

# > 2023 Sustainable Development Report





p.08 > 1.1 Aluminium Dunkerque p.17 > 1.2 Responsible purchasing and sustainable partnerships with our suppliers



p.24	> 2.1	Our er
		comm
p.28	> 2.2	GHG -
p.34	> 2.3	Energ
p.38	> 2.4	Our ei



1	p.64	>	3.1	Health of our
	p.70	>	3.2	Trainin develo
	p.73	>	3.3	Buildir and co
	p.83	>	3.4	Our co and pe
	p.84	>	3.5	Applic
	p.85	>	3.6	Our co

### Governance

nvironmental sustainability nitments

- Decarbonisation strategy

gy efficiency

environmental performance

h, Safety and Security: a pillar corporate responsibility

ng and skills opment

ng a culture of attractiveness ommitment

ommitment to human ersonal rights cation of anti-corruption law

ommunities & stakeholders



### Édito

Editorial Adapting our companies to the challenges of climate change



Faced with the growing ecological, social and economic impacts of climate change, it is imperative for businesses to take the lead in finding and applying effective solutions to keep our planet liveable, but also to adapt our businesses to the challenges. As the head of Aluminium Dunkerque, that responsibility is the focus of my concerns, and I share it with all my teams.

Our aluminium, which already generates four times less carbon than the world average for the sector, must become a reference in France and Europe to reduce imports from high fossil fuel consuming countries. As a strategic metal for the future that supports the energy and environmental transitions, we must carry on our efforts to produce more virtuously by gradually decarbonising our entire activity.

That is the goal of our LowCAI project for which we signed an Ecological Transition Contract with the French State in November 2023.

That ambitious roadmap, which is detailed in this document, is essential but is not the sum of our actions or our projects. We are also developing a Corporate Social Responsibility (CSR) policy aligned with our strategy which will meet the expectations of all our stakeholders and go beyond simply complying with the strict standards applicable to our sector.

We are also preparing to meet the requirements of the Sustainability Reporting Directive (SRD), a new European extra-financial reporting standard that will apply to us in 2026. Rather than considering the new standard as a constraint, we see it as a lever to improving our social performance.

This report will show you how we have progressed in reducing emissions, controlling consumption, processing waste and improving energy efficiency. You will also find out about our efforts to enhance the safety of our teams and service providers, to encourage the development of our employees, and to promote the role of women in our company and in industry in general.

Finally, located at the heart of a region where social and environmental commitments are omnipresent and widely shared, we will be presenting the actions we are taking as part of local initiatives to tackle decarbonisation issues and the professionalisation of young people.

I am happy and proud to share these achievements with you, they show the commitment of our teams to a better world and are major advances in the way we work together and with our partners.

Guillaume de Goÿs Chairman and Chief Executive Officer of Aluminium Dunkerque



## Economy & Governance S

**1.1** Aluminium Dunkerque **1.2** Responsible purchasing and sustainable partnerships with

01 - Economy & Governance Aluminium Dunkerque

 $\bigcirc$ 



#### 1.1

### Aluminium Dunkerque

#### **OUR GOVERNANCE** A SHAREHOLDER-PARTNER SOLIDLY 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.

### **AIP** includes financially relevant social and environmental considerations

#### **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 Dunkergue 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 REASON FOR BEING**

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**



450 Mw of electric power consumed

(low-carbon)

65 ha

employees

surface area

+300000

tonnes of aluminium produced per year









# a strategic metal for the environmental



#### 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 component for 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.

Aluminium is also a good conductor of heat and of electricity. 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, highvoltage 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.

 $\widehat{\mathbb{Q}}$ 

uu

4

/ · · · ·

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.

#### **REDUCES CO<sub>2</sub> EMISSIONS:**

#### **OUR PRODUCTS AND CUSTOMER** SALES STRATEGY

The rolled slabs and alloy ingots produced by Aluminium Dunkerque are marketed throughout Europe. The slabs are processed into rolled products used in the manufacture of car bodies, aluminium cans, road signs, lids for food and pharmaceutical containers, and much more. Alloy ingots are used to manufacture automotive parts such as engine cylinder heads, transmission parts and aluminium wheel rims.

Thanks to its low density, aluminium has an undeniable advantage when it comes to making tomorrow's vehicles lighter, thereby helping to reduce their energy consumption. Aluminium can be fully recycled without losing its properties, thus helping to protect the environment at the lowest cost. Producing recycled aluminium requires only 5% of the energy needed to produce primary aluminium.

Aluminium is one of the key energy transition materials. The development of electric vehicles, batteries and the electricity grid will require massive quantities of aluminium, demand for which is set to quadruple by 2050 according to Capital Economics.



#### **STANDARD ASI PERFORMANCE** CERTIFICATIONS (Aluminium Stewardship Initiative)

Aluminium Dunkerque joined the Aluminium Stewardship Initiative (ASI) in 2019 and obtained ASI «Performance Standard» certification in August 2020 and ASI «Chain of Custody» certification in November 2021.

The labels are essential in the aluminium market. They recognise companies committed to a sustainable development approach, both in house and with our raw materials suppliers. The labels prove our commitment to social and environmental themes such as biodiversity, waste management, reducing emissions, ethics and human rights.

Both certifications for the site were renewed in 2023 and a great deal of progress has been made in those areas.















#### **ISO CERTIFICATIONS**

ISO 14001 (Environment) follow-up audit 1 was successfully completed in 2023 with zero major or minor non-conformities. ISO 50001 (Energy) certification was extended to the entire plant in 2023 with zero major or minor non-conformities.

The extension of the scope has made the system more dynamic and coherent. The certification rewards the major efforts made by the site to reduce greenhouse gas emissions and achieve its environmental objectives.

Follow-up audit 1 of the ISO 9001 and IATF (Automotive Quality) certifications was also successfully completed with zero major non-conformities and 4 minor non-conformities. We are proud of that result, which shows that we are setting the highest quality standards to guarantee the safest and highest quality products for our customers.

The new certificates are available on our website:

https://www.aluminiumdunkerque.fr/certifications/





### Economy & Governance

#### 1.2

### Responsible purchasing and sustainable partnerships with our suppliers

#### 2023 HIGHLIGHTS

- Increase in the number of our suppliers that signed up to the responsible sourcing charter.
- An inventory of the specific CO2 scope 1 and 2 emission coefficients of our raw materials suppliers.
- Preference for the transport of our finished products to our customers by rail.
- Increased requirements applicable to our External Contractors on environmental aspects (impact and performance) and energy savings.
- First river barge to our main customer.

#### CHIFFRES CLÉS

### 90 %

of our purchases are from suppliers with a responsible sourcing charter or who have signed up to the charter defined by Aluminium Dunkerque



of specific CO, emission coefficients (scope 1-2) for raw materials obtained

#### **FUTURE ACTIONS**

Indirect emissions from the production and transport of our raw materials account for 50% of our carbon footprint. Those raw materials are alumina, coke, pitch and Alf3, as well as various additive metals used in the manufacture of our finished aluminium slabs and ingots (manganese, magnesium, silicon, etc.)

- Preference for European sources with a low carbon footprint and attentiveness to obtaining their carbon footprint reduction plans.
- Identification and preference for the most virtuous suppliers (low carbon footprint).
- Preference for rail and multimodal transport for our finished products.



of finished products transported by rail



Carbon footprint for freight, 7500 t of CO, avoided in 2023

#### PREFERENCE FOR THE TRANSPORT **OF OUR FINISHED PRODUCTS** TO OUR CUSTOMERS BY RAIL

The Purchasing and Supply Chain departments are implementing an ambitious strategy to minimise the carbon footprint of our finished product transport. That involves more trains (one train = 65 trucks) or increasing the number of wagons per train for our two main customers. That represents 152,000 t of finished products transported by rail in 2023.

#### LOW-CARBON TRANSPORT **OF OUR FINISHED PRODUCTS TO OUR CUSTOMERS**

#### **OUR ACTIONS IN 2023**

#### **Rail transport optimisation**

▶ In 2023, 7,500 tonnes of CO2 were avoided using the increased train strategy, i.e. 7,600 truck loads avoided. It not only improves the environment, but also road safety.

