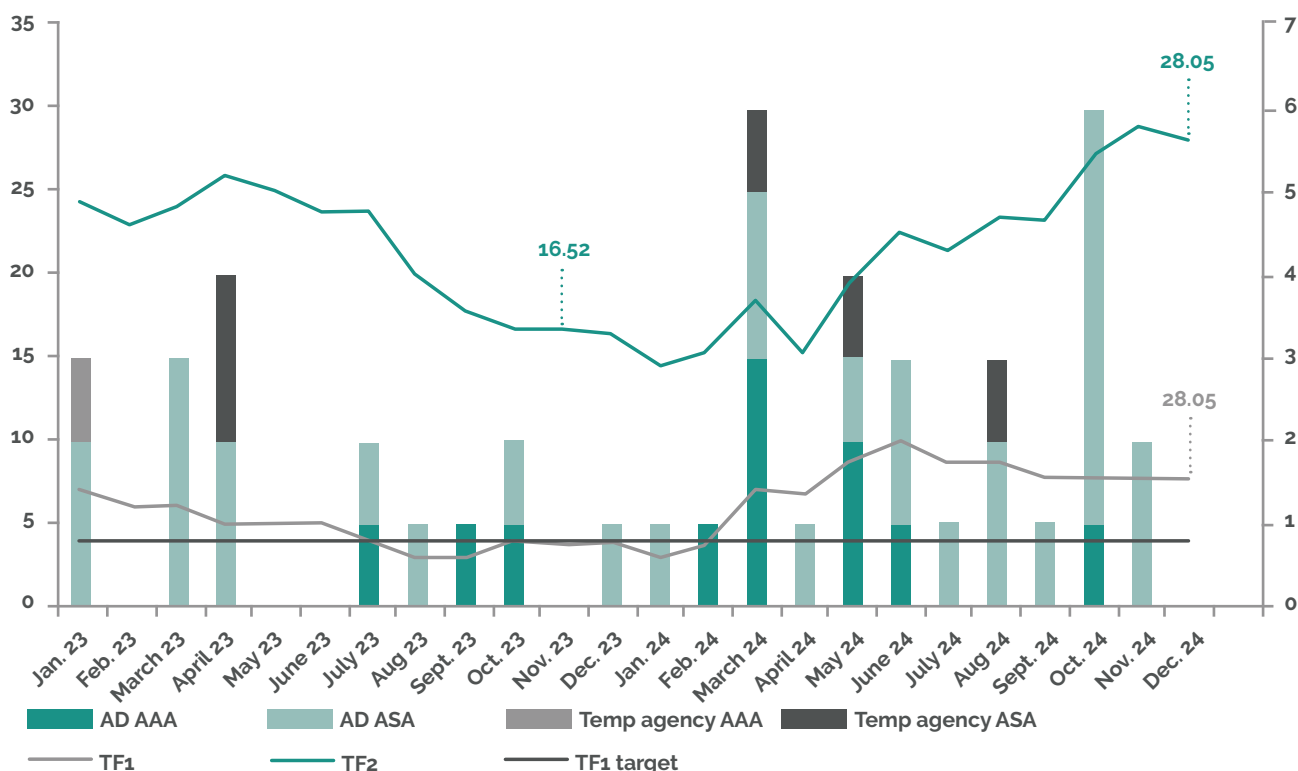
\*TF1: Frequency rate calculated as follows: Number of lost-time workplace accidents / Number of hours worked x 1,000,000

\*\*TF2: Frequency rate calculated as follows: Number of declared accidents / Number of hours worked x 1,000,000

