# SUSTAINABILITY REPORT 2023

GoALGreen Aluminium Duffel www.aluminiumduffel.com

## **AD** Aluminium Duffel

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## Glossary

ABS	Automotive Body Sheet
AIP	American Industrial Partners
ASI	Aluminium Stewardship Initiative
AWW	Antwerp Water Works (Antwerpse Waterwerken)
CALP	Continuous Annealing Line with Pre-treatment
COO	Certificate of Origin
CO <sub>2</sub> e	CO <sub>2</sub> equivalent
CSRD	Corporate Sustainability Reporting Directive
EBO	Energy Policy Agreement (Energiebeleidsovereenkomst)
ESG	Environmental, Social, Governance
ESRS	European Sustainability Reporting Standards
EU-ETS	European Energy Trading System
FSC	Forest Stewardship Council
G00	Guarantee of Origin
GRI	Global Reporting Initiative
GWP	Global Warming Potential
HSE	Health, Safety, Environment
KPI	Key Performance Indicator
LCA	Life Cycle Assessment
LMS	Learning Management System
NOx	Nitrogen Oxides
OCAP	Out of Control Action Plan
OHS	Occupational Health and Safety
OEM	Original Equipment Manufacturer
PESTEL	Political, Economic, Social, Technological, Environmental and Legal
PMD	Plastic, Metal, Drinks and food cartons
PPA	Power Purchase Agreement
PPM	Parts Per Million
RSI	Remelt Scrap Ingot
SAQ	Supplier Sustainability Self-Assessment Questionnaire
SO <sub>2</sub>	Sulphur dioxide
TCT	The Hutchison Terminal
ТОС	Total Organic Carbon



## A message from our Managing Director

Dear Stakeholders,

I am proud to present Aluminium Duffel BV's Sustainability Report for the year 2023 – proof of our ongoing commitment to environmental stewardship, social responsibility, and economic resilience. As the Managing Director, I take great pride in sharing the steps we have taken to advance sustainability initiatives while navigating through uncertain market conditions.

To achieve net carbon neutrality by 2050 and the 2040 targets communicated by the European Commission in February 2024, our efforts and investments will need to be higher than in the previous decade. This enormous challenge comes just as we face the most severe economic downturn in a decade. Demand is falling and production costs are increasing.

Amidst difficult economic conditions, our firm commitment to sustainability remained resolute. In 2023, Aluminium Duffel BV achieved significant milestones in various facets of sustainability, underscoring our proactive approach to minimising environmental impact and fostering positive social change.

We successfully implemented measures to reduce energy consumption, thereby reducing our carbon footprint and bolstering operational efficiency. Embracing renewable energy sources, we forged a Power Purchase Agreement (PPA) for offsite wind energy, reaffirming our commitment to clean energy procurement and sustainable business practices. We also decided to start installing solar panels on our roofs in 2024 and surrounding grounds in 2025.

Our collaboration with the Flemish government culminated in a new energy agreement for the period 2023-2026, underscoring our proactive engagement with regulatory bodies to foster energy efficiency.

Our investment in advanced technology with the introduction of the new scalper demonstrates our commitment to sustainability, innovation and continuous improvement in our manufacturing processes. In line with our commitment to sustainable mobility, we continued our transition to electrified company cars, reducing emissions and demonstrating our dedication to eco-friendly transportation alternatives.

Safety remains our #1 priority. In 2023, our safety focus increased towards addressing the psychological aspects of the working environment.

Our customers are at the heart of our business. In 2023, we conducted several workshops and conferences to determine the sustainability requirements and priorities.

In order to uphold ethical standards and foster a culture of integrity, we introduced a comprehensive Code of Conduct to guide our employees and stakeholders towards principled business practices.

We have taken proactive steps to minimise potential nuisance for our neighbours by initiating various community engagement programs. These programs foster harmonious relationships and contribute positively to the local communities where we operate.

By reassessing our impact on both financial and nonfinancial aspects (double materiality assessment), we ensure a comprehensive approach to sustainability, aligning our business strategies with the broader social and environmental requirements. By the end of 2024, we will have updated the topics that matter most to the stakeholders of Aluminium Duffel.

Thank you for your continued support and partnership on this transformative journey.

Warm regards,

Jun

Koen Libbrecht Managing Director Aluminium Duffel BV

## **About this report**

This Sustainability Report outlines the sustainability initiatives undertaken by Aluminium Duffel BV, located at A. Stocletlaan 87, 2570 Duffel, during the 2023 fiscal year. The report covers activities conducted from 1 January to 31 December 2023. Its aim is to provide stakeholders with comprehensive insights into our sustainability efforts. Our focus is on key sustainability topics that are crucial for our business, as identified through our sustainability strategy and double materiality assessment. The data presented in the report is sourced from both internal and external measurement systems, ensuring accuracy and transparency. Energy consumption and  $CO_2$  emissions figures are verified and approved by the government annually per the Flemish Energy Policy Agreement and EU-ETS Regulation requirements.

The report was prepared with reference to the GRI Standards. It was drafted in British English, utilizing the comma as the thousand separator and the dot as the decimal separator for numerical data.

#### **CONTACT INFORMATION**

We appreciate hearing from our stakeholders about our sustainability performance and the content of this report. If you have any comments, questions, or concerns, please don't hesitate to contact us at:

info.duffel@aluminiumduffel.com



## **Corporate Governance** and Compliance

### Corporate Governance

Aluminium Duffel BV is a company that operates casting and rolling assets, employs a workforce and engages in business with customers and suppliers.

Aluminium Duffel is entirely owned by American Industrial Partners ("AIP"). This operationally-oriented middle market private equity firm is focused on buying and improving industrial businesses. AIP has approximately \$14 billion of capital under management on behalf of leading global institutional investors. AIP is committed to supporting Aluminium Duffel and the continued growth of the businesses.

#### THE MANAGEMENT TEAM IS COMPOSED OF THE FOLLOWING MEMBERS:



### **Compliance ESG**

For Aluminium Duffel BV, compliance is synonymous with adhering to legal requirements while upholding ethical principles and our company's values and policies. Any breach of the law can have significant repercussions for our employees, the organisation, and our business associates.

In 2023, Aluminium Duffel introduced an updated Code of Conduct, which is accessible on our website: www.aluminiumduffel.com/downloads. To manage compliance effectively, we set targets and identify, analyse, and communicate significant compliance risks. Our management team receives regular updates on compliance matters during steering committee meetings.

Our departments stay informed about legislative changes and guidelines through memberships in industry federations and organisations. Additionally, we update our legislation register quarterly with the assistance of an external firm. Triennial compliance audits related to Environment, Health and Safety confirm our state of compliance.

To mitigate risks and prevent breaches, we incorporate actions into our annual action plan.

In accordance with the CSRD regulation, Aluminium Duffel is required to publish its first CSRD-compliant annual report in 2026. The first step in the journey towards publication is to review and update our existing double materiality assessment in compliance with CSRD and ESRS. We plan to do this in 2024.

#### THIRD-PARTY AUDITS EXECUTED IN 2023

- External Surveillance audit ISO 14001:2015 Environmental management system Surveillance audit ISO 45001:2018 Occupational Health & Safety management system
- External annual audit on GHG emissions –
   Scope 1 & 2 by the Flemish Government (EU-ETS)

#### SUPPLIER ASSESSMENT SCORING 2023

The two main supplier assessments that were updated in 2023 are:

- SupplierAssurance SAQ 5.0
- Ecovadis

#### **SUPPLIERASSURANCE SAQ 5.0**

- Minimum Scope Rating: B
- Sustainability scoring: 87

The Minimum Scope Rating of B and the Sustainability Score of 87% for Aluminium Duffel BV can be compared against other locations with similar answers across the SUPPLIERASSURANCE platform. Please note that the figures presented were calculated on 6 December 2023 when the SAQ 5.0 report was downloaded from the platform.

#### Minimum Scope (MS) Rating

The Minimum Scope Rating is significantly higher than the industry average for 24.00 - Manufacture of basic metals, which is C across 1,281 locations. Additionally, the Minimum Scope Rating is significantly higher than the average rating for Belgium, which is C across 238 locations. The staff headcount at this location is between 500 and 999. The Minimum Scope Rating compares favourably with the average for locations with a similar headcount, which is C.

#### Sustainability Score

The Sustainability Score is significantly higher than the industry average for 24.00 - Manufacture of basic metals, which is 62% across 1,281 locations. Additionally, the Sustainability Score is significantly higher than the average Sustainability Score for Belgium, which is 60% across 238 locations. The staff headcount at this location is between 500 and 999. The Sustainability Score compares favourably with the average for locations with a similar headcount, which is 74%.

#### ECOVADIS 2023: GOLD

ecovadis

EcoVadis Scorecard

ALUMINIUM DUFFEL BV DUFFEL - Belgium | Manufacture of basic precious and other nonferrous metals EVID: YH991485



## **Company Profile**

Aluminium Duffel BV has a long history, dating back to 1946 when the Feron family founded the aluminium rolling business. Since its inception, the company has undergone numerous expansions and modernisations. Today, Aluminium Duffel BV is a leading European producer of premium aluminium rolled products for the Automotive Body Sheets (ABS) market and several other industrial markets. Our business is headquartered in Duffel, Belgium, with sales offices in France, Germany, Italy and Poland. We manufacture and sell aluminium rolled products. The Duffel facility features state-of-the-art technology, including the widest automotive cold rolling mill in Europe and a Continuous Annealing Line with Pre-Treatment (CALP). We source raw materials from aluminium smelters and convert them, together with internal and pre-consumer scrap, into rolled aluminium products for a variety of end-use industries. These include highly-designed cladding for building facades and automotive body sheets. Aluminium Duffel BV continually invests in innovative technologies, new production techniques and state-of-the-art production processes to drive innovation in materials, recyclability and process efficiency.



Our rolling mill can process 250,000 tons per annum.

### Aluminium Duffel BV highlights for 2023





Revenues

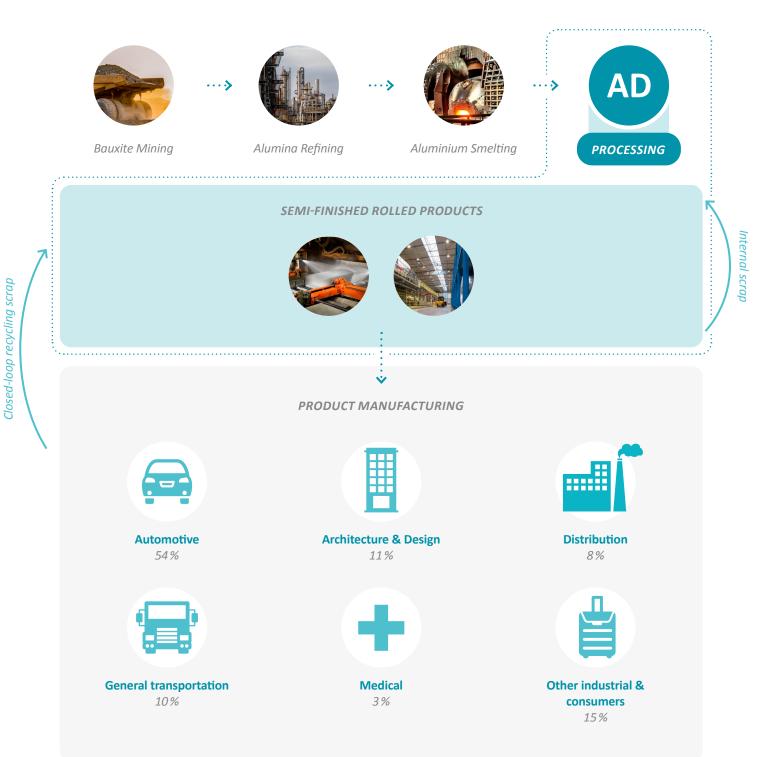


152 kt Of aluminium products produced

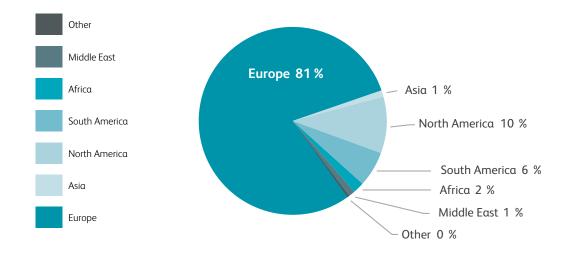


**98 kt** Of reused aluminium scrap

### Position in the Value Chain



### Markets and Regions Served



### Aluminium Duffel BV Products



Heat Exchangers



Battery Casing



Decorative Solutions



Automotive Body Sheet



Cables



Medical Products



Truck Fuel Tanks



Multi Layer Pipes



Architectural Products

### Business Segments at Aluminium Duffel BV

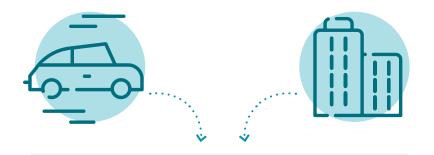
### AUTOMOTIVE

~52 % Of Annual Output

- Exterior body sheet
- Inner body components
- Structural components

#### INDUSTRIAL

- ~48 % Of Annual Output
- Growth segments
- Consolidation segments
- 'Swing' segments

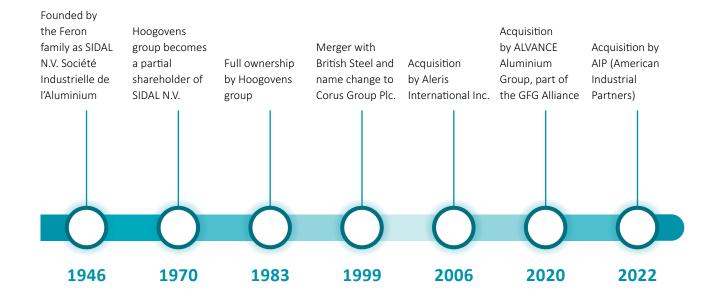


**Balanced** automotive and industrial business segmentation. Robust volume stability ~200,000 metric tons annually.

### Aluminium Duffel BV Overview



### History of Aluminium Duffel BV





## Sustainability at Aluminium Duffel BV

At **Aluminium Duffel**, we envision a future where sustainability is not just a goal but an **integral part** of our business ethos. Despite the challenges posed by limited resources, our **commitment** to sustainability remains firm. Our vision is to **pragmatically** integrate sustainable practices into every aspect of our operations, ensuring **compliance** with legislation and maintaining **competitiveness** in the market. Through continuous improvement and *product* innovation, we aim to *minimise our environmental footprint, optimise resource efficiency*, and *enhance social responsibility*. By prioritizing sustainability within our means, we aspire to contribute positively to our planet and communities, promoting a brighter and more sustainable future for generations to come."

This mission is set out in our Health, Safety and Environment (EHS) policy and our policy on People. Both policies are in alignment with our Code of Conduct and the European Convention on Human Rights.

We conduct our activities with respect for human rights. We support pollution prevention, use energy efficiently and use scarce natural resources prudently. Social responsibility and environmental excellence are integrated into our decisionmaking processes. When fulfilling our mission, our values are:



### Excellence & Teamwork.

We are passionate about achieving consistent results. We meet challenges as a team, empower others, and rely on our skilled employees. We excel in serving our customers.



#### People & Power.

Our power lies with our people. Our primary focus is to satisfy our clients, employees, neighbours and the people living on this planet. Our employees' safety is our number one priority.