▶ In 2023, the return of non-compliant products by train instead of truck was introduced. If necessary, we use the train returns to avoid empty return trips.

▶ In 2023, the slab samples were put on trains for quality monitoring to avoid the need for specific truck transport.

> 2023 also marked the introduction of coupon trains. The principle is to optimise trains by combining two destinations for the same train. We set up an ambitious purchasing policy that allows us to maintain train departures regardless of the minimum ordered volume.

▶ We are also developing the loyalty of our road hauliers who offer intermodal services (road-rail-road).

### **Minimisation** of our finished product transport carbon footprint.

#### **OUR ACTIONS FOR 2024 AND BEYOND**

▶ 61% of our products transported by rail

- Increase in maximum volumes transported by train
- ▶ We want to make the destinations we deliver to our customers by train flexible, so that we can limit the number of trucks needed when a customer has an additional requirement.
- ▶ Participation in the *«Development of the port area»* working group to identify possible transport pooling.
- Transport of finished products to our main warehouse operator by train (slabs and ingots).
- Project to put a minimum of 1,000 tonnes of aluminium ingots on trains every month instead of on trucks.



#### **FIRST RIVER BARGE TO OUR NEUF BRISACH**



![](_page_10_Picture_0.jpeg)

### **Aluminium Dunkerque is** thus positioned as a major **Europe primary aluminium**

#### OUR ACTIONS IN 2023 AND BEYOND

We are proud to announce that Aluminium Dunkergue was awarded a bronze medal by the EcoVadis platform, which assesses the Corporate Social Responsibility (CSR) performance of over 85,000 companies worldwide based on 21 criteria split between four themes: the environment, social and human rights, ethics and responsible purchasing.

In 2023, Aluminium Dunkergue also renewed its ASI (Aluminium Stewardship Initiative) Performance Standard and Chain of Custody certifications, a global aluminium industry reference. That certification testifies to the commitment of our staff to the highest standards in the profession.

In 2025, as part of our LowCal decarbonisation roadmap, an eighth furnace will be commissioned on the alloy ingot production line. The furnace will be partly supplied using recycled metal, thereby helping to offer an additional 20,000 kt of products to our customers and further reducing Aluminium Dunkerque's carbon footprint.

Aluminium Dunkerque is thus positioned as a major European primary aluminium production player with a strong commitment to sustainability and to reducing its carbon footprint through the use of recycled materials and a low-carbon energy mix. Our products meet the diverse needs of the automotive industry and of other sectors, making an active contribution to the global energy transition.

![](_page_11_Picture_0.jpeg)

- - strategy

Aluminium Dunkerque 2023 Sustainable Development Report 22

**2.1** Our environmental sustainability commitments **2.2** GHG - Decarbonisation > 2.3 Energy efficiency **2.4** Our environmental performance

![](_page_12_Picture_0.jpeg)

![](_page_12_Picture_1.jpeg)

#### 2.1

### Our environmental sustainability commitments

#### AN INDUSTRIAL FLAGSHIP COMMITTED TO A SUSTAINABLE WORLD

On its creation in 1991, Aluminium Dunkerque was conceived and designed as a pioneering company in many fields. In industrial terms, of course, but also in terms of respect for the environment.

That strong commitment on the part of both management and staff has grown over the decades and is truly the hallmark of our company, a source of pride for our teams. Environmental issues have become more crucial than ever, and Aluminium Dunkerque intends to step up its efforts to limit the impact of its activity and play an active part in transforming society for a more sustainable world.

#### > 2023 HIGHLIGHTS

- ▶ Creation of the Energy/Climate department
- Direct attachment of the Energy/Climate department to the Executive Committee
- Inclusion of the new European directive (SRD\*) in our sustainability strategy (CSR\*\*)
- Signature of an ecological transition contract with the French government (see p28)

\*Sustainability Reporting Directive (Directive on the communication of information on corporate sustainability)

\*\*Corporate Social Responsibility

#### **KEY FIGURES**

people in the department

significant environmental incidents

#### 4 fois moins

times less CO<sub>2</sub> emissions than the global average

#### THE ENVIRONMENT IS EVERYONE'S BUSINESS

Protecting the environment doesn't stop at our factory gates. We are permanently attentive to our stakeholders and their expectations. Those expectations in terms of sustainability drive us to continually improve our actions.

Our stakeholders' expectations:

- **Customers**
- Environmentally-friendly products
- Transparency on the origins of our raw materials and their production conditions
- A material commitment to reducing our products' carbon footprints

#### Our employees

- Safe, high-quality working conditions
- Career opportunities
- Respect for diversity and gender equality
- A balance between professional and private life

#### Our investors

- Transparent information
- The inclusion of ESG (Environmental, Social and Governance) criteria in company management

#### Suppliers and partners

- Fair trading practices and payment terms
- Shared sustainability and ethical commitments

#### > Local communities and associations

- Contribution to local growth by creating jobs and supporting community initiatives
- Protection of the local environment
- Open and transparent dialogue on the impacts of company activities

#### Governments and regulators

- Compliance with applicable laws and regulations
- Participation in initiatives and public-private partnerships in the social and environmental fields
- The application of best practice in reporting (SRD Directive\*)

#### ALUMINIUM DUNKERQUE A STRONG LINK IN THE ONGOING ECOLOGICAL TRANSITION

Aluminium is a metal that is essential to the ecological and environmental transition. Choosing Aluminium Dunkerque as a supplier guarantees not only limiting your carbon footprint, but also improving it.

We have put climate issues at the forefront of our organisation. A specific department covering such issues has been created and its head has been appointed to the company's executive committee. That position means that sustainability issues can be taken into account from the outset in defining and managing site strategy. It is a guarantee of efficiency in achieving our objectives.

We carry on improving to be on target!

#### **2024-2035 SITE SUSTAINABILITY STRATEGY**

#### **OBJECTIVES AND MAIN ACTIONS:**

#### CO

#### **Decarbonisation strategy:**

- ► Capture
- ► Ground-breaking technology (inert anodes)
- > Operational control (net carbon anode effects natural gas consumption)
- ► Energy efficiency

#### Water $0_0$

#### **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 if consumption drifts

#### **Recycling of our water:**

- ▶ Identification and implementation of recycling projects
- New technology:

► Fauna-related challenges

Creation of GIS mapping

**Ecosystem service analysis:** 

(Geographic Information System)

Drafting of a strategy and actions

**Cartography:** 

- Adiabatic air cooling towers in the maintenance sector
- Actions for reductions at source: Control of our process cooling needs

#### **Biodiversity**

#### **Inventory:**

- ▶ Inventory of fauna
- ▶ Inventory of flora

#### **Challenge analysis:**

- ► Flora-related challenges
- ▶ Phytoecological challenges

#### **Stakeholders**

#### **Furnace Dust:**

- ► More reliable foundry furnace door capture system
- ▶ In-depth analysis
- ▶ Role of finishing metals
- ▶ Continuous measurement

#### Nickel 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 and identification and implementation of solutions to reduce noise pollution

#### 2024

\*Baseline 2019

Action plan and ecosystem services defined

2030 100% of actions completed

2024

2030

0 recurring NC\*

\*NC: Regulatory non-conformity

relative to our operating licence

NC\*

maximum 1 recurring

#### **Operational excellence:**

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

#### Sourcing, recycling channels:

- Identification of recycling sources for waste currently landfilled
- recycling channels

- processing channels
- Technology watch R&D:
- liner recycling technique

![](_page_13_Picture_55.jpeg)

#### **CIBLES**:

2024
≤ 1.79 kg/t Al (scope1)
<b>2025</b>
2030

30% reduction (scope 1+2+3) 2050

-70% (scope 1+2+3)

2024

2025

*drop* ≥ 20%

2030-35

30% drop

 $\leq$  244,978 m<sup>3</sup>, 12% drop\*

![](_page_13_Picture_61.jpeg)

Identification of new

▶ In-house recycling partnership

**Qualification of our waste:** 

Audit of our waste

Precise characterisation of our waste

New refractory and carbonaceous

2024 60% of our waste recycled

2030-35 80% of our waste recycled

2050 0 non-recycled waste

![](_page_14_Picture_0.jpeg)

2.2

### GHG - Decarbonation strategy

#### 2023 HIGHLIGHTS

- Climate fresk for the Executive Committee and the Industrial Committee
- Climate fresk training extended to all employees
- Flooding in the Calais region and impact on employees

#### **Aluminium Dunkerque** anticipates climate change issues

#### LAUNCH OF A CLIMATE CHANGE **IMPACT STUDY**

- Faced with the growing impact of climate change on our environment, and following the bad weather at the end of 2023, the company's executive committee decided to launch a climate change impact study covering the site's activities.
- The purpose of the study will be to identify all the activities that are vulnerable to climate hazards, to assess possible climate changes according to different climate change mitigation scenario results, and to develop an action plan to deal with the main identified risks.
- The study results are expected in the third quarter of 2024.