\*\*\*AAA: Accident with lost time

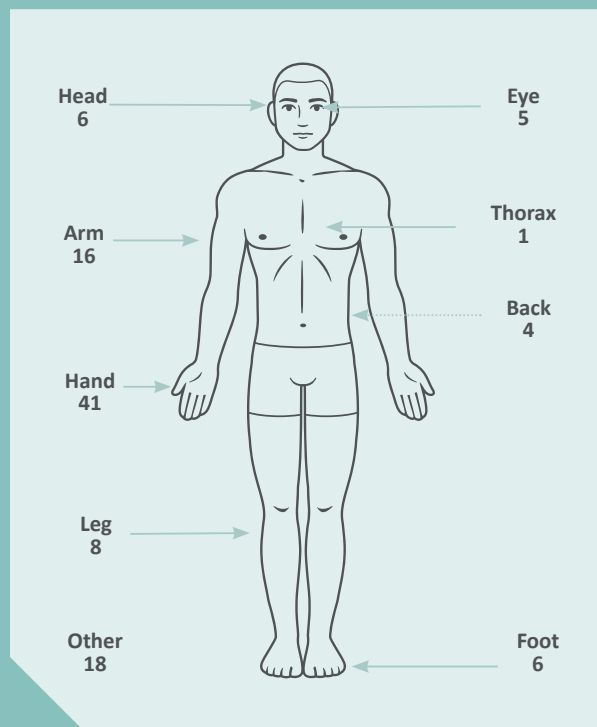
\*\*\*\*ASA: Accident without lost time

## ➤ TF1\*TF2\*\* FREQUENCY RATE ALUMINIUM DUNKERQUE STAFF AND TEMPORARY STAFF

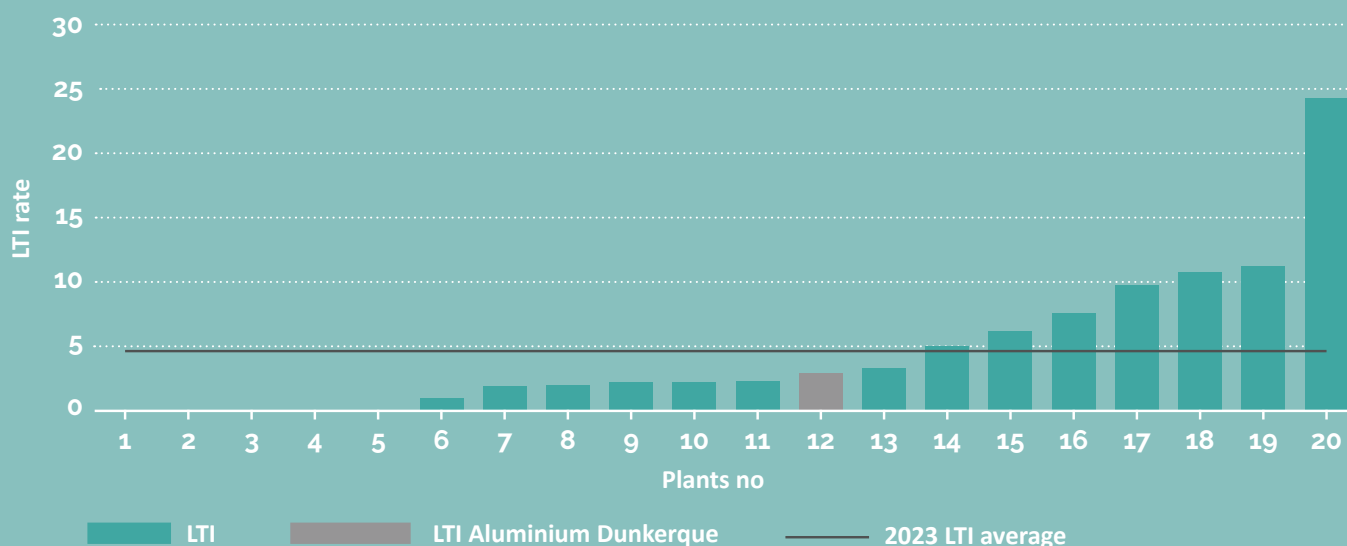




## > TYPES OF ACCIDENT INJURIES IN 2024



## > ALUMINIUM DUNKERQUE RANKS 12<sup>TH</sup> IN TERMS OF SAFETY PERFORMANCE (LTI RATE: LOST TIME ACCIDENTS) OUT OF THE 20 EUROPEAN PRIMARY ALUMINIUM SITES



Source: graph produced by the European Aluminium Association



## ➤ OUR SAFETY ACTIONS IN 2024

"Safety: EVERYONE's business! ": a collective approach for a safer future at Aluminium Dunkerque, safety is not just a regulatory obligation: it is a shared value, a collective commitment to everyone's well-being. Following stagnating safety results for over eighteen months and a deteriorating trend, an **ambitious and inclusive approach** was created: the "Safety, everyone's business! working group ".

- ▶ A representative panel of employees from all backgrounds (operators, supervisors, pilots, CSSCT members, HR, contractors, etc.)

Such diversity is a strength, providing a **balanced representation of realities on the ground**, business needs and team expectations.