#### Change & Courage.

We want to be a courageous game-changer and do things differently than one would expect. We encourage self-reflection to foster personal growth without losing sight of why we do what we do: making things better.

### **Materiality Analysis**

A double materiality analysis is a framework used to consider the impact of an organisation's actions on people and the planet, as well as the effect of sustainability issues on the organisation's financial performance. The two dimensions of materiality are:

#### **Financial Materiality:**

this dimension evaluates the risks and opportunities of sustainability and climate for the organisation. This includes factors such as performance, resources, company growth, and the cost of capital in the short, mid, and long term.

#### Impact Materiality Environmental + Social + Economic

Sustainability and other topics that are essential to describing the company's positive and negative impacts on the achievement of Sustainable Development Goals (SDGs).

In 2022, we conducted our first double materiality analysis with the support of an external company (Table 1.1 "Double materiality"), focusing on our own organisation.





Company

Sustainability topics

Sustainability topics can

be financially material

**(**....

Company



SDG Targets

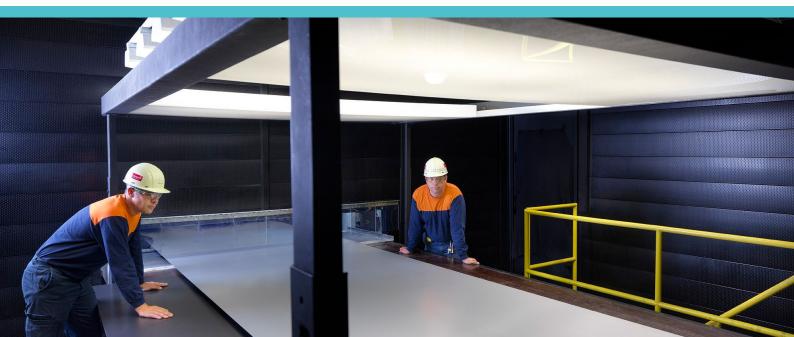
We invited 80 stakeholders to participate in the analysis:

- 75% internal stakeholders
- 25% external stakeholders:
  - o Customers
  - o Suppliers
  - o Board members

### Table 1.1 Double materiality

The survey response rate was 33%. The respondent breakdown was:

- 30% external stakeholders
- 70% internal stakeholders



The survey assessed 26 material sustainability topics. These sustainability topics were jointly identified by a team of internal and external experts based on our activities, a review of various international reporting frameworks and the United Nations Sustainable Development Goals (UN SDGs). The materiality assessment identified the following topics of interest for Aluminium Duffel BV (Table 1.2 "Material Sustainability Topics" below).

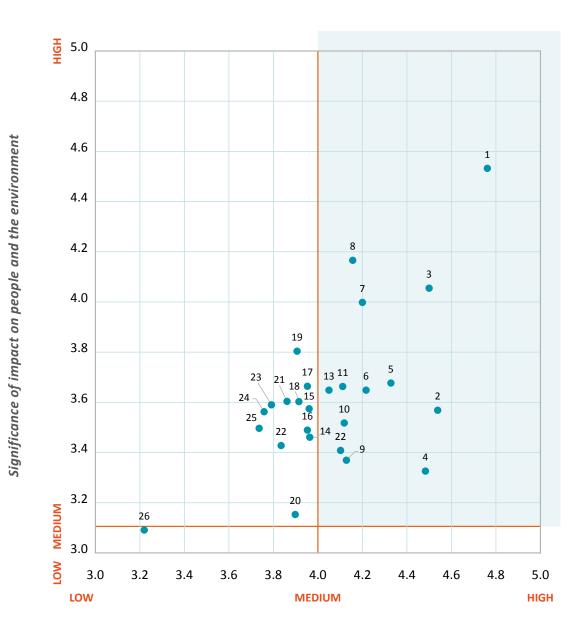
ΤΟΡΙϹ	SUSTAINABILITY TOPIC	MATERIALITY
1	Energy Usage and Efficiency	High
2	Renewable Energy	High
3	GHG Emissions	High
4	Innovation Management	High
5	Other Emissions	High
6	Materials Use, Resource Efficiency and Packaging	High
7	Circular Economy	High
8	Occupational Health and Safety	High
9	Training and Education (Development)	High
10	Partnership	High
11	Customer Relations	High
12	Emergency Preparedness	High
13	Mobility	High
14	Community Relations	Medium
15	Product Stewardship	Medium
16	Waste Management	Medium
17	Responsible Purchasing & Procurement Practices	Medium
18	Market Presence- Salary & Local Hiring	Medium
19	Compliance	Medium
20	Participative Governance	Medium
21	Labour rights	Medium
22	Data Management	Medium
23	Water Usage	Medium
24	Diversity and Equal Opportunity	Medium
25	Gender equality and Women's Empowerment	Medium
26	Biodiversity	Low

The following topics are the core elements of this Sustainability Report. They are described in accordance with the latest GRI disclosure requirements: GRI 1 Foundation 2021, GRI 2 Foundation 2021, GRI 3 Material topics 2021 (www.globalreporting.org).

#### MATERIAL TOPICS Description Renewable energy includes the organisation's energy consumption and the share of its energy that is renewable. Energy Energy usage and efficiency consumption includes electricity consumption and the consumption of other energy carriers (e.g. coal, natural gas, biofuel, etc.). Renewable energy Renewable energy includes the organisation's energy consumption and the share of its energy that is renewable. Energy consumption includes electricity consumption and the consumption of other energy carriers (e.g. coal, natural gas, biofuel, etc.) Greenhouse gas emissions Greenhouse gas emissions concern the emission of all greenhouse gases, including carbon dioxide, methane, nitrous oxide and refrigerants. Innovation is the practical implementation of ideas resulting in the introduction of new goods or services or improved Innovation management goods or services. In particular, this includes how much the organisation invests in Research & Development and environmentally-friendly technologies. Other emissions Other emissions include ozone-depleting substances, nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions. Materials use, resource Resource efficiency means using the earth's limited resources sustainably while minimising environmental impacts. efficiency and packaging It allows us to create more with less and to deliver greater value with less input. Organisations can have a certain dependence on natural resources, and this impacts their availability. Resource efficiency includes an organisation's contribution to resource conservation and its approach to recycling, reusing and reclaiming materials, products and packaging Circular economy The circular economy is a production and consumption model that involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. This extends the life cycle of products. In practice, it implies reducing waste to a minimum. This includes what the company produces and the circular management of the company's infrastructure. Occupational health and safety includes the prevention of physical and mental harm and the promotion of workers' Occupational health and health. Hazard identification and risk assessment, worker training, and incident identification and investigation are key to safety an effective occupational health and safety management system. An organisation can also promote workers' health by offering healthcare services or voluntary health promotion services and programmes. Examples include helping workers to improve their diet or quit smoking. Training and education This includes an organisation's approach to training and upgrading employee skills, and performance and career (development) development reviews. It also includes transition assistance programmes to facilitate continued employability and the management of career endings due to retirement or termination. Partnership A successful sustainable development agenda requires inclusive partnerships — at the global, regional, national and local levels — placing people and the planet at the centre. Customer relations Customer relations refers to the methods a company uses to engage with its customers and improve the customer experience. Emergency preparedness Emergency preparedness refers to the procedures that are in place to minimise damage to people, property and the environment when a particular emergency occurs. Mobility Mobility is defined as the potential for movement and the ability to get from one place to another using one or more modes of transport to meet daily needs. This topic can be applied to company activities and the mobility of employees.

Table 1.3 Material Topics





Significance of impact on Aluminium Duffel's (future) entreprise value

In 2024, we plan to update our double materiality analysis in line with the Corporate Sustainability Reporting Directive (CSRD) to focus on the value chain.

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This report is structured according to our key sustainability pillars:

- **1.** Supporting our people ('Social')
- 2. Protecting the environment ('Environment')
- Ensuring we behave as a responsible business ('Governance')

The material topics of interest for Aluminium Duffel BV are broken down across these main topics as follows:



### Sustainability Management

Aluminium Duffel BV's sustainability management system meets the requirements of the Aluminium Stewardship Initiative (ASI) Performance Standard and the ASI Chain of Custody Standard. Moreover, environmental and occupational health and safety topics are managed via our business management system in accordance with ISO 14001:2015 and ISO 45001:2018.

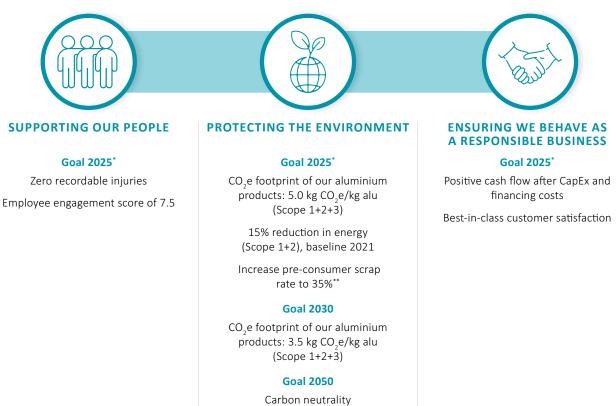
Due to environmental and sustainability challenges and rapidly multiplying requirements, we continue to improve and better integrate our management systems to enhance the sustainability of our operations and ensure the safety and well-being of our people.

We are committed to producing aluminium with a low carbon footprint, taking into account the People-Planet-Profit perspective. We take action each year to achieve our People-Planet-Profit goals. For example, we work to reduce the carbon footprint of our operations and our aluminium products. All these actions are integrated into the Aluminium Duffel BV Sustainability Roadmap 2025-2050.

The Managing Director of Aluminium Duffel BV has overall responsibility. Additional responsibility is shared by members of the management team and the Sustainability Steering Committee. The Sustainability Steering Committee consists of Aluminium Duffel BV's Managing Director, several members of the management team, the Sustainability Director, Sustainability Managers, the Sales Director and the Marketing Director.

Key performance indicators (KPIs) have been defined to track our progress towards the defined sustainability goals. They are followed up during Sustainability Steering Committee meetings.

### Goals 2025-2050



- \* All targets are set with 2019 (excluding energy reduction) as a baseline, as this was an average production year for Aluminium Duffel BV (without the effects of the COVID-19 pandemic, high energy prices, and raw material availability challenges).
- \*\* % automotive customer scrap vs. total automotive volume

## **Supporting our People**

At Aluminium Duffel BV, our people are the cornerstone of our triumphs. As of the close of 2023, our workforce consisted of 922 dedicated individuals. We pledge to cultivate an environment that cherishes the well-being and growth of every employee.

Through our Cultural Transformation programme, we're sculpting a culture of transparency, accountability and

### **Occupational Health & Safety**

At Aluminium Duffel BV, safety is the most important of our core values. Our goal is to have zero recordable injuries by 2025.

Our Health, Safety and Environment (HSE) Policy is committed to eliminating hazards and reducing HSE risks for our employees, visitors and contractors. We pledge that employees and contractors will not undertake any work or task they consider unsafe.

We recognise that the nature of our industrial materials and machinery means there are safety risks inherent to our operations:

- Liquid aluminium is present in our casthouses. This molten metal is one of the main risks on site. When a liquid, such as water, is encapsulated by liquid aluminium, it turns into steam. This can lead to explosions with potentially fatal consequences.
- Our large and powerful industrial machines handle aluminium products weighing several tons.
- Hazardous chemicals such as chlorine and hydrogen fluoride are required to produce high-quality products that meet specifications.
- Mobile equipment of various sizes and load capacities is used on site to transport our aluminium slabs and coils.
- Electricity, confined spaces and working at a height.

invaluable feedback, nurturing an atmosphere where ideas flourish and bonds are strengthened. Together, we're forging resilient teams that synchronise effortlessly, fuelled by our unwavering commitment to develop and empower our employees.

Embracing the future, we empower our team to thrive with a harmonious work-life balance.

HSE and security considerations are incorporated in the development, manufacturing, distribution, use and disposal of our aluminium products at Aluminium Duffel BV.

We conduct risk assessments at the organisation, workplace, and individual levels, covering current and future work processes (including maintenance and repair) and production and support services. Corrective and preventive measures are registered and followed up in annual action plans or via our incident registration system. Employees, visitors and contractors are required to report incidents via the registration system or by informing their managers. The incident registration system is available to all employees; temporary workers and contractors can also register incidents. An incident is defined as an event where something happens that has caused or could have caused injury, occupational illness, damage to property or equipment, loss of process, non-compliance with legislation (regardless of severity) or exposure to uncontrolled energy. New incident registrations are communicated to all departments via daily reports and, depending on the severity of the incident, preliminary safety alerts are issued. All incidents are investigated. Official incident reports are sent to the Federal Public Service Employment, Labour and Social Dialogue in accordance with legal requirements.

Our Occupational Health and Safety Prevention Plan is updated annually and we draft a new annual action plan, which is approved by the Committee for Prevention and Protection at Work (abbreviated as CPBW in Dutch). We have an on-site medical department (occupational physician, occupational hygienist and nurses), run by an external company, to monitor the health of our employees. Medical consultations for work-related and urgent non-work-related issues are available on weekdays for employees, temporary workers, visitors and contractors at the on-site medical department. First aid is available 24/7 via our trained security team. We also have employees who are trained to provide first aid.

A Health and Safety Steering Committee meeting is held every month. Operational managers and several members of the Aluminium Duffel BV management team are members of this steering committee. Lessons learned from incidents, procedures, new measures, and many other health and safety topics are discussed, as well as safety KPIs and progress related to the annual action plan. A presentation for the monthly safety meetings held in the various departments is also prepared during the Health and Safety Steering Committee meeting. These monthly safety meetings are a moment when all employees can reflect on and participate in health and safety topics and where safety KPIs are shared with the general population of Aluminium Duffel BV.

Every new employee at Aluminium Duffel BV receives a training plan that includes the 'Safe Start' e-learning module, training related to specific work-related hazards and risks, and 'Welcome Days'. Welcome Days are two days of training for new employees on various topics, such as health and safety. Contractors and visitors who wish to enter the production area must watch the safety movie and pass the safety test. Contractors are briefed on hazards, protective measures and emergency situations before they start working and while their work permits are being completed and signed.

Since the beginning of 2022, our Occupational Health and Safety (OHS) management system has complied with ISO 45001:2018 for the sale, development, production and dispatch of rolled products in aluminium and aluminium alloys. Our OHS management system applies to our employees, visitors and contractors on site. To retain our Occupational Health and Safety Management System certification, an external auditing agency carries out a three-year audit cycle. This cycle includes two surveillance audits and a re-certification audit. Meanwhile, our internal audit process helps us to continually improve our management system.

#### PERFORMANCE

The Safety Excellence Plan 2023 focused on the psychosocial aspects, not only on the preventive side but also on the secondary and tertiary aspects. In addition to prevention, we also focus on mitigation and healing. A core team was established to focus on the psychosocial aspect and to monitor and measure progress.

Concerning human behaviour, we continued our Safety Champions programme, in which more than 50 safety champions help and support their colleagues and management in improving the safety behaviour in the factory.

In addition to the Safety Champions programme, we continue to conduct safety observations on the shop floor. We have improved the quality of the observations by conducting them in pairs and introducing a self-audit system.

Recognising that strong frontline leadership is necessary to improve our results, frontline leaders have been trained to improve their leadership skills.

A system has been put in place to track progress in the implementation of our risk analyses and the resulting actions.

