



Sustainable
**Development
Report**

➤ 2022



CONTENTS

01. Economy

- p.08 > 1.1 Our strategy and governance
- p.12 > 1.2 Aluminium Dunkerque
- p.18 > 1.3 Supplier commitment:
PURCHASING strategy and policy

02. Environment

- p.22 > 2.1 Our commitments
to environmental sustainability
- p.24 > 2.2 GHG - decarbonisation strategy
- p.28 > 2.3 Energy efficiency
- p.32 > 2.4 Our environmental performance

03. Social

- p.52 > 3.1 Protecting and supporting our
employees, Social sustainability
- p.58 > 3.2 Developing our human resources
- p.68 > 3.3 Our communities & stakeholders



Editorial

An industrial flagship committed to a sustainable world



Since it was created in 1991, Aluminium Dunkerque has been conceived and designed as a pioneering company in many fields. In industrial terms, of course, but also in terms of work organisation, employment and respect for the environment, at a time when societal issues were not as much at the forefront as they are today.

This strong commitment on the part of both senior management and staff has increased over the decades and is the true hallmark of our company of which our teams are proud.

Social and 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 role in transforming society.

Aluminium is a key energy transition resource, used to make vehicles lighter in weight and encouraging the development of renewable energies. Easily recyclable, it contributes to the development of a circular economy that consumes less energy and resources.

To produce it, Aluminium Dunkerque already emits five times less greenhouse gases than the global average for the sector, and is further accelerating its energy and environmental transition. As part of European climate law, and at the heart of a region that is pioneering industrial decarbonisation with France 2030, 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 whom are our local partners and our customers, who are increasingly demanding low-carbon aluminium.

Alongside this major long-term challenge, our company is also highly committed to reducing its emissions and preserving resources in its everyday activities, the result of which has been the renewal of all our certifications.

We are also continuing our energy efficiency efforts and increasing our investment to develop recycling and improve our product quality.

People have been at the centre of our concerns for over 30 years, and we are placing ever greater emphasis on our employees' safety, health, training and skill development. In our ecosystem, we also make sure that we support increasing numbers of local initiatives, especially to promote employment and the younger generations.

All this progress, which I invite you to discover in this report, are the fruit of a fine collective dynamic. It is also based on the strong individual commitment of each of the players working for or with Aluminium Dunkerque. I would like to thank them all for their commitment alongside us. Their contribution is decisive if we are to continue our action for a sustainable world over the coming decades.

Guillaume de Goÿs
Aluminium Dunkerque Chief
Executive Officer



01. Economy

- **1.1** *Our strategy and governance*
- **1.2** *Aluminium Dunkerque*
- **1.3** *Our suppliers' commitment: PURCHASING policy and strategy*

1.1

Our strategy and governance

➤ AIP GROUP

American Industrial Partners is an operationally-minded middle-market private equity firm focused specifically on buying and improving industrial companies with operations in the United States, Canada and other developed markets such as Europe. The AIP team has deep roots in the industrial economy. AIP has made over 125 acquisitions and invests in all forms of corporate divestitures, buyouts, recapitalisations and privatisation transactions with sales in excess of 500 million dollars.

Amongst the over 27 companies in AIP's portfolio are Commonwealth Rolled Products of Lewisport, Kentucky, a leader in rolled aluminium products for the automotive and common alloys markets in the United States, and Aluminium Duffel since 2022, a rolling mill located in Belgium, an Aluminium Dunkerque customer and supplier of the main European car manufacturers.

For more information on AIP:
www.americanindustrial.com.

Contact: <https://americanindustrial.com/contact/>

➤ AIP KEY FIGURES



+ 25 billion
dollars in consolidated portfolio revenues



70,000
employees



+ 240
manufacturing and distribution centres worldwide



AIP monitors the progress of key CSR priorities throughout the investment lifecycle

➤ ENVIRONMENTAL AND SOCIAL GOVERNANCE

AIP: CSR 'CORPORATE SOCIAL and ENVIRONMENTAL RESPONSIBILITY' policy

CSR philosophy

American Industrial Partners is committed to assessing the major CSR risks and opportunities of the investments we make. AIP believes that including CSR considerations throughout its investment process is in line with its responsible industrial asset management.

CSR approach

AIP seeks to integrate the thoughtful management of CSR factors throughout the life cycle of each investment:

- ▶ *Transaction selection: it selects the significant CSR risks and opportunities.*
- ▶ *Due diligence: AIP aims to understand a target company's current CSR risk management efforts, including their level of awareness and the maturity of the processes related to addressing, reporting or mitigating those risks.*
- ▶ *Portfolio management: following the investment, AIP's CSR reporting process is implemented, and CSR priorities and actions are included in the company's CSR operational programme.*

AIP tracks progress in key CSR priorities throughout the investment lifecycle.

Use of specialists

AIP uses third-party specialists to support its CSR integration approach.

CSR Governance

CSR is one of AIP's operational pillars and members of its senior management oversee its CSR policy. Its CSR policy is reviewed annually and it organises CSR-related training at least once a year.

CSR reporting

AIP regularly reports to its investors on its CSR initiatives.

Mobilising industry

AIP considers involvement with leading CSR industry organisation efforts to be important in improving and advancing the company's CSR programme.

AIP is a member of the Institutional Limited Partners Association (ILPA). Furthermore, AIP is committed to the ILPA Diversity in Action initiative, which aims to increase diversity in the private equity industry.



**Aluminium,
a key resource for
the energy transition**

1.2

Aluminium Dunkerque

HISTORY

Located in northern France, Aluminium Dunkerque was founded in 1991 by Groupe Pechiney. It is one of the largest primary aluminium production plants in Europe. The choice of the site is explained by the proximity of the deep-water port and of the Gravelines nuclear power plant, which have the capacity to fulfil the plant's raw material and electricity needs.

Aluminium Dunkerque has regularly invested to optimise its technology and has thus increased its production capacity by over 40% since it began producing. The company intends to play a major role in the European production of low-carbon aluminium for the benefit of its customers and its community. In line with the COP21 objectives, it is speeding up its energy and environmental transition.

Aluminium Dunkerque is one of the world's low-carbon aluminium production leaders. Certified to the CSR standards of the Aluminium Stewardship Initiative (ASI), the company has succeeded in reducing its emissions (scope 1 and 2) by 17% since 2013, and now emits four times less greenhouse gases than the global average for the sector. Aluminium, a key resource for the energy transition. Because of its physical properties, aluminium is considered to be a key energy transition resource, making it possible to have lighter weight vehicles and solar panel structures and to lower electric cable production costs. Aluminium volumes are therefore expected to rise sharply in the years ahead. As one of the most easily recyclable metals, aluminium fits perfectly into the development of a circular economy that consumes less energy and resources.

Electric vehicles require more aluminium than internal combustion vehicles. The use of this very lightweight and conductive metal has further increased and is becoming predominant for engine block and battery production.

Aluminium Dunkerque currently produces 40,000 tonnes of alloy ingots for the automotive sector, and plans to increase this capacity by 50%. Of the additional 20,000 tonnes, a third will come from aluminium recycled from vehicles at the end of their service life.

The site aims to continuously reduce its carbon footprint across all its activities by deploying the following:

- ▶ *Installing photovoltaic panels and signing long-term electricity purchasing contracts directly with the producers (PPA).*
- ▶ *Improving its energy consumption and reducing its process greenhouse gas emissions.*
- ▶ *Developing breakthrough innovations, including carbon capture and permanent storage, aimed at halving its direct emissions by 2030.*
- ▶ *Supporting the increased penetration rate of intermittent renewable energies on the grid by developing site flexibility.*
- ▶ *Encouraging aluminium recycling to promote the emergence of a circular economy by increasing the share of recycled metals in product composition.*
- ▶ *Reducing the carbon footprint of its entire value chain by selecting and encouraging its suppliers to be more virtuous.*

For more information on Aluminium Dunkerque, visit www.aluminiumdunkerque.fr

OUR VALUES



To Protect

Workplace health and safety and the Environment are our priorities.

- ▶ *Protect our employees and contractor staff*
- ▶ *Provide healthy and safe working conditions*
- ▶ *Protect from industrial disasters*
- ▶ *Reduce our environmental non-compliance, reduce our carbon footprint, recycle external remelting into our sheet metal and ingot production*



To excel

We strive to operate efficiently and guarantee that our company is competitive. Customer satisfaction is our top objective.

- ▶ *Produce the right product at the first attempt: quality at the heart of operations.*
- ▶ *Maintain a quality culture and be customer-centric*
- ▶ *Guarantee operational excellence*
- ▶ *Guarantee that every tonne produced is profitable*
- ▶ *Develop our flexibility in the face of changes in the energy market*



To engage

Proud and passionate about our business, we are watchful that everyone is

successful.

- ▶ *Act as an owner and develop our entrepreneurial spirit*
- ▶ *Recruit and integrate new talent, develop skills, guarantee the sustainability of our organisation*
- ▶ *Create constructive industrial relations for the future of the plant*



To innovate

Innovate for our future and that of our customers.

- ▶ *Develop innovating products and new markets to improve our added value*
- ▶ *Invest in development projects and new technologies for the future of the site*
- ▶ *Develop innovating solutions on our site*
- ▶ *Promote our low carbon footprint*





> ASI STANDARD PERFORMANCE CERTIFICATIONS (Aluminium Stewardship Initiative)

To promote aluminium as an element that can reduce the carbon footprint of industrial products in applications as different as the automotive industry or drink can production, Aluminium Dunkerque joined the Aluminium Stewardship Initiative (ASI) in 2019 and has been "Performance Standard" certified since August 2020.

This label is becoming essential in the aluminium market. It recognises companies that have a responsible and sustainable approach to social and environmental themes such as biodiversity, waste management, reducing emissions, ethics and respect for human rights.

In November 2021, the site became ASI Chain of Custody (CoC) certified. This ASI CoC certification guarantees our customers a responsible supply of Primary Aluminium thanks to documented traceability throughout the value chain.

> ISO CERTIFICATIONS

In May 2022, the site obtained the renewal of ISO 14001:2015 and 50001:2018 certification for all its activities, with 0 major NCs.

The new certificates are available on the website: <https://www.aluminiumdunkerque.fr/certifications/>

Infinitely recyclable, aluminium is the essential material for a successful energy transition.



Aluminium Dunkerque has one of the lowest CO₂ footprints in the world



▶ OUR PRODUCTS - CUSTOMER SALES STRATEGY

With almost 300,000 tonnes produced annually, Aluminium Dunkerque is Europe's leading aluminium producer.

The plant is a key supplier to European rolling mills, to which it provides 240,000 tonnes of rolled plate a year, which is processed into bodywork parts for the automotive industry, beverage cans and household aluminium for everyday consumer goods (pet food packaging, pharmaceutical seals, etc.).

Aluminium Dunkerque is also the supplier of 40,000 tonnes of alloy ingots used in vehicle wheel rims and cylinder heads.

Infinitely recyclable, aluminium is the essential material for a successful energy transition: indeed, the energy needed to recycle it is only 5% of the energy consumed when producing primary aluminium! Some recycling sectors are already very well established, such as for beverage cans, and others are growing fast, such as the recycling of vehicles at the end of their service life.

▶ KEY FIGURES



250,807
tonnes of liquid aluminium produced



666
employees



3,558 GWh
of electricity consumed



676,000
tonnes of raw materials



103 M€
of investments
in the past three years



65
hectares of land
on which
Aluminium Dunkerque is built



839 M€
annual turnover

Thanks to France's low-carbon energy mix, Aluminium Dunkerque's aluminium has one of the lowest CO₂ footprints in the world, which makes it very attractive to European car makers, especially as the transition to electric vehicles should be accompanied by an increase in the proportion of aluminium in each vehicle of 50 kg on average by 2030*.

*Ducker Research study - 2022.

1.3

Supplier commitment: **PURCHASING** strategies and policy

ALUMINIUM DUNKERQUE IS MOVING ITS PURCHASING TOWARDS A RESPONSIBLE PURCHASING CULTURE.

Suppliers are an essential part of our activity, and we are developing and implementing a responsible and sustainable purchasing policy.

Every day, we strive to develop our supplier relationships so that our purchases are more respectful of the environment by attempting to develop solidarity-based partnerships with organisations employing people in difficulty, by taking ethical aspects into consideration as

of the utmost importance, and by also making sure we promote purchases in areas where there is no armed conflict and wages are fair.

80% of Aluminium Dunkerque's purchasing is from suppliers who have signed our company's responsible purchasing charter. Most of the Aluminium Dunkerque contractors are from the Dunkirk employment catchment area. This boosts the local economy and represents a total of 500,000 hours of which 70% are with Top 15 companies.

Our commitments



- ▶ Select suppliers in compliance with our health, safety, quality, environment and energy standards. Support their development and assess their performances.
- ▶ Promote and share best practices.



- ▶ Support the development of local and competitive suppliers as part of a sustainable strategy.
- ▶ Work in collaboration to encourage lasting relationships.



- ▶ Be open to proposals of innovating services and products and promote them in the departments concerned.
- ▶ Listen to improvement ideas from our suppliers and respond to them.



- ▶ Prohibit all forms of corruption or conflict of interest.
- ▶ Privilege amicable solutions for all disputes.

Our requirements

- ▶ Use suppliers who have a health and safety and risk prevention culture.
- ▶ Respect rules, report events and incidents.

- ▶ Deliver competitive products and services that comply with specification quality requirements.
- ▶ Comply with environmental obligations and instructions and undertake waste recycling, greenhouse gas emission reductions, and energy savings.