## ➤ NEW MACHINERY/ PEDESTRIAN DETECTORS AT THE METAL YARD ELEKSEN TECHNOLOGY

Aluminium Dunkerque has deployed a new connected PPE solution in the metal yard and the foundry. This change is the result of technology watch and discussions with users and CSSCT representatives.

T2S's Connect2Safety solution works with long-term, no charging pedestrian badges, and an embedded interface on the machinery. The system made fast implementation possible. The detection distances can be set using a mobile application.

The safety standards have been updated to include the system. Studies into the possibility of deploying the system in other site sectors such as electrolysis and carbon are ongoing.



## ► TAILORED 3D-PRINTED LOCK-OUT BOXES

As part of the continuous improvement of its lock-out practices, Aluminium Dunkerque is upgrading its equipment by replacing standard lock-out boxes with specially designed, 3D-printed models.

Commercial models do not meet the technical requirements and use constraints identified in the field:

- Compatibility with environments subject to magnetic fields,
- Dimensions adapted to house a large number of padlocks, immediate visibility of contents to limit the risk of errors
- A location reserved for the associated work authorisations.

In-house design work was therefore needed to come up with a system adapted to our industrial environment, combining robustness, visibility and ease of use. The "1 padlock = 1 life" marking reinforces the safety message to teams.



All site sectors have gradually been equipped with these new models, providing standardised equipment and better use of the lockout procedure.

## ► SAFETY ACTIONS IN 2025

Safety Strategy 2025: anchor the fundamentals and put the major actions resulting from the "Safety, EVERYONE'S business!" group into practice

As an extension to the "Safety, EVERYONE'S business!" project, Aluminium Dunkerque is deploying a safety strategy based on two complementary pillars:

- 1 - Anchoring our fundamentals,
- 2 - Implementing the areas for improvement identified by the interdisciplinary working group.

### ► Pillar 1 - Anchoring the fundamentals

To consolidate everyday safety culture, four key levers are being strengthened in every sector:

- Interaction/coaching: strengthening proximity in the field and dialogue on safe practices.
- Red envelopes: analysis of our incidents/accidents and implementation of appropriate action.
- Declaration and processing times: promotion of event declarations and improvement of processing responsiveness.
- Control of critical risks: to prioritise our actions on critical risks.

These structuring practices are the common foundation that is essential to maintaining shared vigilance.

### ► Pillar 2 - Deployment of actions resulting from the working group

The "Safety: EVERYONE's business!" group identified five major actions which are now part of the 2025 safety roadmap:

- Provision of a safety training package for everyone: to guarantee a common knowledge base.
- Development of the "Safety Role" channel: to recognise and structure this position on the site.
- Strengthening of managers' commitment and safety leadership: support their exemplary role.
- Formalisation of the management of long or recurring breakdowns: limit the risks caused by technical drift.
- Building and deployment of an effective safety communication plan: ensure visibility and buy-in.



## ➤ WORKPLACE HEALTH

### ► Taking psychosocial risks into account: an existing robust process - Defending employment in the face of disability.

The Medical Department has a key role in listening to and supporting employees, whether during interviews with infirmary staff or spontaneous visits to the infirmary. As a key prevention player, the medical team actively participates in the Psychosocial Risk Committee (PRC) chaired by the HR Department. The body, which meets at least once every three months or as required, allows close monitoring of warning signals and appropriate support to be provided, including the involvement of the occupational psychologist when necessary. Composed of 19 official members (including CSSCT representatives) and 6 optional members, the PRC is supported by a team trained in psychosocial risk issues thanks to a session provided by a specialist psychologist.

### ► Spot first-aid drills

This involves putting our employees in emergency situations to test their reflexes and knowledge. We strongly believe in the virtues of drills as a means of acquiring the vital reflexes to have in emergency situation situations.

The health department (its nurses) undergoes ongoing training organised by the site's ESI (volunteer fire-fighters). The objectives: to increase skills and make sure our techniques are as effective as possible.















► **QLWC\* - August 2024: Our employees and their well-being are a focus of our concerns - Resources assigned to our ambitions (€2M budget)**

Creation of a QLWC\* department composed of a supervisor and a technician. The first action was to gather our employees' opinions on quality of life at work via a survey.

Its objective: to get ideas from the group to define our QLWC\* 2025 strategy.

2024 was the year in which the service was set up and the strategy defined. A fresco was created by Dunkirk graffiti artist YORI to embellish our premises.