As we have seen a stagnation in our safety figures, we have decided that we need to change our safety strategy in 2024 and have decided that we will narrow our focus from the beginning of 2024. Therefore, in the Safety Excellence Plan 2025, we will focus on the top 10 hazards like liquid metal, internal traffic, working at a height, electricity, etc.

With many new employees joining the company last year, it was recognised that more focus was needed on training new people. As part of the reorganisation of the organisation in September 2023, a training academy was organised and we started a mentorship project on the shop floor.

We have also started a behaviour-based programme called 'sirk sekuur', which will allow us to involve everyone in safety. This is being set up as a test case in our casthouse department.

The Safety Champions initiative will be followed up in the different departments.

Psychosocial: Every department will set up focus groups and implement at least one measure to improve the psychosocial climate in the factory.

### Table 1.4 Work-Related Accidents

WORK-RELATED ACCIDENTS INVOLVING ALUMINIUM DUFFEL BV EMPLOYEES"	Unit	2023	2022	2021	2020	2019
Number of work-related fatalities	Number	0	0	0	0	0
Number of work-related accidents	Number	19	11	11	6	7
Working hours ***	Number	1,219	1,342	1,349	1,162	1,447
Rate of recordable work-related injuries*	Rate	15.6	8.19	8.15	5.16	4.8

Number of work-related accidents\*1,000,000 hours/performed working hours
 Figures reported to the FPS Employment, Labour and Social Dialogue
 Number of working hours \*1,000

WORK-RELATED ACCIDENTS INVOLVING TEMPORARY EMPLOYEES"		2023	2022	2021	2020	2019
Number of work-related fatalities	Number	0	0	0	0	0
Number of work-related accidents	Number	0	0	0	0	0
Rate of recordable work-related injuries*	Rate	0	0	0	0	0

Number of work-related accidents\*1,000,000 hours/performed working hours
 Figures reported to the FPS Employment, Labour and Social Dialogue

WORK-RELATED ACCIDENTS INVOLVING EXTERNAL COMPANIES"				2021	2020	2019
Number of work-related fatalities	Number	0	0	0	0	0
Number of work-related accidents	Number	4	2	2	4	0
Rate of recordable work-related injuries*	Rate	18.8	10.18	12.81	117.32	-

Number of work-related accidents\*1,000,000 hours/performed working hours
 Figures reported to the FPS Employment, Labour and Social Dialogue

	Unit	2023	2022	2021	2020	2019
Work-related illness involving Aluminium Duffel BV employees*	Number	0	0	0	0	0
Periodic occupational health examinations*	Number	533	551	519	496	663

\* Annual report External Service for Prevention and Protection at Work



### Case study #1: Day of the forklift driver

### 8 May: Forklift Driver's Day

On 8 May 2023, we celebrated the national Forklift Driver's Day. This is the perfect time to highlight our forklift drivers.

Our shipping team consists of 30 forklift drivers who unload countless trucks with raw materials, unload shipments, dismantle finishing lines and load our finished material with the utmost care before it goes to the customer. They have a beautiful but risky job with a lot of responsibility. They usually work in the background but have a crucial role within our factory. The team excels in serving our internal and external customers, a fine demonstration of our value Excellence & Teamwork.

### JOHNNY EXPLAINS

We spoke to one of them, Johnny Baeten, a stalwart of our shipping and unloading crew for the past 16 years. Johnny started his career with us as an operator in the casthouse, took a detour as a truck driver, then returned and joined our unloading crew. He is a real Duffel resident and loves cycling to work every day.

Johnny (53): "During my shift, I visit many places in the factory: the greenmelt hall, melting blocks hall, paper mill... I love the space that I have as a driver. The feeling of driving a forklift is very cool, but it is also very challenging. Once you get into your forklift, you have to stay focused constantly. You must drive safely and understand the material you put on the forklift. You have to understand how to load and unload the truck and keep everything balanced... In fact, every move we make is a challenge."

### THE TASKS

At the beginning of the working day, Johnny receives a shipment list showing all loads that need to be prepared for the customer. When this list is finished, he helps his colleagues process their orders. Being a forklift driver has a lot to offer, but it requires certain qualities: "The job offers a kind of freedom that you have to be able to handle. You have to be able to work independently. The learning curve is also very steep. There are a lot of products and systems that you have to make your own," says Johnny.

#### **PUPPY CLASS**

Johnny enjoys coming to work and has a good relationship with his colleagues. The team is made up of many different characters, but they get on well. Since January, Johnny has been a deputy supervisor, which means he also trains people regularly. Johnny is used to training others and does this in his spare time, although in a different context. Johnny is president of the Duffel Dog School and teaches the puppy class.





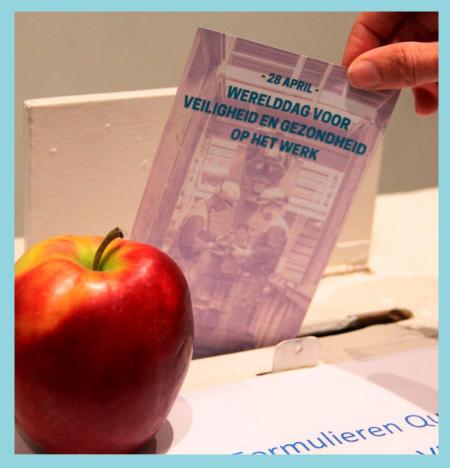
### Case study #2: World Health & Safety Day

## Making Safety and Health at Work a Daily Priority: Celebrating World Day for Safety and Health at Work

At our company, making safety and health in the workplace a daily priority is a collective effort. As we celebrated World Day for Safety and Health at Work on 28 April 2023, we seized the opportunity to thank our team members for their ongoing commitment to making Aluminium Duffel a safe and healthy environmen

To mark the occasion, all employees were given an apple as a healthy snack. They also had the opportunity to participate in our safety quiz, designed to reinforce knowledge and awareness. The winners of the quiz were rewarded with a delicious breakfast pack as a token of our appreciation.

This celebration not only underlines our commitment to promoting safety and well-being but also serves as a reminder of the importance of fostering a culture where each individual feels empowered to prioritise safety in their daily activities.



### Labour rights

At Aluminium Duffel BV, we recognise the paramount importance of human and labour rights. Our commitment to ethics and integrity is the cornerstone of our business prosperity. Strict compliance with all relevant human rights legislation, including mandates relating to internationally recognised human rights, conflict minerals, child labour, collective bargaining rights and forced labour, is non-negotiable for us.

We take a firm stance against all forms of discrimination, whether based on race, gender, colour, national origin, gender identity, or any other legally protected status, in our recruitment practices and workplace environment. Our culture rejects all forms of disrespect, unfair treatment, or retaliation. Harassment has no place on our premises or in any workrelated interaction, on or off the premises.

#### **ENSURING EMPLOYEE REPRESENTATION**

Aluminium Duffel BV respects and upholds the right of our employees to freely associate, including the right to join, form, or refrain from joining a trade union, without any fear of reprisal, coercion, or harassment. In cases when our employees opt to be represented by a legally recognised union, we are committed to fostering constructive dialogue with their democratically elected representatives.

Every four years, our employees exercise their right to choose new union representatives through social elections. Our employees are currently represented by three major unions: ACV (General Christian Union), ABVV (General Social Union) and ACLVB (General Liberal Union). We prioritise transparent and candid communication with union representatives. Monthly meetings are held between employer and union representatives through forums such as the Works Council, the Committee for Prevention and Protection at Work (CPBW), and union delegate gatherings. These meetings provide a platform for collaborative problemsolving on various fronts, including company-wide matters, operational changes, disciplinary procedures, working conditions, and remuneration systems.

To ensure smooth transitions and mitigate potential disruptions, significant operational changes are presented to the Works Council at least three months prior to implementation. This proactive approach allows ample time for adjustment and preparation, contributing to a stable working environment. We are proud of our proactive approach, which has effectively prevented any industrial action to date.

### PERFORMANCE

In 2023, 84% of our employees were covered by collective bargaining agreements; 16% of our employees were executives who are not covered by sectoral bargaining agreements, but have company level agreements.

Several union consultations are held every month:

- In every production department
- General consultation blue-collar workers

In 2023, there were 11 standard monthly Works Council meetings (excluding December) + two special Works Council meetings, and 12 Committee for Prevention and Protection at Work (CPBW) meetings.



### Fair and Inclusive Workplace

We recognise the importance of championing diversity in our workplace and cultivating an inclusive company culture. We are committed to ensuring that every individual feels valued, regardless of race, gender, ethnicity, nationality, gender identity, or any other protected characteristic.

Our team includes dedicated and fully trained counsellors who provide support to employees facing stress, discrimination, conflict, or any form of unacceptable conduct.

### PERFORMANCE

#### Personnel structure

	Unit	2023	2022	2021	2020	2019
Total Employees	Number	922	954	958	931	981
Female	%	9	9	9	9	9
Male	%	91	91	91	91	91
Blue-collar	Number	591	606	604	573	608
Female	%	1	1	0	0	0
Male	%	99	99	100	100	100
White-collar	Number	331	354	354	358	373
Female	%	22	22	23	23	23
Male	%	78	78	77	77	77

#### Temporary and permanent contracts

	Unit	2023	2022	2021	2020	2019
Total Employees:	Number	922	954	958	931	981
1. Permanent	Number	900	933	941	929	974
Permanent vs Total employees	%	98	98	98	100	99
1.1 Permanent - Female	%	8	9	9	9	9
1.2 Permanent - Male	%	89	91	91	91	91
2. Temporary	Number	22	21	17	2	7
Temporary vs total employees	%	2.4	2.2	1.8	0.2	0.7
2.1 Temporary - Female	%	14	0	0	0	0
2.2 Temporary - Male	%	86	100	100	100	100

#### Full-time and part-time employees

	Unit	2023	2022	2021	2020	2019
Total Employees:	Number	922	954	958	931	981
1. Full-time	Number	824	859	851	816	856
Full-time vs Total employees	%	89	90	89	88	87
1.1 Full-time - Female	%	7	7	8	8	8
1.2 Full-time - Male	%	93	93	92	92	92
2. Part-time	Number	98	95	107	115	125
Part-time vs total employees	%	11	10	11	12	13
2.1 Part-time - Female	%	2	2	2	2	2
2.2 Part-time - Male	%	9	8	9	10	11

### Age structure

	Unit	2023	2022	2021	2020	2019
Total Employees	Number	922	954	958	931	981
Blue-collar	Number	591	606	604	573	608
< 50 y/o	%	37	36	38	34	36
> 50 y/o	%	28	28	25	27	26
White-collar	Number	331	348	354	358	373
< 50 y/o	%	17	17	19	19	19
> 50 y/o	%	19	20	18	19	19

### Percentage of female managers

	Unit	2023	2022	2021	2020	2019
Total Employees	Number	922	954	958	931	981
Managing board	%	17	17	15	15	13
First management level	%	26	30	33	33	34
Second management level	%	29	25	28	30	29

### Location of employees

	Unit	2023	2022	2021	2020	2019
Total employees	%	922	954	958	931	981
Employees in Belgium (Duffel)	%	100	100	100	100	100
Employees in other locations	Number	16	19	24	20	21
France	%	13	11	8	10	10
China	%	0	16	21	15	14
Poland	%	6	5	4	5	5
United Kingdom	%	0	0	4	5	10
Germany	%	63	53	50	50	48
Italy	%	19	16	13	15	14

### Percentage of psychosocial interventions

	Unit	2023	2022	2021	2020	2019
Incidents of psychosocial nature, reported directly to the confidential counsellor	Number	8	17	6	8	-
Informal psychosocial interventions	%	100	100	100	100	-
Formal psychosocial interventions	%	0	0	0	0	-

### Employee Engagement, Training and Development

We strive to create a culture in which every employee is motivated and supported to deliver excellent work. We believe this is central to the operation of our business as it enables us to attract and retain an exceptional workforce.

We support our employees by offering competitive salaries and benefits. We also provide challenging opportunities for professional growth and development. We are committed to helping every employee achieve their personal and professional goals and strive to provide opportunities for the meaningful exchange of ideas and feedback. We hope every employee who starts a career at Aluminium Duffel BV finds opportunities for advancement, leading to a long-term and fulfilling career.

Due to the Covid pandemic and acquisitions, learning and development initiatives stalled. Reviving them has been a difficult process. In recent years, organisational needs have changed, knowledge and technologies have evolved rapidly, and the Belgian government has raised the bar for lifelong learning in companies. In addition, employees expressed low happiness scores for training and development. All of this has led to a renewed sense of urgency for the domain of Learning & Development while also realising that the challenge is larger and more complex than ever. After an in-depth study,

taking internal and external context into account, an Aluminium Duffel academy was created in September 2023. All initiatives regarding formal and informal learning, knowledge sharing, (up)skilling and internships are centralised in this academy. The establishment of this academy coincided with an organisational redesign, which had a large impact on teams and the training sessions we offer. Until September 2023, the focus was on Lean Six Sigma and Cultural Transformation training. Since the redesign in September 2023, the Lean Six Sigma Department (AOS) no longer exists. Fundamental organisational changes created a shock among employees, making Cultural Transformation a delicate topic. This is why trainers have chosen to adopt a different approach. These are valuable reasons for us to adapt the reporting on training hours in the 2023 Sustainability Report. Over time, our organisational focus has shifted, and we feel it is important to reflect this in our reporting. Moreover, we believe that our organisation will also benefit from other types of training, in addition to Lean Six Sigma and Cultural Transformation training, which our employees have attended in the past year. These include training in soft skills, technical skills and safety matters.

As shown in the table below, a total of 38,036 training hours were completed in 2023 across our organisation. These training hours have been categorised by gender and type of employee.

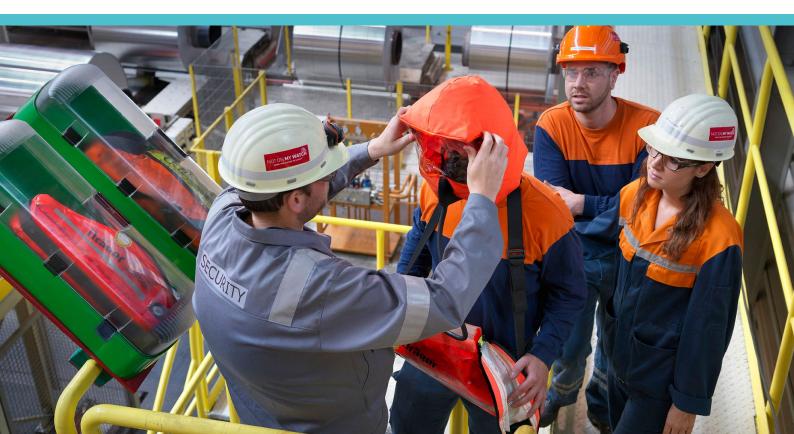
#### Total training hours completed by employees

GENDER	Male	Female	TOTAL
# employees	843	79	922
% on total employees	91	9	100
# training hours	35,838	2,198	38,036
% in participation in training hours	94.3	5.7	100
EMPLOYEE STATUTE	Blue-collar	White-collar	TOTAL
# employees	591	331	922
# employees % on total employees	591 64	331 36	922 100
. ,			

In September 2023, the Academy was launched without an integrated and automated Learning & Development process in place, and the Learning Management System (LMS) was not fully operational. There was no open training offer for employees. This forced the new Academy team to redesign the whole Learning & Development process. In order to encourage more learning, the LMS must facilitate the process, from ascertaining needs to evaluating what is learned. The LMS will contain a training catalogue divided into four main categories: safety & prevention training, function-specific competency training, general labour market competency training, and training sessions focused on Aluminium Duffel processes, systems and installations. Each category is divided into subcategories. A fifth category is 'Workplace learning'. In this category, managers can monitor on-the-job training, and employees can register their informal learning on an individual and social level. This informal learning is crucial for professional development. In 2024, we will also report on the distribution of training hours across these (sub)categories.

