SUSTAINABILITY REPORT 2022

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_2e	CO_2 equivalent
EBO	Energy Policy Agreement (Energiebeleidsovereenkomst)
ESG	Environmental, Social, Governance
FSC	Forest Stewardship Council
GOO	Guarantee of Origin
GRI	Global Reporting Initiative
GWP	Global Warming Potential
HSE	Health, Safety, Environment
KPI	Key Performance Indicator
LCA	Life Cycle Assessment
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
RSI	Remelt Scrap Ingot
SAQ	Supplier Sustainability Self-Assessment Questionnaire
SO_2	Sulphur dioxide
TCT	The Hutchison Terminal
TOC	Total Organic Carbon
QESH	Quality, Environment, Sustainability, Safety and Health

A message from our Managing Director

Dear readers,

As valued stakeholders of Aluminium Duffel BV, we are pleased to provide you with an update on our sustainability efforts in 2022. Throughout the year, we have focused on strengthening our environmental, social, and governance position as a preferred sustainable supplier.

In light of soaring energy prices and a growing need for affordable energy, we have recognised the importance of energy efficiency in reducing our carbon footprint and operating costs. To this end, we have launched an ambitious programme aimed at reducing electrical and thermal power consumption per ton produced by 2025. We are also actively securing the supply of electricity from renewable sources through power purchase agreements, to further align our operations with sustainable practices. These initiatives have enabled us to make significant progress in reducing our scope 1 and 2 CO_2e emissions, positioning us as one of the leading aluminium rolling mills in terms of environmental performance.

We also remain committed to reducing the overall carbon footprint of our automotive products. Our efforts are on track to meet our 2025 target of 5 tons of CO_2e per ton of aluminium shipped. In 2022, we accomplished this by increasing the share of recycled content and expanding our capabilities in low-carbon multimodal transport, minimising our scope 3 CO_2e emissions compared to truck transport.

Sustainability goes beyond the reduction of carbon emissions. We have taken steps to improve biodiversity by planting trees on our premises. Safety also remains a top priority, and we have successfully reduced our recordable injury frequency through a concerted focus on promoting safe behaviour among our workforce. Our safety champions, volunteers from within our workforce who exemplify and promote excellent safety practices, have been instrumental in our journey.

We invite you to explore our 2022 Sustainability Report and gain insights into our progress. Thank you for your continued support.

Kind regards,

Geert Vannuffelen

Managing Director Aluminium Duffel BV

About this report

Our 2022 Sustainability Report covers the sustainability activities undertaken by the aluminium rolling company Aluminium Duffel BV, A. Stocletlaan 87, 2570 Duffel, during the 2022 fiscal year (January 1 to December 31). We intend to publish an update on our sustainability performance every year.

We aim to inform you about the sustainability topics that are vital to our business, based on the action areas in our sustainability strategy and the materiality analysis that was updated in 2022. Data is supplemented with examples of initiatives and forward-looking plans. We collected our data through internal and external measurement systems. Energy and CO_2 equivalent emission figures have been approved by the government annually, as required by the Flemish Energy Policy Agreement.

This report was prepared with reference to the GRI Standards and was drafted in British English. When using numerical data this means we use a comma for the thousands separator and a dot as a decimal separator.

CONTACT INFORMATION

We value feedback from our stakeholders regarding our sustainability performance and the contents of this report. Please direct any comments, questions or concerns to:

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 does business with customers and suppliers.

Aluminium Duffel is entirely owned by American Industrial Partners ("AIP"), an operationally-oriented middle market private equity firm that is distinctively 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 means that we legally comply with and align our actions to ethical principles, as well as our company's values and policies. Violation of the law can have serious consequences, not only for our employees and the company but also for our business partners.

Aluminium Duffel BV drafted a new Code of Conduct after the acquisition by AIP in June 2022. This Code of Conduct is published on our website: **aluminiumduffel.com/downloads**

With regard to compliance management, targets are established, and important compliance risks are identified, analysed and communicated. The Aluminium Duffel BV management team is regularly informed about compliance during steering committee meetings. Memberships in federations and organisations keep our departments abreast of changes in legislation and guidelines. Our legislation register is updated quarterly by an external company. Our state of compliance is confirmed by external compliance audits. For Environment, Health and Safety, these compliance audits are conducted every three years.

Actions to limit risks and prevent violations are part of our annual action plan.

THIRD-PARTY AUDITS EXECUTED IN 2022

- External Interim Surveillance audit ASI Performance Standard & ASI Chain of Custody (due to change of ownership)
- External Recertification audit ISO 14001:2015 Environmental management system
- External Surveillance audit ISO 45001:2018 Occupational Health & Safety management system
- External annual audit on GHG emissions – scope 1 & 2 by Flemish Government

SUPPLIER ASSESSMENT SCORING 2022

- SAQ 4.0: 87
- Ecovadis: Gold

Company Profile

The history of Aluminium Duffel BV dates back to 1946, when the Feron family founded the aluminium rolling business. Since then, numerous expansions and modernisations have taken place. Today, Aluminium Duffel BV is a leading European producer of premium aluminium rolled products and a pioneer in the European Automotive Body Sheets (ABS) market. Located in Duffel, Belgium, with sales offices in France, Germany, Italy, Poland and China, our business manufactures and sells aluminium rolled products for diverse industries worldwide. It 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, from highly-designed cladding for building facades to 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 2022