► **2025 - Our main scheduled actions:**

- Improvement of the employee catering service
- Refurbishment of the changing rooms and toilets by including environmental aspects (energy efficiency, water consumption, thermal environment, etc.)
- Creation of outdoor spaces combining QLWC\* and biodiversity
- Selection of QLWC\* projects proposed by the referents in each of our sectors

\* Quality of Life and Working Conditions





03.

## Social – Training

### 3.2

## Training and skills development

### ➤ 2024 HIGHLIGHTS

- ▶ After the "climate fresk" training, we tested the "2-ton workshop"
- ▶ Development of virtual reality modules
- ▶ "Recruiting without discrimination" training
- ▶ Gesture and posture" operator mornings

### ➤ KEY FIGURES



**24,100** hours

*An unprecedented number of hours of training: the equivalent of one week's training per employee*



**700** e-learning modules available to employees for their personal development



**400** employees trained over 6 "muscular awakening-gestures and postures-sleep and nutrition" days







**Training today to  
transform tomorrow**





## 2-ton workshop: This workshop helps everyone to better understand how to take concrete lifestyle action

### ► OUR ACTIONS IN 2024

#### ► 2-ton workshop

After training 700 employees in the Climate Fresk in 2023 and 2024, we invited volunteers to take part in the "2 ton" workshop. This workshop helps to understand how to take concrete lifestyle action to reduce people's carbon footprint (to reach 2 t per year) and contribute to a fair and sustainable transition.

In 2023, the average carbon footprint of a French person was estimated to be 9.4 metric tons of CO<sub>2</sub> equivalent per year.

To meet the Paris Agreement targets of limiting global warming to +1.5°C, every person needs to reduce their carbon footprint to around 2 metric tons of CO<sub>2</sub> per year by 2050.

#### ► Our plan, project 2025 and beyond

This training will be made available and rolled out to other volunteers in 2025.



## ► DEVELOPMENT OF VIRTUAL REALITY MODULES

As our trades are specific and technical, we have been looking at ways of training our new recruits in the aluminium process.

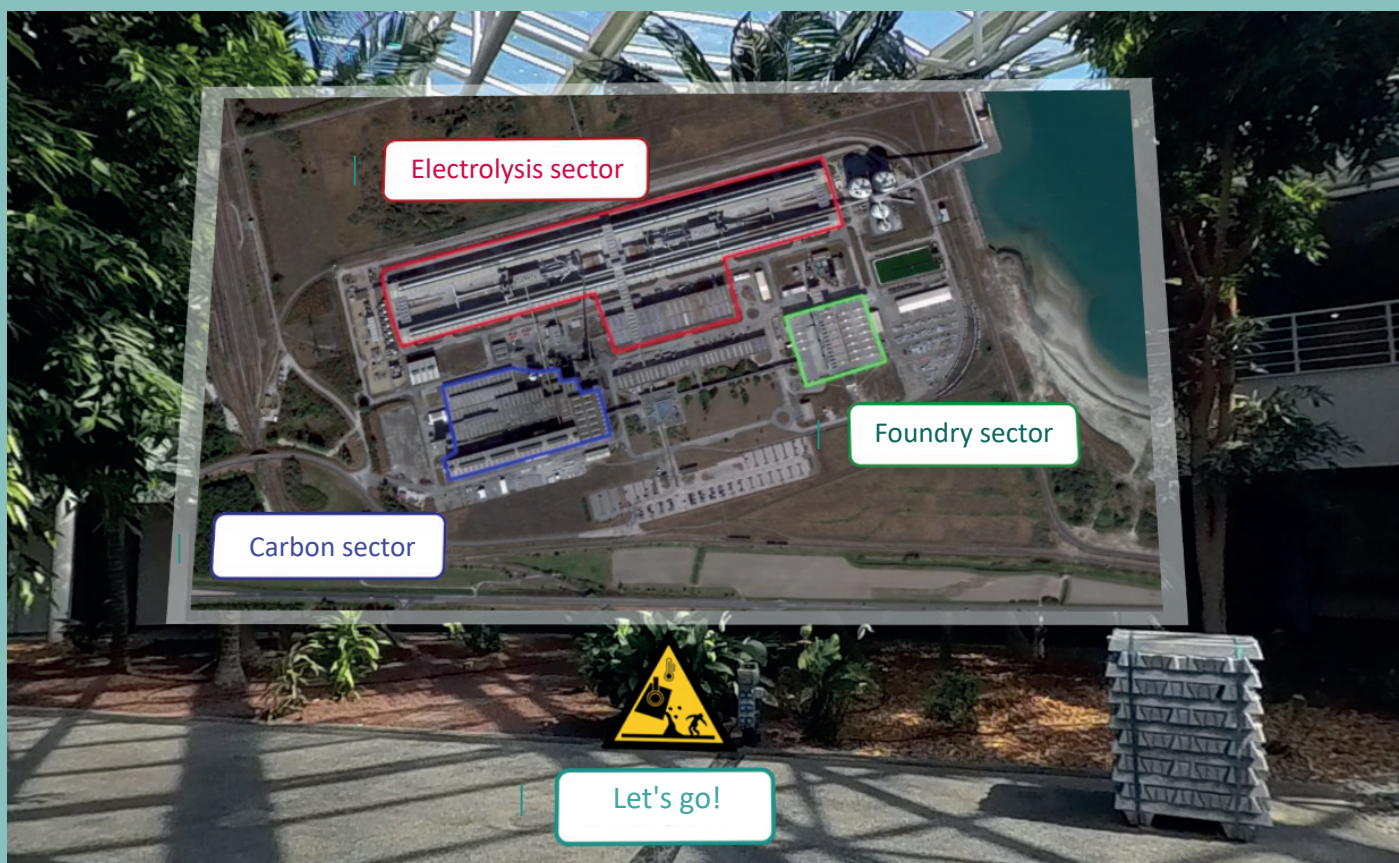
For new recruits, an initial level of process knowledge for each production sector has been developed using virtual reality training modules.