Offering broader training sessions will encourage employees to embrace learning and personal development. Learning encourages a mindset that is open to new information or new ways of working and to developing skills and updating knowledge. Within the limits of budget and production, we will permit all employees to select from this open and relevant training catalogue, regardless of their function, group, division or gender. In addition, mandatory training that aligns with our business priorities and regulatory requirements will be provided. These mandatory training sessions will be incorporated into employee training plans and can be followed up with the LMS.

These initiatives will help us align with the Belgian government's legislation requiring companies to invest in lifelong learning. They set the bar at 32 training hours per employee for 2023. From 2024 onwards, this is raised to 40 hours per year per employee. These are very ambitious numbers, but we are not yet there. It is important to note that numbers can be misleading. Calculating an average of training hours per employee results in more than 40 hours per employee, which would mean we exceed expectations. In reality, the training hours completed by employees are not equally spread across all employees. Only 40% of our employees completed the required 32 hours of training. Our Key Performance Indicators (KPIs) for training were reset in January 2024 to align with Belgian legislation. Over the next few years, our goal is to achieve 40 hours of training for as many employees as possible, spread across formal and informal learning initiatives and different training categories. A dashboard will be created to allow both individual employees and managers to track these numbers. The 2024 Sustainability Report will include these figures, presented in the same categories as the table above.



## Case study #3: Green & Healthy contest Challenge: Green & Healthy

In the spirit of promoting a healthy and sustainable lifestyle, we launched the Green & Healthy Challenge from 1 May to 25 June 2023.

Over the course of eight weeks, eight teams competed enthusiastically to collectively rack up as many kilometres as possible. The primary objective was to unite colleagues of all fitness levels in a shared pursuit of health and sustainability.

The following teams were crowned winners:

- Team 'Alu-minions' were champions in the category for achieving the highest average number of kilometres per person.
- Team 'ACE' was recognised for their creativity in submitting the most engaging group photo.
- Team 'Magget iets meer zijn' was honoured for their outstanding dedication to improving their performance the most.

A total of 94 individuals participated, collectively logging an impressive 106,000 kilometres. Additionally, our collective efforts resulted in 454 bike commutes to work, significantly reducing our carbon footprint and promoting ecofriendly transportation alternatives.



## Wedstrijd GROEN & GEZOND



### **Community Relations**

We believe that being a responsible corporate citizen extends beyond our operations to the communities in which we operate. We are committed to being responsible and engaged community members, contributing positively to the areas we serve.

Our business is situated near a residential area, and we recognise our civic duty to enhance the well-being and prosperity of the local communities where our employees and neighbours live. We take stringent measures to ensure our facilities operate safely and minimise the impact on our neighbours and the environment.

When issues arise, we collaborate with neighbours and community members to evaluate concerns and identify potential solutions. We are available 24/7 via phone **+32 (0)15 22 22** or e-mail at **info.duffel@aluminiumduffel.com** to address any complaints regarding environmental or social issues related to Aluminium Duffel. All complaints are thoroughly investigated, and corrective measures are taken as necessary. If needed, we make personal visits to address the concerns of our neighbours.

### PERFORMANCE

Year	Number of complaints (environment)
2023	33
2022	64
2021	80
2020	133
2019	17

Various studies regarding different topics have been carried out. The results of these studies have been communicated to the various community stakeholders, and necessary actions are carried out or planned.

### 1. Noise

- Noise dampeners on the emergency chimneys of casthouse 6 and 7.
- Further noise measurements
- Investigation regarding possible actions on casthouse 6 and 7

#### 2. Odour:

- 3-monthly full dumps of the 148" hot rolling mill emulsion
- A new odour study was carried out
- Change of the emulsion in the 148" mill

### 3. Wastewater/rainwater/use of emergency pump:

- Study regarding rainwater disconnect completed
- Short-term measures were initiated, such as installing a new buffer tank for the rainwater coming from the new scalper building.

### 4. Dust:

- Further investigation is ongoing

In 2023, we conducted new neighbourhood consultations, inviting over 300 families to participate. These sessions provided updates on noise, odour and emissions. Three sessions were held, attended by 167 neighbours and representatives from the Duffel community.



### Case study #4: Be-Soci-AL

Our employees contribute time and money to several charitable causes coordinated through the BE-Soci-AL programme. This programme is managed by our employees and encourages them to participate in the social and philanthropic activities of their choice or to donate money or goods. In 2023, six projects received over €6,000 in total.

### **Be-Soci-AL Drawing competition**

### IN FAVOUR OF DE KAMPENHOEVE DONKEY FARM

A very special farm in Kampenhout is home to about ten donkeys rescued from a bad situation. They now serve as therapy animals at De Kampenhoeve, which offers therapy for young people and adults with disabilities, helping them with their problems. De Kampenhoeve also provides a solution for parents looking for a temporary time-out situation for their child via the Plan B project.

Plan B is a great project that Aluminium Duffel is pleased to support with a contribution of  $\epsilon$ 2,000. To thank us, De Kampenhoeve offers ten complimentary farm visits that you can win!

### WHAT CAN THE WINNERS EXPECT DURING A FARM VISIT?

You and your family will have the opportunity to tour De Kampenhoeve with a guide. You'll also be encouraged to brush, cuddle and groom the donkeys!

More information via: www.kampenhoeve.com/ boerderijbezoeken





### Market presence – Salary & Local Hiring

We are investing in better relationships and expanding contacts with educational institutions to improve our pipeline of young talent. This is achieved through various projects with surrounding (technical) schools, such as guided tours, research projects, guest lectures, job interview training and internships. In 2023, 30 students completed internships at our company, and we hosted groups from at least five different schools for guided tours. Furthermore, we participate in job fairs and industry events for students across Flanders.

We strictly adhere to Belgian law regarding the employment of minors. While individuals as young as 15 are eligible to work at Aluminium Duffel BV, their duties are restricted to non-hazardous administrative tasks that are performed under the supervision of a team leader. We strictly prohibit the employment of individuals under the age of 18 for positions involving hazardous work. Aluminium Duffel BV offers competitive salaries supplemented with attractive fringe benefits. Our cafeteria plan, although limited at present, is constantly being expanded. To ensure that we remain competitive in the market, we conduct regular salary surveys.

#### PERFORMANCE

	Unit	2023	2022	2021	2020	2019
Guided tours on site	Number	5	3	-	-	5





### Case study #5: New Scalper

## The new scalper for aluminium slabs saves energy and improves sustainability in several ways.

- Improved efficiency: The new scalper will be more efficient in removing impurities and defects from aluminium slabs. This means less energy will be required to process the slabs and produce high-quality aluminium products.
- Larger slabs: The scalper can handle larger slabs, which improves the factory's overall productivity, resulting in reduced energy consumption.
- **Reduced waste:** An efficient scalper helps to reduce the amount of waste generated during the manufacturing process. This means less energy is wasted on processing and disposing of scrap material.
- Lower maintenance costs: Old and inefficient scalpers may require more maintenance and repair, which can increase energy costs. A new scalper is more reliable and requires less

maintenance, resulting in energy savings in the long run.

- Modern technology: New scalpers are often equipped with modern technology designed for energy efficiency, such as automatic shut-off features, energy-saving modes and improved control systems.
- **Environmental benefit:** One way to improve the environmental impact of filtering air from aluminium scalper chips is to implement a proper dust collection system. This system captures the fine particles generated during the scalping process and prevents them from being released into the air. The collected dust is then properly disposed of or recycled.
- Additionally, using cleaner and more efficient equipment during the scalping process helps reduce the amount of dust generated in the first place. This



includes using higher-quality cutting tools and maintaining equipment properly.

- Furthermore, regular monitoring and maintenance of the air filtration system helps to ensure that it effectively captures particles and maintains a clean and healthy working environment for employees.
   Proper training of workers in the correct use of the filtration system will also contribute to its effectiveness.
- Implementing these strategies helps to **minimise the environmental impact** of filtering air from aluminium scalper chips and creates a safer and healthier workplace for employees.

Overall, the investment in a new scalper for aluminium slabs results in significant energy savings and improved sustainability in the manufacturing process.

## **Protecting the Environment**

Aluminium stands out as a sustainable material because it is versatile, lightweight and infinitely recyclable while retaining its unique properties. Additionally, products crafted from recycled aluminium consume 95% less energy than those made from primary sources, positioning them as part of the carbon solution.

Despite these benefits, there are environmental and climate impacts associated with the production of our rolled aluminium products. Our production site emits greenhouse gases and generates noise, wastewater and waste. However, we diligently comply with environmental regulations, adapt our processes to meet updated legal requirements, and reduce our ecological and neighbourhood footprint.

In our journey towards carbon neutrality, we offer aluminium body sheets that meet the standards of the Aluminium Stewardship Initiative (ASI) and have a minimal carbon footprint. By facilitating significant weight reductions across a range of sectors, aluminium plays a key role in curbing carbon emissions.

We are steadfast in our commitment to producing aluminium goods with a minimal carbon footprint. This involves collaborating with stakeholders to enhance the sustainability of our products and actively mitigating our environmental impact while championing climate action. Our goals for protecting the environment are:

#### - 2025

- CO<sub>2</sub>e footprint of our aluminium products: 5.0 kg CO<sub>2</sub>e/kg alu (Scope 1+2+3)
- 15% reduction in energy (Scope 1+2), baseline 2021
- Increase automotive pre-consumer scrap rate to 35% (20% in 2019)

#### - 2030

- CO<sub>2</sub>e footprint of our aluminium products: 3.5 kg CO<sub>2</sub>e/kg alu (Scope 1+2+3)
- 2050
  - o Net zero carbon production



#### **ROLES AND RESPONSIBILITIES**

The Managing Director of Aluminium Duffel BV is responsible for environmental stewardship, which also includes climate action, waste and water management, biodiversity and process safety. The Sustainability department reports to Aluminium Duffel BV's Sustainability Director.

#### **OUR COMMITMENT**

Our mission and commitment are set out in Aluminium Duffel BV's EHS Policy, which our Management Team has approved. The policy complies with the ISO 14001 Environmental Management Standard requirements, the ASI Performance and Chain of Custody Standard and our customers' requirements. The EHS policy emphasises the responsibilities of our leaders for environmental stewardship and occupational health and safety.

## ASSESSMENT OF ENVIRONMENTAL IMPACTS

Although Aluminium Duffel BV does not formally follow the precautionary principle, we assess environmental risks across our operations. Annually or more frequently (as part of our internal change management process), the various departments conduct or update our context analysis and the environmental risk assessment. Compliance with environmental requirements is monitored during internal and external audits, factory tours and observations.

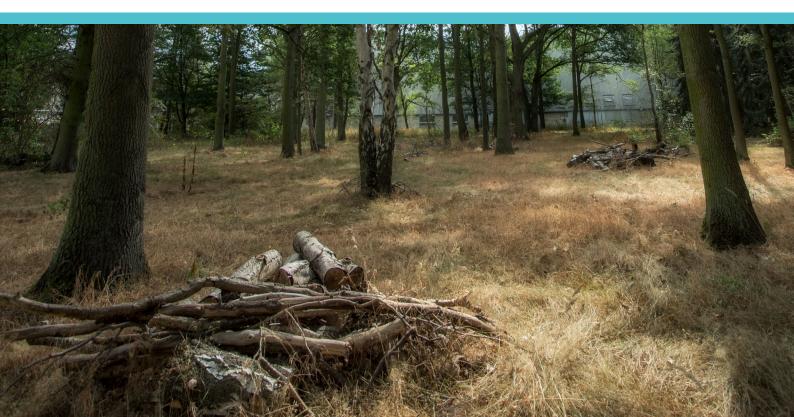
#### **REPORTING INCIDENTS AND VIOLATIONS**

Environmental incidents, non-compliance, and internal and external complaints are registered and followed up through our internal incident registration system and communicated to Aluminium Duffel BV employees via daily reports.

In the event of an environmental emergency, the Environmental Coordinator initiates the internal emergency plan.

#### ISO 14001:2015 ALUMINIUM DUFFEL BV CERTIFICATE

Certified since 2002.



## **GHG** emissions

The aluminium value chain encompasses several stages, each with its own contributions to greenhouse gas (GHG) emissions:

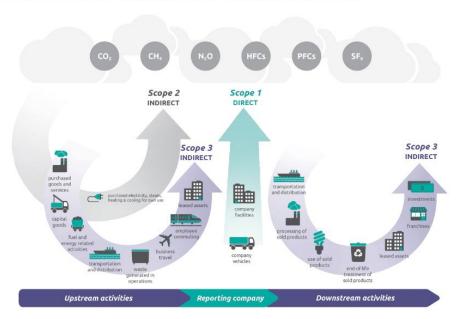
- Bauxite Mining: The extraction of bauxite, the primary ore used to produce aluminium, involves significant energy consumption, particularly in transportation and processing. This energy usage can lead to GHG emissions, primarily from fossil fuel combustion.
- Alumina Refining: The process of refining bauxite into alumina also requires substantial energy inputs, primarily in the form of electricity and heat. This energy consumption contributes to GHG emissions, especially when fossil fuels are used to generate electricity.
- 3. Aluminium Smelting (Electrolysis): The process used to extract aluminium from alumina is very energy intensive. It involves passing an electric current through a molten electrolyte composed of alumina dissolved in molten cryolite. The majority of GHG emissions in the aluminium value chain occur during this stage, primarily due to electricity consumption, which is often based on fossil fuels.
- Fabrication and Manufacturing: Further downstream processes, such as remelting, rolling, extruding and forming aluminium into various products, also require

energy and contribute to GHG emissions. However, these emissions are typically lower than those from the primary production stages.

 Transportation: Transportation of raw materials, semifinished, and finished aluminium

Although our energy consumption at Aluminium Duffel is significantly lower than the processes form the primary production stages in the aluminium value chain, we are still an energy-intensive company. Therefore, we acknowledge the significant environmental impact of our GHG-emissions and our responsibility to mitigate it. Aluminium Duffel BV primarily emits  $CO_2$  as a greenhouse gas, notably through fuel combustion in boilers and furnaces (Scope 1 emissions), and indirectly through purchased electricity (Scope 2 emissions). Our approach centres on implementing energy-saving measures and enhancing energy efficiency to reduce our carbon dioxide equivalent emissions ( $CO_2$ e) output. See the 'Energy' section in this report for more information.

In addition to energy-saving initiatives, we focus on reducing Scope 3 emissions to further decrease our aluminium Product Carbon Footprint (PCF). Learn more about this in the 'Circular Economy & Material Use', 'Transportation' and 'Mobility' sections in this report.



#### Overview of GHG Protocol scopes and emissions across the value chain

Source: WRI/WBCSD Corporate Value Chain (Scope 3) Accounting and Reporting Standard (PDF), page 5 **Scope 1:** Scope 1 emissions are direct GHG emissions from sources controlled or owned by an organisation (e.g., emissions associated with fuel combustion in boilers, furnaces, vehicles, etc.).