954
Employees

€ 839 million
Revenues

179 kt
Of aluminium products produced

107 kt
Of reused aluminium scrap

Position in the Value Chain

Beauxite Mining

Alumina Refining

Aluminium Smelting

AD

PROCESSING

SEMI-ROLLED PRODUCTS

Closed-loop recycling scrap

Internal scrap

PRODUCT MANUFACTURING

Automotive
43 %

Architecture & Design
13 %

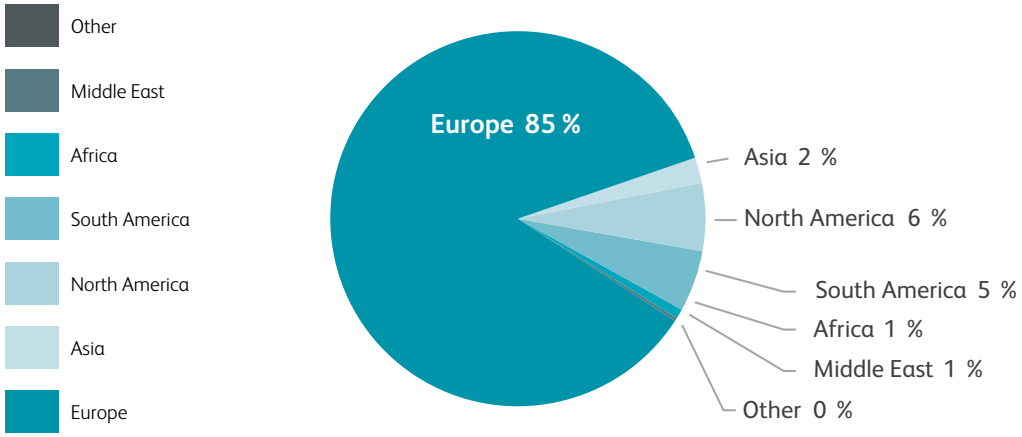
Distribution
13 %

General transportation
7 %

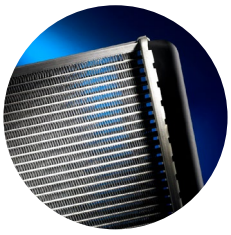
Medical
2 %

Other industrial & consumers
21 %

Markets and Regions Served



Aluminium Duffel BV Products



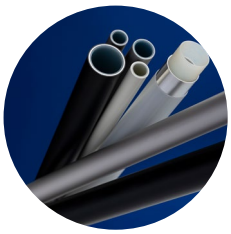
Heat Exchangers

Automotive Body Sheet

Truck Fuel Tanks

Battery Casing

Cables



Multi Layer Pipes

Decorative Solutions

Medical Products

Architectural Products

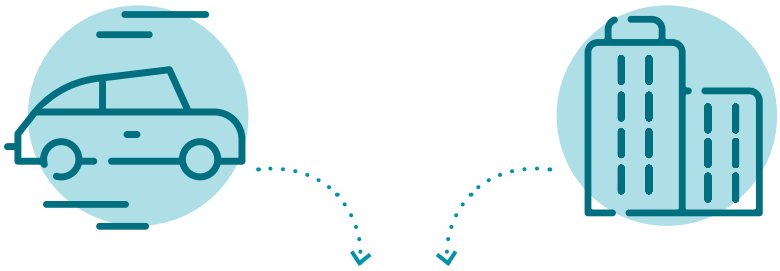
Business Segments at Aluminium Duffel BV