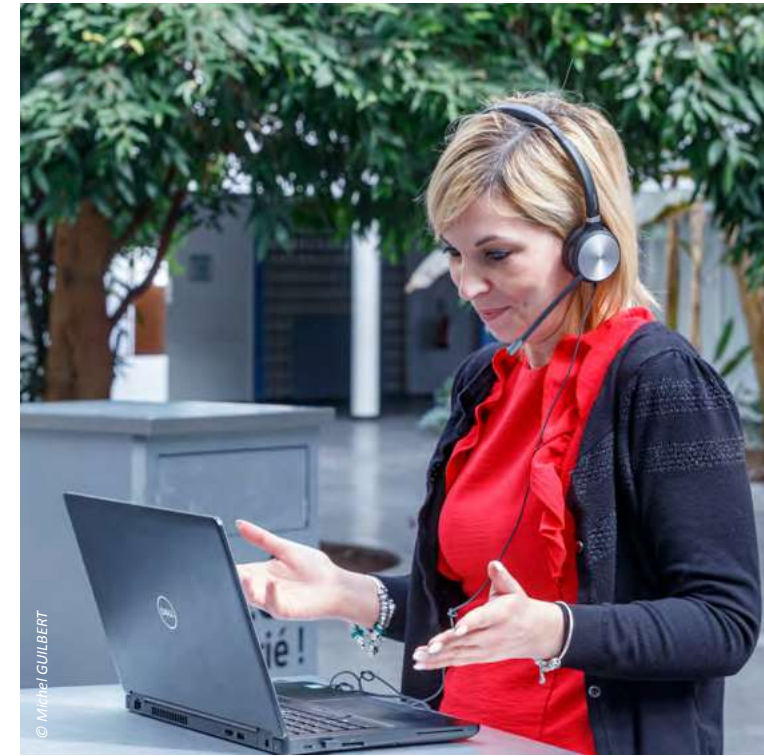
- ▶ Be proactive to continuously improve performance.
- ▶ Analyse, inform and manage risks during changes. Answer requests for analysis and action plans for all non-conformities.

- ▶ Respect labour law legislation and regulations.
- ▶ Share our values of honesty, openness, autonomy, responsibility and respect.

ANNUAL RECOGNITION OF EXTERNAL CONTRACTORS (EC):

Aluminium Dunkerque is very keen to recognise the service providers it works with and organises an annual event to celebrate the best External Contractor Safety, Quality and Environment performances.

This ceremony was held in 2023 and honoured 8 suppliers. The Purchasing team is engaged in a supplier assessment program covering ethics and social and environmental responsibility.



2022 PROJECTS

- ▶ Overhaul of our Responsible purchasing charter to include human rights and conflict or high-risk zone commitments (see appendix on p 75).
- ▶ Reducing the CO₂ footprint of transport to our customers by testing the barge transport solution.
- ▶ Collecting supplier CSR (Environmental and Social Responsibility) questionnaires.
- ▶ Maintaining commercial relations with our main suppliers with inflation context related support.
- ▶ Drafting and communicating a supplier quality manual.

2023 CHALLENGES

- ▶ To continue and complete the reasonable due diligence work with suppliers.
- ▶ To gather information on the Co₂ footprint of our raw material suppliers to include this aspect when selecting proposals.
- ▶ To measure and identify ways of reducing the CO₂ footprint of raw material transport.
- ▶ To continue paying attention to the Co₂ footprint of transport to our customers, attempting to replace road transport by rail, river or multimodal solutions wherever possible.





02. Environment

- **2.1** *Our commitments to environmental sustainability*
- **2.2** *GHG - decarbonisation strategy*
- **2.3** *Energy efficiency*
- **2.4** *Our environmental performance*



2.1

Our commitments to environmental sustainability

As an industrial company with strong roots in its local area, Aluminium Dunkerque has always paid special attention to energy and environmental issues.

The accelerating pace of climate and economic change is now forcing us to rethink our logic and act both day-to-day as well as through our corporate strategy. To better reflect the site's commitments and actions, the new governance now includes a member of the Executive Committee in charge of energy and climate issues. Work is also being undertaken to strengthen this positioning both internally and externally. The Dunkirk port area is a formidable laboratory for decarbonisation and regional economic competitiveness in which Aluminium Dunkerque, as a founding member of the decarbonisation collective, is a committed stakeholder.

© MICHEL GUILBERT

SITE SUSTAINABILITY STRATEGY 2023-2035

OBJECTIVES AND MAIN ACTIONS:

TARGETS:



CO₂

Decarbonisation strategy:

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

- 2023**
1.79 kg CO₂ eq/t Al (scope 1)
 - 2030**
30% reduction in our CO₂ emissions (scope 1+2+3)*
 - 2050**
70% reduction in our CO₂ eq emissions (scope 1+2+3)*
- *Reference year 2019



Water

Monitoring:

- ▶ Measuring and managing our water consumption (potable and industrial)

Hunt for leaks and waste:

- ▶ Regular network audits and reactions if drifts in consumption are found

Recycling our water:

- ▶ Identification and implementation of recycling projects

New technology:

- ▶ Adiabatic cooling tower

Actions to reduce emissions at source

- ▶ Control the cooling requirements of our processes

- 2023**
reduction of 2%*
- 2025**
reduction of 15%**
- 2030-35**
reduction of 30%**

* Versus 2022 **Baseline 2019



Waste

Operational excellence:

- ▶ Reduction at source

Sourcing, Recycling channels:

- ▶ Identification of new recycling channels for waste currently disposed of in landfill
- ▶ In-house recycling

Qualification of our waste:

- ▶ Regular network audits and reactions if drifts in consumption are found

Technology watch:

- ▶ New refractory and carbonaceous potlining recycling process

- 2023**
60% of our waste recycled
- 2030-35**
80% of our waste recycled
- 2050**
0% non-recycled waste



Biodiversity

Inventory:

- ▶ Inventory of fauna
- ▶ Inventory of flora

Challenge analysis:

- ▶ Flora issues
- ▶ Phyto-ecological issues
- ▶ Fauna issues

Cartography:

- ▶ Establishment of a GIS map (IT tool used to present highly accurate monitoring and assessment data)

Ecosystem service analysis:

- ▶ Drafting of a strategy and actions

- 2023**
Inventory completed
- 2024**
Compensation and ecosystem services strategy in place
- 2030**
100% of actions completed



Stakeholders

Foundry dust:

- ▶ Improving the reliability of the FO furnace door capture
- ▶ 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 organisational structure activities in the sectors

Complaints from local residents:

- ▶ NOISE study

- 2023**
1 recurrent NC
- 2030**
0 recurrent NC



02. Environment - GHG

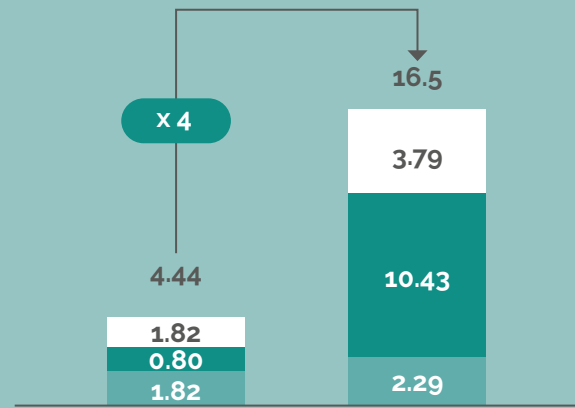
2.2

GHG - Decarbonation Strategy

HISTORICALLY COMMITTED TO DECARBONISATION

Aluminium Dunkerque is one of the world's low-carbon aluminium production leaders which is certified compliant with the Aluminium Stewardship Initiative (ASI) CSR standards.

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



Aluminium Dunkerque World average (tCO₂e/ carbon intensity (tCO₂e/ tAl))

Scope 1 Scope 2 Scope 3

Source: EPD by RDC Environnement + critical review by Bureau Veritas on 2020/2021 data and IAI International Aluminium Institute

2025
AMÉLIORER

- ▶ **100% mobilised** through ownership of the issues, objectives for all, "quick wins", and increasing mobilisation of resources.
- ▶ **-5% by 2025** through operational excellence, energy efficiency, scope 3 reduction, and recycling.

2030
ACCÉLÉRER

- ▶ **-30% scope 1,2,3** mainly thanks to carbon capture technology (CCUS) and new business models (recycling and flexibility).

2050
ACCOMPLIR

- ▶ **-70% scope 1,2,3** Increased production using breakaway inert anode technology to contribute to a resilient and sovereign society.

Targets defined in line with the SBTi B2DS (Science Based Target initiative Below 2 degrees) methodology



THE MAIN IDENTIFIED NEEDS FOR THIS PLAN

- 1/ Securing the site's low-carbon electricity supply**
▶ 4 TWh/year
- 2/ Developing carbon capture technology adapted to primary aluminium**
- 3/ Accessing inert anode technology and securing additional electricity supply**
- 4/ Reducing and substituting**
▶ 250 GWh of fossil gas used for industrial heat
- 5/ Becoming part of a European waste recycling network**



▶ THE LEVERS TO REACH OUR OBJECTIVES.

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

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

▶ ALUMINIUM DUNKERQUE IS LAUNCHING A RECYCLING ACTIVITY.

To support its customers, especially those in the automotive sector, in their efforts to reduce carbon emissions and promote the circular economy, Aluminium Dunkerque is investing in the construction of a new smelting furnace. This innovating equipment will make it possible to recycle 7,000 tonnes of aluminium per year, producing 20kt of additional metal and significantly reducing the environmental impact (CO₂ emissions and energy consumption).

These 20kt of additional ingot production represent 19% of French imports of primary aluminium ingots and 8% of European imports.



12 M€ investment



-10% average CO₂ emissions for ingot production



Commissioning in late 2024



96 GWh of electricity consumption avoided per year

▶ DECARBONISATION: A MAJOR CHALLENGE

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

- ▶ High recyclability
- ▶ Essential for the energy transition (PV panel structure, batteries, electric motors)
- ▶ Making products lighter (vehicles, reducing the weight of products and the energy used to transport them, etc.)

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

▶ EMISSIONS

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

- ▶ **SCOPE 1**
these are the direct emissions linked to the company's industrial activity (e.g. industrial process gases, combustion of fossil fuels to power our furnaces, etc.)
- ▶ **SCOPE 2**
these are the indirect emissions associated with the production of energy delivered to our production site.
- ▶ **SCOPE 3**
other indirect emissions linked to the company's entire value chain (e.g. carbon content of raw materials, transport of raw materials to the site and of products to customers, etc.).

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



Our full strategy at the link below:
www.aluminiumdunkerque.fr/decarbonation/



To do that, the company uses the Science Based Target initiative (SBTi) and is working with all its partners to reduce the overall carbon footprint of its activity.





2.3

Energy efficiency

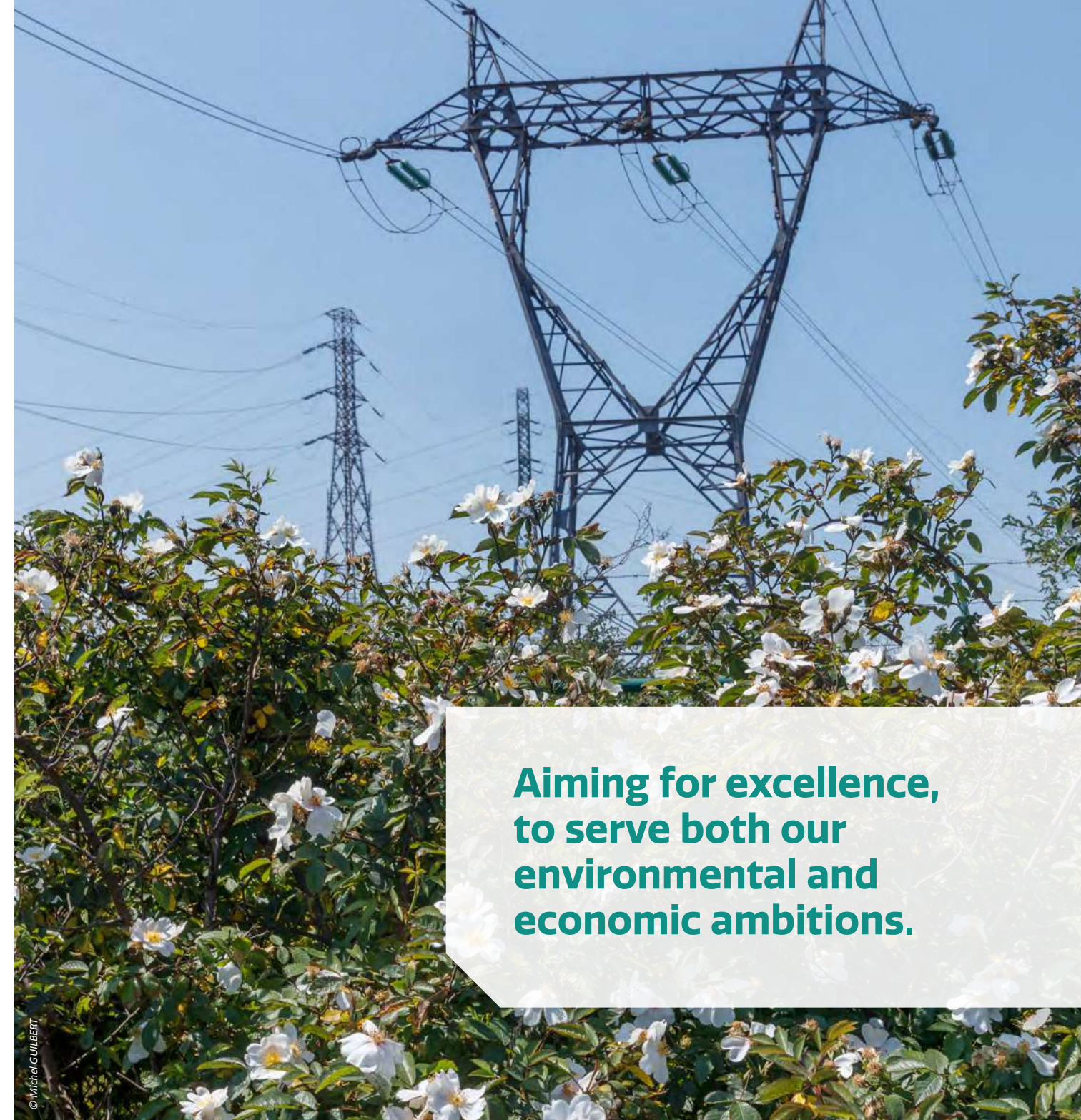
➤ ALUMINIUM DUNKERQUE, A RESPONSIBLE HIGH ELECTRICITY CONSUMER

Energy is a major component in aluminium production competitiveness, generally accounting for 25 to 35% of production costs. The energy efficiency of our processes has therefore always been part and parcel of our operating models. Electricity is the primary source of energy used on the site and represents on average 97 % of the energy bill.