Scope 2: Scope 2 emissions are indirect GHG emissions associated with the purchase of electricity, steam, heat or cooling resulting from an organisation's energy use. Scope 3: Scope 3 emissions are indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

#### PERFORMANCE SCOPE 1 AND SCOPE 2

Regarding our direct  $CO_2e$  emissions due to heating (Scope 1), our hot rolling department is the most carbon-intensive activity within Aluminium Duffel BV's production process. Hot rolling accounts for 39% of Aluminium Duffel BV's total  $CO_2e$  emissions, followed by the casthouse and finishing department. This is due to the furnaces, which run on natural gas.

Regarding our indirect  $CO_2e$  emissions due to electricity consumption (Scope 2), the casthouse is the most carbonintensive activity (41%) due to the electromagnetic casting installations, followed by the hot rolling and cold rolling departments. Since we don't produce our own energy, we purchase energy with a Certificate of Origin (COO) to prove that it comes from renewable sources. This enables us to avoid emissions associated with the production and consumption of electricity. In 2023, we signed a wind PPA for the period 2024-2028 and completed the feasibility study for the installation of photovoltaic (PV) panels on our roofs and grounds. Installation of the PV panels on our roofs is planned for 2024.

For 2023, we use the Scope 1 emissions figures as in our reports to the Flemish government under the Energy Policy Agreement (EBO) and in line with the EU-ETS Regulation. We have changed the reporting of direct emissions from mobile combustion sources. In previous years, a well-to-wheel (full life cycle) emission factor was used. From 2023, we will use a tankto-wheel (usage) emission factor. We opted to use BE-residual mix emission factors for both market-based and location-based Scope 2 indirect emissions. Consequently, these adjustments resulted in slight discrepancies compared to figures from previous years.

#### **PERFORMANCE SCOPE 3**

See topics:

- Circular economy & Material use
- Transportation
- Mobility

	Unit	2023	2022	2021	2020	2019	2018
Finished tons of aluminium products	ton	151,596	178,690	181,402	153,700	185,600	206,915
Scope 1 Emissions		27,653	32,368	33,321	29,180	34,164	38,919
Scope 1 emissions – Natural gas	ton CO <sub>2</sub> e	27,042	31,462	32,335	28,352	33,265	36,849
Scope 1 emissions – Heating oil	ton CO <sub>2</sub> e	14	16	14	48	51	45
Scope 1 emissions – Internal transportation	ton CO <sub>2</sub> e	783	890	971	780	1,056	1,123
Scope 2 Emissions							
Scope 2 emissions – Location-based, no GOO	ton CO <sub>2</sub> e	24,671	47,760	49,484	41,790	95,254	103,685
Scope 2 emissions – Market-based, GOO	ton CO <sub>2</sub> e	13,104	19,104	-	16,716	48,818	53,139
Specific							
Scope 1 emissions	ton CO <sub>2</sub> e/ton finished aluminium	0.18	0.18	0.18	0.20	0.18	0.19
Scope 2 emissions – Location-based, no GOO	ton CO <sub>2</sub> e/ton finished aluminium	0.16	0.27	0.27	0.27	0.26	0.26
Scope 2 emissions – Market-based, GOO	ton CO <sub>2</sub> e/ton finished aluminium	0.09	0.11	0.00	0.11	0.00	0.00

\*Aluminium Duffel BV reports its CO<sub>2</sub>-eq emissions using the methods of the Energy Policy agreement with the Flemish Government

\*\* Specific emissions are plotted against a ton of finished aluminium

## **Other Emissions**

In addition to GHG carbon dioxide, Aluminium Duffel BV's production process also emits other substances, such as particulate matter, nitrogen oxides (NOx), sulphur dioxide (SO<sub>2</sub>), Total Organic Carbon (TOC) and others. These substances can have a negative impact on the environment. Therefore, it is our objective to have zero admonitions regarding the environment. To assess compliance and monitor our air emissions, we perform air emission measurements at all relevant emission points. In 2023, air emission measurements were carried out at 38 emission points. A certified external company carries out all these air emission measurements. The frequency of these emission measurements is at least the legally obliged frequency, but it is higher than the legal frequency for most emission points. The environmental coordinator uses all the results of these measurements to draw up the annual air emissions report. All data is also reported annually to the Flemish government.

If non-compliance is detected, corrective measures are taken to correct the non-compliance.



## PERFORMANCE

Air analyses were carried out at 38 emission points in 2023.

	Unit	Total emissions 2023	Total emissions 2022	Total emissions 2021	Total emissions 2020	Total emissions 2019
Particulate Matter	ton	11,038	24,120	5,795	5,788	7,343
NOx	ton	7,655	5,210	8,961	6,874	15,316
SO <sub>2</sub>	ton	27,235	13,699	27,469	7,035	6,163
ТОС	ton	65,544	95,505	57,043	51,370	58,480

Year	Analysis (#)*	Exceedance standard		
2023	291	5 x total dust casthouse 1 CO furnace 7 1 SO2 burner degreasing line	1 TOC casthouse 1 SO2 WABS furnaces 1 NOx boiler CALP	1 SO2 furnace 7 1 CO burer degreasing line
2022	291	3 x total dust casthouse	5 x total dust scalper	2 x TOC degreasing CALP
2021	279	1 x Total dust		
2020	252	1 x Chlorine	2 x CO	1 x TOC
2019	219	1 x CO	1 x NOC	2 x TOC

\*1 analysis=1 parameter analysed at 1 emission point

## Energy

As stated in the 'Emissions' section, Aluminium Duffel BV is an energy-intensive company.

We aim to reduce energy (electricity and natural gas) consumption by 15% by 2025 (baseline 2021). That is why we are constantly weighing up measures to reduce energy consumption and replace fossil fuels with renewable energy sources.

Therefore, it is necessary to monitor our energy consumption, take measures to reduce it and manufacture more energy efficiently. This necessity has been translated into long-standing participation in EBOs (the Flemish government's voluntary Energy Policy Agreements). In Flanders, energy-intensive companies can join the Flemish government's voluntary Energy Policy Agreement (EBO). These EBOs aim to anchor Flemish industries and permanently improve their energy efficiency via committed company actions. They play a significant role in realising the Flemish and European energy-efficiency objectives. The implementation of the measures included in the EBO energy plan approved by the government is monitored and audited by the government annually. Sanctions can be imposed if the plan is not followed.

Our Energy Task Force, established in 2022, is focused on reducing the energy consumption in our production departments by:

- Reducing energy costs: By identifying and implementing energy-saving measures, the Task Force helps the facility reduce its energy consumption and, consequently, lower its operational costs.
- Improving environmental sustainability: A reduction in energy consumption will also result in a decrease in greenhouse gas emissions and other environmental impacts

associated with energy production. This helps the facility meet its sustainability goals and contribute to a cleaner environment.

- Enhancing operational efficiency: Energy-saving measures often go hand in hand with improvements in operational efficiency. By optimising energy usage, the Task Force streamlines processes and reduces waste in the facility.
- Increasing competitiveness: A more energy-efficient operation makes the facility more competitive in the marketplace. Reduced energy costs and improved sustainability are attractive selling points for customers and investors.
- Complying with regulations: Jurisdictions have regulations and incentives to promote energy efficiency and sustainability. By proactively addressing energy consumption, the facility can ensure compliance with relevant laws and regulations.
- **EBO:** The Task Force provides the projects and studies needed for EBO.

The Energy Task Force is made up of highly qualified operational leaders and experts who have a direct impact on ongoing processes and improvements. Strategy, data transparency, process, operations and project management are all included in the group.

Governance is provided by a monthly steering committee with the management team and a dynamic review cycle for possible initiatives.



#### PERFORMANCE

Considering the significant contribution of the Energy Policy Agreements between 2015 and 2022 to the achievement of the Flemish objectives in the field of energy efficiency and greenhouse gas emissions, the current Flemish government had decided to continue with the energy-intensive industry for an additional cycle of four years at the same pace. At the end of 2022, Aluminium Duffel decided to voluntarily participate in the Energy Policy Agreement for the period 2023-2026. During 2023, we provided data on our factory's heat demand and waste heat potential, which are mandatory themes that have been added to this new Energy Policy Agreement. Our new energy plan 2023-2026 has been drafted and awaits government approval. Energy reduction measurements finalised in 2023:

- Setpoints revisited for all gas burners in the factory
- Pressure regulation in the holding furnace for the Casthouse
- Shutdown procedures for all equipment during standstills
- New insulation for specific preheating furnace
- Lighting changed to LED

•

 Dynamic employee participation in frequent reviews of operational gas and electricity consumption per installation

In 2023, our electricity procurement strategy included the purchase of grey power, 55% of which is covered by guarantees of origin. Additionally, we signed a PPA wind contract for the period 2024-2028, and the feasibility study regarding the installation of photovoltaic (PV) panels was completed in preparation for meeting the Flemish PV obligation by mid-2025.

Year	Purchased electricity with Certificate of Origin (%)
2023	55
2022	60
2021	100
2020	60
2019	100
2018	100

	Unit	2023	2022	2021	2020	2019
Finished tons of aluminium products	ton	151,596	178,690	181,402	153,700	185,600
Total energy consumption within the organisation	GJ	1,209,060	1,396,237	1,445,421	1,239,774	1,408,492
Total energy consumption from renewable energy	GJ	400,394	503,226	868,993	440,320	857,290
Total primary energy consumption	GJ	481,071	557,527	576,428	505,907	551,202
Natural gas	GJ	480,888	557,308	576,238	505,255	550,521
Fuel oil (heating)	GJ	183	219	190	652	681
Total secondary energy consumption	GJ	727,990	838,710	868,993	733,867	857,290
Total electricity consumption	GJ	727,990	838,710	868,993	733,867	857,290
of which for cooling	GJ	16,150	17,813	18,990	17,928	19,400
Total bought-in eletricity	GJ	727,990	838,710	868,993	733,867	857,290
From renewable sources**	GJ	400,394	503,226	868,993	440,320	857,290
From non-renewable sources	GJ	327,595	335,484	-	293,547	-
Energy intensity (total energy)	GJ/ton finished aluminium product	7.98	7.81	7.97	8.07	7.59

\*\* Guarantees of Origin



## Case study #6: Off-site PPA

## **Major Investment in North Sea Wind Farm**

October 2023, Duffel. We are thrilled to announce that our organisation has made a significant investment in a wind farm in the North Sea. This enables us to source a substantial portion of our electricity needs from renewable sources. We have signed a 5-year Power Purchase Agreement (PPA) for a capacity of 135 gigawatt hours, equivalent to the annual consumption of 40,500 households. Commenting on the news, Hans Andries, Senior Manager of Energy & Risk, said: 'This agreement marks a significant step forward in our commitment to renewable energy and further reducing our carbon footprint. Thanks to this PPA, we're not only embracing the future of sustainable energy but also ensuring that our organisation remains competitive in the evolving energy market.' The impact of the Power Purchase Agreement on our factory's Scope 2 emissions contributes to our goal of reducing the  $CO_2$  footprint of our aluminium products (Scope 1 + 2 + 3) by 38% by 2030.

## Product Stewardship

When considering the environmental impact of our products, we look at the entire life cycle of our products, including design, production, packaging, transportation, use and end-of-life. By collaborating with our customers, we seek to understand the unique challenges they face and develop personalised strategies to address them. Increasingly, our customers are looking to enhance the sustainability attributes of their products and/or are imposing specific environmental requirements.

Sector	What Aluminium Duffel BV Provides	Sustainability Impact
Automotive	Applications include car body hang-on panels, structural components and heat exchangers.	Aluminium is a lightweight, more fuel and battery efficient alternative than steel when used in automobile manufacturing, with lighter cars producing fewer emissions during the use phase.
Architecture & Design	Aluminium sheets for building products offer thermal and acoustic insulation, resistance to corrosion and weathering, and a high strength-to- weight ratio.	Specific products for building and construction provide builders with sustainable products that have 90% extended recycled content <sup>*</sup> . Most of our building products are fully recyclable at the end of their life.
Medical Equipment	Aluminium narrow coils and sheets offer a deep- drawing quality for inhalers and durable, corrosion- resistant products for hospital equipment.	Recyclability of products leads to lower waste. End-users have enhanced quality of life.
Commercial Transportation	Large sheets and coated aluminium products are used in the construction of trucks, buses, recreational vehicles, rail cars, ships and boats.	Lightweight vehicles made of aluminium require less energy to travel, which reduces overall fuel emissions.
Other Industries & Multilayer Tubing	Transformer windings, electrical cables for data and energy transmission, multilayer tubing for heating systems and travel ware.	Recyclability of products leads to lower waste.

\* Including internal scrap

#### LIFE CYCLE ASSESSMENT

A Life Cycle Assessment (LCA) is a technique for assessing the environmental impacts of a given product throughout its life cycle, from raw material extraction to end-of-life. It is a vital tool for mapping the upstream impacts and downstream benefits of our products. It helps identify where environmental improvements can be made at different stages of the product's life cycle.

To understand our environmental impact during the production of our aluminium products, we have been conducting life cycle assessments on our automotive product group since 2012 and on our non-automotive product group since 2017, in accordance with ISO 14040 and 14044 'cradle-to-gate', including Scope 1 + 2 + 3. The impact assessment categories that are considered the most relevant to the LCA are:

- Climate change (global warming potential)
- Acidification
- Eutrophication (freshwater)
- Ozone depletion
- Photochemical ozone formation
- Abiotic depletion, elements
- Abiotic depletion, fossil
- Water use

In the 2023 Sustainability Report, we will only report on the global warming potential of our products.

**Scope 1** emissions include those from combustion in inhouse boilers, furnaces (kg CO<sub>2</sub>e)

**Scope 2** emissions are those associated with the electricity Aluminium Duffel BV purchases. (kg CO<sub>2</sub>e)

**Scope 3** emissions are all other indirect emissions that occur in our value chain (suppliers, purchased goods and services, transport, etc.). (kg CO<sub>2</sub>e)

**Cradle-to-gate:** All emissions from the extraction of raw materials, their transportation, refining, processing and fabrication activities until the product is ready to leave the gate of the Aluminium Duffel BV production site.

Gate-to-gate: All emissions generated on-site plus the upstream emissions associated with the use of energy on-site (electricity generation, natural gas, diesel and oil production). It excludes upstream emissions associated with primary aluminium or with slab production.

Primary data were gathered for energy consumption, emissions to air and water, and use of raw materials and auxiliaries at the

Duffel manufacturing site. Secondary inventories were used to model the impacts of raw materials (virgin / primary) and scrap aluminium, alloying components, auxiliary chemicals, transportation, fuels and electricity generation.

When taking the cradle-to-gate results into consideration for our group of products, only 3-5% of the  $CO_2e$  emissions are allocated to our aluminium casting and rolling process (Scope 1 + 2). This means the remaining 95-97% of  $CO_2e$  emissions come from emissions upstream in our value chain, i.e. from mining and electrolysis activities (Scope 3).

#### PERFORMANCE LIFE CYCLE ASSESSMENT

For the automotive segment, special attention was paid to the development of a single future-generation alloy that can replace multiple existing alloys and substantially improve scrap re-utilisation in closed-loop programmes.