AUTOMOTIVE
~43% Of Annual Output

- Exterior body sheet
- Inner body components
- Structural components

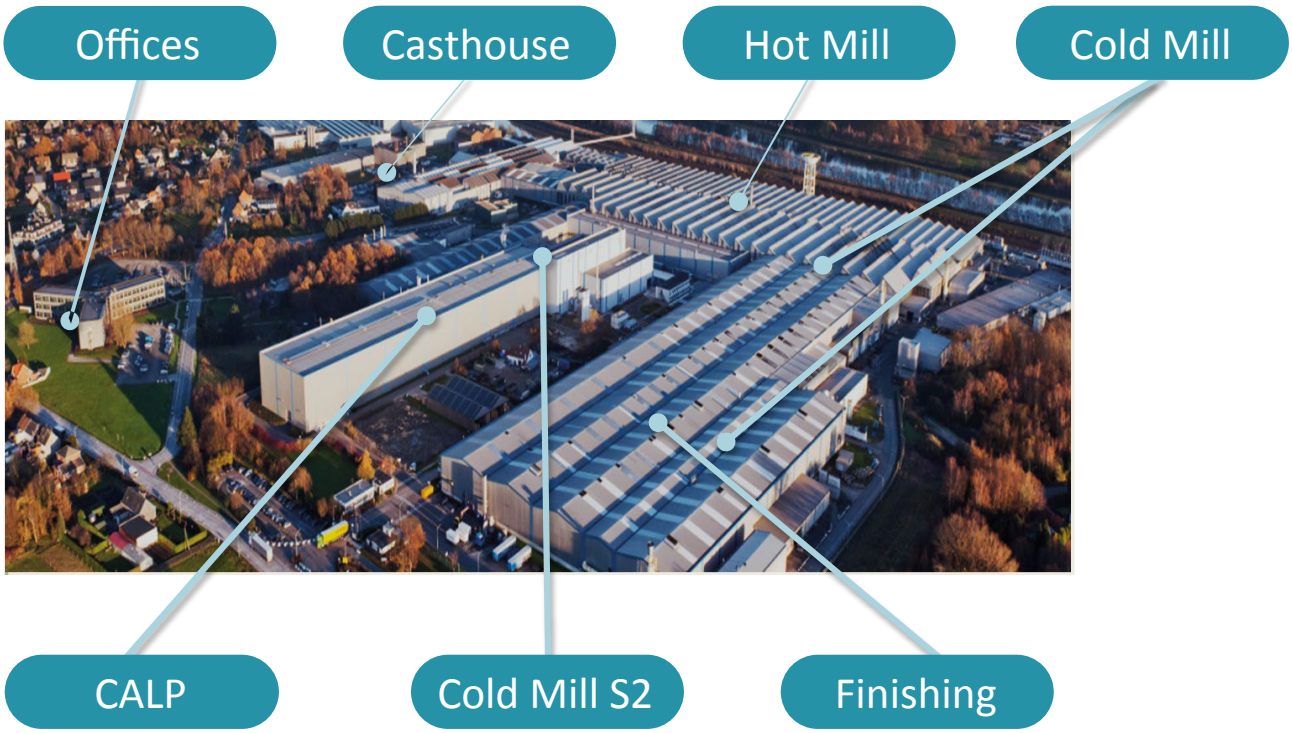
INDUSTRIAL
~57% Of Annual Output

- 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

1946 Founded by the Feron family as SIDAL N.V. Société Industrielle de l'Aluminium

1970 Hoogovens group becomes a partial shareholder in SIDAL N.V.

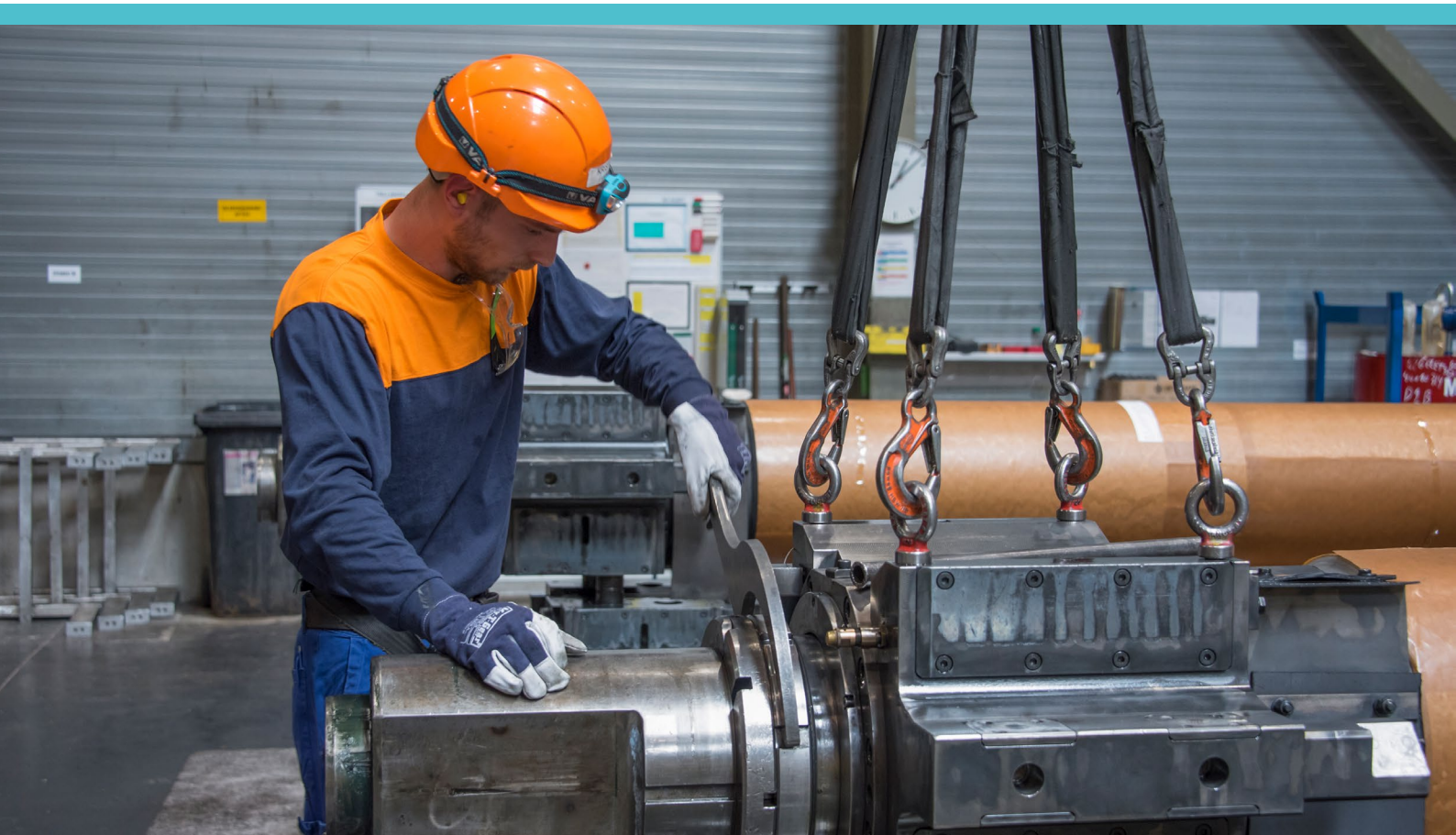
1983 Full ownership by Hoogovens group

1999 Merger with British Steel and name change to Corus Group Plc.

2006 Acquisition by Aleris International Inc.

2020 Acquisition by ALVANCE Aluminium Group, part of the GFG Alliance

2022 Acquisition by AIP (American Industrial Partners)



Sustainability at Aluminium Duffel BV

At Aluminium Duffel BV, our mission is to provide our customers with aluminium solutions by operating our integrated rolling assets in a safe, efficient and sustainable manner. We aim to be a leading and sustainable rolling mill that is preferred by our stakeholders. This mission is stated in our Health, Safety and Environment (EHS) policy and our policy on People. Both policies are in line 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 decision-making processes.

When fulfilling our mission, our values are:

Excellence & Teamwork:
We are passionate about consistent results. We meet challenges as a team, empower others, relying on our skillful people. We excel in serving our customers.