Each new employee will be able to discover their newly assigned sector in a headset beforehand so as to better understand the sector's process and challenges.

### ► Our actions in 2025 and beyond

In the 2<sup>nd</sup> half of 2025, this project will be enhanced by "expert" modules for employees wanting to develop their skills in our trades.

A shorter version module of our process will also be designed in 2025 to allow people to discover our company at recruitment fairs and in schools.





## ➤ GESTURE AND POSTURE TRAINING AT OPERATOR MORNINGS

Every year, our company invites its employees to attend training days called "Operator Mornings". These days focus on health and safety topics.

In 2024, we chose active training with one-hour workshops so that employees could try out various modules. In 2024, the emphasis was on "muscular awakening and warm-up, strengthening muscles and stretching, sleep and nutrition, and gestures and postures". Four workshops were made available to our 400 employees.

Everyone was able to appreciate the diversity of the workshops and the sound advice from nutritionists, physiotherapists and sports coaches. They also enjoyed a snack of smoothies, cereal bars and fruit.

### ► Our actions in 2025 and beyond

For 2025, employees have put forward ideas for new training courses, such as to raise awareness of drugs and alcohol, or of stress and psychosocial risks.

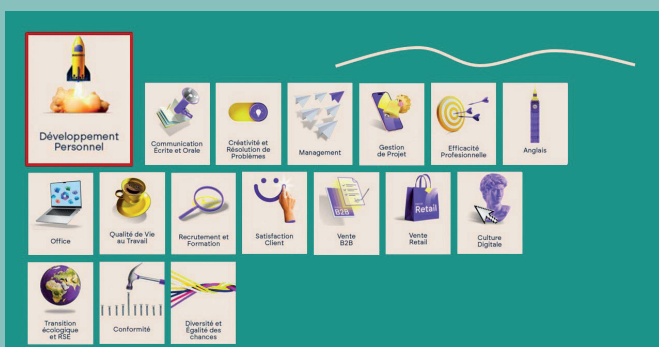
## ➤ 700 E-LEARNING MODULES AVAILABLE TO EMPLOYEES FOR THEIR PERSONAL DEVELOPMENT

Our company has acquired a training programme split into 700 e-learning modules which we have made available to employees for their personal development.

The courses are varied and allow people to learn at their own pace on a wide range of subjects: communication, English, quality of life at work, ecological transition and CSR.

### ► Our actions in 2025 and beyond

In 2025, we will be offering our employees a range of topics every month to encourage them to train and carry on developing their skills.