The alumina smelting process at the heart of the plant requires very significant amounts of electricity to produce the aluminium. Aluminium Dunkerque consumes almost 4TWh of electricity per year, making the site the largest industrial consumer of electricity in France, equivalent to the consumption of the city of Marseilles.

Aluminium Dunkerque is one of the most energy-efficient sites in the world, with the lowest kWh consumed per tonne of aluminium produced.

Aluminium Dunkerque is one of the most efficient sites in the world



Aiming for excellence, to serve both our environmental and economic ambitions.

Consumption in 2022 improved, but the energy crisis meant that we were unable to achieve our performance target of 13.15 kWh/t Al. We consumed 13.213 kWh/t Al produced. This represents exactly **3.59 TWh of annual electricity consumption in 2022.**

The rise in electricity prices led us to shut down 74 of the 264 electrolysis cells in the series, or 28% of our cells, and to reduce amperage. Production at full capacity resumed in January 2023 and ended in May 2023. Our energy efficiency efforts also focus on our use and consumption of natural gas.

In 2022 we consumed: 230 GWh

The energy crisis that Europe is currently suffering is a real brake on the development of this activity, which is increasingly concentrated in China. This means that we must always aim for excellence, to serve both our environmental and economic ambitions.



► **Foundry air cooling tower regulation project**

Annual recurring savings of 200 MWh
This is also a saving of 7.5 tonnes of CO₂/year

This project involves improving the energy efficiency of the foundry water cooling equipment. The 3 existing motors in the air-cooling towers have been replaced by new-generation motors. Variable speed drives have also been added to the installations to optimise the tower operating speed depending on the water temperature.

► **Modulation of Gas Treatment Centres between Electrolysis shifts**

Annual recurring savings of 300 MWh
This is also a saving of 12 tonnes of CO₂/year

To optimise Gas Treatment Centre (GTC) energy consumption, the Capture team lowers the filter flow rates between each shift. This operation is carried out when the skylight discharges are at their lowest, once the series work has been completed. Specific technical monitoring has been developed by the IT department to analyse the GTC operational performances.



► **AN ENERGY GROUP DEDICATED TO ENERGY EFFICIENCY**

OUR MAJOR PROJECTS IN 2022:

► **Lighting replacement project**

Recurring savings of 4,400 MWh per year
This is also a saving of 7.5 tonnes of CO₂/year or the equivalent of the annual electricity consumption of 1,000 households

This project involved upgrading the site's entire lighting stock by replacing over 2,200 older-generation luminaires with LED lighting. Sector planners working with teams from Actemium began the campaign to replace the old lighting 1 month ago. This project was completed in mid-2023.

► **Reduced contact between the frame and rod in Electrolysis**

Annual recurring savings of 900 MWh for the entire series.
This is also a saving of 12 tonnes of CO₂/year.

Good current conduction between the anode assembly and the tank superstructure is essential to minimise electrical losses. Regular operations are carried out on each tank to maintain a state of electrical balance.

The voltage drop between the rod and the tank frame is an important performance indicator. The average serial value is around 30mV, and the objective is to aim for 20mV. A number of tests are currently being carried out to reduce these values: laser rod cleaning, optimisation of rod brushing, making certain items of equipment more reliable, maintenance of the rod pool (6,500 rods), maintenance tests on superstructure frames, optimisation of frame lifting operations.

► **Natural gas consumption in the Carbon sector**

Annual recurring savings of 360 MWh
This is also a saving of 66 tonnes of CO₂/year

Optimisation of gas consumption in the Anode Sealing Shop stub drying process by adjusting the air/gas ratio

► **Automatic shutdown of the K180 control unit in the Carbon sector**

Annual recurring savings of 127 MWh/year
This is also a saving of 7.5 tonnes of CO₂/year

When the PAA was stopped, the K180 hydraulic unit motors kept running. Modifications to the PLC programs, including specific plant shutdown conditions, were required to complete this project.



BEFORE



AFTER

► **2023 PROJECTS**

Electricity project

- Energy recovery from the compressor ACTs (air cooling towers) to heat the office buildings and domestic hot water (expected annual savings: 2900 MWh)
- Project to install EPV canopies on the ground (expected annual savings: 3200 MWh)
- Project to replace the electric motors and fan scrolls in the FAC gas extraction system (expected annual savings: 590 MWh)

A total of 6,690 MWh, i.e. a reduction of 348 tonnes of CO₂

Natural gas project

- Project to replace the burners on the FO furnaces (expected annual savings: 3500 MWh)
- FAC energy recovery project to replace the thermal fluid boiler (expected annual savings: 11200 MWh)
- Electrification of preheating equipment for anode sealing ladles (expected annual savings: 2000 MWh)

A total of 16,700 MWh or a reduction of 3,000 tonnes of CO₂



2.4

Our environmental performance

➤ OUR TARGETS:

<p>2023 1 Recurring regulatory NC</p>	<p>2030 0 recurring regulatory NC</p>
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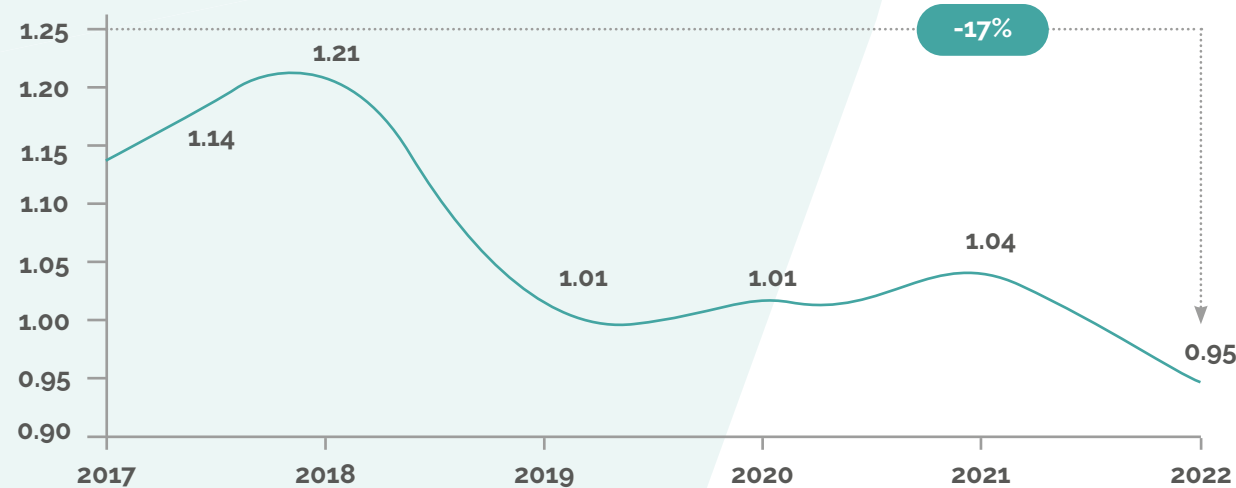
We saw a reduction in almost all our atmospheric emissions in terms of annual flows in 2022. This reduction is explained by the 12% drop in production in 2022 (250,807 tonnes of finished products) compared to 2021 due to the shutdown of 74 cells for 5 months.

2022 was marked by the launch of our dust collection system at the foundry furnace doors. This is currently being made more reliable during 2023, so that it can be brought into service in the last quarter of 2023.

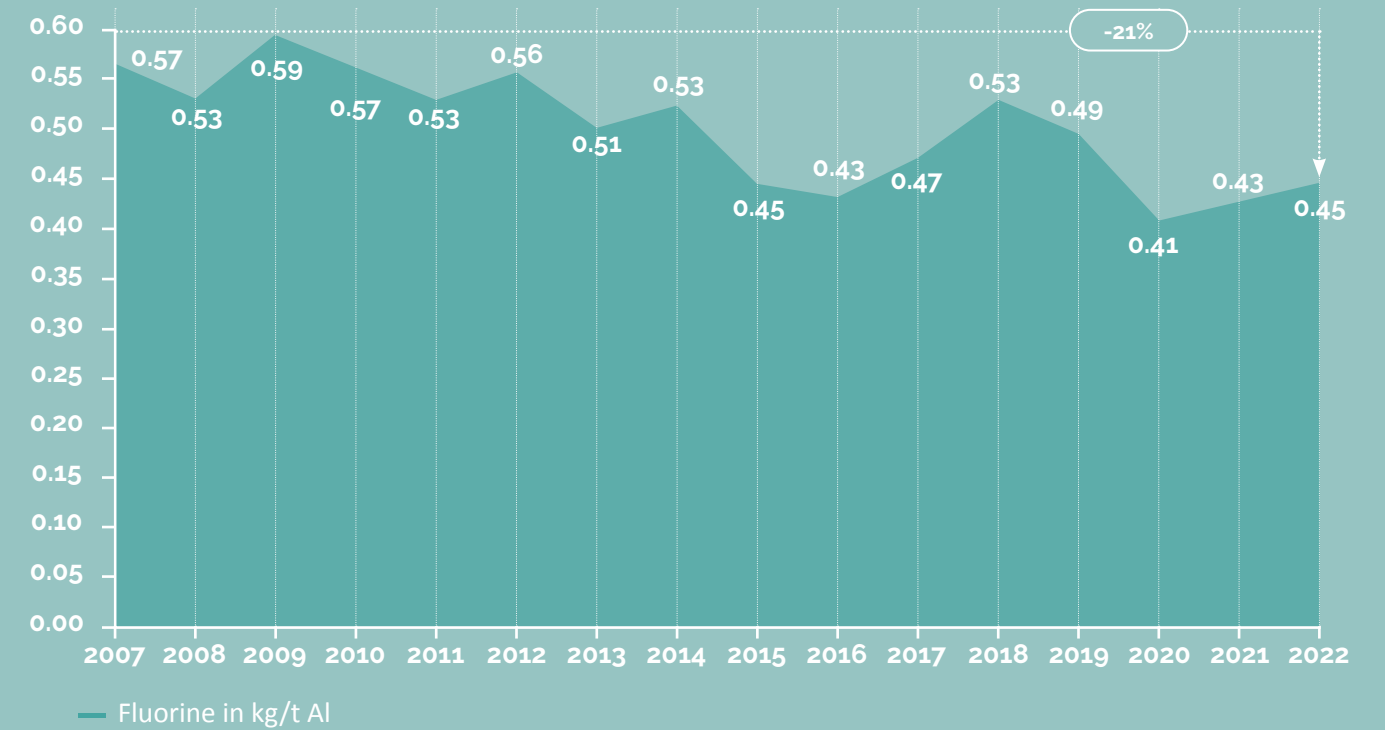
This new emission treatment facility will reduce our fugitive emissions from building roofs by 5t. This capture should contribute to smoothing out the peaks in emissions channelled up chimneys during the production processes in our furnaces (this remains to be demonstrated and tests will be carried out in 2023).

For the reasons given above concerning the drop in production in 2022, our atmospheric emissions are expressed in specific terms, i.e. per tonne of aluminium produced.