People & Power:
Our power lies with our people. Our main focus is satisfaction of our clients, our employees, our neighbours and the people living on this planet. Our employees' safety is our number 1 priority.

Change & Courage:
We want to be courageous game-changer, doing things differently than one would expect. We encourage self-reflection to foster personal growth. Without ever losing out of sight, why we do what we do: making things better.

Materiality Analysis

A materiality analysis identifies the social, economic and environmental issues that matter most to our stakeholders.

We conducted our first double materiality analysis, supported by an external company, in 2022. (Table 1.1 "Double materiality").

Financial Materiality

Sustainability and other topics that influence the company's ability to create long-term value for itself and society.

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).

Table 1.1 *Double materiality*

To this end, we invited 80 stakeholders to participate in the analysis:

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

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).

TOPIC	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

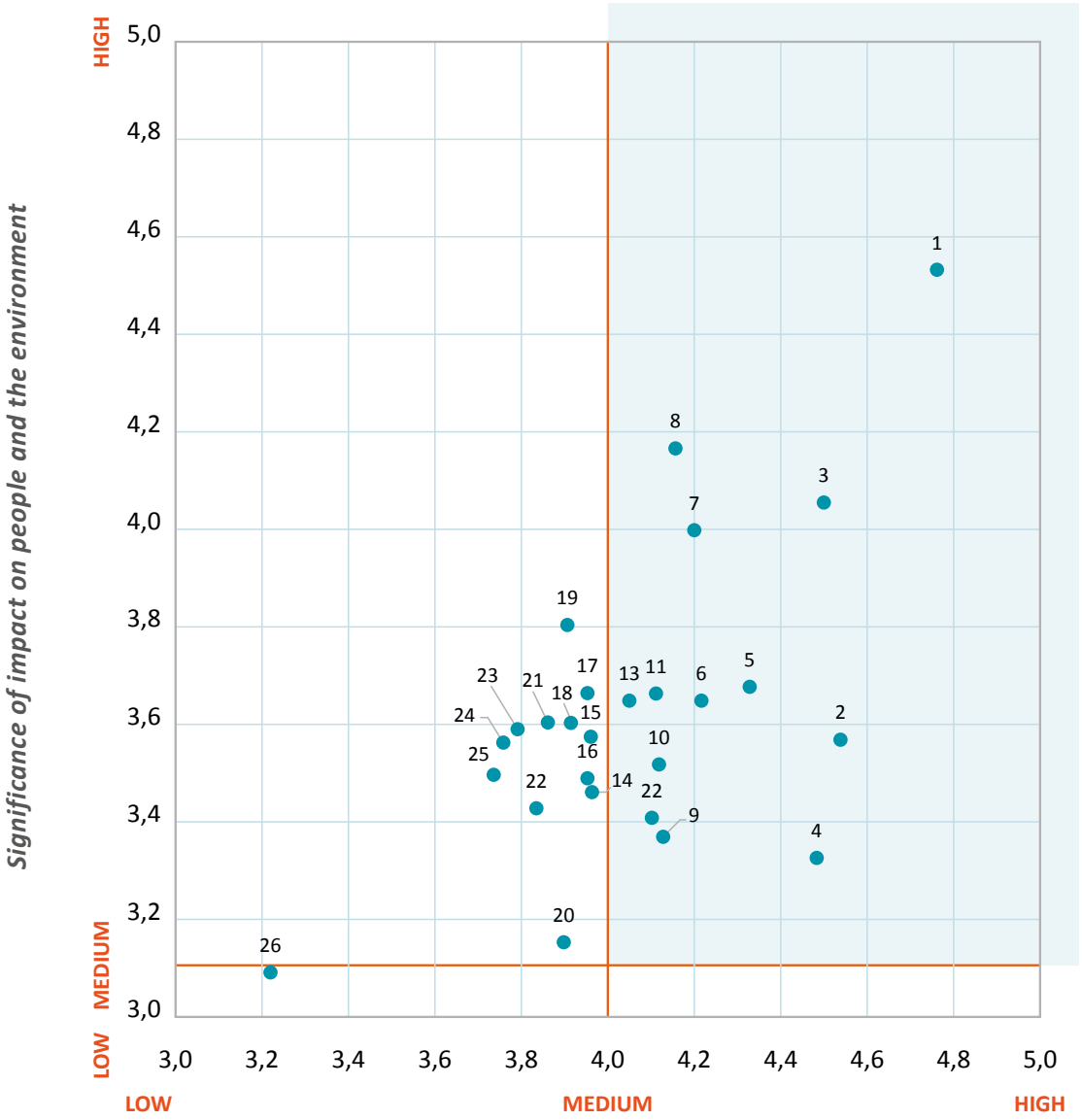
Table 1.2 *Material Sustainability Topics*

The following topics are the core elements of this sustainability report. They are described in accordance with the most recent GRI disclosure requirements: GRI 1 Foundation 2021, GRI 2 Foundation 2021, GRI 3 Material topics 2021 (**www.globalreporting.org**).