#### LOW-CARBON ALUMINIUM

Decarbonisation is a major challenge for the protection of our planet and its inhabitants' quality of life. It is vital to develop industrial capacity and production techniques in line with this challenge. Our business is at the heart of this objective, because aluminium is a key resource for the energy transition. Aluminium Dunkerque is a world leading low carbon aluminium producer, The company has lowered its emissions (scope (1 and 2) by 17% since 2013.

To produce it, Aluminium Dunkergue already emits four times less greenhouse gases than the global average for the sector, and is further speeding up its energy and environmental transition. Within the framework of the European climate act and at the heart of a pioneering industrial decarbonisation region under the France 2030 programme, our company has set itself an ambitious "Low Carbon Trajectory" for 2050. To achieve it, we interact with all our stakeholders. first and foremost of which are our local partners and our customers, who are increasingly demanding low-carbon aluminium.

Based on those achievements, we intend to play a major role in European low-carbon aluminium production for the benefit of our customers and our communities. That is why, in line with the COP21 objectives, we are accelerating our energy and environmental transition by adopting a road map for 2050: the lowCAI project.

![](_page_14_Picture_16.jpeg)

![](_page_14_Figure_17.jpeg)

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.

**A trajectory** consistent with the SBTI (Science **Based Target** Initiative) scenario of limiting global warming to +1.5 C°

### ACCELERATE

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

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

![](_page_14_Picture_28.jpeg)

ACHIEVE

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

![](_page_14_Figure_30.jpeg)

![](_page_15_Picture_0.jpeg)

![](_page_15_Picture_1.jpeg)

#### > 2023 HIGHLIGHTS

- Signature of the Ecological Transition Contract with the French Ministry for Industry
- Aluminium Dunkerque announced the C4Capture project: Collaboration on CO<sub>2</sub> Concentration and Capture in the aluminium industry with its partners Trimet, Rio Tinto and Fives.
- Aluminium Dunkerque supports soft mobility.

#### **KEY FIGURES**

![](_page_15_Figure_7.jpeg)

![](_page_15_Figure_8.jpeg)

reduction recorded in scope 1 and 2 emissions per relative tonne between 2022 and 2023 of CO<sub>2</sub> avoided by 2023 and a 100-fold increase in the use of our partner platform -Car pooling for our employees

#### ALUMINIUM DUNKERQUE REVEALED ITS LOWCAL ROADMAP

Aluminium Dunkerque officially signed its Ecological Transition Contract with the French State in November 2023.

Link to our website: Section > Our news https://www.aluminiumdunkerque.fr/aluminium-dunkerque-signeofficiellement-son-contrat-de-transition-ecologique-avec-letat/

![](_page_15_Picture_14.jpeg)

avoided between 2022 and 2023, i.e. 33 GWh avoided, which is equivalent to the consumption of more than 15,000 people.

#### **OUR ACTIONS IN 2023**

- > We took operational excellence to the highest levels in terms of controlling our net carbon footprint, our PFC\* emissions and our energy consumption (see p34 part 2.3 energy)
- Installation of new natural gas consumption meters for better monitoring and promotion of the effectiveness of our actions
- Conduct of an initial CO<sub>2</sub> capture test Encouragement of soft mobility by creating parking spaces reserved for car-pooling.
- Consolidation of the C4Capture consortium, which aims to prove the feasibility of carbon capture in the primary aluminium industry.
- \* Perfluorocarbon, a greenhouse gas with a high global warming potential.

#### OUR ACTIONS IN 2024

- Operational excellence and energy efficiency
- Heating loop network project
- Team dedicated to implementing the project C4Capture and the completion of an initial test phase in live conditions at the end of the year
- To be able to annually certify and publish our carbon footprint calculations for the "products sold" and "corporate entity" scopes.

![](_page_16_Figure_11.jpeg)

# 

#### A CERTIFIED CARBON FOOTPRINT AVAILABLE EVERY YEAR

In 2024, we are launching a project to set up a computerised system to collect source data and calculate our carbon footprint. A carbon footprint that will be calculated for our sold products but also at the Aluminium Dunkerque entity level.

#### **Objectives:**

- An increase in the accuracy of our data (less than 2% uncertainty for each data item used in the calculation)
- To be able to assign a value to our suppliers' specific CO, emission coefficients
- To be able to annually publicly publish our CO, scope 1+2+3 emissions performance
- Data regularly consolidated and validated to guide our decarbonisation strategy
- The database will be operational by the end of 2024.

#### CARPOOLING AT ALUMINIUM DUNKERQUE, THE START OF A GREAT DYNAMIC IN 2023

Carpooling is a sustainable practice that benefits the company, its employees and the environment. A private car emits an average of 120g of CO2/km. By sharing a vehicle between several employees, those emissions can be considerably reduced. Encouraging our employees and external companies to carpool has many advantages:

- $\triangleright$  Reduction of CO<sub>2</sub> emissions
- Reduced atmospheric pollution, lower fine particle (PM10) and nitrogen oxide (NOx) emissions
- Reduced transport costs
- Employee well-being by reducing drivingrelated stress, but also by encouraging social interaction between colleagues, thereby improving concentration and safety on the site

![](_page_16_Picture_27.jpeg)

#### OUR ACTIONS FOR 2024 AND BEYOND:

- > 14 new car-pooling parking spaces
- Allow our employees to cycle to our site (joint work with the Dunkerque urban community and the Grand Port Maritime de Dunkerque) to develop safe cycle paths for our staff

![](_page_17_Picture_0.jpeg)

![](_page_17_Picture_1.jpeg)

2.3

### Energy Efficiency

#### **HIGHLIGHTS**

- ► Electrolysis energy performance
- Energy flexibility for operating sectors (during the tank shutdown period)
- ▶ ISO 50001 certification for the plant perimeter

#### **KEY FIGURES**

3.75 TWh

electricity consumption & 233 GWh natural gas consumption

### 13,075 kWh/tAl

Electrolysis energy efficiency (average for 2023)

>82% Foundry furnace energy efficiency

#### **OUR ACTIONS IN 2023**

#### **OPERATIONAL EXCELLENCE** FOR THE FOUNDRY FURNACES

2023 had excellent energy consumption results from the foundry furnaces against a backdrop of falling production due to the shutdown of the electrolysis cells.

![](_page_17_Figure_17.jpeg)

Foundry furnace energy efficiency (%)

![](_page_17_Picture_19.jpeg)

![](_page_17_Picture_21.jpeg)

![](_page_17_Figure_24.jpeg)

The results are especially derived from the various projects undertaken on the management and operation of the 7 foundry furnaces.

Several campaigns to measure burner combustion rates were carried out, making it possible to identify the influencing factors that play a major role in furnace operation and management.

A technical and economic study of the burners was also carried out to identify the best available technologies that could be implemented to meet our future strategic needs.