In 2023, we started updating the LCAs for the automotive products ECOLITE<sup>™</sup> and SUPERLITE<sup>®</sup>200 with data from 2022. The results for 2022 show a stable result on a weighted average base for our automotive portfolio. SUPERLITE® 200 results improved, whereas ECOLITE<sup>™</sup> results showed a higher GWP than previous years. The results depend greatly on the sourcing of our slabs. SUPERLITE® was sourced more internally than ECOLITE<sup>™</sup>. Since our internal casthouse uses induction heating furnaces, powered by 100% renewable electricity, and Duffel sources 100% low carbon prime for its automotive production, casting internally is the most beneficial for our GWP score. However, we don't have the capacity to cast 100% of our slabs internally, so we still rely heavily on sourcing slabs from external suppliers. These sourcing decisions affect the result significantly. We take the following actions to achieve year-onyear improvements:

- The use of secondary material, including pre-consumer and post-consumer scrap, and assuring its use by means of closed-loop partnerships with our customers
- The use of low-carbon primary aluminium and rolling slabs (via a certificate or by renewable energy for production)
- Optimisation of the manufacturing process
- Quality improvements resulting in fewer rejects, less rework and re-allocations and thus fewer waste products that need to be reproduced
- The use of 100% electricity from renewable sources for the production of automotive products in Duffel
- Actions and investments to consume less energy or to reduce energy losses

A new LCA on automotive and non-automotive products will be established in 2024 with data from 2023.

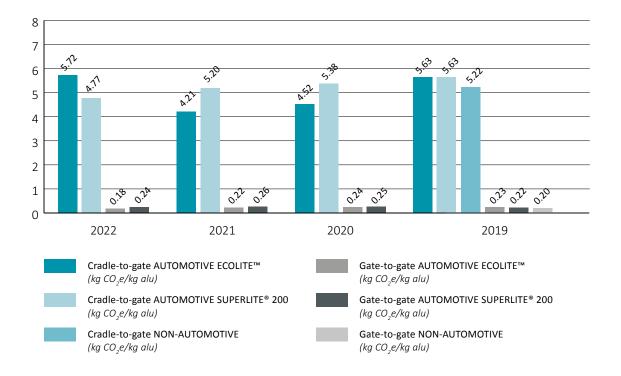
In an era of increasing environmental consciousness and sustainability imperatives, we are re-evaluating our approach to Life Cycle Assessment (LCA) reporting. Historically, we have conducted LCA at the product group level, providing a broad overview of environmental impacts. However, as we see more nuanced customer demands and evolving industry standards, it's becoming clear that a more granular approach is needed to understand and mitigate the environmental footprint of our products. By analysing environmental impacts at the alloy level, we will be able to provide customers with precise data that aligns with their sustainability goals, fostering greater transparency and trust in our products and processes.

In today's dynamic business environment, the ability to perform scenario analysis is vital. This enables us to assess the environmental implications of different production processes, material sourcing strategies, and technological innovations. This empowers us to make informed decisions that optimise both environmental and business outcomes.

To prepare for this shift in LCA approach, we will be evaluating several options in terms of consultancy, software packages and personnel training in 2024.

## **GWP AUTOMOTIVE products** (ECOLITE<sup>™</sup> & SUPERLITE<sup>®</sup> 200) and NON-AUTOMOTIVE products

	Unit	2022	2021	2020	2019
Finished tons of aluminium products	ton	178,690	181,402	153,700	185,600
Automotive ECOLITE™	ton	20,511	17,062	15,052	16,923
Automotive SUPERLITE® 200	ton	54,859	53,618	54,981	64,145
Non-automotive (Industrial)	ton	103,320	109,382	84,403	102,783
AUTOMOTIVE ECOLITE™					
Gate-to-Gate Scope 1+2 emissions	kg CO <sub>2</sub> e/kg alu	0.18	0.22	0.24	0.23
Gate-to-Gate Scope 1+2 emissions	ton $\mathrm{CO}_2\mathrm{e}$ total production finiton ECOLITE <sup>TM</sup>	3,692	3,754	3,612	3,892
Scope 3 emissions	kg CO <sub>2</sub> e/kg alu	5.54	3.99	4.28	5.40
Scope 3 emissions	ton $\rm CO_2e$ total production finiton ECOLITE <sup>TM</sup>	113,631	68,077	64,423	91,384
Cradle-to-Gate Scope 1+2+3 emissions	kg CO <sub>2</sub> e/kg alu	5.72	4.21	4.52	5.63
Cradle-to-Gate Scope 1+2+3 emissions	ton $\rm CO_2e$ total production finiton ECOLITE <sup>TM</sup>	117,323	71,831	68,035	95,276
AUTOMOTIVE SUPERLITE <sup>®</sup> 200					
Gate-to-Gate Scope 1+2 emissions	kg CO <sub>2</sub> e/kg alu	0.24	0.26	0.25	0.22
Gate-to-Gate Scope 1+2 emissions	ton $\rm CO_2e$ total production finiton SUPERLITE® 200	13,166	13,941	13,745	14,112
Scope 3 emissions	kg CO <sub>2</sub> e/kg alu	4.53	4.94	5.13	5.41
Scope 3 emissions	ton CO <sub>2</sub> e total production finiton SUPERLITE <sup>®</sup> 200	248,511	264,873	282,053	347,024
Cradle-to-Gate Scope 1+2+3 emissions	kg CO <sub>2</sub> e/kg alu	4.77	5.20	5.38	5.63
Cradle-to-Gate Scope 1+2+3 emissions	ton CO <sub>2</sub> e total production finiton SUPERLITE® 8 200	261,677	278,814	295,798	361,136
NON-AUTOMOTIVE					
Gate-to-Gate Scope 1+2 emissions	kg CO <sub>2</sub> e/kg alu	/	/	/	0.2
Gate-to-Gate Scope 1+2 emissions	ton CO <sub>2</sub> e total production finiton	/	/	/	20,557
Scope 3 emissions	kg CO <sub>2</sub> e/kg alu	/	/	/	5.02
Scope 3 emissions	ton CO <sub>2</sub> e total production finiton	/	/	/	515,971
Cradle-to-Gate Scope 1+2+3 emissions	kg CO <sub>2</sub> e/kg alu	/	/	/	5.22
Cradle-to-Gate Scope 1+2+3 emissions	ton CO,e total production finiton	/	/	/	536,527



## Case study #7

## **Carbon footprint evolution**

Since many of our customers have asked how the carbon footprint of rolled products in Europe will evolve, we entered into a collaboration with the Vrije Universiteit Amsterdam to find out. In 2020, the Vrije Universiteit Amsterdam, in collaboration with the Dutch Research Council (grant number 439.19.634), industry experts and supported by data provided by international associations such as IAI and EA, started a research project resulting in a system dynamics model. This model encompasses the forecasted technological evolutions to decarbonize for the period 2020-2050 and takes into account the effect

of legislative initiatives such as the implementation of CBAM and the increased recycling rate for aluminium. This research project was concluded in early 2024, and the results were first presented at the AMAP Forum 2024 on 25 April 2024 in Aachen, Germany. The main conclusion of this study is that considering a 50% growth of aluminium products between 2020 and 2050, even the fast decarbonization scenario will not be sufficient to stay within the carbon budget for European aluminium as foreseen in the Paris Agreement and allocated by the IEA. As a result, the study calls for more government attention and intensified horizontal and vertical supply chain collaboration to accelerate the decarbonization of the aluminium rolled products supply chain.



## Material Use & Circular Economy

As an industrial company, we must manage resources carefully and minimise our impact on the environment. Resource efficiency and environmental protection are topics we take very seriously. Our suppliers are selected through due diligence and our Supplier Code of Conduct. When selecting suppliers, we consider issues like health and safety, human rights, environmental aspects, etc.

A circular economy looks beyond the take-make-waste extractive industrial model. It aims to design waste out of the system and decouple economic activity from the consumption of finite resources.

Our contributions to a sustainable circular economy include:

- Maximising the scrap content in our products
- Maximising the recycling of our waste streams
- Closed-loop contracts with our customers

These contributions will help in achieving our targets for the product footprint of our aluminium products:

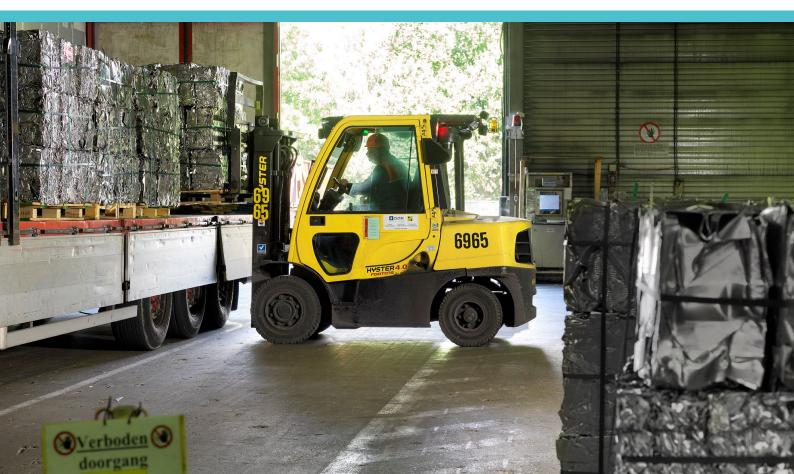
- 5.0 kg CO<sub>2</sub>e/kg alu final coil by 2025
- 3.5 kg CO<sub>2</sub>e/kg alu final coil by 2030

#### **CIRCULAR ALUMINIUM**

In the Aluminium Duffel BV casthouse, we cast slabs of various sizes, grades and alloys. We receive aluminium ingots, alloy components and external scrap, which are melted and mixed with internal scrap.

Year after year, we focus on improving our external scrap input and our metal yield in the casthouse and the rolling mill. The emphasis on using more external scrap (pre-consumer and post-consumer scrap) is an important aspect in lowering the  $CO_2$  footprint of our products (see 'Product Stewardship'). The more scrap we use, the less virgin aluminium our products require. Recycled aluminium requires only 5% of the energy used to produce primary aluminium. Recycling aluminium produces only 5% of the associated greenhouse gases, resulting in greater carbon reduction and a safer environment.

Currently, 60% of our closed-loop scrap is melted by an external party. Their casthouse transforms the scrap into rolling slabs for us. We melt the remaining 40% in our casthouse in Duffel. By the second half of 2025, we will be able to melt the full 100% of this scrap in Duffel.



We continuously engage with our customers to assess the feasibility of a closed-loop programme. Feasibility is determined by the chemical composition, the quality and the quantity of the scrap. We are also expanding our capabilities in order to expand the window of specifications that we are able to accept.

To further improve circularity, we are exploring the end-oflife recycling landscape. We are in discussions with scrap processing companies and remelters to establish collaborations that will enable this post-consumer scrap to be used in our products in the future. As one of the workstreams of this post-consumer scrap project, we are developing a specific alloy that can absorb this scrap type without loss of performance. In addition to our own cast alloys, we also purchase rolling slabs for specific alloys or applications, focusing on acquiring less carbon-intensive (low-carbon) rolling slabs.

Aluminium Duffel BV has conducted an investigation at its manufacturing facilities, including suppliers of materials to our company. We can state that Aluminium Duffel BV does not use conflict minerals in the production of our flat-rolled products. At the request of some of our customers, we add specific coatings and treatments to a certain amount of our products, but we do not manufacture any coatings or treatments.

## PERFORMANCE

The rate of primary aluminium (virgin aluminium) in our casthouse decreased in 2023 compared to 2022 and was lower than in any year since 2019.

Since the Sustainability Steering Committee was established in 2021, the rate of virgin aluminium melted in the casthouse has been monitored monthly. By 2025, we will reduce the proportion of primary aluminium to 20%.

We also monitor the proportion of purchased low-carbon virgin aluminium and low-carbon rolling slabs. At Aluminium Duffel BV, we define 'low carbon' as virgin aluminium or rolling slabs with a  $CO_2e$  footprint of less than or equal to 4 kg  $CO_2e$  kg aluminium (Scope 1+2 of the smelter) or produced almost entirely with hydroelectric power. No specific target has been set for these KPIs yet.

Material Duffel Casthouse	Unit	2023	2022	2021	2020	2019
Total material	ton	139,197	157,755	170,351	118,883	151,353
Renewable material:						
External scrap*	ton	10,335	10,642	6,670	2,260	2,260
Internal scrap	ton	87,470	95,771	100,752	79,507	79,507
Non-renewable material:						
Virgin aluminium	ton	39,647	49,059	60,370	35,624	45,941
Alloy components	ton	1,745	2,283	2,559	1,492	2,033
External scrap	%	7	7	4	2	3
Internal scrap	%	63	61	59	67	65
Virgin aluminium	%	28	31	35	30	30
Alloy components	%	1	1	2	1	2

\* Closed-loop scrap

Material	Unit	2023	2022	2021	2020	2019
Low-carbon** virgin aluminium	% of the total volume purchased	88	57	68	46	92
Low-carbon*** rolling slabs	% of the total volume purchased	50	47	46	23	-

\*\* External scrap: pre-consumer (closed-loop) scrap

\*\*\* At Aluminium Duffel BV, we define 'low carbon' as virgin aluminium/rolling slabs

with a CO,e footprint of less than or equal to 4 kg CO,e /kg aluminium

(Scope 1+2 of the smelter) or produced almost entirely with renewable energy.

## **Closed-Loop Recycling**

Many of our customers process our semi-finished products into finished products, creating scrap in the process. Instead of selling this high-quality scrap on the open market, Aluminium Duffel BV takes back scrap from several customers and recycles it into a new product for the same customers. This closed-loop process maintains the integrity of the product, reduces energy and material costs, reduces the use of primary aluminium, and decreases customer waste streams. Our internal scrap is also reused to minimise the use of raw materials.

We are continuously working to increase the amount of scrap we use in our operations and the recycled content of our products. For many years, we have been working with our suppliers and customers to identify new sources of aluminium scrap and innovative ways to reuse aluminium. Our scrap aluminium includes material purchased from traders and distributors and scrap returned by customers (pre-consumer scrap). At the time of writing this report, we are in discussions with two new OEMs about developing a closed-loop programme. By 2025, we aim to increase our customer input scrap rate (vs. total automotive volume) for automotive products to 35% (20% in 2019) and improve our metal yield by 5% (baseline 2019). As a consequence, we will reduce our internal scrap. Increasing the proportion of scrap also involves selecting new ways to separate scrap containing several alloy groups and finding ways to purify scrap made of different alloys. These separation innovations are necessary to make a positive contribution to the environment by focusing on recycling post-consumer scrap and preventing it from ending up in landfills. To this end, Aluminium Duffel BV teamed up with European Aluminium and some competitors and commissioned a study entitled "Mapping study on innovative technologies for post-consumer scrap preparation". The next step is to investigate the impact on our future capabilities in order to valorise the new insights.

Performance recycled aluminium	Unit	2023	2022	2021	2020	2019
Recycling content final product, out of rolling slabs casted in Duffel (only AUTO 6xxx alloys taken into account)	%	75	71	66	72	73
Customer closed-loop + other pre-consumer scrap (only AUTO 6xxx alloys taken into account)	%	21	21	16	16	18



## Transport

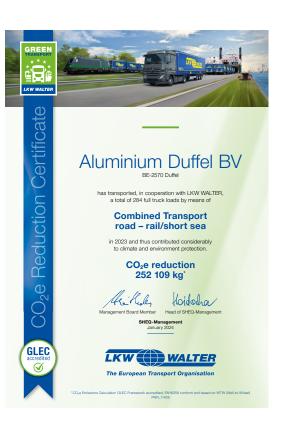
For Aluminium Duffel BV, transport encompasses everything from the arrival of raw materials to the delivery of aluminium products to our customers. Our goal is to optimise this transportation process and reduce its environmental impact.