## 03. Social – Attractiveness and commitment







### 3.3

## *Recruitment, school relations and job appeal*

### ➤ 2024 HIGHLIGHTS AND ACTIONS

- ▶ Deployment of an ATS (Applicant Tracking System).
- ▶ 1<sup>st</sup> AD Job Dating organised in Calais
- ▶ New governance mode and organisation: recruitment at the centre of the creation of 3 new departments (Energy Climate / H3S (hygiene, health, safety, security) / Technical Development)
- ▶ Membership of Elles bougent
- ▶ Passion & Careers video: Our employees tell their story!
- ▶ 1<sup>st</sup> graduation ceremony for our work-study students





Induction day photos

## KEY 2024 FIGURES

**126** new hires in 2024 (91 permanent contracts and 35 work-study courses), 17% of whom are women

**2** induction days organised:  
79 inductions in 2024

**30 %** internal mobility

**3,000** applications received in 2024 thanks to the ATS (digital recruitment management tool)

Aluminium Dunkerque participated in two dozen events dedicated to employment and relations with schools

**+28 %** growth in the number of women as a proportion of total growth since 2020

(since 2020, we have doubled the number of female operators, from 16 to 30)

## OUR ACTIONS IN 2024

### ► Deployment of the ATS - Digital recruitment management tool - BEETWEEN

As part of a drive to modernise and digitise our HR processes, we steered the deployment of an ATS (Applicant Tracking System) at Aluminium Dunkerque.

The purpose: to make our recruitment process smoother and more professional, while offering a simpler, more engaging and more human candidate experience.

We chose a tool that was fun, user-friendly and accessible to all managers, to make it easier for them to get involved in the recruitment process. This tool now allows us to centralise and effectively track all the information relating to applications, to maintain a dynamic pool of candidates, and to make better use of the profiles we receive.

The result: time saving, transparency and responsiveness in our decision-making.

Thanks to this drive and the increased visibility it generated, we received over 3,000 applications in just one year - proof of the growing attractiveness of our company and the relevance of the deployed tools.



► Interface: AD Website - "Join us" section  
<https://aluminiumdunkerque.nous-recrutons.fr/>





## ➤ 1<sup>ST</sup> 100% AD JOB-DATING IN CALAIS

As part of our local recruitment strategy, we organised our very first job-dating in partnership with RC Calais, at Stade de l'Épopée stadium. It was a major event, attracting almost 600 people in a single day!

The job-dating was a genuine success, both operationally and in human terms. It allowed us to meet many talented people, to promote our trades, and to recruit profiles that match our needs. This moment of convivial, direct discussion open to all, strengthened our visibility in the region and confirmed our will to act locally in favour of employment.

We were able to count on the commitment of 12 in-house ambassadors who were fully mobilised to proudly represent Aluminium Dunkerque. Their involvement helped make the day an enriching collective experience, full of meaning and great opportunities both for the candidates and for our teams.

### ► Our actions in 2025 and beyond

Continuing to promote our attractiveness and visibility actions to be as close as possible to tomorrow's talents. We take part in around two dozen events every year that are dedicated to employment and school relations.

## ➤ PROMOTING INDUSTRY AND EQUAL OPPORTUNITIES FROM SECONDARY SCHOOL ONWARDS

In 2024, Aluminium Dunkerque took part in around two dozen events dedicated to employment and school relations, including major events such as the 4 Jours de l'Industrie, the "Jeudi de l'Industrie" and DK JOB. Half of those initiatives were targeted at schools, from Year 8 upwards, with the aim of raising young people's awareness of the challenges of re-industrialisation, local career opportunities, and high value-added professions.











**Involvement is voluntary and flexible, and based on a desire to pass on knowledge.**

#### ➤ “ELLES BOUGENT” PARTNERSHIP

##### ► **Aluminium Dunkerque commitment - Elles Bougent**

Since 8 March 2024, Aluminium Dunkerque has been working with the "Elles bougent" association to encourage young girls to take up technical and industrial careers. Although there is parity in the final secondary school science year, there are still few women that embrace technical training and careers. Our industry can no longer do without their talent.

By joining "Elles bougent", we are taking part in:

- Combating gender stereotypes through the testimony of our female employees.
- Helping young girls to see themselves in promising trades.
- Supporting their orientation through the association's events.

##### ► **Becoming a mentor or relay**

The mentors (women engineers, technicians or operators) share their experiences at forums, visits or trade fairs. The relays (men or support staff) are also committed to giving testimony to encourage gender diversity in industry. Involvement is voluntary and flexible and based on a desire to pass on knowledge.

**Elles  
bougent**









## 3.4

### *Our commitment to individual rights*

#### ➤ REASONABLE DILIGENCE, ETHICS AND INDIVIDUAL RIGHTS

**Aluminium Dunkerque commitments:** Aluminium Dunkerque commits to support and respect the fundamental principles of human rights and labour law as defined by the United Nations in the Universal Declaration of Human Rights and by the International Labour Organisation. Aluminium Dunkerque relies on its codes of conduct available on the website to promote the principles of reasonable diligence in-house and with all its partners and to strive for continuous improvement. (*see codes of conduct link available in appendix on p.107*).