#### **OPERATIONAL EXCELLENCE FOR** THE ELECTROLYSIS CELLS

The Electrolysis sector was the focus of attention in the first half of 2023, with 74 cells having to be restarted following the shutdown resulting from the energy crisis in 2022.

Against the energy crisis backdrop, it is all the more crucial to keep a constant eye on cell energy performance, as they account for around 94% of Aluminium Dunkerque's electricity consumption, i.e. ~3.5TWh in 2023.

Operational excellence allowed us to achieve very satisfactory results from the second half of the year onwards, exceeding the best performance ever achieved at the site and reaching a benchmark level for plants worldwide.

![](_page_18_Picture_4.jpeg)

![](_page_18_Figure_6.jpeg)

Several projects supported that performance. The project to optimise the electric contacts between the frame and the anode, the cell relining programme, maintenance of the anode rods and hexapods...

Technological development trials also began in 2023: optimisation of the anode grooves and the lubrication of the cell connectors, and will continue in 2024.

![](_page_18_Picture_9.jpeg)

![](_page_18_Picture_10.jpeg)

It should also be noted that all the natural gas meters were replaced. After their reliability has been optimised, they will enable us to improve our results, especially with the development of a specific energy consumption portal.

2024 will see the construction of a new furnace: furnace 8, dedicated to aluminium recycling. New burner technology will be installed to improve efficiency.

![](_page_18_Picture_13.jpeg)

#### Trend in specific electrolysis cell consumption

#### **OUR FORTHCOMING 2024 ACTIONS**

2023 was a difficult year, with the cells being restarted. Numerous technical and economic studies were conducted in all operational sectors and support services with the aim of reducing our energy consumption.

Some of them will be implemented in 2024 and will lead to reductions in natural gas consumption in the Carbon sector (Sealing Workshop and Baking Oven) and in the Electrolysis sector (Ladle Workshop).

A waste energy recovery project (heat loop) is also planned. The project will reduce the plant's tertiary building electricity consumption.

![](_page_19_Picture_0.jpeg)

![](_page_19_Picture_1.jpeg)

### *Our environmental performance*

#### > HIGHLIGHTS

2.4

- Biodiversity, a complete inventory of flora and fauna completed
- Stable atmospheric emissions
- ▶ Waste recycling rates: a strategy on the move
- ▶ WATER strategy: a pivotal year
- Conduct of a noise impact assessment, including characterisation and ranking of noise sources

#### **KEY FIGURES**

![](_page_19_Picture_11.jpeg)

Complete fauna and flora inventory on 100% of the site

![](_page_19_Picture_13.jpeg)

![](_page_19_Picture_14.jpeg)

○°□52 %

reduction in potable WATER consumption compared to 2019

![](_page_20_Picture_0.jpeg)

![](_page_20_Picture_1.jpeg)

![](_page_20_Picture_2.jpeg)

#### **BIODIVERSITY - OUR 2023 ACTIONS**

Over the past few years, Aluminium Dunkerque has taken steps to promote biodiversity in line with the criteria required by the Aluminium Stewardship Initiative certification.

#### Our project:

- Commitment to biodiversity = participatory approach.
- Maintaining of **biodiversity reservoirs** inside the plant
- Communication of the site's ecological challenges and raising awareness of biodiversity among the company's employees

2023 was a year of stocktaking for the site. Ecosphère helped us carry out a complete inventory of the flora and fauna on our site. We identified a number of species of medium to high concern. 2024 will be devoted to defining a development plan for our green and natural spaces that will promote biodiversity challenges.

The approach is all the more interesting considering that the Aluminium Dunkerque site is located on the sandy coastal fringe which is conducive to the development of characteristic and often remarkable biocenoses\*. The central concept to be pursued in developing the strategy will be ecological continuity. That refers to the ability of ecosystems and species to move freely across the landscape. That freedom is essential to their preservation, the maintenance of their health, and their ability to adapt to the environmental changes caused by global warming.

\*All the living things that inhabit a given ecosystem. It is made up of three basic ecological groups of organisms: plants, animals and decomposers (bacteria, fungi, etc.).

Conduct of a full ecological assessment of the site. The study was conducted over the 4 seasons of 2023. Ecosphère made inventories of the following main living groups: flora, birds, amphibians, reptiles, mammals and insects.

A specific inventory of gulls nesting on the roofs of industrial buildings was carried out using a drone. Prodrones was Ecosphère's partner for that mission.

The ecological diagnosis was supplemented by a bibliographic analysis. To that end, the extensive flora and fauna data collected on the site over the last 20 years was analysed and included in the ecological diagnosis.

#### Conclusion of the fauna/flora inventories conducted in 2023:

- There is a high diversity of species on the Aluminium Dunkerque site and its immediate surroundings (species characteristic of the Dunkirk coastline).
- > Several species of heritage interest were identified
- > A site that has a real challenge for coastal biocenoses.
- A gull colony of high importance for the Haut de France region (900 pairs recorded).

#### > RESULTS

	Flora	Nesting birds	Mammals	Amphibians	Insects
Number of species	260	38	7	0	28
Number of species locally of concern	23	22(11)	2	0	0

#### **FLORA**

- 302 vascular plants (228 indigenous) including 163 in 2023 (42 new indigenous species)
- 6 protected plants
   including 2 of uncertain indigenous status
   (2 found in 2023)
- > 26 plants of medium to high local concern (12 found in 2023)
- 12 actual or potentially invasive alien plants
   (4 found in 2023)

![](_page_21_Picture_7.jpeg)

#### FAUNA

- 47 nesting birds, including 30 in the study area(25 in 2023)
- > 16 breeding species of medium to very high local concern (Crested lark)
- Low functionality of woody formations (shrubs, bushes, etc.)
- No nesting passerines on the ground at the plant
- Bats: Common Pipistrelle and Lesser noctule (high concern) Very low activity levels
- Other mammals: **7** species including **European water vole** and **Eurasian harvest mouse** (medium concern)
- Amphibians: choruses of **Natterjack toads** in the immediate vicinity
- Reptiles: no species

#### INSECTS:

- > 19 rhopalocera, including the Grayling (medium concern)
- 9 Heterocerans, including the Aporophyla australis (high concern)
- 5 Dragonflies
- **5** orthoptera, including the **Italian tree cricket** (fairly high concern)

#### SPECIFIC MONITORING OF GULLS:

- 882 nests on roofs (820 Herring gulls, 60 Lesser blackbacked gulls and 2 Great black-backed gulls)
- At least 19 nests on the ground (10 Herring Gulls, 9 lesser black-backed gulls)
- Approximately 900 pairs of gulls = a large colony for the Nord/Pas-de-Calais region

![](_page_21_Picture_26.jpeg)

![](_page_22_Figure_0.jpeg)

Key: Coastal corridors

Developed areas Semi-natural areas

20

Seas and oceans

#### **OUR ACTIONS IN 2024**

Creation of a development and management plan for the plant's green and natural spaces alongside our stakeholders, based on:

- An analysis of current practices, human, technical and financial resources and the expectations of Aluminium Dunkerque staff;
- The results of the ecological diagnosis and ecosystem services;
- ▶ The principle of ecological continuity (see map).

The Aluminium Dunkerque site is located on a coastal corridor.

### Environment

#### WASTE MANAGEMENT

Because of the way our processes were designed when the site was built, we recycle almost all our manufacturing waste in-house. A non-reusable quantity remains, which we send out for processing in one of three ways:

- Recycling, mainly our aluminium scrap;
- Recovery, especially energy;
- Landfill.

We have a proactive and innovating approach to our waste recycling channels In 2023, the quantity of recycled waste deteriorated slightly. The reason for that was the renovation of a larger number of electrolysis cells as part of the restarting of the production capacity that was stopped as a result of the energy crisis in 2022.

We are actively pursuing our ambition of recycling over 80% of the final waste generated by our processes by 2030-2035.

#### OUR ACTIONS IN 2023

2023 was a year of prospecting and auditing new recycling and recovery channels.