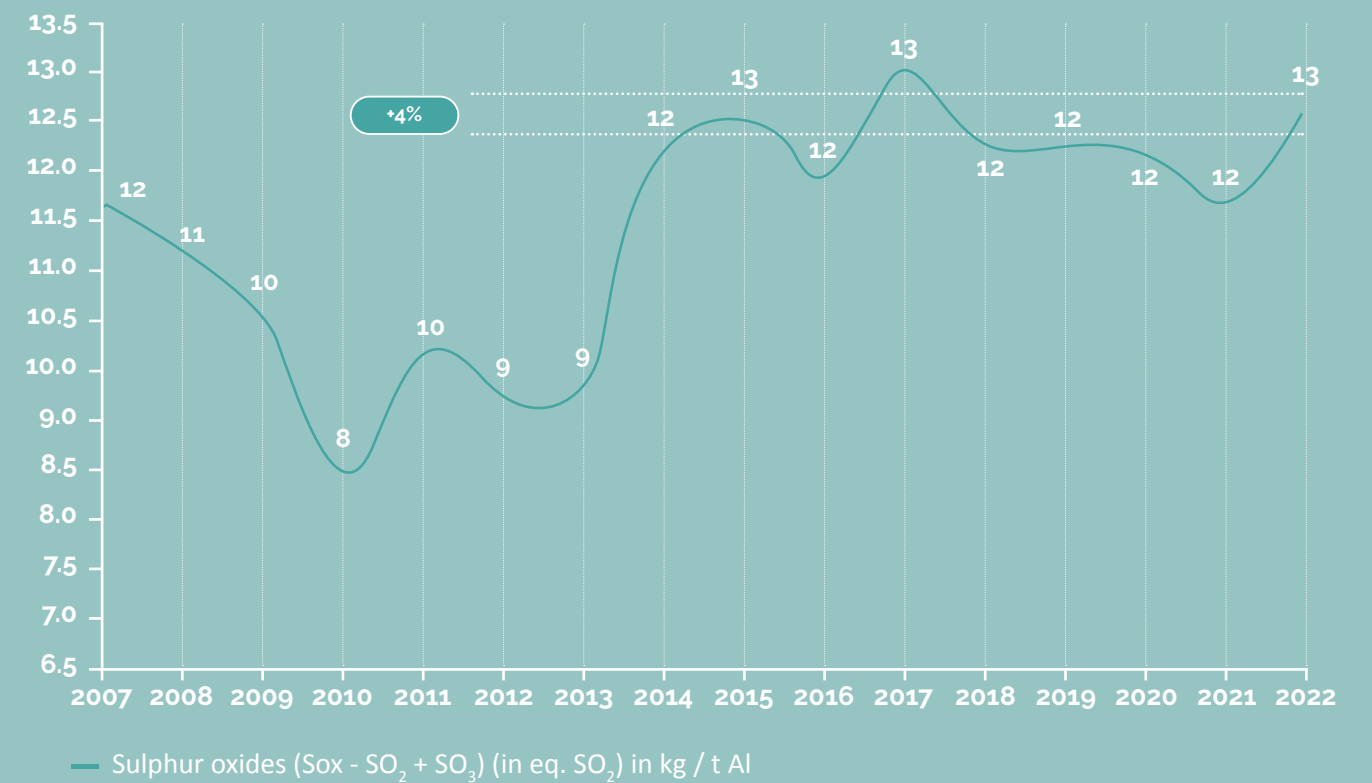
➤ TOTAL DUST EMISSIONS IN KG / TONNE OF ALUMINIUM PRODUCED



➤ TOTAL SITE FLUORINE IN KG / TONNE OF ALUMINIUM PRODUCED



➤ SO₂ - EMISSIONS IN KG / TONNE OF ALUMINIUM PRODUCED





➤ TOTAL DUST

17% reduction in our dust emissions since 2017. We kept a good level of control over our dust emissions in 2022, i.e. 0.95 kg / t primary Al produced in our electrolysis cells: This represents 237 tonnes of emissions per year in 2022.

➤ TOTAL FLUORINE

Reduction of almost 21% of our fluorine emissions per tonne of aluminium produced since 2007. The action that made this reduction possible is linked to the opening rate of our electrolysis cells when we operate them. Each cell is fitted with 20 manually-operated covers. The instructions are not to open more than 3 covers at the same time during a maintenance operation.

➤ SO₂

In 2022, our SO₂ emissions increased slightly. Our proactive strategy of purchasing low-sulphur raw materials remains effective. Our regulatory limit is 15 kg/tonne of aluminium produced.



2022 was marked by the implementation of a new environmental monitoring plan for our off-site activities. The plan was drawn up based on a study by KALI'AIR.

The reasons for this update are:

- ▶ The update of the measurement methods
- ▶ The inclusion of new parameters (SO₂ and PM10)
- ▶ Monitoring focused on establishments open to the public (nursery schools, schools, retirement home)



➤ OUR ACTIONS

We are continuing our operational excellence as shown by our results per tonne of aluminium produced. We have the best techniques available to process our atmospheric emissions, in accordance with the BATs (*Best Available Technologies*) mentioned in the BREF for non-ferrous metals.

- ▶ We are continuing to control our total dust emissions

The fluorine capture technology on alumina is >99% efficient.

by increasing how often the filters are replaced in our smoke treatment centres.

- ▶ In parallel, we have initiated improvement actions on our emission monitoring and measurement equipment (replacement of our monitoring and measurement equipment, especially the commissioning of new sensors that continuously measure SO₂).
- ▶ Our actions also concern our operational methods in our production plants to manage our emissions.

Over the coming years:

- ▶ The challenge is to maintain current performances while increasing our production level.



➤ OUR WATER PERFORMANCE TARGETS:

2023
reduction of 2%*

2025
reduction of 15%**

2030-35
reduction of 30%**

* Versus 2022 **Baseline 2019

Water resources are a major issue for the 21st century.

➤ OUR WATER RESOURCES AND THEIR USE

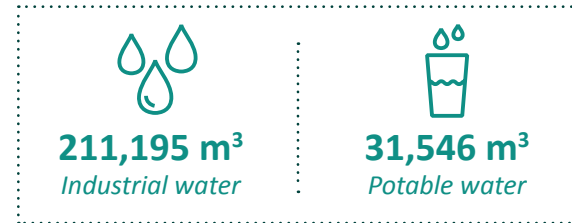
Water resources are a major issue for the 21st century. Water resources in the Dunkirk area are limited despite popular belief, and climate change is already having an impact on the area.

There is no nearby water table; the potable water consumed on our site comes from an aquifer located in the Audomarais region, which is more than 40 km away. The Aluminium Dunkerque site is fully in line with the Community's strategy for preserving water resources in the Dunkirk area, which sets an example in this respect.

02. Environment – Water

▶ OUR WATER RESOURCES AND THEIR USE

2022 consumption:



▶ OUR WATER CONSUMPTION

Site water consumption:

Our water consumption complies with our prefectural operating authorisation.

▶ OUR DIFFERENT USES OF WATER

Industrial water:

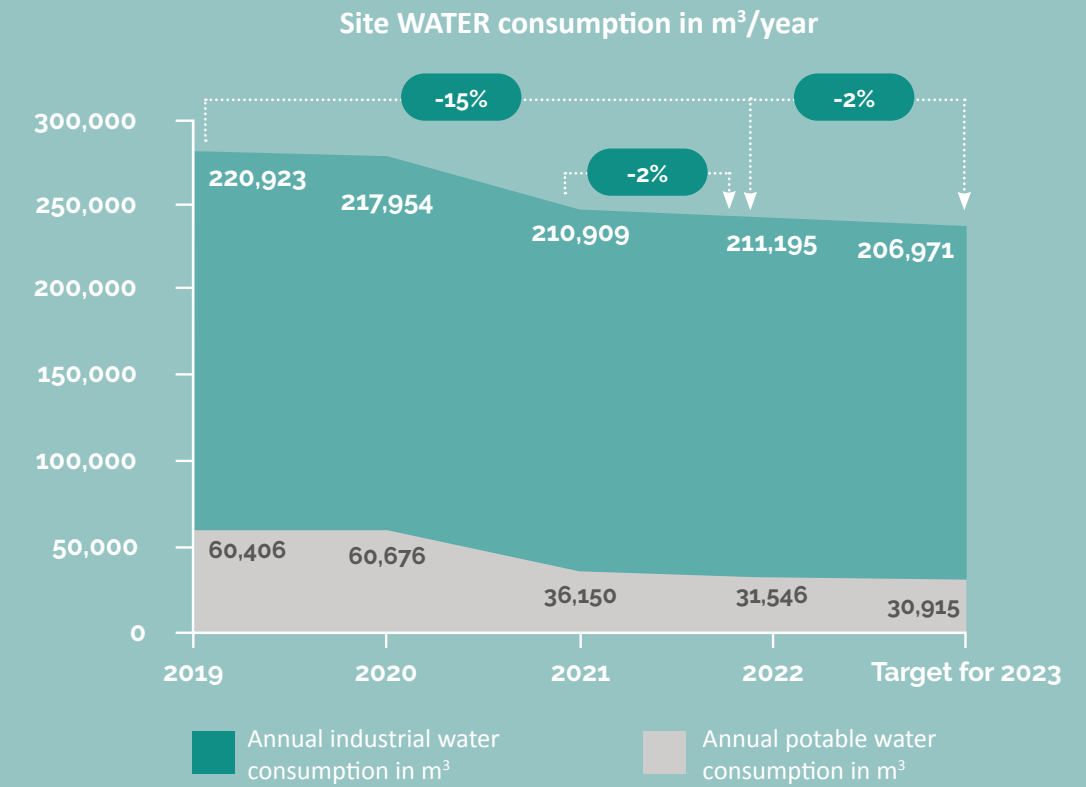
- ▶ Cooling water for the anode manufacturing processes in the Carbon sector.
- ▶ Cooling water used to shape rolling plates or casting ingots in the foundry sector.

Potable water:

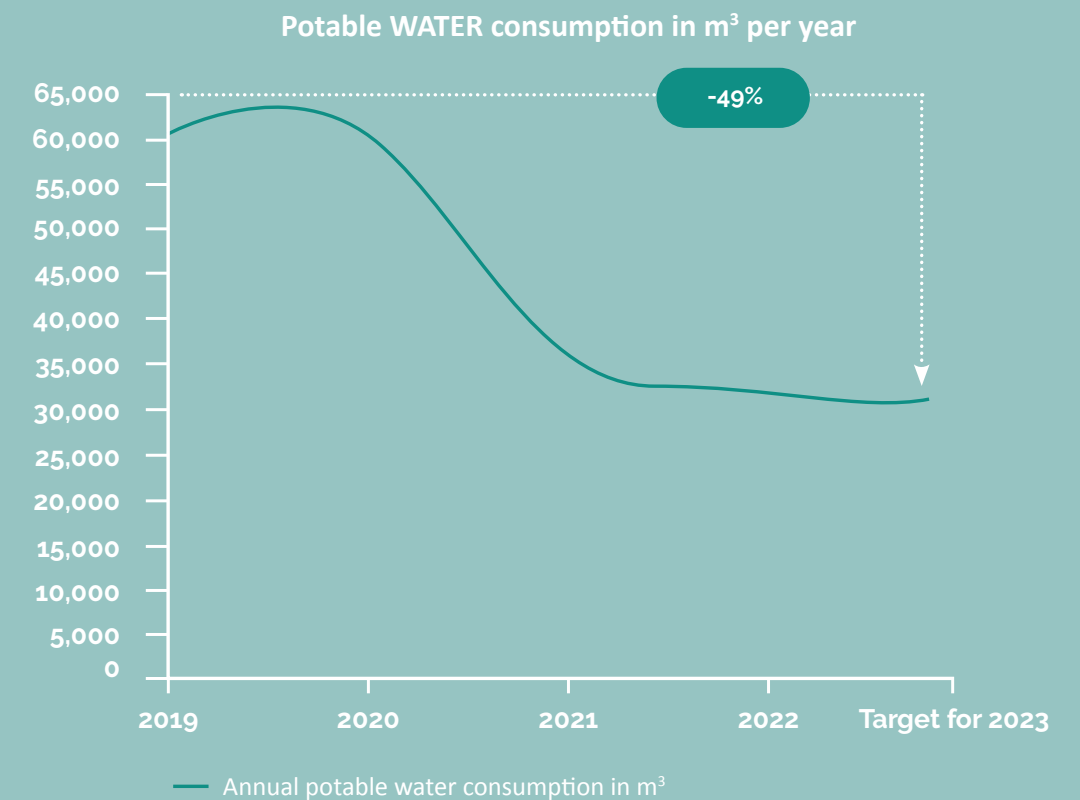
- ▶ Sanitary network water supply.
- ▶ Water fountains available to staff, changing room showers, toilets.
- ▶ Safety showers.
- ▶ Company canteen.
- ▶ Automatic watering of ornamental plants.
- ▶ Washing area for machinery and foundry moulds.
- ▶ Cooling of foundry refractory workshop saws.
- ▶ Fire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



© Michel GUILBERT



As a result of the action taken over the past 2 years, water consumption was reduced by 15% overall in 2022 (compared to baseline year 2019), and has therefore exceeded the defined target.



Our aim is to halve our potable water consumption by the end of 2023.

In 2022, the following actions were taken:

- ▶ Recovery of the TAR24 drainage water with a recurrent annual savings target of 1,500 m³. (CAPEX 15k€)
- ▶ Start of the installation phase for 15 new meters.

Our actions for 2023 to guarantee we meet our target:

- ▶ Definition of the target and KPI monitoring for each main water user.
- ▶ Continued reduction of the concentration ratio for our air cooling towers with a target saving of 8,700 m³.
- ▶ Recycling of washing water from the foundry circuit with a recurrent annual savings target of 15,000 m³. (CAPEX of 100 /138k€)
- ▶ Implementation of supervision and final roll-out of new meters to maintain savings over time and possibly identify new areas for improvement.
- ▶ Finalisation of the study phase for the installation in 2024 of an adiabatic technology cooling tower in the maintenance sector.

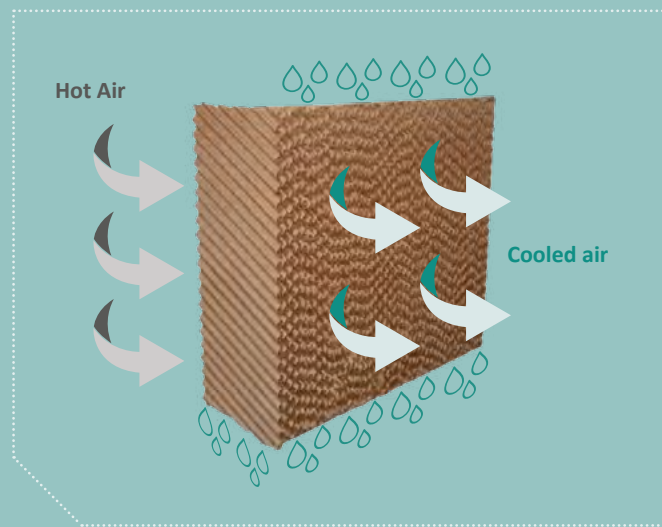
Why the change in technology?