Aluminium Dunkerque is committed to fighting modern slavery (forced labour).

That commitment is formalised in our general code of conduct which we communicate internally and make available to all our partners. The site has a reasonable diligence management system to manage that risk.

Aluminium Dunkerque encourages the application of the principles of reasonable diligence, both in-house and with all its partners.

#### ➤ DISABILITY: 7.05% OF OUR EMPLOYEES ARE RQTH\*

\* Recognition of Disabled Worker Status



## 3.5

# Application of the anti-corruption law



Link: <https://whistleblowersoftware.com/secure/98b1c541-3d45-4f93-bf1e-681d526f8fb2/channel-select>

## 2024 HIGHLIGHTS AND ACTIONS

- ▶ The in-house alert system for our employees has been in place since 2023. It allows anyone to anonymously alert management to any direct or indirect breach of Aluminium Dunkerque's Code of Conduct and Anti-Corruption Charter: all vandalism, damage to or theft of equipment, all blatant abuse of authority, all sexual or moral harassment behaviour or acts, all physical or verbal aggression undermining the integrity, respect and dignity of individuals or any behaviour constituting corruption or influence peddling.
- ▶ Every year, we review the corruption risks identified by our risk mapping, and we have an action plan for the most significant identified risks.
- ▶ An assessment of our most at-risk third parties is also updated every year with the support of a rating agency (Urios).
- ▶ The compulsory training course includes an e-learning component on the application of the French Sapin II Act.
- ▶ We are continuing to implement the 8 measures in 2025, including the review of accounting procedures and the control system.

## KEY FIGURES



**4** alerts including 0 concerning corruption (excluding gifts and invitations)



**5** priority risks identified out of 19



**54** third parties ranked in 2024



**90%** of employees trained in SAPIN II Act



**8** measures concerned



## 3.6

### *Our communities and stakeholders*

#### ➤ AN EMPLOYMENT CHARTER

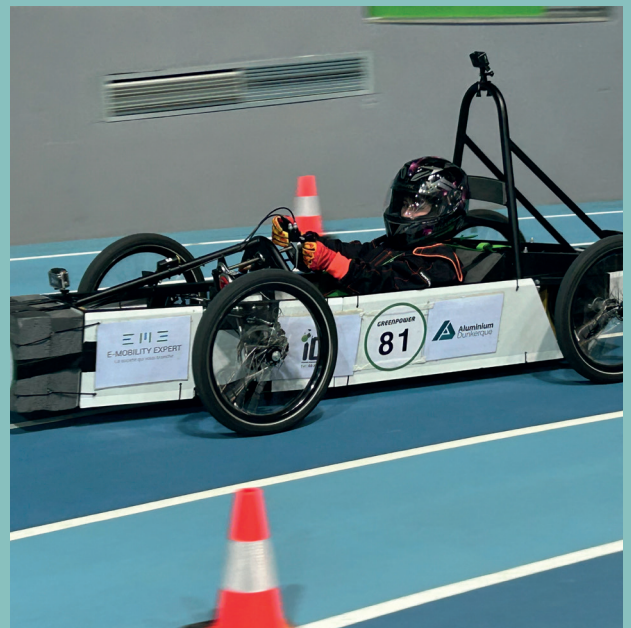
Aluminium Dunkerque has signed the recruitment charter initiated by MEDEF Côte d'Opale, which aims to prepare and support the region's HR needs. The objective is to encourage collaboration and synergies between companies that are committed to adopting ethical and responsible recruitment practices and to working together for the economic and social well-being of the region.

#### ➤ ALUMINIUM DUNKERQUE ECOVADIS CERTIFIED

Aluminium was awarded the ECOVADIS bronze medal with a score of 60/100 for its commitment to environmental sustainability and the importance placed on responsible social and ethical practices. Our determination to reduce our carbon footprint and implement sustainable practices in our production processes was also recognised.