The investigations concerned the following waste:

- Refractory bricks: a waste product from the dismantling of our aluminium tanks. We renovate around fifty of them every year.
- Organic waste: waste from on-site catering.
- ▶ Refractories for our foundry furnaces and inhouse liquid aluminium transport ladles.
- Foundry scum: produced by skimming our furnaces before solidification in the form of slabs or ingots.

We have a proactive and innovating approach to our waste recycling channels. We encourage R&D to find new recycling methods. We are also developing partnerships with companies specialising in recycling, especially aluminium scrap.

![](_page_23_Figure_0.jpeg)

Total plant - Percentage of recycled waste in 2023

![](_page_23_Figure_2.jpeg)

![](_page_23_Figure_3.jpeg)

Waste processing methods at the

Dangerous / non dangerous waste breakdown Factory total

#### **OUR ACTIONS IN 2024 AND BEYOND**

- Conduct a major campaign to support and raise awareness among our staff and contractors of the various ways of sorting our waste in order to increase the amount of waste that can be recycled.
- ► Continue our audits and investigations into our recycling channels.
- Start the first tests to recycle our refractory liners.
- Our efforts in that area will be rewarded by gains in:
- ▶ environmental protection (less landfill);
- ▶ protection of natural resources;
- ▶ economic;
- ▶ circular economy.

The road ahead is complex and demanding, but by 2025 we hope to have achieved a significant change in the way we manage our waste.

02 - Environment Aluminium Dunkerque

![](_page_24_Picture_0.jpeg)

#### WATER RESOURCE MANAGEMENT WATER A STRATEGIC RESOURCE

#### Our actions in 2023:

- Deployment of water meters Making measurements viable. No water-saving strategy can be implemented without effective, instant consumption measurements.
- In 2023, 15 water meters were installed and connected to the computerised management tool for our processes, so that we can react immediately if there is any drift in consumption.
- ▶ In 2023, we also selected a new water processor with the necessary qualities to support us technically in our strategy to achieve 30%\* water savings by 2035.

\*Baseline for overall site water consumption: 2019

![](_page_24_Picture_7.jpeg)

![](_page_24_Picture_8.jpeg)

### OUR WATER RESOURCES AND THEIR USE 2023 consumption: 20

#### **OUR WATER CONSUMPTION**

#### Site water consumption:

Our water consumption complies with our prefectoral 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 casting 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.
- Plant air compressor cooling tower backup water and junker furnace in the carbon sector.

![](_page_24_Figure_28.jpeg)

#### WATER consumption (potable + industrial) on site in m<sup>3</sup>/year

2024 will be devoted to making the water meters more reliable and to setting specific consumption targets for each item of monitored equipment.

![](_page_25_Picture_0.jpeg)

#### **WATER EFFLUENT ASSESSMENT**

In 2023, we saw a decline in all our annual aqueous discharge flows\*, except for Iron+Al.

Only the nickel value is slightly non-compliant with our prefectoral site authorisation order.

#### The main causes are the following:

- A regulatory limit four times lower than the national limit for a primary aluminium production site.
- Leakage of raw materials leached by rainwater (see p61 for details of actions taken and in progress).

Improvement of the reliability of the capture and filtration of fugitive dust emissions from furnace doors 5&6 in the foundry sector should help reduce our emissions of heavy metals in our water discharges.

\*authorised flows in dry weather

#### OUR ACTIONS IN 2023

- Selection of a service provider specialising in water treatment and recycling. This service provider and its specific skills will support us in the site's REUSE\* projects.
- Finalisation of the installation of water meters on our equipment.
- Design of computerised views of water consumption data.

#### OUR ACTIONS IN 2024 AND BEYOND

- Identification of sources of in-house recycling of our wastewater (REUSE project) supported by contractor BWT.
- Launch of the most relevant REUSE projects at the end of 2024
- Installation of the first adiabatic tower in the maintenance sector. An innovating technology that uses 90% less water than a traditional tower.
- Definition and monitoring of consumption targets for each water consumption item at the plant
- > Automated purging of the circuits in our air cooling towers
- In 2023, we selected a service provider to support us in our REUSE\* projects.

\*Water recycling for in-house reuse

#### **ATMOSPHERIC EMISSION** ASSESSMENT

We noted good control of our atmospheric emissions in annual flow in 2023. Faced with the price of energy, Aluminium Dunkergue suspended production of 74 of the 264 cells in the series, i.e. 28% of our cells, and reduced the amperage of the series.

Production was restarted at full capacity in May 2023.

In 2023, production of finished products was 267,718 tonnes. That level of production is still below the target production of 285,000 tonnes.

On the other hand, our fluorine emissions have risen.

The increase is mainly due to the restarting of our cells which had an impact on emissions from the skylights of our electrolysis series.

However, all our fluoride measurements remain within the limits of our prefectoral operating permit.

### We saw a reduction in almost all our atmospheric emissions in 2023

#### TOTAL PLANT FLUORINE EMISSIONS IN TONNES PER YEAR

![](_page_26_Figure_9.jpeg)

#### TOTAL DUST EMISSIONS IN TONNES / TONNE OF ALUMINIUM PRODUCTION

![](_page_26_Figure_11.jpeg)

#### **TOTAL SITE FLUORIDE IN TONNES / TONNE OF ALUMINIUM PRODUCTION**

![](_page_26_Figure_13.jpeg)

#### OUR ACTIONS FOR 2023 - 2024

- Fluorine emission action plan (2023 target 0.46 kg/t Al) and total dust (ancillary filter targets 5 and 10mg/Nm<sup>3</sup>)
- ► Conduct of a specific in-depth analysis using PPS (Practical Problem Solving) methodology. An in-house resource will be dedicated to the analysis. The study will let us identify the most relevant levers for action.
- ▶ 2024 will see the conclusions of the analysis with a defined action plan and an implementation schedule.
- Improvement of the reliability of a fugitive emission capture and processing installation for our Foundry workshop.
- ▶ Replacement of filter media for non-compliant ancillary filters was planned for 2023.

- Continuation of the strategy of completely replacing the filter sleeves on our CTG filters.
- ▶ 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.
- ▶ Improvement of the quality of the BA110 filter media in the bath tower, start of technical studies for implementation by 2025.
- Launch of a technical study to continuously measure total dust emissions from foundry furnace stacks.

#### > SO<sub>2</sub> – ANNUAL EMISSIONS IN KG/TONNE OF ALUMINIUM PRODUCTION

![](_page_27_Figure_1.jpeg)

![](_page_27_Figure_2.jpeg)

![](_page_27_Figure_3.jpeg)

![](_page_27_Figure_4.jpeg)

#### **TOTAL DUST IN ANNUAL TONNES**

![](_page_27_Picture_6.jpeg)

![](_page_27_Picture_7.jpeg)

![](_page_28_Picture_0.jpeg)

#### **COMMUNITY RELATIONS**

#### Assessment of complaints and regulatory non-compliances.

In recent years, we have had to deal with two pollution problems suffered by our local residents:

- Dust pollution
- Noise

All against a specific backdrop of north-easterly winds.

#### **DUST POLLUTION**

The 2023 dust pollution assessment was very favourable for the Aluminium Dunkerque site. The site accounted for 3% and 2% of the two recorded episodes.

#### OUR ACTIONS IN 2023

- A team of four operators is on hand every day to look for leaks when our sensors exceed 5mg/Nm<sup>3</sup> on our main stacks.
- ▶ The information is transferred to monitoring with the triggering of an alarm if unloader filter dust levels are exceeded.
- ▶ Total rhythm kept at 7 totals per year to renew the filters every 3 years and prevent drift.
- Stronger filter tests (reinforced filter tips): decision to install them on the filters that contribute the most, i.e. 11 out of the 28 CTG filters.
- 40 % of our filtration capacity has been strengthened resulting in a significant reduction in the number searches for leaks.
- A 20% increase in our filter service life.
- ▶ High-flow filter (>10000Nm3/h) measured and changed if 10mg/Nm<sup>3</sup> is exceeded.
- If Aloatec triggers a dust pollution alert, raw material unloading operations are suspended with immediate effect.