In 2019, we started utilising multimodal transportation for our semi-finished products, combining road and rail transport. This approach lowers emissions, as more items are transported by rail. It also increases trailer capacity, allowing three coils per trailer instead of the previous maximum of two heavy coils, thanks to load limit exemptions for multimodal transport. Our multimodal routes include transportation from Duffel to Germany by truck, followed by rail to either Hungary or Scandinavia.

In 2022, we switched to transporting our export containers to the port of Antwerp via inland waterways, reducing our reliance on road transport. This change saves 62 tons of  $CO_2e$ emissions per year for every 1,000 containers, equivalent to the annual emissions of 16 Flemish households. We partner with Hutchison Terminal (TCT) in Willebroek for this initiative. Empty containers are collected from TCT, loaded in Duffel and then returned to TCT for barge transport.

#### PERFORMANCE

Every year, Aluminium Duffel BV receives a certificate from the transport company stating the amount of  $CO_2$  emissions we have reduced by using multimodal transport. In 2023, Aluminium Duffel BV lowered its  $CO_2$  emissions by 252,109 tons.



#### Planning 2024

Continue shipping export containers via inland waterways

Multimodal shipments to Italy via Mechelen rail terminal; 20 km away from Duffel

Continue shipping multimodal to Hungary & Scandinavia



## Packaging

Packaging is essential to protect and maintain the quality of our aluminium products. We use a variety of packaging materials, including wooden pallets, paper, plastic, and steel. Each material has a distinct environmental impact, which we carefully evaluate before implementing any changes.

Plastic pollution in the ocean poses a serious threat to marine life, the environment, and human health. The Great Pacific Garbage Patch is a stark example. It consists of countless pieces of plastic that have entered the ocean due to human activity. Every stage of human action can significantly reduce this impact.

We only use FSC (Forest Stewardship Council) certified wood for our wooden packaging. This wood is primarily used in custom-made wooden pallets. We reuse these pallets whenever possible if the customers are within a 300 km radius of Duffel and the pallets remain suitable for reuse.

Our in-house packaging specialist collects data using calculation files with various conversion factors tailored to each packaging product and unit. As a VAL-I-PAC client, we comply with industrial packaging regulations, including the take-back obligation for packaging in Belgium. This obligation holds the industry accountable for collecting and processing packaging waste, which is managed by VAL-I-PAC.

By joining VAL-I-PAC, Aluminium Duffel BV fulfils its take-back obligation. Member companies contribute financially based on the type and quantity of packaging introduced into the Belgian market. These funds are used to organise selective collection and recycling, with VAL-I-PAC submitting annual reports to the Belgian government.

#### PERFORMANCE

In 2023, Aluminium Duffel launched an initiative to eliminate foil packaging for all materials destined for one of our customers. This effort reduces foil usage and limits the use of plastic strips. The positive response from this customer has encouraged us to extend the initiative to other customers.

Beyond its commercial impact, this move champions environmental sustainability. It benefits one customer and underscores our commitment to eco-conscious practices, setting a standard for industry-wide sustainability.

Packaging for our own aluminium products	Unit	2023	2022	2021	2020
Renewable packaging		529	644	609	531
Wood	ton	449	546	532	435
Plastic	ton	40	44	29	41
Metal	ton	6	6	6	6
Paper & cardboard	ton	34	48	42	50
Non-renewable packaging:		0	0	0	0
Total packaging		529	644	609	531
Total packaging intensity	kg/ton finished alu	3.5	4	3	4

Packaging sold and returned for reuse	Unit	2023	2022	2021	2020
Wood (wooden pallets)	%	18	19	12	21
Plastic	%	-	-	-	-
Metal	%	-	-	-	-
Paper & cardboard	%	-	-	-	-

## Waste Management

Aluminium Duffel BV's manufacturing process generates more than 70 different types of waste. These waste streams (hazardous and non-hazardous) can have a high impact on the environment if not managed properly. All types of waste are collected separately in the factory so that our waste streams can be recycled as much as possible. The recycled waste can be used to make new products. This reduces the environmental impact of our factory's waste. We also aim to minimise the amount of waste sent to landfill or incineration. In practice, we only send to landfill or incinerate those types of waste for which there is no other legal option.

A certified waste processing company collects and handles all our waste streams on-site except for aluminium scrap and dross. The certified waste company is responsible for the further sorting of the different types of waste. It is also responsible for the on-site waste collection area. The certified waste company also provides all necessary data regarding waste on a monthly basis. The data for recycled aluminium and dross are collected internally. All waste is weighed at our gates and the entry gates of the different processing companies. This data is used to compile the legally required waste register. The environmental coordinator uses all this data to prepare the necessary legal reports on waste for the Flemish government. The environmental coordinator consults with the external waste company at least once a month. This includes annual evaluation meetings, quarterly tactical meetings (including financial topics and problems with waste processing) and monthly production meetings to monitor KPIs and discuss the state of affairs. Audits are also carried out at the external waste collection and treatment facilities.

In addition to reusing production waste, we encourage our employees to help us maximise the recycling of other materials used in the production halls and offices through dedicated recycling bins. Up to eight recycling bins (for films, paint residues, aerosol cans, oily waste, empty packaging for hazardous products, plastic tapes, glass, PMD (plastic bottles & flasks, metal packaging and beverage cartons)) are placed in central locations in the production halls.

Waste generated upstream and downstream in the value chain is not reported.



Waste stream	Unit	2023	2022	2021	2020	2019
Non-hazardous waste						
Waste directed to disposal						
Landfilled non-hazardous waste	ton	35	-	174	50	-
Incinerated non-hazardous waste:	ton	289	269	256	261	329
Incineration with energy recuperation	ton	289	269	256	261	329
Incineration without energy recuperation	ton	-	-	-	-	-
Waste diverted from disposal						
Other non-hazardous waste (recycled or reused):	ton	22,168	21,598	22,865	23,400	18,881
Aluminium scrap	ton	16,258	16,549	17,279	19,374	9,234
Aluminium dross	ton	2,872	3,701	4,074	2,704	3,660
Others:	ton	1,519	1,348	1,512	1,322	5,987
Paper and cardboard	ton	112	117	124	109	132
Electronic equipment	ton	7	-	2	1	5
Non-aluminium scrap	ton	474	448	488	456	505
Wood	ton	307	253	512	358	407
Other	ton	619	530	386	398	4,938
Total non-hazardous waste	ton	22,492	21,867	23,295	23,711	19,210

Hazardous waste						
Waste directed to disposal						
Landfilled hazardous waste	ton	86	157	-	-	-
Incinerated hazardous waste:	ton	207	231	23	192	228
Incineration with energy recuperation	ton	146	228	229	191	227
Incineration without energy recuperation	ton	61	3	1	0.7	1
Waste diverted from disposal						
Other hazardous waste (recycled or reused)	ton	917	770	729	626	628
Total hazardous waste	ton	1,210	1,158	959	818	856
Total Waste	ton	23,702	23,025	24,254	24,529	20,066

Waste avoided through recycling or reuse	Unit	2023	2022	2021	2020	2019
Non-hazardous waste recycled/reused						
Preparation for reuse total		28		14		
On-site	ton	-		-	-	-
Off-site	ton	28	26	14	-	-
Recycling total		22,140	21,698	21,912	22,642	13,054
On-site	ton	-		-		-
Off-site	ton	22,140	21,698	21,912	22,642	13,054
Other recovery operations total	ton	-	143	939	758	5,827
On-site	ton	-		-	-	-
Off-site	ton	-	143	939	758	5,827
Total non-hazardous waste recycled/reused	ton	22,168	21,867	22,865	23,400	18,881

Hazardous waste recycled/reused						
Preparation for reuse total						
On-site	ton	-	-	-	-	-
Off-site	ton	-	-	-	-	-
Recycling total		913	758			
On-site	ton	-	-	-	-	-
Off-site	ton	913	758	-	-	-
Other recovery operations total				729	626	628
On-site	ton	-	-	-	-	-
Off-site	ton	4	240	729	626	628
Total hazardous waste recycled/reused	ton	917	998	729	626	628
Total waste avoided through recycling/reuse	ton	23,085	22,865	23,594	24,026	19,509

Packaging with purchased materials and products	Unit	2023	2022	2021	2020	2019
Wood	ton	81.6	98.33	96.62	67.98	116.25
Plastics	ton	6.16	7.22	7.13	6.13	7.90
Metal	ton	6.47	8.07	9.99	5.74	9.30
Paper & cardboard	ton	5.486	5.8	6.01	5.55	7.18
Total	ton	99.72	119.42	119.75	85.40	140.60

## Water Usage

Aluminium processing requires a relatively small amount of water compared to other industries. Water is primarily used to cool our casthouse production process.

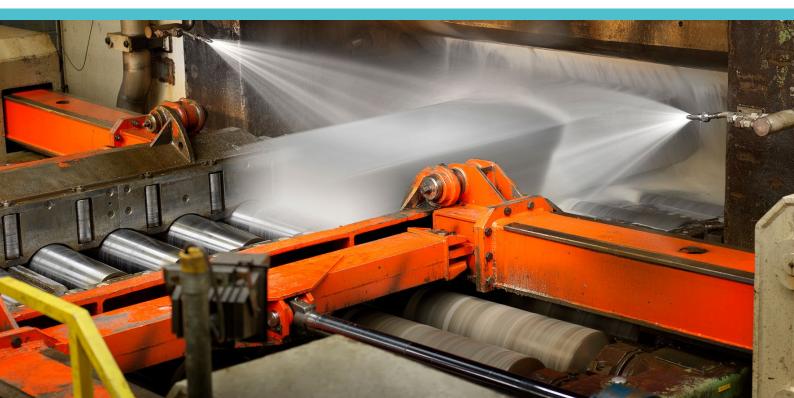
Although our business is not located in a water stressed area, we still strive to use this precious resource responsibly. In addition to focusing on the water used in our production process, we will also focus on disconnecting uncontaminated rainwater (from the roofs of our business and the internal sewer system) and possibly reusing this rainwater on site. A company-wide water management study was carried out in 2023 and handed in to the government. We are currently waiting for the government's approval to start the next steps.

In 2023, a project was developed to reduce TOC emissions. This was also accompanied by a reduction in water consumption due to a lower operation temperature. At the end of 2023, we switched to a new type of emulsion on one of our hot mills. In 2024, we will continue to monitor the quality of the emulsion. Under normal circumstances, we will decrease from 4 full dumps to 1 full dump. This would mean a yearly reduction in RO water consumption of 840 m<sup>3</sup>.

The temperature of the emulsion will also be evaluated in 2024. Reducing this temperature will also lead to less evaporation, requiring less refilling.

In 2024, the CALP will look at making the dumping of the baths based on aluminium content rather than a fixed amount. As a result, dumping will only occur when the chemical baths are saturated.

Water Consumption	Unit	2023	2022	2021	2020	2019
Total process water consumption (Waterlink/AWW)	m³	410,878	479,515	495,550	430,599	486,111



## Mobility

With almost 1,000 employees, Aluminium Duffel BV has an impact on the local access roads to our site. When it comes to commuting to work, mobility is unique to each employee and can contribute to personal satisfaction, health and climate change.

As our company is located close to the Duffel train station (1.5 km), employees can opt to use public transport. Aluminium Duffel BV also offers bike leasing options, including e-bikes and speed pedelecs.

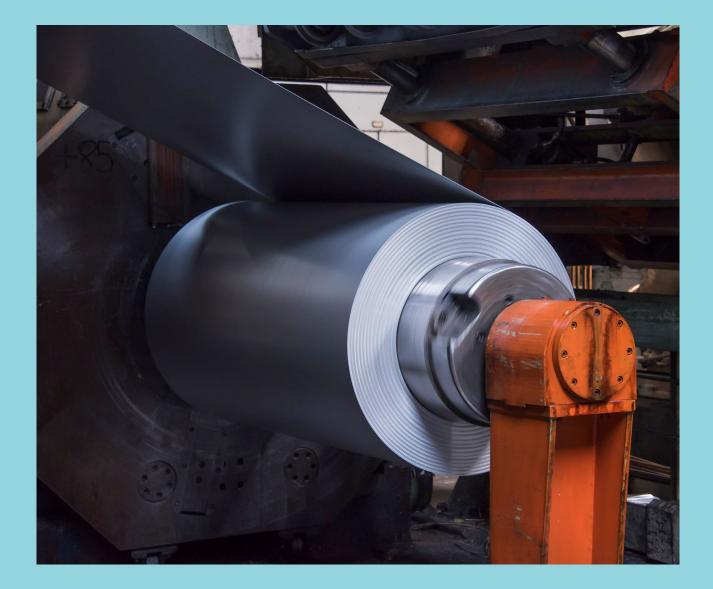
	Unit	2023	2022	2021	2020	2019
Total employees	Number	922	954	958	931	981
Employees with bike lease contract	%	25	22	25	24	20
Blue-collar	%	16	14	16	16	13
White-collar	%	10	8	10	8	7
Bicycle	%	44	35	19	21	23
Blue-collar	%	26	21	13	15	17
White-collar	%	17	13	6	6	7
Private transportation	%	84	69	53	50	50
Blue-collar	%	58	45	37	34	33
White-collar	%	26	24	16	16	18
Carpool	%	10	10	10	10	11
Blue-collar	%	8	8	8	8	9
White-collar	%	1	2	2	2	2
Public transportation	%	1	1	1	0	1
Blue-collar	%	0	0	0	0	0
White-collar	%	0	0	0	0	1
Company car	%	10	10	9	9	10
Blue-collar	%	0	0	0	0	0
White-collar	%	10	10	9	9	10

Company cars	Unit	2023
Total amount of company cars	Number	93
Combustion engine vehicle	%	60
Plug-in hybrid vehicle (PHEV)	%	28
Electric vehicle (EV)	%	12

## Case study #8

## **Zero Packaging**

Aluminium Duffel has launched an initiative to eliminate foil packaging across all materials destined for a client. This effort reduces foil usage and restricts plastic strips. The positive response from the customer has encouraged us to extend this initiative to other customers. Beyond its commercial impact, this move champions environmental sustainability. It benefits one specific client, emphasises a commitment to eco-conscious practices, and sets a standard for industry-wide sustainability.



# Ensuring we behave as a responsible business

## **Emergency Preparedness**

Emergency preparedness encompasses the protocols established to minimise harm to individuals, assets, and the environment in the event of specific emergencies. Potential crises such as energy shortages, climate-related events, fires or supply chain disruptions can impact both our workforce and our surroundings.

We have a comprehensive emergency procedure in place that includes activating the crisis team in the event of emergencies such as fires, serious workplace accidents, or environmental incidents. For other crises, such as pandemics or energy-related issues, specialised task forces are assembled. Depending on the severity of the incident, regular follow-up meetings are held to ensure swift responses. Our internal intervention team, comprising 30 skilled individuals, is available around the clock to address emergencies. Many of our team members are also active volunteers with local fire brigades.

We conduct annual emergency drills involving all employees at Aluminium Duffel BV. These drills are meticulously documented and evaluated.