An adiabatic cooling tower saves more than 90% of water compared to a conventional cooling tower

Adiabatic cooling towers consume less water than conventional cooling systems because of their operating principle.

How does an adiabatic cooling tower work?

Adiabatic cooling towers use water evaporation to lower the air temperature. The water is sprayed into the hot air and as it evaporates, it absorbs the heat from the air, thereby cooling it. The cooled air is then fed into the area to be cooled using a fan.



OUR WASTE WATER

Our main waste water releases in 2022

Prefectoral order	Article	Title	Name	2022 Annual result
29/07/2020	45	Quantitative assessment of emissions in water	Chemical Oxygen Demand (COD)	2387.30 kg/year
			Suspended material	1382.83 kg/year
			Fluorines (total F)	1701.93 kg/year
			Biological Oxygen Demand (BOD)	526.23 kg/year
			Hydrocarbons (total C)	5.14 kg/year
			Iron and its compounds (Fe)	222.27 kg/year
			Organohalogen compounds (AOX)	4.36 kg/year
			Zinc and its compounds (Zn)	23.74 kg/year
			Manganese and its compounds (Mn)	31.45 kg/year
			Lead and its compounds (Pb)	0.95 kg/year
			Copper and its compounds (Cu)	0.47 kg/year
			Chromium and its compounds (Cr)	0.47 kg/year
			Nickel and its compounds (Ni)	8.77 kg/year
			Cadmium and its compounds (Cd)	0.47 kg/year
			Cyanides (total CN)	0.47 kg/year
PAH	0.03 kg/year			

Our objectives:

0 NC for releases into water in the natural environment. In 2022, all our annual aqueous release flows stabilised or fell slightly, except for releases of nickel and BOD5 in water. Only the nickel values do not comply with our prefectoral site authorisation order. We have seen an increase in our flows over the last 2 years across all our parameters. A contained increase. This increase in our flows can be explained by the influence of our flow rates, as the concentrations have remained stable. A technical-economic study has been conducted for 2022 and 2023 with the Ginger Burgeap design office to study treatment solutions for parameters such as COD-PH-MES. The conclusions of this study were received in April 2023. They still need to be studied in-house to determine which strategy to implement.

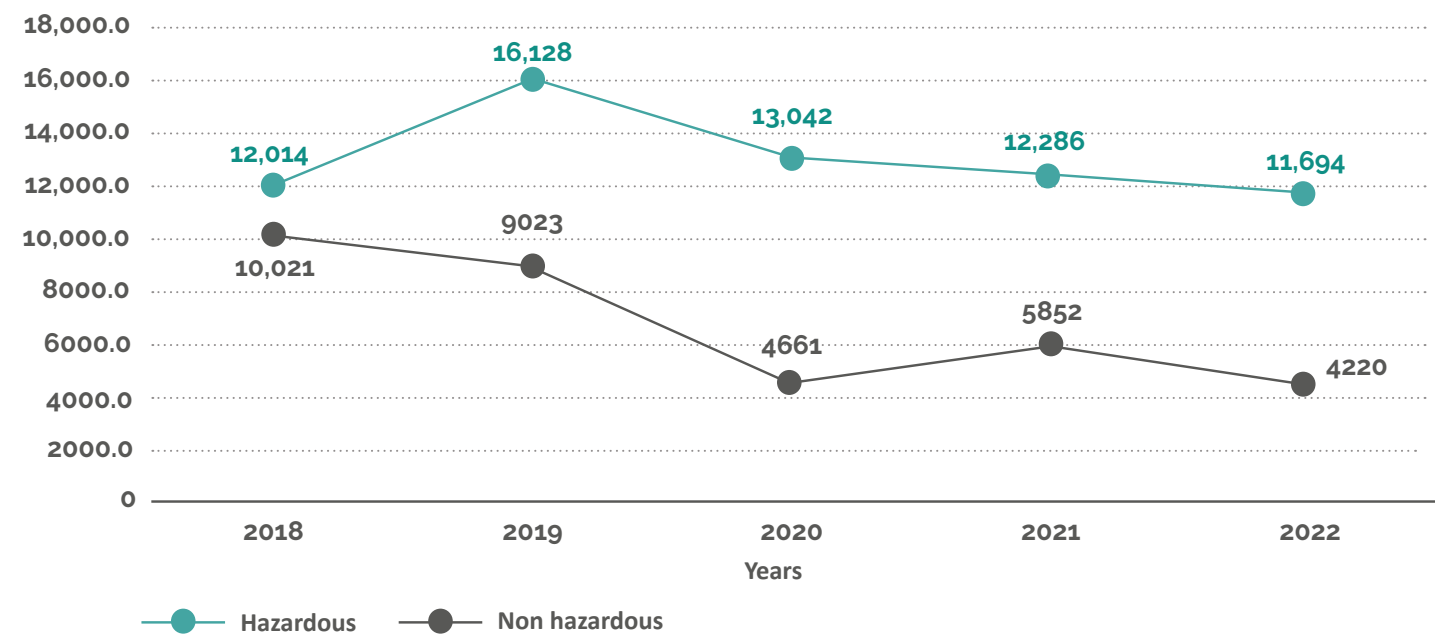


➤ SITE WASTE STATEMENT

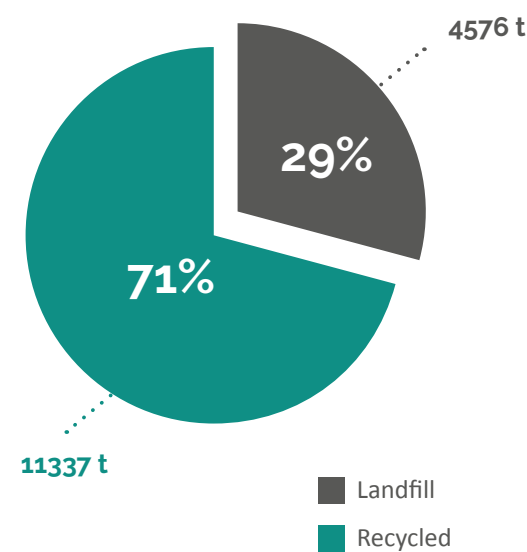
In 2022 we produced: 15,914 tonnes of waste, 73% of which is classified as hazardous.

We recycled 71% of all the waste we produced.

Total factory hazardous / non hazardous waste breakdown



Total Plant - Percentage waste recovery 2022



➤ OUR ACTIONS

We are actively working to increase our share of recycled waste by exploring new channels. We have reached a plateau. We need to find new ways of recycling our potlining waste, especially the refractory part.

A study will also be carried out in 2023 to examine the possibility of recycling our organic waste (catering) using a methanisation system.

➤ OUR WASTE TARGETS

2023
60% of our waste recycled

2030-35
80% of our waste recycled

2050
0% non-recycled waste



02. Environment – Community Relations

Identification of noise source mitigation solutions

► SUMMARY OF COMPLAINTS AND REGULATORY NON-COMPLIANCES

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

- Dust pollution
- Noise

And this in a specific context of north-easterly winds.

► NOISE POLLUTION

To effectively respond to our stakeholders, we presented our strategy to the SPPPI* Air Odour Noise Committee as follows:

- A new campaign to measure noise levels at the property boundaries (2022)
- Acoustic impact study to characterise and rank noise sources according to their level of impact on neighbours (2023)
- Identification of mitigation solutions for the noise sources categorised as having the greatest impact on neighbours and implementation of technical solutions (2023-2026)

*Permanent Secretariat for the Prevention of Industrial Pollution

September 2022 - A 2-week environmental noise measurement campaign was carried out both at the site's property boundary and at the homes of local residents who had complained of inconvenience.

The purpose of this campaign was to identify the noise generated by each of the 2 towers (Tour à Bain - TAB / Tour à Pâte - TAP) suspected of being the source of the complaints. It was not possible to identify any clear trends because the weather conditions were not favourable to the appearance of the noise (moderate north-easterly wind). The completion of the noise impact assessment in 2023 is an important step that will allow significant progress to be made in this field.

Dust pollution:

Since 2009, Aluminium Dunkerque's activities have been the cause of the inconvenience in 6% of cases; AD's contribution is low and controlled. The means of supervising our filters, our two gas treatment centres and our raw materials (alumina and coke) unloader are in place. We are now working on our responsiveness in terms of detecting leaks and stopping unloading immediately. Before resuming operations, we carry out maintenance on the leaking filter media.

Recurring site NC:

In 2022, we declared 2 recurring non-conformities with our prefectural site authorisation order. The first concerns our total dust emissions from our foundry furnace chimneys. The second concerns nickel concentrations and flows in wastewater.



Our actions:

Total foundry sector dust

- Improvement of the reliability of dust emission collection at the foundry furnace doors
- Scheduling of an in-depth analysis of dust emission sources and identification of mitigation methods, especially for finishing metals
- Launch of a feasibility study on the deployment of continuous measurement

Nickel in our wastewater:

- Actions to reduce it at source
- Optimisation of site road cleaning (frequency and equipment)
- Cleaning of the rainwater network (gully and pipes)

► OUR TARGETS

2023
1 recurrent NC

2030
0 recurrent NC



02. Environment – Biodiversity

ENVIRONMENTAL INCIDENT REPORT

No notable incident was reported in 2022 concerning the operation of our installations. 2 minor incidents were discussed by the Seveso site monitoring committee (CSS):

- ▶ **26/06/2022:** Hole in tank A 131 followed by a fire. Was inspected by DREAL
- ▶ **20/12/2022:** Collapse of 3 collectors at the East Gas Capture Centre was inspected by DREAL

BIODIVERSITY



We are giving ourselves 5 years to complete an ambitious project. Our ambition is to carry out a major biodiversity project between 2023 and 2025. Ecosphère is supporting us on this project.

Faced with the current erosion of biodiversity and destruction of natural habitats, Aluminium Dunkerque wants to play a role in protecting the ecosystem in which we operate and the services it provides (ecosystem services). Healthy ecosystems provide a variety of essential services, such as pollinating crops, purifying water and regulating the climate. We want to minimise the impact of our activities on natural environments and biodiversity as much as possible.

The Aluminium Dunkerque site is located on a green belt and a coastal wild fauna and flora corridor.



Regional ecological continuities identified by the Hauts-de-France SRADDET

Drafting of a development and management plan for green and natural areas on the Aluminium Dunkerque plant site (59)



To do that:

Our starting point is a participative approach with the following objectives:

- ▶ Maintaining biodiversity reservoirs within the plant
- ▶ Communicating on the site's ecological challenges and raising employee awareness of biodiversity

An in-depth ecological assessment of the site's natural areas will be conducted throughout 2023 (fauna, flora). Following this initial study phase, development and biodiversity management scenarios will be identified. These will be implemented until the end of 2030.

OUR TARGETS

2023
Inventory completed

2024
Compensation and ecosystem services strategy in place

2030
100% of actions completed

Biodiversity development and management scenarios will be identified by 2023.



03. Social

- **3.1** *Protecting and supporting our employees, Social sustainability*
- **3.2** *Developing our human resources*
- **3.3** *Our communities & stakeholders*

03. Social – Safety

3.1

Preserving and developing our employees, Social sustainability

SAFETY

Our safety results are improving, and the 2021 safety objectives were consolidated in 2022 even though the target was only partially reached.

2022 TF1 target: 5

2022 TF1 result = 7.03

2022 result = 7.03

Number of fatal accidents = 0

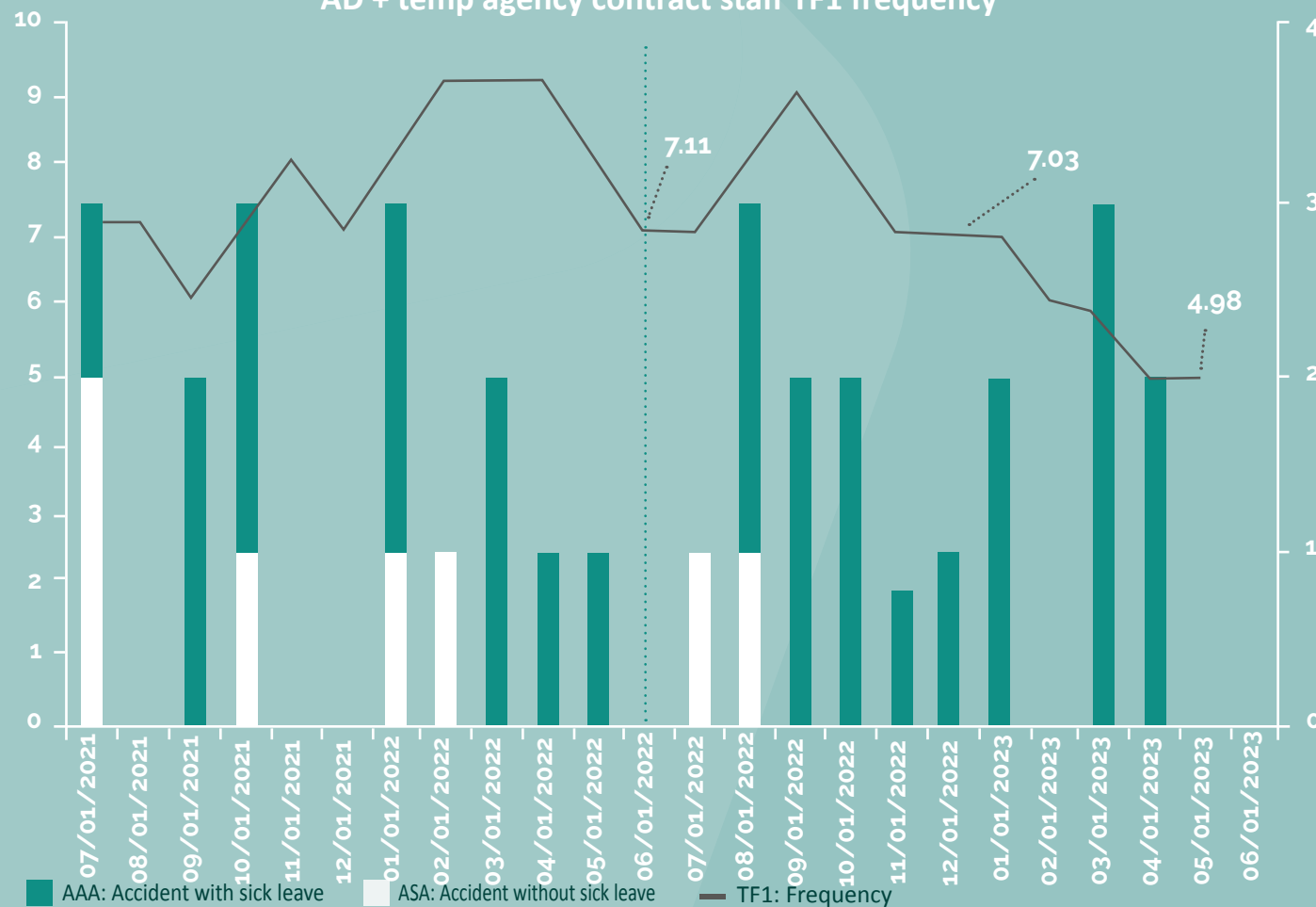
**TF1 = (number of accidents with sick leave / number of hours worked) x 1,000,000*