In 2024 and beyond, we will keep the operational control measures which are proving their effectiveness.

#### Percentage of the Aluminium Dunkerque contribution to each inconvenient pollution incident since 2018.

![](_page_28_Figure_20.jpeg)

![](_page_28_Picture_22.jpeg)

02 - Environment Aluminium Dunkerque 57

![](_page_29_Picture_0.jpeg)

![](_page_29_Figure_1.jpeg)

![](_page_29_Figure_2.jpeg)

#### **NOISE POLLUTION**

#### Our actions in 2023

Acoustic impact study conducted to characterise and rank noise sources according to their level of impact on local residents (2023). We worked with SIM Engineering.

#### Our actions for 2024

- Identification of technical noise source mitigation solutions categorised as having the greatest impact on the local community.
- ▶ We are targeting the gradual implementation of technical solutions over at least 3 years (2025-2028).

![](_page_29_Picture_10.jpeg)

Bath tower

"Residual" ZER measurement (masked point)

We therefore propose a phased implementation to significantly reduce the site ZER3 impact, a control point installed close to a local resident who filed a complaint. Reducing the site's noise pollution impacts at point ZER3 will also reduce its impact in ZER1 and ZER2 (this point also corresponds to a local complainant).

### Conduct of an acoustic impact study

![](_page_30_Picture_0.jpeg)

![](_page_30_Picture_1.jpeg)

#### SITE REGULATORY COMPLIANCE STATUS

#### Recurring site NCs 2023 review:

- ▶ No formal notice has been given
- We were subjected to four inspections by the authorities and 3 unannounced checks (AIR/ WATER/ LEGIONELLOSIS)
- A proposal for a formal prefectoral notice order was notified following an AIR inspection (concerns total dust emissions from foundry stacks)
- We declared two recurring non-compliances with our prefectoral site authorisation order.

#### **1.** The first concerns our total dust emissions from our foundry furnaces.

At the end of 2023, a multidisciplinary working group was set up alongside a monthly executive committee. We must make sure we dedicate all possible human, technical and financial resources to resolving the non-compliance. 2024 and the first half of 2025 will be devoted to identifying and implementing measures to improve operational control, the representativeness of measurements and, if necessary, technical modifications to our equipment.

#### The main areas of work:

- More reliable capture of dust emissions at foundry furnace doors.
- In-depth analysis of dust emissions and identification of mitigation resources (operational and technical).
- Reliability of the measurement and its representativeness because our process is discontinuous.

#### 2. The second concerns nickel flow concentrations and flows in wastewater.

- In 2023, the following actions were carried out:
- Actions to reduce raw material leakage at source.
- Optimisation of site road cleaning (frequency and equipment).

In 2024, we will pursue the above actions with the appointment of a dedicated resource on the subject in the operational Carbon Sector.

#### Additional action will be carried out, i.e.:

 Mapping of potential nickel sources in our rainwater (leaching tests on our storage facilities and loss of raw material containment).

![](_page_31_Picture_0.jpeg)

- commitment
- **3.4** Our commitment to human and personal rights
- **3.5** Application of the anti-corruption law
- **3.6** Our communities & stakeholders

![](_page_32_Picture_0.jpeg)

#### 3.1

Hygiene, Health, Safety, Security: A pillar of our corporate social responsibility.

#### 2023 HIGHLIGHTS

- Improvement in safety results in 2023.
- Inclusions of best practices and tools for operational control in emergency management.
- The EOS "Ensemble On S'Améliore" critical risk management tool is in place and widely used by management.
- Installation of heavy load handling in the warehouse and central maintenance (garage).
- A year full of inspection visits under the protocol that required optimum safety and security organisation.

![](_page_32_Picture_10.jpeg)

Almost **3000** critical risk inspections carried out in 2023

![](_page_32_Picture_12.jpeg)

**5500** health declarations Safety and Security of employees in 2022

![](_page_32_Picture_14.jpeg)

**3** POT exercises, leading to3 reviews of our response reflex cards

Our safety results:

- TF1\* AD+Temp workers 2023: <5</p>
- ▶ TF1\* AD+Temp 2023 result: 3.85
- Number of fatal accidents AD+Temp = 0
- Number of treatments 2023 AD+Temp = 58
- Number of accidents with sick leave (AD+Temp) AD+Temp 2023 = 58

\*TF1 : Frequency rate calculated as follows: Number of lost-time 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

![](_page_32_Figure_23.jpeg)

▶ The management and support of contractor companies in terms of safety performance (use of our tools, PDP (Prevention Plan), work permits, etc.).

![](_page_32_Figure_25.jpeg)

#### **TF1° FREQUENCY RATE\* ALUMINIUM DUNKERQUE STAFF + CONTRACTORS**

![](_page_33_Figure_1.jpeg)

![](_page_33_Picture_2.jpeg)

#### OUR ACTIONS IN 2023 NEW MONITORING TOOL FOR OUR CRITICAL RISK CONTROLS "EOS": IMPROVING TOGETHER

Aluminium Dunkerque has a new critical risk management tool: EOS. Innovating and adaptable, it has replaced an old tool that had become obsolete. EOS lets us identify the risks specific to our activities more accurately and assess them faster

It also facilitates collaboration between Aluminium Dunkerque teams and those of our subcontractors thanks to a user-friendly interface. The tool can also be used to generate automated reports which are used by management to manage everyday safety. By adopting the solution, we are reinforcing our commitment to constantly improving the safety of our employees, contractors and visitors.

![](_page_33_Picture_6.jpeg)

#### Contractors - TF1\* and TF2\* estimates

![](_page_33_Figure_8.jpeg)

2023 Contractor safety results: Number of fatal contractor accidents: 0 Number of contractor treatments in 2023: 71 Number of accidents with contractor lost time: 8

![](_page_33_Picture_11.jpeg)

#### **EMERGENCY RISK MANAGEMENT**

We have set up a new crisis management tool to improve our responsiveness to emergency situations. The system facilitates the coordination and communication in the crisis unit, as well as with external emergency services (Fire and rescue/ Prefecture). In parallel, we have optimised the support tools and equipment used by the crisis unit to manage emergencies. Various works have been carried out at the site's search and rescue centre to guarantee optimum emergency response: purchase of new, more efficient equipment, refurbishment of premises, etc.

Several practical drills have been carried out to test and include the changes and strengthen our ability to react to our industrial risks.

![](_page_34_Picture_0.jpeg)

![](_page_34_Picture_1.jpeg)

#### **IMPROVEMENT OF OUR EMPLOYEE** WORKING CONDITIONS

We have launched several projects intended to improve working conditions. That includes the installation of load handling aids in the site warehouse.

The new systems limit manual handling and thus protect our employees' health. At the same time, new equipment has been installed to carry out regular general inspections of our machinery, eliminating the need to handle manual loads. Finally, an exoskeleton test was created during a maintenance operation. The use of an exoskeleton in an industrial environment makes heavy physical work easier. Such initiatives are intended to reduce the arduousness and risk of injury at workstations. Furthermore, they contribute to greater operational efficiency and a safer working environment!

### In 2023, there were 59 meetings with the trade unions (all subjects combined)

The exoskeleton is used to make heavy physical work easier

![](_page_34_Picture_8.jpeg)

![](_page_35_Picture_0.jpeg)

#### 3.2

### Training and skills development

#### **2023 HIGHLIGHTS AND ACTIONS**

- ► Technology at the service of training: Virtual reality gives our employees immersive learning, helping them to acquire essential skills.
- Who better than us to train in our professions? We organised a day with our in-house instructors to create a group dynamic, with instructors sharing their expertise with each other to try to continuously improve the relevance of our training courses, and making sure they are both tailored to the needs of and relevant to each employee.

We launched the "Climate Fresk" training course for our staff to raise its awareness and engage teams in the huge climate challenges facing the company and each of us every day.