MATERIAL TOPICS	Description
Energy usage and efficiency	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.).
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 management	Innovation is the practical implementation of ideas resulting in the introduction of new goods or services or improved 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 efficiency and packaging	Resource efficiency means using the earth's limited resources sustainably while minimising environmental impacts. 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	Occupational health and safety includes the prevention of physical and mental harm and the promotion of workers' health. Hazard identification and risk assessment, worker training, and incident identification and investigation are key to 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 (development)	This includes an organisation's approach to training and upgrading employee skills, and performance and career 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*

Materiality Matrix Aluminium Duffel



This report is structured according to our key sustainability pillars:

1. Supporting our people ('Social')
2. Protecting the environment ('Environment')
3. 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:

SUPPORTING OUR PEOPLE

Occupational health and safety

Training and education (development)

Focus SDG

PROTECTING THE ENVIRONMENT

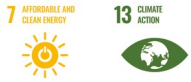
Emissions:
- GHG emissions
- Other emissions

Energy:
- Energy usage and efficiency
- Renewable energy

Circular economy & Material use:
- Circular economy
- Materials use, resource efficiency and packaging

Mobility

Focus SDG



ENSURING WE BEHAVE AS A RESPONSIBLE BUSINESS

Innovation management

Customer relations

Partnership

Emergency preparedness

Focus SDG

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, which complies with the ISO 14001:2015 and ISO 45001:2018 standards.

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 a People-Planet-Profit perspective into account. 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, to increase our pre- and post-consumer scrap input, etc. All these actions are integrated into the Aluminium Duffel BV Sustainability Roadmap 2021-2030.

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, which held its kick-off meeting in 2021. The Sustainability Steering Committee consists of Aluminium Duffel BV's Managing Director, several members of the management team, the Regional Director Sales Automotive Europe, the Marketing Director and the Sustainability Manager.

In order to track our progress towards the defined sustainability goals, key performance indicators (KPIs) have been defined and followed-up during Sustainability Steering Committee meetings.

Goals 2025-2030

SUPPORTING OUR PEOPLE

Goal 2025*

Zero recordable injuries

Employee engagement score of 7.5

PROTECTING THE ENVIRONMENT

Goal 2025*

CO_2e footprint of our aluminium products: 5.0 kg CO_2e/kg alu (scope 1+2+3)

15% reduction in energy (scope 1+2), baseline 2021

Increase pre-consumer scrap rate to 35%**

Goal 2030

CO_2e footprint of our aluminium products: 3.5 kg CO_2e/kg alu (scope 1+2+3)

ENSURING WE BEHAVE AS A RESPONSIBLE BUSINESS

Goal 2025*

Positive cash flow after CapEx and financing costs

Best-in-class customer satisfaction

* *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*

*** *The 2025 goal of 10% reduction in energy (scope 1+2), baseline 2019, was adjusted in 2022 to 15% reduction (scope 1+2), baseline 2021. This results in 4% extra energy reduction by 2025.*

Supporting our People

Our people are fundamental to the success of our business. Aluminium Duffel BV employed 954 people at the end of 2022. We are committed to fostering a positive, safe and healthy workplace that rewards employee development, collaboration and flexibility. Through our Cultural Transformation programme, we are creating a climate of openness and constructive feedback. As a result, we are building stronger teams that work together well. We offer hybrid ways of working, ensuring a better work-life balance.

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.

We comply with all occupational health and safety laws, including the Act of 4 August 1996 on the well-being of workers in the performance of their work. When unacceptable risks are identified, we set higher standards for ourselves and our suppliers. We integrate the impact on stakeholders into our decision-making processes.

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 that they consider to be unsafe.

The Managing Director is responsible for ensuring compliance with occupational health and safety laws, the HSE policy and current standards and procedures.

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 leads to explosions with potentially fatal consequences.
- Our **industrial machines** are large and powerful, handling aluminium products weighing several tons.
- **Hazardous chemicals** such as chlorine and hydrogen fluoride are necessary to produce high-quality products compliant with 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**.

Our Occupational Health and Safety Management System is based on our HSE policy. It is implemented in accordance with our HSE management handbook through procedures, authorised persons, work instructions, chemical safety instruction cards and work permits to ensure that processes are as safe as possible and that employees remain safe and healthy when working in dangerous areas and with hazardous products. Technical measures, like safeguards, light screens, fume hoods, safe mode on equipment, etc. are in place to eliminate or reduce the risks. Organisational measures are also in place, and personal protective equipment is required. Through frequent inspection programmes, we or external companies make sure that our machines and personal protective equipment are in good working order.

Our global 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).

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 level of the organisation, the workplace and the individual, 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 manager. 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 the 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. All incidents are investigated. The day after an incident, the plant information centre decides whether to issue a preliminary safety alert and schedule a Root Cause Failure Analysis. Depending on the severity of the incident, an official report is sent to the Federal Public Service Employment, Labour and Social Dialogue.

The effectiveness of procedures, work instructions and measures is reviewed during workplace tours, safe behaviour observations and risk assessments.

Progress towards our goal of zero incidents is tracked through annual targets for recordable injuries and occupational accidents with loss of work. When reporting on work-related accidents, we decided to use the figures reported to the Federal Public Service Employment, Labour and Social Dialogue, as shown in Table 1.4 “Work-Related Accidents”.

Our dedicated Occupational Health and Safety (OHS) team is the key enabler to creating the conditions to prevent work-related accidents, injuries and illnesses. The head of the OHS team reports directly to the Managing Director of Aluminium Duffel BV. Our occupational safety experts, occupational physician and medical personnel are qualified specialists with many years of experience in occupational health and safety.

We have an on-site medical department. We work with an external company to monitor the health of our employees. The occupational physician is part of this external company’s team, together with the occupational hygienist and nurses. Medical consultations for work-related and urgent non-work-related issues are possible at the on-site medical department on weekdays for employees, temporary workers, visitors and contractors. First aid is available 24/7 via our trained security team. We also have employees who are trained to provide first aid.

The occupational physician conducts a health assessment before new employees start work and periodic health checks for safety functions, functions with increased vigilance, and activities with a defined risk. The frequency of the periodic health checks and additional medical procedures depends on the risk. Biomonitoring is an additional medical procedure; it is related to the risk the employee is exposed to while performing their duties. When employees return after an absence of at least four weeks, a return-to-work examination is carried out. Desk workers get a health check every five years.