Our management team also conducts a thorough contextual analysis at least once a year. This analysis includes an assessment of internal and external factors, encompassing the PESTEL framework (Political, Economic, Social, Technological, Environmental and Legal) and their potential impact on our operations, identifying both risks and opportunities.

Refresher course first aid	Unit	2023	2022	2021
	Number of employees	71	115	117
	% of employees	8	12	12



## **Innovation Management**

Customers are constantly looking for more sustainable products, i.e. products with a higher recycled content, a lower carbon footprint, lightweight components and materials that improve end-of-life recycling. As an aluminium rolling mill, we are aware that we are both a  $CO_2$  emitter and an important enabler. We provide society with products that support the realisation of a circular economy, such as lightweight cars, electrical cables, and lightweight building applications, to name a few. Our efforts in the Customer Development department, which is responsible for Innovation Management, are therefore focused on supporting low-carbon production and developing low-carbon aluminium solutions or aluminium solutions that support the transition to a circular economy. This is how Aluminium Duffel BV aims to meet its customers' requirements and become their preferred supplier.

To provide customers with such materials, Aluminium Duffel BV has an Innovation Centre (15 FTE) where teams focus on R&D materials, R&D surface, product technology, and product and process technology.

Examples of past initiatives include:

- A highly formable inner body sheet that provides greater design freedom due to improved formability and allows the bodywork to be even lighter by transitioning from steel to aluminium components.
- The development of a high-strength crash-absorbing aluminium alloy as an alternative to heavier steel crash components.
- A high conductivity alloy that meets the highest electrical conductivity requirements since decarbonization is realised through a shift towards more electrical applications. Given the good electrical conductivity capabilities of aluminium and the increasing scarcity of copper, more future applications will rely on aluminium to transport electricity.
- Development of a scrap-absorbing alloy that meets highly demanding automotive requirements for mechanical and surface properties but contains a high pre- and postconsumer scrap content, given the need to continually increase the recycled content in new products.

#### PERFORMANCE

The short list below is a summary of the key research projects in the R&D programme for 2023. Basic knowledge research continues to run in parallel with product development and is primarily driven by the knowledge requirements of these development projects.

Several projects have been initiated in recent years as a result of the increased focus on productivity, cost and quality of our products. Sustainability is also an important focus of current projects.

- Project on the impact of increased scrap input in castings and end products
- Project related to uni alloy to reduce the variety of alloys in an end product
- Project to improve surface quality
- Project on the effects of cold rolling and internal annealing (time and temperature) on microstructure
- Project to optimise thermo-mechanical processing to reduce material consumption.

We have always optimised our production routings, i.e. the subsequent steps in transforming a slab into a coil or sheet, in order to minimise production costs. Since the increase in energy prices following the start of the war in Ukraine, we have reconsidered the optimisation of our production routings from both an economic and an environmental point of view. We have carried out an internal project to correlate the energy consumption of products with that of the installations in the routing. The data that we have gathered is currently being used in a novel LCA model approach being developed by the Vrije Universiteit Amsterdam, in which Aluminium Duffel is participating, which will enable the most optimal routings to be selected in terms of both minimising the impact on energy consumption and maintaining an acceptable cost.

## **Customer Relations**

Customer satisfaction is important to Aluminium Duffel BV because we want to be the supplier of choice for our key customers. Our goal is to be best in class, with no customer dissatisfied with our overall quality, claim handling, delivery performance, sustainability profile, innovation, price/value ratio and trustworthiness. To achieve high levels of customer satisfaction, we need to know what our customers expect of us as a company and as a supplier and how they experience their relationship with us as their supplier. Our sales department (30 FTE) is in close contact with our customers. Through customer visit reports and monthly sales meetings, key account managers report to management on various topics, including sustainability.

#### CUSTOMER SATISFACTION SCORECARD

In the past, surveys have shown that the quality of our products and services was rated as most important and highly satisfactory by customers in both the automotive and industrial business segments, with a very high overall Net Promoter score of 39 [2021]. In order to have a more direct and continuous measurement tool, a Customer Satisfaction Scorecard was introduced to our key customers in Q2 and Q3 of 2022. It serves as a customer satisfaction tracking tool to enable adequate and continuous follow-up by management to initiate and support customer satisfaction performance improvement activities. In 2023, the management team identified specific areas for improvement as a result of this rapid and continuous exploration of customer satisfaction in our key customer base.

#### **MONTHLY CUSTOMER EVALUATION REPORTS**

In addition to customer responses in our Satisfaction Scorecard, they also provide us with their own assessments of our service and quality or give us access to their supplier performance evaluation data portals. New information is documented monthly and shared with all relevant departments. It is presented and discussed at monthly quality meetings to ensure appropriate initiatives with outcomes that safeguard our high levels of customer satisfaction across all 7 KPIs.



- Innovation: Innovation is key to our business.
   How do you rate our innovation efforts?
- Price Competiveness: How do you rate our pricing in relation to the value of our product offering?
- Management: How do you rate the overall management and execution of our business?

## Stakeholder engagement

At Aluminium Duffel BV, we recognise that engaging with our stakeholders is essential to ensuring business success and achieving our sustainability goals. We also aim to unite diverse interests and build and maintain trust with our stakeholders. We keep abreast of sustainability opportunities, risks and emerging trends through dialogue. Our stakeholders are selected through a process of 'context management' so they understand the organisation and its context. This process identifies interested parties (stakeholders), including their internal and external issues. The list of stakeholders for the Quality, Environment, Health and Safety Management System is reviewed annually. This review includes an update of the stakeholders' needs and expectations and an assessment of their importance for realising Aluminium Duffel BV's purpose and strategy.

Customers	We hold regular technical seminars for key customers, allowing us to share product innovations, sustainability figures and roadmap updates while gathering insights on how to improve our product offerings and closed-loop contracts.
Employees	All employees are regularly invited to information sessions organised by the management team. They are informed about the latest developments at Aluminium Duffel.
Unions	Union and employer representatives discuss a variety of topics during the monthly Health and Safety Steering Committee and Works Council meetings.
Suppliers	We work closely with our suppliers and subcontractors, encouraging them to uphold our high health, safety and environmental standards.
Industry Groups	We actively engage with national and European industry groups and participate in dedicated sustainability and decarbonization projects to share best practices, identify and assess merging technologies, and learn how our peers approach common sustainability concerns.
Local Communities	We work to build a positive presence in the communities we serve, informing our neighbours and local authorities about the results of initiatives and upcoming sustainability projects. We provide 24-hour access via phone or e-mail.
Research institutions	We collaborate with research institutions and universities to better understand how the aluminium rolled product supply chain and breakthrough technologies can contribute to the sustainable transition through products and processes.



## Partnership, Memberships and Certification

We engage in objective, trusting and open dialogue and have been involved in several national and international initiatives on sustainability, energy, climate and the environment.

## STAKEHOLDER ENGAGEMENT

Aluminium Stewardship Initiative (ASI)	We obtained ASI Performance Standard certification in 2019. We received the ASI Chain of Custody Standard certificate in 2020. The ASI Performance Standard defines environmental, social and governance principles and criteria to address sustainability issues in the aluminium value chain. The ASI Chain of Custody Standard complements the ASI Performance Standard. It defines requirements for creating a Chain of Custody material, including ASI Aluminium, which is produced and processed through the value chain to downstream sectors.
ISO 14001:2015	We acquired certification under the internationally agreed standard that defines the requirement for an environmental management system in 2002 (for one production department) and 2004 for the entire production site in Duffel.
ISO 45001:2018	We received certification for the international standard for health and safety at work in early 2022 for the entire production site in Duffel.
European Aluminium (EA)	As a member of the EA's Rolling, Extrusion, Casting and Foundries Group, we work collaboratively with different stakeholders on recycling and sustainability topics. In EA's Innovation Hub, several pre-competitive task forces have been launched on sustainability topics, such as 'the decarbonization of the supply chain'.
Flanders Metal Valley (FMV)	We joined this regional consortium of metal processing companies in Flanders and Flemish universities with metallurgy and metals processing programmes in 2021. The aim is to find synergies and exchange sustainability and decarbonization ideas and initiatives.
EBO	Energy-intensive branches of industrial companies can join the Flemish government's voluntary Energy Policy Agreements (EBOs). Aluminium Duffel BV joined the agreement in 2003. These EBOs aim to anchor industry in Flanders and permanently improve its energy efficiency. In this way, a significant contribution is made to the Flemish and European energy efficiency objectives.
EU-ETS	The EU Emissions Trading System (EU-ETS) is a cornerstone of the EU's policy to combat climate change. It's also a key tool for reducing greenhouse gas emissions cost-effectively. As an energy-intensive company, participation in the EU-ETS is mandatory for Aluminium Duffel BV.



# Case study #9 PIPELITE<sup>®</sup> event

- On Wednesday and Thursday, 10<sup>th</sup> and 11<sup>th</sup> of May 2023, Aluminium Duffel organised the fourth edition of the PIPELITE® Seminar for the Multilayer Tube Community. Under the motto "Stronger Together," 80 representatives of customers, suppliers, institutes, and consultants attended and participated in the two-day programme at the Van der Valk Hotel in Mechelen. The broad and knowledgeable audience greatly appreciated the presentations provided by Aluminium Duffel's R&D, Manufacturing, Purchasing and Sustainability departments. Each ecosystem member was given the opportunity to present to the entire audience and participate in Q&A and discussion sessions. Respondents rated the overall event as satisfactory (35%) or completely satisfactory (65%).
- The focus on sustainability was emphasised during the evening social programme with a thought-provoking, galvanising pitch by Ed Gillespie, Director of Greenpeace UK and Chief Futurist at the Global Destination Sustainability Movement.
- A factory tour for interested participants concluded the PIPELITE® event programme, giving our valued ecosystem partners the opportunity to verify our efforts to be the most dedicated, reliable supplier of flat-rolled aluminium with a clear focus on the sustainability of its business by showcasing the production environment at our Duffel factory.



## Associations and Political Lobbying

We actively participate in leading economic, industry, and specialist associations at both national and international levels. Our membership fosters collaboration not only with policymakers but also with various stakeholders.

European Aluminium	European Aluminium represents the entire aluminium value chain in Europe, from refiners and smelters to manufacturers of semi-finished products, recyclers and national aluminium associations.
Agoria	Federation of technology-inspired companies based in Belgium.
Eurometaux	Eurometaux is the decisive voice of non-ferrous metals producers and recyclers in Europe. It is an umbrella association representing the interests of the combined non-ferrous metals industry towards EU policymakers. Aluminium Duffel BV has been a member of the sustainability committee of Eurometaux since 2021.
VOKA	Flemish business network. It is an employers' organisation that stands for doing business together and growing together for the benefit of all.
FEBELIEC	The Federation of Belgian Industrial Energy Consumers, founded in 1990, represents the industrial energy consumers in Belgium on energy and climate policy issues at the Belgian and European levels. FEBELIEC is a member of IFIEC Europe (International Federation of Industrial Energy Consumers), the acknowledged partner of the European Commission in energy-related matters.



## **GRI Content Index**

## Statement of use GRI 1 used

Aluminium Duffel has reported the information cited in this GRI content index for the period 1 January 2023 to 31 December 2023 with reference to the GRI standards.

GRI 1: Foundation 2021

GRI STANDARD	DISCLOSURE	TITLE	LOCATION
GRI 2: General Disclosures 2021	2-1 Organizational details	About this report Company profile	p. 7 & 10
	2-2 Entities included in the organization's sustainability reporting	About this report	p. 7
	2-3 Reporting period, frequency and contact point	About this report	p. 7
	2-4 Restatements of information	About this report	р. 7
	2-6 Activities, value chain and other business relationships	Company profile	p. 10
	2-7 Employees	Fair and inclusive workplace	p. 28
	2-22 Statement on sustainable development strategy	A message from our Managing Director Sustainability at Aluminium Duffel	p. 6 & 21
	2-27 Compliance with laws and regulations	Compliance ESG Other emissions	p. 9 & 41
	2-28 Membership associations	Partnership, Membership and Certification	p. 63
	2-29 Approach to stakeholder engagement	Customer relations Stakeholders engagement	p. 61 & 62
	2-30 Collective bargaining agreements	Labour rights	p. 27
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Materiality assessment	p. 16 - 19
	3-2 List of material topics	Materiality assessment	p. 17
GRI 301: Materials 2016	3-3 Management of material topics	Materiality assessment	p. 48 - 49
	301-1 Materials used by weight or volume	Materials use & circular economy Packaging	p. 48 - 50
	301-2 Recycled input materials used	Materials use & circular economy Packaging	p. 48 - 50
	301-3 Reclaimed products and their packaging materials	Materials use & circular economy Packaging	p. 48 - 50
GRI 302: Energy 2016	3-3 Management of material topics	Protecting the environment Sustainability management Energy	p. 37 - 38 & 21 & 42 - 43
	302-1 Energy consumption within the organization	Energy	p. 42 - 43
	302-3 Energy intensity	Energy	p. 42 - 43
	302-4 Reduction of energy consumption	Energy	p. 42 - 43

GRI STANDARD	DISCLOSURE	TITLE	LOCATION
GRI 305: Emissions 2016	3-3 Management of material topics	Protecting the environment Sustainability management GHG emissions Other emissions	p. 37 - 38 & 21 & 39 - 40 & 41
	305-1 Direct (Scope 1) GHG emissions	Sustainability management GHG emissions	p. 21 & 39 - 40
	305-2 Energy indirect (Scope 2) GHG emissions	Sustainability management Energy GHG emissions	p. 41 & 42 - 43 & 39 - 40
	305-4 GHG emissions intensity	GHG emissions	p. 39 - 40
	305-5 Reduction of GHG emissions	GHG emissions	p. 39 - 40
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Other emissions	p. 41
GRI 306: Waste 2020	3-3 Management of material topics	Protecting the environment Sustainability management Waste management	p. 37 - 38 & 21 & 53 - 55
	306-1 Waste generation and significant waste- related impacts	Waste management	p. 53 - 55
	306-2 Management of significant waste-related impacts	Waste management	p. 53 - 55
	306-3 Waste generated	Waste management	p. 53 - 55
	306-4 Waste diverted from disposal	Waste management	p. 53 - 55
	306-5 Waste directed to disposal	Waste management	p. 53 - 55
GRI 403: Occupational Health and Safety 2018	3-3 Management of material topics	Sustainability management Supporting our people Occupational Health & Safety	p. 21 & 22 - 24
	403-1 Occupational health and safety management system	Occupational Health & Safety	p. 22 - 24
	403-2 Hazard identification, risk assessment, and incident investigation	Occupational Health & Safety	p. 22 - 24
	403-3 Occupational health services	Occupational Health & Safety	p. 22 - 24
	403-4 Worker participation, consultation, and communication on occupational health and safety	Occupational Health & Safety	p. 22 - 24
	403-5 Worker training on occupational health and safety	Occupational Health & Safety Employee Engagement, training and development	p. 22 - 24 & 30 - 31
	403-6 Promotion of worker health	Occupational Health & Safety	p. 22 - 24
	403-9 Work-related injuries	Occupational Health & Safety	p. 22 - 24
GRI 404: Training and Education 2016	3-3 Management of material topics	Employee Engagement, training and development	p. 30 - 31
	404-2 Programs for upgrading employee skills and transition assistance programs	Employee Engagement, training and development	p. 30 - 31

## **AD** Aluminium Duffel

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