#### **KEY FIGURES**

![](_page_35_Picture_8.jpeg)

**21 256** hours of training (i.e. 32 hours per employee)

#### **700** employees to be trained over

![](_page_35_Picture_11.jpeg)

![](_page_35_Figure_12.jpeg)

**40** *in-house instructors on our site* 

2 years for "Climate Fresk

![](_page_35_Picture_14.jpeg)

![](_page_35_Picture_15.jpeg)

### Acquisition of virtual reality headsets

#### VIRTUAL REALITY

As part of our " AD Process Campus " project, we are continuing to develop process-specific training modules for all our production sectors in order to maintain and develop our cutting-edge process skills.

A "factory-process" module will be set up in 2024 in virtual reality (but also on computers or tablets). In 2023, the training department purchased virtual reality headsets so that trainees can be directly immersed in our workshops through the different health and safety training themes: "liquid metal risks", "gestures and postures", "noise", etc. and soon "our workshop processes".

#### > INSTRUCTOR DAY

The training department organised a day specifically for our instructors, which proved to be a great success.

#### **Objectives:**

- To better know each other and create a true sharing network.
- > Think about their rôles as instructors.
- > Exchange feedback and best practices.

In the afternoon, workshops were held on attentiveness to training and its organisation. That day is used for instructors and the training department to work on topics for 2024 to further develop our practices and modules.

![](_page_35_Picture_27.jpeg)

![](_page_36_Picture_0.jpeg)

![](_page_36_Picture_1.jpeg)

#### 3-3

### Building a culture of attractiveness and commitment

#### 2023 HIGHLIGHTS AND ACTIONS

- Implementation of an ATS (Applicant Tracking System). It is used to recruit collaboratively, faster and more effectively using a single, relevant tool.
- Creation of a video by Mohamed Henni production to highlight our manufacturing process in a dynamic and modern way.

![](_page_36_Picture_8.jpeg)

 Creation of a network of ambassadors to represent the site at external events.

- Two induction days, i.e. 73 people inducted in 2023.
- Presentation of the Work-study programme to Olivier Dussopt, Minister for Employment, Health and Solidarity.
- ▶ Signature of a professional gender equality agreement.

#### RECRUIT COLLABORATIVELY, FASTER AND MORE EFFECTIVELY USING A SINGLE, RELEVANT TOOL

ATS called Between is a French application developed in Brittany. The digital tool has been deployed to standardise the recruitment process, undertake collaborative recruitment, and have more visibility and time (in a single CLICK). Our job opportunities are published on around ten job boards such as Indeed or LinkedIn.

The advantage: broadening our pool of candidates and creating an efficient CV library. The launch of the tool is scheduled for early 2024.

![](_page_37_Picture_3.jpeg)

#### > 2024 ACTIONS: LAUNCH OF THE BEETWEEN PROJECT

**Project objectives:** 

- To show our attractiveness compared to companies setting up here
- ▶ To improve the candidate experience
- ▶ To increase visibility
- ▶ To centralise data
- ▶ To keep candidates in the pool
- ▶ To improve the process for everyone
- ▶ To avoid re-typing
- ▶ To improve manager and HR experience
- ▶ To promote the employer brand
- ▶ To save time
- ▶ To increase our need to contract conversion rate
- ▶ To reduce recruitment times
- ▶ To expand our talent pool
- ▶ To fulfil our GDPR requirements
- ► To improvee productivity

### To standardise the recruitment process

![](_page_37_Picture_22.jpeg)

#### **KEY FIGURES**

**73** hires on permanent contracts and 25 on work study courses

#### Almost 30% of women hired in 2023 (permanent contract/ work study programmes)

74 Aluminium Dunkerque 2023 Sustainable Development Report

20 Aluminium Dunkerque participations in events dedicated to employment and relations with schools

**12** partnerships with 12 schools (from bac to bac+5)

#### > AN AMBASSADOR NETWORK

An analysis of our forward-looking management of jobs and skills forecasts the retirement of 250 employees over the next 10 years, i.e. 40% of our workforce).

The challenges associated with recruitment are constantly increasing. We are counting on the mobilisation of our staff to step up our presence locally and regionally at employment events.

Which is why we decided to create an AMBASSADOR network! Who better than our staff to represent our company culture and the related professions. Volunteers who are perfectly able to explain our missions, their professional experience and the steps they took to reach their level of skills.

#### What does it mean to be an ambassador?

- Presenting our professions to young people (secondary school pupils, students, etc.)
- Promoting our company and conveying Aluminium Dunkerque's values at external events (industry trade fairs, social media, video shoots, testimonials, etc.)
- Identifying our future talent (job forums, work study programmes, job-dating, etc.)
- Being our teachers for a day (diploma reference module in our workshops)
- > Being the sponsor of a new recruit

![](_page_38_Picture_10.jpeg)

employees mobilised

![](_page_38_Picture_12.jpeg)

![](_page_38_Picture_13.jpeg)

**1.4** events in 2022

![](_page_38_Picture_15.jpeg)

![](_page_39_Picture_0.jpeg)

#### PROFESSIONAL GENDER EQUALITY

In 2023, there were 90 female employees and a 32% increase in the number of women in Aluminium Dunkerque's workforce compared to 2021. There were also 28 female operators in the production teams.

#### **1.** Principle of equal hires

- ▶ Implementation of a good hiring practice charter.
- Pursuit of awareness-raising measures by training the people in charge of recruitment.
- Sharing the good hiring practice charter with all partner companies.

#### 2. Job diversity

- Propose at least one candidate of each gender for hires. If there is no identified candidate, an exception decision may be requested from the HRD.
- 3. Diversity in the recruitment of trainees and work study programme employees
- Aluminium Dunkerque Service undertakes to define a "Woman in Industry" communication strategy and media, and to communicate on the possibility for women to join Aluminium Dunkerque Service as trainees or work study programme employees.

Access to the gender equality index published on our website: https://www.aluminiumdunkerque.fr/

wp-content/uploads/2024/04/egaliteHF.pdf

![](_page_39_Picture_13.jpeg)

### Charter of good hiring practices

#### 4. Starting salary and career progression

- Creation of a specific annual Careers Committee exclusively composed of HR management.
- Annual review and correction of any identified and unjustified pay differences with no budget limit (creation of a specific budget line).

#### 5. Pay trends and parenthood

- Following maternity, adoption or parental leave, and in the absence of professional misconduct on the part of the employee during the year under review, the employee's pay will be increased by the equivalent of the percentage of the individual annual performance increase provided for their professional category by the company's unilateral wage agreement or decision.
- The leave period for pathological pregnancies is taken into account in determining the employee's rights to seniority as well as their rights to profit-sharing and incentive schemes.

### Access to vocational training

#### 6. Balance between work and private family life

- Possibility of taking 2 hours off work to take children to the official start of the school year in September until the children are 10 years old.
- Employees on a morning shift who want to accompany their child on the first day of school can request leave for the full shift.
- 3 days paid leave per calendar year for the hospitalisation or illness of a dependent child under the age of 16.
- Leave for sick children: 3 days per calendar year for a child under 18.
- Leave for children in hospital: 3 days per calendar year for a child under 18.
- Creation of a parenthood guide made available on the internal network.
- Creation of a procedure to automatically cater for employees who are aware that they are going to have children.
- Provide a private room for the exclusive use of women wanting to pump breast milk during their shift. The room must guarantee the privacy of the employees using it, as well as provide suitable refrigerated storage.
- Maintain the provision of daycare places (cots) for company employees.

#### 7. Career development

Creation of a specific annual Careers Committee, made up exclusively of HR management: the Committee will be in charge of monitoring employee careers. Its purpose will be to identify any clearly and objectively unjustified discrepancies, and put forward proposals for corrective action to the HR Department.

#### 8. Access to vocational training

Include as part of the specific annual Career Committee provided for in chapter 4 of this

![](_page_40_Figure_15.jpeg)

Agreement, a review of the needs expressed by employees during their professional interview and the associated professional training rate.