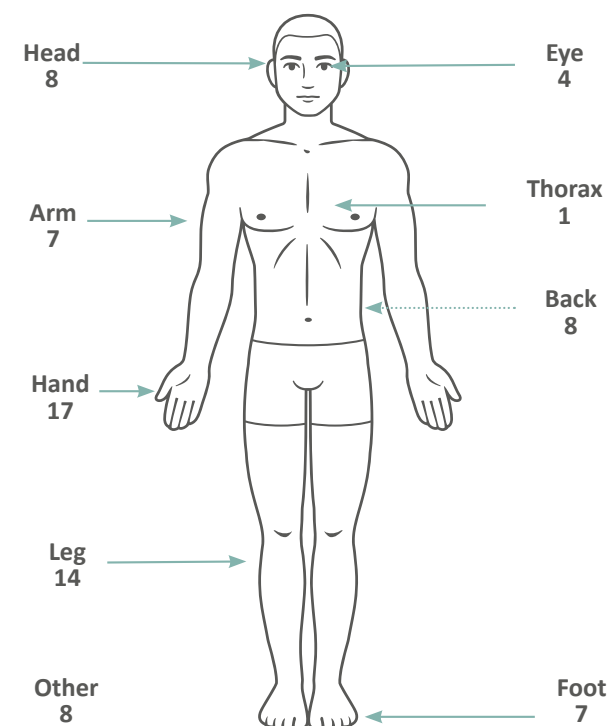
OCCUPATIONAL HEALTH AND SAFETY OBJECTIVES FOR 2023:

- TF1 <5
- <5 workplace accidents with sick leave
- 175 safety interactions per week
- 4000 health and safety declarations per year
- 100% of scheduled occupational physician visits completed

AD + temp agency contract staff TF1 frequency



Location of accident injuries in 2022



We failed to meet our target due to an accident-prone summer period. The 2023 strategy will especially focus on awareness-raising and operational line support actions during this period. We found a predominance of lower body injuries while moving around (sprained ankles in particular).

Work is ongoing on a technology watch for safety footwear. A large-scale test of a new model will be conducted in 2023 with the participation of 100 employees.

On completion, a new model will be rolled out. The initial findings show the importance of weight and ankle support (upper characteristics).

We have decided to promote incident reporting among our staff. The reason is that the earlier we can detect events, the better our corrective and risk prevention actions will be. This helps create a deep-rooted safety culture.

► OUR 2022-2023 SAFETY COMMITMENTS:

The 2022-2023 commitments are in line with those of previous years. Health, Safety, and the Environment are our priorities.

Our safety commitments:

- Protect our employees and external contractors.
- Provide healthy and safe working conditions.
- Protect from industrial disasters.
- Promote and share best practices.

► MAIN SAFETY ACTIONS IN 2022:

Rationalisation and modernisation of everyday safety management tools. Digitisation of declarations as close to the field as possible.

Digitisation allows:

- More effective safety management with interactive animation of our indicators.
- Data archiving and in-depth analysis.
- Better accessibility and legibility of our indicators by our employees.
- To strengthen staff commitment.

Improvement of critical risk methodology on site.

Management of our critical risks:

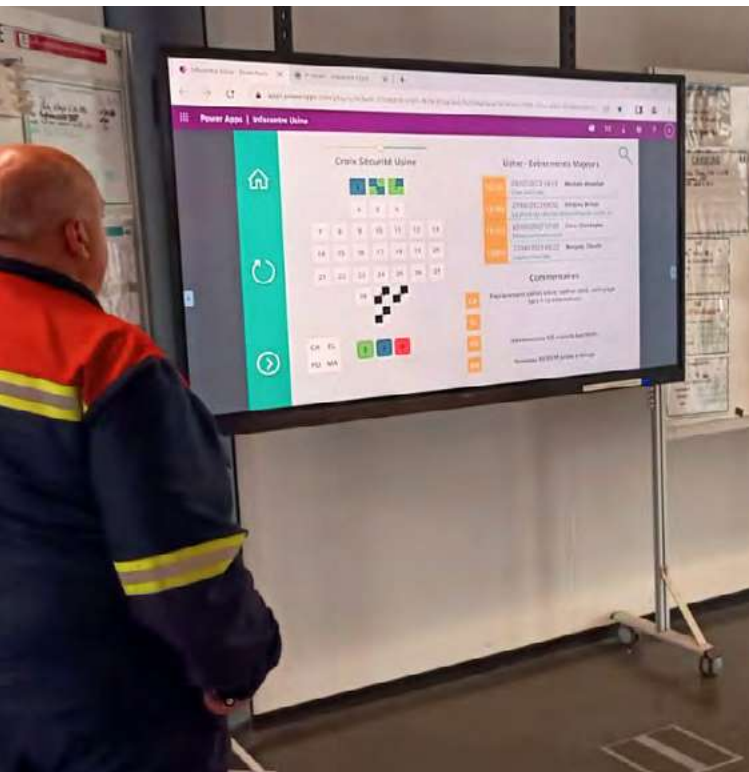
Work began in 2022 on the critical risk management methodology carried out as close as possible to the field. The observation points for the various risks and associated visuals were redefined and formalised on check sheets. These checks are to be carried out every day by AD and External Contractor staff in the various operational sectors. The processing of the data from these control sheets is used to adapt our everyday risk management actions.

This method makes it possible for us to identify areas for more in-depth improvement that can go as far as eliminating the risk.

This process is currently being digitised using the EOS 'Ensemble on s'améliore' tool which will be rolled out in late 2023.



Interactive animation of our safety indicators optimised by digitisation



Improving workstation ergonomics

Management of an External Contractor Prevention Plan:

To improve the management of External Contractor work on our site, a new PDP (Prevention Plan) tool has been developed in collaboration with the principals, the CMX cell, the HSE team, and certain External Contractors.

This new tool employs a process that is both rigorous and more user-friendly for both the Order giver and the external contractor staff. As part of the ongoing development of the tool, a drafting and registration platform has been created and made available to the order givers.

In parallel, training sessions on the new PDP (reminder of the regulatory framework and practical tools) were followed. By the end of 2022, around a hundred order givers had been trained. This training will be completed in 2023.



► OCCUPATIONAL HEALTH

Every year, Aluminium Dunkerque improves the work conditions of its employees. These projects make it possible to reduce the risks associated with using chemicals, work pace, exposure to noise and heat, and improve workstation ergonomics.

Major projects completed in 2022:

- Projects to replace the positive ventilation mask used on our site by most of our staff. 2 new models were qualified, the major constraint being their resistance to magnetic fields.
- Review of the defibrillator locations to improve their fast accessibility on the entire site.

Ergonomics:

Following in-depth analyses of workstations carried out by our ergonomic nurse in the supply/warehouse sector, specific equipment was identified to facilitate everyday movements and postures:

- Elevator table.
- Specific drum handling trolleys.
- Workshop crane.

This equipment makes it easier to handle heavy parts that can cause muscular-skeletal disorders (MSDs).

Exoskeleton tests carried out in the central maintenance sector: The aim is to provide our maintenance operators with additional mechanical support to reduce muscular fatigue and the risk of injury linked to awkward postures and heavy loads.



▶ INDUSTRIAL RISKS

On 27 December 2022, we received a great Christmas present: the new fire engine!

The previous diesel vehicle that was coming to the end of its service life needed to be replaced. Our brand new fire engine was commissioned on Monday 3 January.

Its purpose: to provide emergency response!

It transports the emergency response teams and the equipment needed for fire and emergency response operations.

This new vehicle is electric!

Its electric motor further reduces our carbon footprint. It is also the solution best adapted to our technical and organisational constraints:

- ▶ Frequent start-ups
- ▶ Short distances to cover
- ▶ In line with our CSR (Corporate Social Responsibility) values

Advantages of the vehicle:

- ▶ Adapted to situations
- ▶ Versatile
- ▶ Compact
- ▶ Resistance to magnetic fields



03. Social – Training

3.2

Developing our human resources

The men and women of Aluminium Dunkerque are essential to the company's performance and growth. To be a stakeholder in the future, every employee must feel safe at the company, thanks in particular to good understanding of their role (training) and good knowledge of their work environment. Every employee must also feel involved in order to be engaged.

We believe that this engagement must be based on shared values (entrepreneurship, diversity, etc.) and transparent communication that increases our employees' trust.

Our pillars are the following:

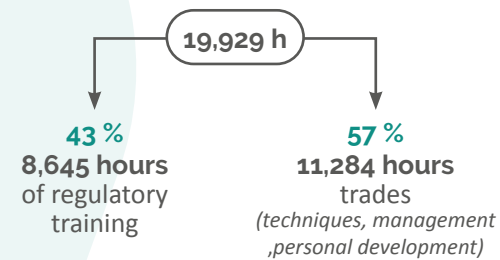
- ▶ Developing our employees through training
- ▶ Commitment to young people
- ▶ Engaging the community
- ▶ Developing diversity and professional equality
- ▶ Encouraging industrial relations

Continuous training is essential for the development and evolution of our employees

▶ DEVELOPING OUR EMPLOYEES THROUGH TRAINING

The skills of the men and women in our company and their motivation are assets that enable our site to strengthen its overall, economic and environmental performance. We believe everyone's expertise, experience and development to be priorities.

Continuous training is essential for the development and evolution of employees and the performance of our company. Aluminium Dunkerque spent 0.5 M€ on the maintenance and renewal of team skills, representing 2.5 % of the payroll. In 2022, every Aluminium Dunkerque employee had an average of 32 hours of training, i.e. 4 days per person.

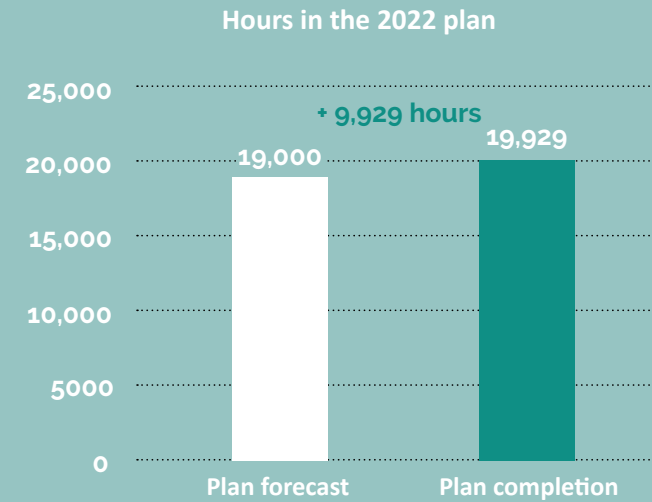


▶ TRAINING

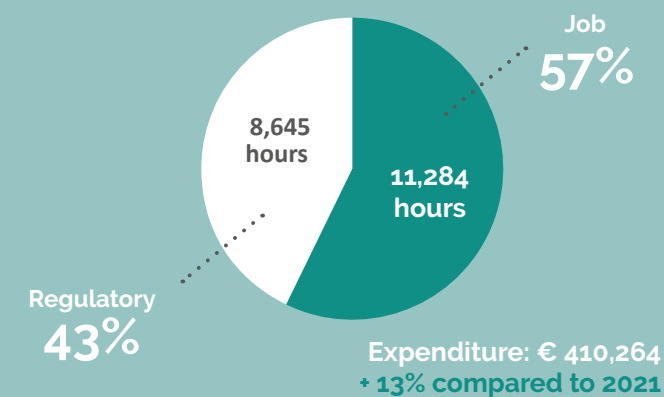
In line with this commitment, new training courses on ethics (corruption and harassment) will be rolled out in 2023 to all employees.

A code of conduct to group together all the requirements and rules to be followed by our employees and all our partners is available on our website.

We raised the awareness of almost all our employees of our code of conduct in 2022 and of 100 % of our most critical suppliers.