During the legally required monthly Committee for Prevention and Protection at Work (CPBW), which is chaired by the Managing Director, employer and employee representatives (elected through social elections), members of the OHS department and the occupational physician come together. Employer and employee representatives have the right to vote, whilst members of the OHS department and the occupational physician have an advisory vote in the CPBW. The mission of the CPBW is to issue opinions and formulate proposals regarding the EHS policy, the global prevention plan and the annual action plan prepared by the employer, as well as its modifications, implementation and results.

A Health and Safety Steering Committee meeting takes place 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 the 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.

Health and safety issues are discussed every day in the information centres of the various departments, at the various installations and in the plant information centre.

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 on various topics, such as health and safety, for new employees. Contractors and visitors who wish to enter the production

MONTHLY
Committee for Prevention and Protection at Work

Monthly
Health & Safety
Steering Committee

Daily
Plant Information Centre

Monthly
Safety meeting

Daily
Department Information Centre

Daily
Production Control Board

plant 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 permit is being completed and signed.

At the beginning of 2022, we obtained an ISO 45001:2018 certificate for the sale, development, production and dispatch of rolled products in aluminium and aluminium alloys. To retain our Occupational Health and Safety Management System certification, an external auditing agency conducts 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

In 2022, we noticed a stabilisation on our safety figures.

Our main occupational health & safety achievements in 2022 are:

- Further developing our safety champions, employees who want to make a difference in terms of safety in the various departments;
- Further developing our safety observation system to ensure the quality of safety behaviour observations;
- Implementing a policy on psychological issues and setting up a core group on the subject;
- Reviewing and updating the chemical substance inventory and the process behind it;
- Implementing of detailed evacuation plans in every building.

Table 1.4 *Work-Related Accidents*

WORK-RELATED ACCIDENTS INVOLVING ALUMINIUM DUFFEL BV EMPLOYEES**	Unit	2022	2021	2020	2019
Number of work-related fatalities	Number	0	0	0	0
Number of work-related accidents	Number	11	11	6	7
Working hours ***	Number	1,342	1,349	1,162	1,447
Rate of recordable work-related injuries*	Rate	8.19	8.15	5.16	4.84

* *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**		2022	2021	2020	2019
Number of work-related fatalities	Number	0	0	0	0
Number of work-related accidents	Number	0	0	0	0
Rate of recordable work-related injuries*	Rate	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**		2022	2021	2020	2019
Number of work-related fatalities	Number	0	0	0	0
Number of work-related accidents	Number	2	2	4	0
Rate of recordable work-related injuries*	Rate	10.18	12.81	117.32	0

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

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

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

Labour Rights

At Aluminium Duffel BV, we recognise that respect for human and labour rights is fundamental. A strong record of ethics and integrity is inextricably linked to our business success. Aluminium Duffel BV complies with all required human rights legislation, including mandatory laws relating to internationally proclaimed human rights, conflict minerals, child labour, collective bargaining rights, and forced and compulsory labour. We do not tolerate discrimination against any employee or prospective employee based on race, sex, colour, national origin, gender identity or any other legally protected status. There is no place for disrespectful or inappropriate behaviour, unfair treatment or retaliation of any kind in our business. Harassment is not allowed on our premises or during work-related activities off our premises.

ENSURING EMPLOYEE REPRESENTATION

Aluminium Duffel BV recognises and respects our employees' right to free association and their right to join, form or not join a trade union without fear of reprisal, intimidation or harassment. When employees are represented by a legally recognised union, we are committed to establishing a constructive dialogue with their freely elected representatives. Every four years, employees vote for new union representatives in social elections. Our employees are represented by three major unions: ACV (General Christian Union), ABVV (General Social Union) and ACLVB (General Liberal Union).