#### 9. Work environment and professional fulfilment

- Appointment of 2 additional harassment representatives (2 representatives of the workers college and 2 representatives of the Supervisor/ Management college).
- Inclusion in the specifications for each new PPE supply contract of any specific features of all employee sizes and morphologies.
- Creation of a network of company godmothers for new female recruits (primarily from the same sector/ department/team and professional category) on a voluntary basis.

- Implementation of a communication kit explaining the facilities offered by the company (pregnancy, daycare, harassment advisers, Code of Conduct, "Whistle blower" system, etc. to all new employees).
- Annual identification by the company, after informing the CSSCT, of one or more positions/mandates that are to be subject to organisational changes or investments enabling access to all company staff.

#### PROMOTIONAL FILM ON THE WOMEN WHO WORK AT ALUMINIUM DUNKERQUE

Video link: https://www.linkedin.com/posts/audreycossart-4b7063146\_opaezratrice-aluminiumdunkerquefiliaeyres-activity-7134868009738727424-NpGC?utm\_ source=share&utm\_medium=member\_desktop

![](_page_40_Picture_26.jpeg)

![](_page_41_Picture_0.jpeg)

### **3.4** Our commitment to human rights

#### REASONABLE DILIGENCE, ETHICS AND HUMAN 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 code 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.90).

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.

#### > 2023-2024 ACTIONS:

To pre-qualify our main suppliers, we require them to make a strong commitment by signing our responsible sourcing charter guaranteeing human rights. If there is the slightest doubt, a supplier audit can be triggered. An assessment will be carried out to establish corrective measures and how they will be monitored.

- Strengthening the due diligence assessment of our suppliers with the support of a contractor.
- Aluminium Dunkerque reserves the right to part with suppliers who do not comply with the provisions of the Charter (see Charter link available in appendix on p.90), or who do not propose an improvement plan or do not follow one.
- Raise AD staff awareness of the risk of modern slavery

### Promote the principles of due diligence internally and with all our partners

![](_page_42_Picture_0.jpeg)

#### 3.5

### Application of the anti-corruption law

#### > 2023 HIGHLIGHTS AND ACTIONS

Deployment of an in-house alert system for our employees. It allows everyone 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.

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

![](_page_42_Picture_6.jpeg)

 Analysis and assessment of third parties using a rating tool (Urios)

### Deployment of an in-house alert system

#### **KEY FIGURES**

**∆**<u>i</u>∆ 8

mandatory measures to be implemented under the SAPIN II Act

#### **INTEREST OF THE APPROACH**

Become compliant with the law and demonstrate our trustworthiness to our internal and external partners. Assess and improve the company's processes for fighting corruption to improve our transparency, process efficiency, the quality of our financial information and our reliability.

### CONTRIBUTION TO ALUMINIUM DUNKERQUE

Control of corruption-related risks in the company;

- Implementation of checks, actions and tests of the procedures related to identified critical risks;
- Anti-corruption ethics definition and culture at the factory, adapted to our organisation and our business;
- Assessment of our external partners to make sure we are working with third parties that are ethically trustworthy.

#### > 2024 ACTIONS

Deployment of the new "Whistle blower" system

### **3.6** Our communities and stakeholders

Aluminium Dunkerque is fully integrated in its territory and partners many local players, non-profits and events.

#### OUR PATRONAGE POLICY

Our patronage policy covers 2 themes in line with our main strategic challenges:

#### PROJECTS PROMOTING THE DECARBONISATION OF THE REGION

Founding member of the CO2 collective, Aluminium Dunkerque has helped to drive a collective dynamic that has led, in particular, to the definition of a CO2 roadmap for the Dunkirk coastal area and the organisation of three European CO2 Industries and Territories meetings. This highly ambitious partnership effort, which has been conducted for several years, has led to the creation of France's leading CO2 and hydrogen hub. The Collectif, a genuine tool to structure and create partnerships and cooperation, is undoubtedly an asset for the region in accelerating transition and inventing the industry of the future.

Aluminium Dunkerque is a member of Pôlénergie which supports companies and regions in the Hautsde-France region in their decarbonisation strategy. Laurent Courtois, our Director of Energy and Climate, has been its Chairman since 2022.

![](_page_42_Picture_28.jpeg)

#### THE PROFESSIONAL INTEGRATION OF YOUNG PEOPLE

Keen to encourage the professional integration of persons who are estranged from employment, in particular younger people, Aluminium Dunkerque is a founding member of the Fondation du Dunkerquois solidaire. Alongside the Foundation, the company is especially involved in the "Le Dunkerquois Solidaire pour l'Emploi" scheme, which helps create socially useful jobs in non-profit organisations that have signed agreements with the Foundation. These are genuine employment contracts for people who have been unemployed for at least two years, which are financed by the Foundation for 3 years. The foundation is also involved in monitoring the projects and mentoring the people recruited.

### Fondation du Dunkerquois solidaire

![](_page_42_Picture_33.jpeg)

![](_page_43_Picture_0.jpeg)

#### **COMMITTED TO SPORTS**

Aluminium Dunkerque also supports a number of sports clubs in the wider area to contribute to their development and the momentum they generate locally and beyond.

- The Basket Club Maritime (BCM) Gravelines Dunkerque, which plays in the Betclic Elite.
- The USDK Dunkerque Grand Littoral handball club, which plays in the Liqui Moly Starligue.
- **Les Corsaires**, ice hockey club which plays in Division 1.
- The RC Calais, which was created from the merger of the 2 historic Calais clubs and now competes in National 3.

Aluminium Dunkerque also subsidises smaller clubs run by its employees, such as the Loon-Plage tennis club (ASAD), the Gravelines women's basketball team (GBF), running (Jog ASAD) and the Dunkerque loops.

![](_page_43_Picture_8.jpeg)

#### > A DYNAMIC PARTNERSHIP

Aluminium Dunkerque also works closely with the Communauté Urbaine de Dunkerque and in particular its Economic and Attractiveness and Ecosystem D Department.

Every year, Aluminium Dunkerque takes part in the Fabuleuse Factory organised in Dunkirk to promote the industry of the future, as well as in the Rencontres Décarbonation Industries et Territoires, which reviews the progress of decarbonation projects in the Dunkirk region and of which Aluminium Dunkerque is a founding member.

Finally, Aluminium Dunkerque is a partner of the Dunkirk Maritime & Port Museum which traces the history of this constantly evolving region.

![](_page_43_Picture_14.jpeg)

![](_page_43_Picture_15.jpeg)

![](_page_44_Picture_1.jpeg)

▶ Visit by the President of the Republic Emmanuel Macron 12/05/23

![](_page_44_Picture_3.jpeg)

Visit by Minister O. Dussopt 27/10/23

![](_page_44_Picture_5.jpeg)

![](_page_44_Picture_6.jpeg)

![](_page_44_Picture_8.jpeg)

Aluminium Dunkerque officially signed its Ecological Transition Contract with the French government in November 2023

03 - Social Aluminium Dunkerque 89

![](_page_45_Picture_0.jpeg)

#### **ARTISTIC COLLABORATION**

An artistic collaboration with photographer Lorenzo Meloni (member of the Magnum Photos agency)

His project was to archive the primary aluminium production process for posterity. Through his artist's eye, he uses a historian's approach to his subjects. Meloni's photographs are held in prestigious public and private collections, including the Bibliothèque Nationale de France.

![](_page_45_Picture_4.jpeg)

![](_page_45_Picture_5.jpeg)

![](_page_45_Picture_6.jpeg)

- ▶ Environmental assessment to 2023 annual report
- Site strategy to Site policy
- Codes of Conduct (general and anti-corruption)
- Responsible Purchasing Charter
- ▶ EPD Environmental and health declaration sheets
- ► Carbon footprint verification report by Bureau Veritas

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

![](_page_46_Picture_0.jpeg)

🔗 Route de la ferme Raëvel, 59279 Loon-Plage

www.aluminiumdunkerque.fr

To contact us: communication@aluminiumdunkerque.fr

![](_page_46_Picture_4.jpeg)