Breakdown of completed training courses



Our ambition over the next few years is to become a training centre of excellence in primary aluminium expertise.

To achieve that, a far-reaching project has been launched called: **AD CAMPUS PROCEDE.**

This project is structured as follows:

- ▶ Collection and formalisation of existing trade expertise
- ▶ Adaptation and improvement of teaching content
- ▶ 1. Selection of experts for the working group: "AD Campus Carbon Processes" routine
- ▶ 2. Analysis of the existing and future training process
- ▶ 3. Sorting of existing "AD" and "IPH" training modules
- ▶ 4. Creation of a "which module for which person?" training matrix
- ▶ 5. Update and creation of the modules
- ▶ 6. Launch of training courses with in-house instructors

Each individual has unique skills

The pilot sectors are:

- ▶ Capture
- ▶ Carbon

In parallel, we are using an innovating method known as TFC (Transmission et Formalisation des Compétences) in partnership with the IMPLICIT academy.

The principle is based on the idea that each person has key skills that are essential to the proper running of the company.

The main purpose of the method is to identify the implicit skills that need to be passed on and formalised for other members of the company.



With a view to modernising our training programmes, we are digitising some of our content using the Didactum LMS Learning Management System platform.

Objectives:

- ▶ Creation of personalised training programmes
- ▶ Easier and more flexible access to training courses
- ▶ Improved teaching and skill acquisition through the immersion afforded by the content and the interactive aspect

Training courses on sustainability topics are currently being studied:

- ▶ Biodiversity
- ▶ Water and water use
- ▶ Waste recycling
- ▶ Decarbonation
- ▶ Energy efficiency

COMMITMENT TO YOUNG PEOPLE - APPEAL

Aluminium Dunkerque site's commitment to young people is a cornerstone of its corporate social responsibility (CSR) strategy.

It will make it possible for us to train a new generation of qualified workers, to create job opportunities in the Dunkirk area, and guarantee our operations and the development of the region over the long term.

This commitment can be seen by our active participation in the following events:

The 4 Industry days in Dunkirk - Nov. 2022

Class trip to the Aluminium Dunkerque site. The purpose of this initiative was to make the connection between apprenticeships and the knowledge expected in companies, and to promote employees' work by giving them the opportunity to showcase their know-how as teachers for the day! We hosted a class of first-year maintenance students from the Lycée Fernand Léger in Coudekerque. On the programme:

- ▶ Presentation of the company to the students
- ▶ Hydraulic and conditional maintenance lesson in the production sectors around a test bench
- ▶ Electric maintenance lesson (classroom)
- ▶ Plant tour

A lunch break with the site's maintenance sector manager, Stéphane Favrolle.

There were 5 teachers for a day:

- ▶ Jérémie Lageiste - Hydraulic Reliability Specialist
- ▶ Benjamin Branly - Reliability Engineer
- ▶ Pascal David - Reliability Engineer
- ▶ Pascal Benoit - Plant Reliability Coordinator
- ▶ Vincent Chevalier - Reliability Engineer

Demystifying young peoples' image of the industry

Participation in the "Dunkirk industry and careers discovery day" forum

Alongside 64 other exhibitors, we showcased our trades, the discovery of the company, the stories of the women in the company, and our job opportunities (internships, work-study courses and permanent contracts). 2,700 visitors.

Fabuleuse Factory - Sept. 2022

A community initiative led by Euraénergie (Communauté Urbaine de Dunkerque) in the presence of the Minister for Industry, Mr Roland Lescure, to pool the needs of companies in the Dunkirk area and young people looking for career guidance.

During this event, we were able to share our trade and our know-how with over 6,500 visitors (including 2,200 students from 28 different schools).

The challenge was to demystify young peoples' image of industry:

- ▶ Presentation of our activity using films
- ▶ Discussions with our employees about their jobs and professional experience
- ▶ Career advice from the site's HR department

Work-study programme job dating at Aluminium Dunkerque - June. 2022

80 people came to apply for jobs at this event, including professional production and maintenance students.

At the end of the event, 24 applicants were hired on work-study programme contracts.



Let them give their work meaning.



STRENGTHENING OUR APPEAL TO YOUNG PEOPLE

Our commitment to strengthening our appeal to young people was also shown in 2022 by a collaboration with the artist Mikko-Umi.

We commissioned this famous local artist to bring his modern touch and artistic vision to our industrial process. The result was an attractive, educational and fun fresco of our activities!

You can see this fresco on p74!

Work-study programmes at Aluminium Dunkerque

Preparing for the future by continuing to recruit young students on apprenticeship and professionalisation contracts.

Every year, we recruit 30 work-study programme students (production, maintenance, support functions) at every level (GCSE, Qualified technician, Master, Engineering school graduates, etc.). We are fully committed our role as an economic player with local communities in terms of access to employment.

▶ ENGAGING THE COMMUNITY

Induction Days

2022 marked the return of our induction days for new recruits.

A new formula was initiated to develop team spirit, encourage discussion and develop commitment and the feeling of being a member of the company.

The most important thing is to let them give their work meaning.

The event took place over 2 days.

The programme included sports activities and team building. Workshop led by Emmanuel Chila on human values and corporate culture.

The second day: a treasure hunt around the support functions to better understand their missions and their role in supporting the operational line. Afternoon: tour of the sectors to understand the aluminium manufacturing process and the "in-house customer/supplier" relationship.

Given the success of this year's event, we are now planning to hold 2 per year.

Give importance to integration and diversity

▶ INCREASE OUR APPEAL AND CREATE EMPLOYEE LOYALTY

Working on our company's appeal and our employees' loyalty is essential to having committed staff, motivated by its work and qualified for the tasks it carries out.

Our HR policy focuses on the importance of integration and diversity (induction process, support for foreign workers, equal numbers of men and women, etc.).

The maintenance professions: 21 % of Strategic Workforce Plan retirements over the next 5 years involve the Maintenance department. Our priority for the Maintenance sector is to provide HR solutions (recruitment, career development, training) in line with the job market and external training offers. Many initiatives are being tested to maintain the company's technical expertise (general mechanics, boiler-making, low voltage - high voltage electricity, instrumentation, automation, etc.).

Finding: 23% of the maintenance workforce is due to retire within 10 years.

Furthermore, there is a shortage of specific maintenance skills (electricians, mechanics, etc.) in the Dunkirk area and beyond.

In 2022, we launched a project to maintain the in-house skills of MA operators

The need to adapt HR processes:

- ▶ Appeal (participation in local events, raising awareness in schools and universities, etc.)
- ▶ Recruitment (participation in job fairs)
- ▶ Pay
- ▶ Career development



▶ DEVELOPING DIVERSITY AND GENDER EQUALITY

In February 2023, Aluminium Dunkerque published its Professional Gender Equality Index which was scored at 83 %*.

In terms of pay, after negotiations with our social partners, a specific budget is allocated to make up any difference in pay between men and women.

Aluminium Dunkerque's voluntary policy for equality means we have achieved a good general level of equality in pay, equality in individual pay rises, and individual rises after returning from maternity leave.

*Index calculated on a base of 100. Aluminium Dunkerque obtained a score of 83 points out of a maximum 100)

▶ ENCOURAGING INDUSTRIAL RELATIONS

Industrial relations are very important for the company. Aluminium Dunkerque's management watches over the development and long term social dialogue within the company, as well as the handling of issues relating to employees' individual and collective interests. This contributes to a positive dynamic. Thus, many meetings are organised with the trade unions: negotiations, agreement monitoring commissions, specific meetings with union representatives and senior management, discussions on company strategy assisted by specialised firms, etc.

Almost 11,000 hours of union work (representing over 5 FTE roles) were granted to employee representatives for their mission.



RECONNECTING WOMEN WITH INDUSTRY TRADES

The company strives to support equal chances and broaden its pool of talent by recruiting and promoting women in all our business units.

In 2022, women now work in all our sectors as production operators, production apprentices, maintenance technicians, heads of department. Female employees make up 11% of our staff (10.5 % of permanent and short-term contracts) 31.5% of whom are in management roles.

The number of women in the company has increased by 60% over the last 5 years.

Aluminium Dunkerque has joined the IndustriELLE group

The purpose of this group is to change the image of the industry among young girls and women and attract them to this sector, which has a huge need for skills.

Improving the position of women in industry, and more specifically in the aluminium industry, is a major challenge for the competitiveness and growth of our activity.

Our ambition for development and sustainable growth cannot be achieved by neglecting half the population and therefore half the talent. Studies prove it: more gender diversity in a company means better economic performance.

Our ambition is to significantly increase the percentage of women in production.

To attract women to the industrial world, Aluminium Dunkerque is pursuing its initiative to integrate a high number of women as work-study programme students.

Material initiatives in 2022

- ▶ Participation in the ESSENTIELLES trade fair on 8 September 2022 in Marq en Baroeul.
- ▶ One of our production operators talked about her job during a round table discussion and shared her experiences as a woman in industry.
- ▶ Schools - training relationship strategy
Testimonial to the EPID
Make it possible to raise awareness of careers in industry and allow students to break through the glass ceiling, releasing and unlocking the prejudices that people may have about those careers.
- ▶ Mobilisation of our female AD employees at every employment event.
- ▶ Set up with the Gravelines town council's employment unit to demystify industrial jobs available to women.
An awareness-raising video will be released in 2023 featuring real-life testimonials from our women (work-home balance, career development, integration in a predominantly male team, work environment, etc.).
- ▶ Work-study programme job dating organised on the site with a stand dedicated to women in industry run by our female employees.

For Aluminium Dunkerque, being a woman in industry must no longer be exceptional.

Being a woman in industry must no longer be an exception.

A FEW FIGURES

Subject	Indicators	2021 data
STAFF	Number of registered employees in December 2022:	666
	▶ of which permanent contract	631
	▶ of which work-study programme students	32
	▶ of which short-term contract	3
	Staff as full-time equivalent roles	614.15
	Share of permanent employees	95.0%
	Number of recruitments:	71
	▶ Permanent	53
	▶ Short-term (including work-study programme students)	18
	Number of departures:	46
	▶ Resignations	8
	▶ End of short term contracts	15
	▶ Retirements	15
	▶ Redundancy/Death/Contractual termination	8
Part-time staff	5.2%	
Average age of permanent employees	45.5	
Average seniority (in number of years) for permanent contracts:	16	
▶ of which Operators	15.7	
▶ of which foremen, technicians and supervisors	19.5	
▶ of which management	11	
HEALTH	Absenteeism (%)	7.63 %
	Absenteeism (%) sick leave of less than 120 days.	5.27%
INDUSTRIAL RELATIONS	Number of strike days	5
	Strike days attributable to Aluminium Dunkerque	2
	Number of meetings with organisations	15
TRAINING	Number of training hours per employee per year	20
DIVERSITY	Percentage of women	10.5%
	Percentage of women in management roles	31.5%
	Disabled employees	6.5%
	Foreign employees	1.0%
PAY	Average monthly pay (FTE)	€ 4,236
	Pay rise budget (2022 annual negotiation for 2023)	5.2%
ADMINISTRATIVE SANCTIONS		0



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➤ REASONABLE DUE 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 codes of conduct available on the website to promote the principles of reasonable due diligence in-house and with all its partners and to continuously improve it (see: codes of conduct link in the appendix on p 75).

To this end, Aluminium Dunkerque has set up a secure external online system used to report conduct that is contrary to the values set out above.

An Ethics Committee has been set up to deal with any alerts received and to implement any necessary action plans to guarantee that these values are respected.

Furthermore, Aluminium Dunkerque commits to respect all the applicable legal provisions to guarantee lasting compliance and responsible management of its activities.

Finally, our company respects and defends the dignity, well-being and rights of its employees and their families.

Promoting the principles of reasonable due diligence

➤ APPLICATION OF THE ANTI-CORRUPTION LAW

Ongoing site compliance as part of the Sapin 2 Act

▶ SAPIN II Act in brief:

Implementation of the law: May 2017

Objective: to implement procedures to prevent and detect corruption or influence peddling in companies (subject to thresholds).

Means:

- Application of 8 measures to be deployed by the companies concerned
- Establishment of the French Anti-Corruption Agency (AFA)
- Financial sanctions for non-compliance

▶ Significance:

Become compliant with the law and demonstrate our trustworthiness to our internal and external partners.