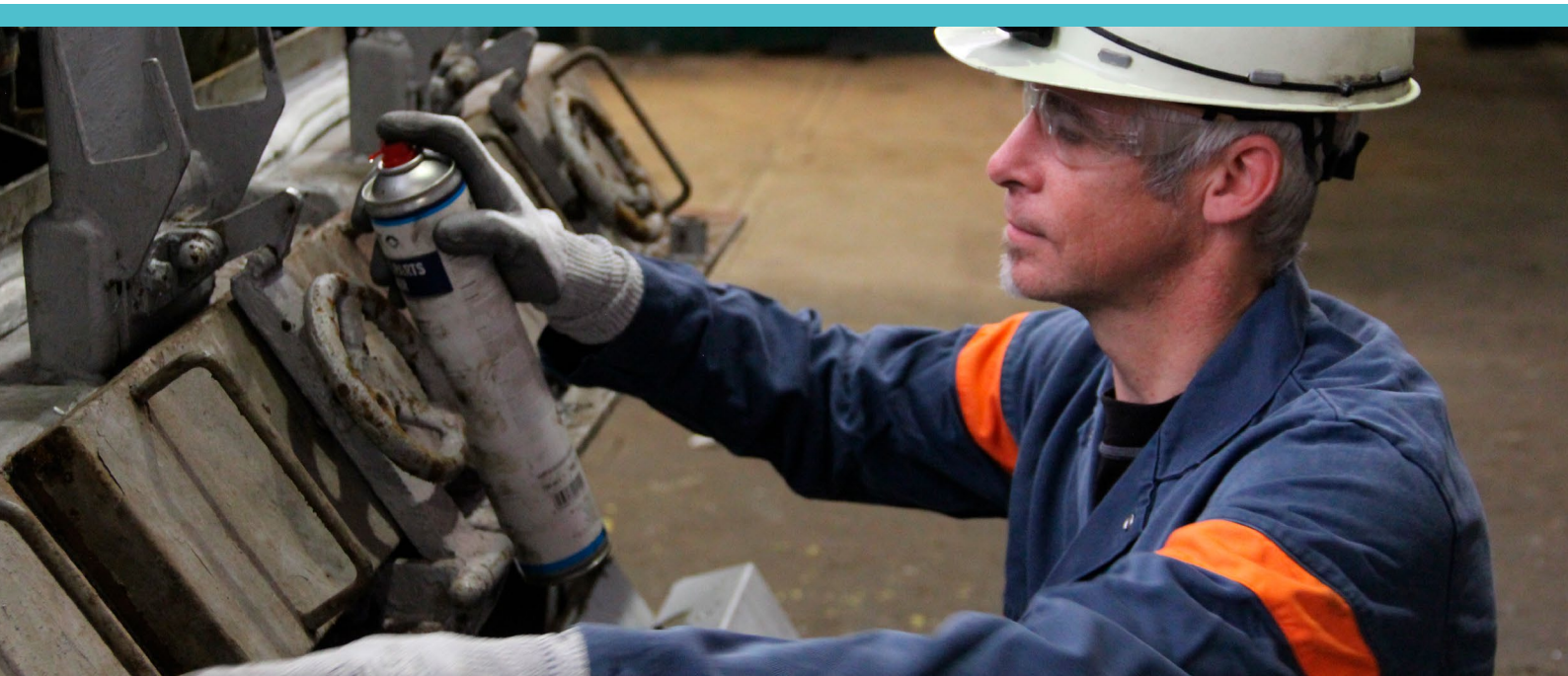
We promote open and honest communication with union representatives. Employer representatives meet with union representatives every month through the Works Council, the Committee for Prevention and Protection at Work (CPBW), and in union delegate meetings. During these meetings, we work together to find solutions to important issues. Our discussions cover the following topics: company-wide issues, production and work schedule changes and investments, disciplinary actions, working hours and reward systems. Whenever there are significant operational changes, these are presented to the Works Council at least three months before the changes take effect. This ensures that there is sufficient time to adapt and prepare for the change in question. We are proud to say that, to date, this process has successfully mitigated any potential risk of workers going on strike.

PERFORMANCE

In 2022, 83% of our employees were covered by sectoral bargaining agreements, 17% 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-collars
- General consultation white-collars

In 2022, there were 12 meetings of the works council and the committee for prevention and protection at work..



Fair and Inclusive Workplace

We recognise the need to promote diversity in the workplace and to foster a company culture that ensures everyone feels included, regardless of race, gender, colour, national origin, gender identity or any other legally protected status.

We have dedicated employees who work as counsellors to support our employees if they experience stress, discrimination, conflicts or other unacceptable behaviour. They are trained to handle potential discrimination and disputes between different parties at work with complete discretion.

PERFORMANCE

Personnel structure

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

Temporary and permanent contracts

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

Full-time and part-time employees

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

Age structure

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

Percentage of female managers

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

Percentage of employees covered by collective agreements

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

Percentage of psychosocial interventions

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

Employee Engagement, Training and Development

We strive to create a culture in which every employee is motivated 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, and providing challenging opportunities for professional growth and development. We are committed to helping every employee meet 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.

As customers seek increasingly sophisticated technological solutions, our employees must be up-to-date with the latest technologies and methodologies. We organise on-the-job Lean Six Sigma training sessions for all our employees: white belt, yellow belt, green belt and black belt. In the maintenance department, we have trained several reliability engineers. These engineers apply specific know-how to a component, product or process in order to ensure it performs its intended function, without failure, for the required period of time in a specific environment.

Each employee has a training plan consisting of various e-learning and in-person training courses that must be attended with imposed frequencies. The training plans are followed up using the e-promote software programme.

An evaluation process is in place for executives, blue-collar and white-collar workers. Every employee is evaluated once a year.

PERFORMANCE

To ensure the entire workforce remains engaged and up-to-date with the latest safety, financial and other matters, the Managing Director organised several live information sessions in 2022. During these sessions, employees were updated on the company's financial performance and any challenges it may be experiencing. Employees were encouraged to actively participate and ask questions. In order to get all the information across to the entire population, installations (not bottleneck installations) were shut down during the information sessions. The loss of productivity during these shutdowns was secondary to the importance of sharing information with all employees.

Year	Total training hours/year
2022	16,807
2021	11,865
2020	10,251
2019	21,902

	Unit	2022	2021	2020	2019
Total training hours/year	Number	16,807	11,865	10,251	21,902
Safety	**%**	**47**	**38**	**48**	**30**
Safe start e-learning	%	1	4	1	1
Risk recognition and observation	%	3	1	1	2
Safety meeting	%	42	33	45	26
Job training	**%**	**34**	**49**	**36**	**52**
Human Behaviour:	**%**	**19**	**13**	**16**	**18**
Lean Six Sigma Belt training	%	11	12	14	11
Cultural Transformation	%	7	2	1	3

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. We contribute actively to the communities we serve.

Our business is located near a residential area. We believe it is our civic responsibility to contribute to the well-being and prosperity of the local communities that our employees and neighbours call home. We take precautions to ensure our facilities function safely and to minimise the impact on our neighbours and the environment.

When problems arise, we work together with neighbours and community members to assess concerns and potential solutions. Neighbours can reach us 24 hours a day via phone **+32 (0)15 22 22** or e-mail **info.duffel@aluminiumduffel.com** if they have complaints about any environmental or social issue originating from the Aluminium Duffel BV company. All complaints are thoroughly investigated, and corrective measures are taken if appropriate. If necessary, we visit the neighbours.