#### ➤ GREENPOWER CHALLENGE: ALUMINIUM DUNKERQUE BEHIND THE GRANDE SYNTHÉ AUTOMOTIVE COLLEGE



Designed to familiarise young people with the manufacture of batteries and the maintenance of electric vehicles, the Greenpower Electro'Mob challenge was adapted locally, bringing together eight secondary schools in the region for a race organised in Liévin. Supported by Aluminium Dunkerque, students from the Lycée Professionnel de Grande-Synthe won first prize in the technical category and second prize in the mechanical category.

#### ➤ REFINANCING AND ENVIRONMENTAL RESPONSIBILITY

As sustainable development is a priority for Aluminium Dunkerque, the new loan conditions introduced as part of the latest refinancing include interest rate benefits linked to our environmental performance, especially in terms of reducing carbon emissions and water consumption.



## ➤ BOOSTING RELATIONS BETWEEN SCHOOLS AND BUSINESSES

On Thursday 26 September, the Dunkirk local school-business committee organised a meeting at Aluminium Dunkerque to raise awareness among the RIPREEs (teachers in charge of vocational integration and school-business relations) of the initiatives organised in the area to strengthen links between the worlds of education and business.



## ➤ THE CIRCULAR ECONOMY IN ACTION!

When it reaches the end of its life, the PPE used at Aluminium Dunkerque is recycled, in particular by the ACL PROXI POL integration association based in Saint-Pol-sur-Mer, which transforms it to give it new uses.

Similarly, when business telephones are replaced, the old ones are offered to the non-profit sector, after repair if necessary. The Fondation du Dunkerquois solidaire, of which Aluminium Dunkerque is a founding member, is in charge of liaising with the local associations.

## ➤ SOLIDARITY WITH THE FLOOD VICTIMS

Aluminium Dunkerque has joined forces with the Fondation de France to help the flood victims in the Pas-de-Calais region. In addition to the sum it has donated, the company has invited its employees to make a donation which it has pledged to double. This solidarity operation raised €8,000 for the disaster victims.





### ➤ ALUMINIUM DUNKERQUE OFFICIAL PARTNER OF LOSC

As an official partner of LOSC in the Champions League, Aluminium Dunkerque's partnership with LOSC underlines its long-standing roots in the Hauts-de-France region and gives the Dunkirk area an opportunity to shine in a major international competition.

### ➤ ALUMINIUM DUNKERQUE LAUNCHES THE DKARBO SHOW!

At Aluminium Dunkerque's initiative, 9 industrials and Ecosystème D have joined forces to create a series of live radio broadcasts live from the 40<sup>th</sup> Dunkirk Motor Show. The purpose was to illustrate the decarbonisation concept, which is somewhat abstract for the ordinary citizen, through an everyday product. The event created a great dynamic between the players involved and received excellent media coverage.



## ➤ DISCOVERING THE PROPERTIES OF ALUMINIUM IN A FUN WAY

Every year, Aluminium Dunkerque takes part in the Fabuleuse Factory organised in Dunkirk by Ecosystème D to change the way people see industry and encourage young people to take up careers in the sector. In 2024, visitors were able to play an interactive game to discover the environmental virtues of aluminium in a fun way.

## ➤ ALUMINIUM DUNKERQUE REPRESENTED AT CERAA'S 20TH ANNIVERSARY CELEBRATIONS

The Club d'Entreprises des Rives de l'Aa (CERAA) celebrated its 20th anniversary. To mark the occasion, a talk on the theme of "The banks of the river Aa, between a rich history and a promising future" was given by three companies with long-term roots in the area, including Aluminium Dunkerque.







## ➤ HIGHLY COMMENDED AT THE TROPHÉES DE L'INDUSTRIE AWARDS

As part of the Trophées de l'Industrie ceremony organised by Société Industrielle Nord de France, Aluminium Dunkerque received an award from Valtus in recognition of our environmental efforts and the ambition of our LOWCAI project to decarbonise our activity.

## ➤ ALUMINIUM DUNKERQUE REPRESENTS GREEN INDUSTRY ON THE "CLIMAT LIBÉ TOUR"

As part of the Dunkirk leg of the Climat Libé Tour, Guillaume de Goÿs, Chairman of Aluminium Dunkerque, represented industrials at a round table discussion on green industry alongside Clément Beaune, former Minister of Transport, and Aurélie Brunstein, head of heavy industry at the Climate Action Network.

## Appendices


Please refer to the documents below on the website for more information about:

- Environmental self-assessment 2024 annual report
- Site strategy and policy
- [Codes of conduct](#) (general and anti-corruption)
- [Responsible Purchasing Charter](#)
- [EPD - Environmental and health declaration sheets](#)





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