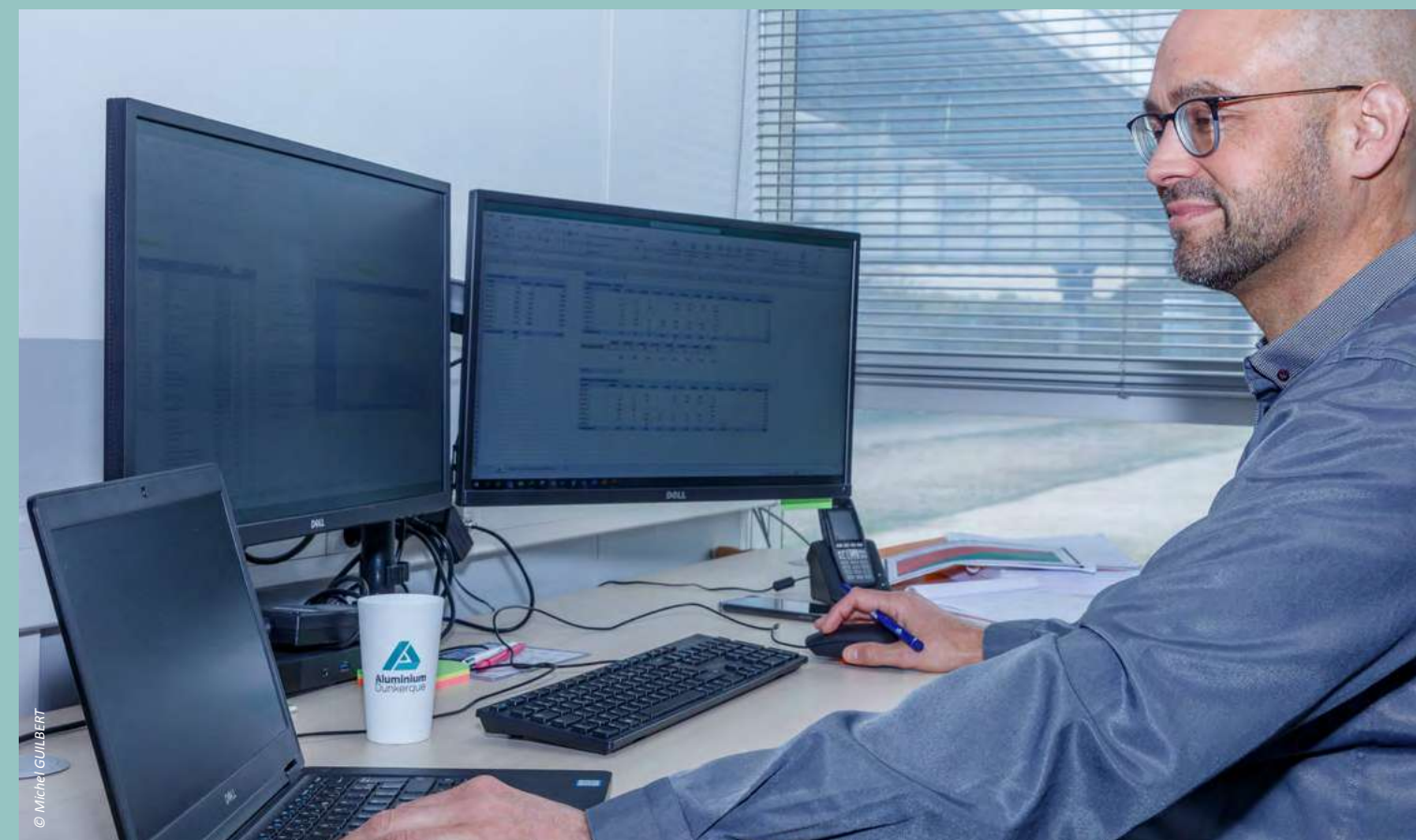
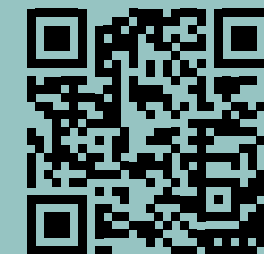
Assess and improve the company's anti corruption resources to improve our transparency, process efficiency, quality of our financial information and our reliability.

▶ Contribution to AD:

- Control of corruption-related risks in the company;
- Implementation of checks, actions and tests of the procedures related to identified critical risks;
- Definition and nurturing of an "anti-corruption ethic" in the plant adapted to our organisation and activity;
- Assess our external partners to make sure we are working with third parties that are ethically trustworthy.

▶ A warning system has been in place since May 2023:

<https://whistleblowersoftware.com/>



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3.3

Our communities & stakeholders

SPORTS PARTNERSHIPS

Aluminium Dunkerque partners three of the largest professional sports clubs in the Hauts-de-France region. The company gives employees match tickets as rewards.

- ▶ **Basket Club Maritime Gravelines Dunkerque Grand Littoral (BCM):** a professional French basketball club founded in 1984 and based in Gravelines.
- ▶ **Dunkerque Handball Grand Littoral** is a French handball club in Dunkirk. The club is in the National Handball League.
- ▶ **HGD in DUNKERQUE:** the Dunkirk ice hockey club founded in 1970. The club is in D1 for French national ice hockey. In 2020, the Dunkirk hockey club opened a brand new rink that is a great venue for spectators and Aluminium Dunkerque participated through the values the team represents: courage, hard work, respect and honesty.

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.

- ▶ **Loon-Plage tennis ASAD:** The Loon-Plage tennis club is for residents of Loon-Plage and is affiliated with the French Tennis Federation. A grant helped support the club and contributed to the purchase of outfits for the team with the company's logo. This partnership has benefited several Aluminium Dunkerque employees who are members of the Loon-Plage Club.



► TERRITORIAL PARTNERSHIPS AND COMMITMENTS

As part of its involvement with local communities, Aluminium Dunkerque also partners territorial players and regional cultural events: Dunkerque Promotion, Pôlénergie, the Son et Lumières de Gravelines and the Musée Portuaire de Dunkerque.

► Dunkerque Promotion:

Dunkerque Promotion is an agency that supports business development and economic growth projects for all companies in the Dunkirk region. Aluminium Dunkerque renewed its partnership in 2020 and contributes to projects that promote the area, particularly in terms of staff recruitments.

► Pôlénergie:

Founded in 2011 under the impetus of the Regional Council of Nord-Pas de Calais and the Dunkirk Urban Community, PÔLÉNERGIE federates around a hundred members and covers the entire energy value chain (production, transport, distribution, operators, electro-intensive businesses, equipment manufacturers), local authorities, non profits and academia. Pôlénergie wants to make the energy transition and economic opportunity for Hauts-de-France businesses and local authorities.

Laurent Courtois, Director of the Aluminium Dunkerque Energy and Climate Unit, is the Chairman of Pôlénergie.



► 08/09/2022 - AgroParisTech student visit

Every year, Aluminium Dunkerque hosts students from AgroParisTech, an engineering school specialising in life sciences and environmental industries.

The students are welcomed by the Communications Department and the site Environmental Manager to exchange on company practices. A field trip is planned during the day.



► 12/10/2022 - Visit by Mines Paris Tech

On Wednesday 12 October, Aluminium Dunkerque welcomed engineering students from the #MinesParisTech school. The students first had the opportunity to chat to the Operations Director about our company and its activities, before embarking on a tour of our production sectors. Finally, they were able to discuss our decarbonisation strategy with the Head of Energy Projects.

► CULTURAL PARTNERSHIPS

► The Dunkirk Port Museum:

is a maritime museum in a building dating back to 1868. This museum was founded in 1992 based on an idea from former dock workers who had been collecting and preserving testimonials about their profession and their maritime environment since the 1970s. In 2019, Aluminium Dunkerque held the years of service ceremony in the museum's historic rooms that are home to paintings and model ships.

► Laac Museum:

The LAAC was created thanks to the donation to the town of Dunkirk of an exceptional collection of works by twentieth-century artists on the initiative of Gilbert Delaine, founding chairman of the L'Art contemporain non profit, supported by sixty corporate patrons, in the 1970s and 1980s. Today, the LAAC presents two major temporary exhibitions every year, four exhibitions of graphic art, alongside a selection of over two hundred works from the collection, "Les Incontournables", and the sculpture garden.

► PARTNERS FOR EDUCATION AND PROFESSIONAL TRAINING

As part of its recruitment policy, Aluminium Dunkerque has different partnerships with training centres, schools, universities and apprenticeship centres in the region. In addition to this, the factory opens its doors and offers tours to these establishments, takes part in different job fairs in the area and is a member of skills development networks.

► 29/04/2022 - Collège Robespierre school visit

On Friday 29 April, 20 pupils from the 4th year of the Établissement Robespierre in Saint-Pol-sur-Mer visited our production site. Shared objectives: to open our doors to young people in the region and show what goes on inside a major industry. Accompanied by their teachers, they visited each operational sector and discovered how aluminium is made. The industrial maintenance experts, meanwhile, were able to show how technologies are changing, in particular by inviting them to climb on board machinery.

➤ SOCIAL AND HEALTH PARTNERSHIPS

Aluminium Dunkerque donates objects and goods in order to contribute in its own way and to support local non profits.

- ▶ Pink October / Movember & the Beyond Cancer association
- ▶ Green Mobility Day & International Motorcycling Association

➤ INTERNAL RECOGNITION

Aluminium Dunkerque is planning a recognition process for its employees, its teams and also for its contractors.

- ▶ **06/04/2022 - EC Recognition**
Every year, Aluminium Dunkerque recognises its External Contractors to thank them for their involvement and commitment in carrying out their missions.



- ▶ **07/07/2022 - Medal ceremony**
Aluminium Dunkerque celebrated and rewarded its employees who were celebrating their 20, 30 and 35 years of seniority in the company. A ceremony was organised at the Villa Blanche de Dunkerque to host the employees who were awarded their medals.

- ▶ **07/09/2022 - Apprentices' graduation ceremony**
Aluminium Dunkerque recognised its apprentices who completed their school year by handing them a diploma.



➤ POLITICAL EVENTS

- ▶ **21/01/2022 - Visit from Minister Agnès Pannier-Runacher**
Mrs Agnès Pannier-Runacher, Minister Delegate for Industry, visited the Aluminium Dunkerque site to discuss the issues involved in running an electrolysis series in the context of rising energy costs.
- ▶ **22/09/2022 - Visit from Minister Roland Lescure**
Roland Lescure, the French Minister for Industry, was in Dunkirk on 22 September to take part in the closing session of the "European Conference on Decarbonisation, Industries and Territories". He visited the Aluminium Dunkerque site in the afternoon. Mr Lescure had the opportunity to visit the workshops, where he was able to meet the employees who presented all the issues involved in running an electrolysis series in the context of rising energy costs.

➤ SPONSORSHIP

As part of its recognition of its employees, Aluminium Dunkerque grants subsidies to clubs and associations in which employees are personally involved in order to support their extra-professional projects. As such, Aluminium Dunkerque is a patron of various clubs:

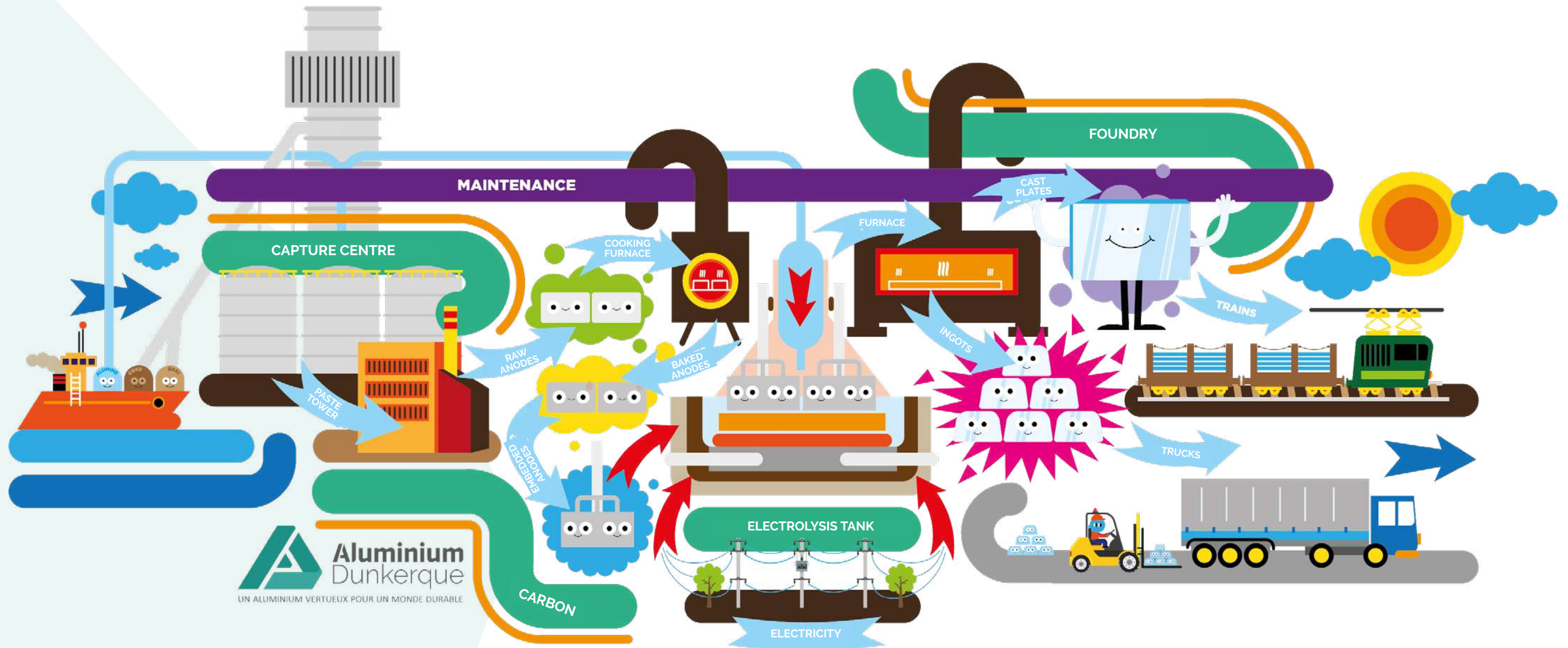
- Petite Synthe football club
- Petits écoliers de Cappelle-Brouck
- Spycker Tennis Club
- Uxem football club
- Bergues football club
- Loon-Plage basketball club
- Gravelines Table Tennis Club



Supporting extra-professional projects.

COLLABORATION WITH THE ARTIST MIKKO-UMI:

We commissioned this famous local artist to bring his modern touch and artistic vision to our industrial process.




Appendices

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

- ▶ [Environmental assessment to 2022 annual report](#)
- ▶ [Site strategy to Site policy](#)
- ▶ [Code of conduct \(general and anti-corruption\)](#)
- ▶ [Responsible Purchasing Charter](#)
- ▶ [EPD - Environmental and health declaration sheets](#)



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