PERFORMANCE

Year	Number of complaints
2022	64
2021	80
2020	133
2019	17

Various noise, odour and emissions studies 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 dampener installed on chimney of casthouse 7
   - New noise study of the casthouse including source measurements, measurements in the surroundings and measurements in the neighbour's house.
2. **Odour**:
   - 3-monthly full dumps of the 148" hot rolling mill emulsion
   - New odour study underway to evaluate this measure
3. **Stains:**
   - Test filter installed and first measurements taken
4. **Metal dust:**
   - All 3 chimneys of the scalper have been connected to the filter installation, emission measurements show compliance with the emission limit value
5. **Soot:**
   - Various measures have been taken, but the problem still occurs from time to time in the slab storage area
6. **Wastewater/rainwater/use of emergency pump:**
   - Study underway, deadline October 2023
   - Short-term measures are being examined: extra buffer capacity, disconnect rainwater from the internal sewer system for the parking gate and several of production hall roofs
7. **Dust:**
   - Root cause analysis is ongoing

In 2022, new neighbourhood consultations were carried out. Over 300 families were invited to participate. During these consultation sessions, an update was given regarding noise, odour and emissions. Three sessions were organised, and 17 neighbours participated together with representatives from the community of Duffel and the environmental inspection agency of the Flemish Government. This initiative will be repeated in 2023.

Case Study #1

AL-Fit started again

The first two AL-Fit activities are a fact! An Aluminium Duffel delegation participated in the Olivia Classic and Sterke Jan Classic. Two colleagues wrote a sportive report for us.

OLIVIA CLASSIC

As a resident of Herentals, I invited some colleagues to my home in the morning to leave for the Olivia Classic. The weather wasn't great, but true 'Flandriens' cannot be fooled. We go the extra mile for a good cause!

We received a very warm welcome at the starting point at the monastery in Herentals. The coffee was ready to start the slightly colder ride. Registration went very smoothly. The total ride of 90 km went at a pace that everyone could handle and there was a lot of talking along the way. Result: many new cycling friends were made!

We were accompanied by motorcyclists, signalmen and police so we didn't have to stop anywhere. The sun came out and the pace was very good. We passed the house of Wout Van Aert, the top cyclist in the region. In Herentals, we were given a festive welcome and everyone had the opportunity to have a drink and chat.

This event is for a good cause, the Children's Cancer Fund, which is wonderfully supported by volunteers and committed individuals. We will be taking part again next year and look forward to wearing Aluminium Duffel cycling gear. Thanks to all our 15 participants and see you next year!

STERKE JAN CLASSIC 2022

This year, on 31 July, several colleagues from Aluminium Duffel took part in this local sporting event. We were 'only' 15 participants, a modest delegation. During this event you could choose between a short (7 km) and long (13 km) walk or a short (30 km) or long (80 km) bike ride. All this for the charity "Fight against Cancer".

We did the short walk and look: we even saw our plant, from the Netedijk. A completely different view from walking around on the factory grounds. Our water tower is really a landmark!

The weather was good, and we met a few colleagues along the way. It is always nice to do a healthy activity 'together'. A must for everyone, will you join us next year?

Case Study #2

BE-Soci-AL supports the Sprang

Our employees donate time and money to support a range of charitable causes. Our employee-led BE-Soci-AL programme coordinates our social and charitable activities, encouraging employees to volunteer for activities or to donate money or goods.

One of the BE-Soci-AL activities in 2022 was in support of the Duffel-based charity Sprang. This organisation helps people in and around Duffel who are experiencing social and financial difficulties. Together with all our employees, we collected tinned food and hygiene products. In addition, our organisation made a €1000 donation.

Market Presence – Salary & Local Hiring

We are investing in better relationships and more contacts with technical schools to improve our pipeline of young talent. We have launched an apprenticeship programme and a 'dual learning' project, where students combine working with learning.

We strictly comply with Belgian legislation on the employment of young workers. Although teenagers as young as 15 can work at Aluminium Duffel BV, they can only work in non-hazardous administrative positions and under the supervision of a team leader. We prohibit the employment of persons under 18 years of age for positions requiring hazardous work.

Aluminium Duffel BV offers competitive salaries with extra-legal benefits. A limited cafeteria plan is in place and continues to be expanded. In order to maintain our competitiveness, we carry out wage studies.

PERFORMANCE

Several initiatives and campaigns were implemented in 2022: the creation of business cards for distribution, participation in the "MaChT meets the industry" speed dating event, campaigns for operators and technical profiles on social media, we increased the 'refer a friend' bonus (employees who recruit a new employee receive a one-off bonus), extra coverage in newspapers/websites (The Sunday, Regiotalent, Jobat), a roadside banner was installed, and our interim partners (Adecco, Start P, Asap) launched campaigns.

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

	School years	2022 - 2023	2021 - 2022	2020 - 2021	2019 - 2020
Internships	Number	22	22	11	6

In 2022, we noticed a revival; mentors were appointed and trained and the first students started the 'dual learning' programme.

One of the initiatives in the spotlight: Speed dating with technology colleagues during MaChT

Aluminium Duffel BV attended the annual MaChT event, 'MaChT meets the industry', on 23 February 2022. MaChT (Materials Science and Chemical Technology) is a Ghent University student association that focuses on engineering students in materials science and chemical technology.

After all 14 participating companies gave a short presentation, the students got to know the companies personally through speed networking (business speed dating) and searched for an internship or future job. Aluminium Duffel BV has participated in this informal networking event for several years. Thanks to this event and the publicity, multiple interns and new employees have found their way to our company.

Protecting the Environment

Aluminium is, in many ways, an inherently sustainable material. It is versatile, lightweight and infinitely recyclable while retaining its unique properties. Moreover, aluminium products made with recycled content require 95% less energy than products made from primary aluminium. This means our products are part of the carbon solution.

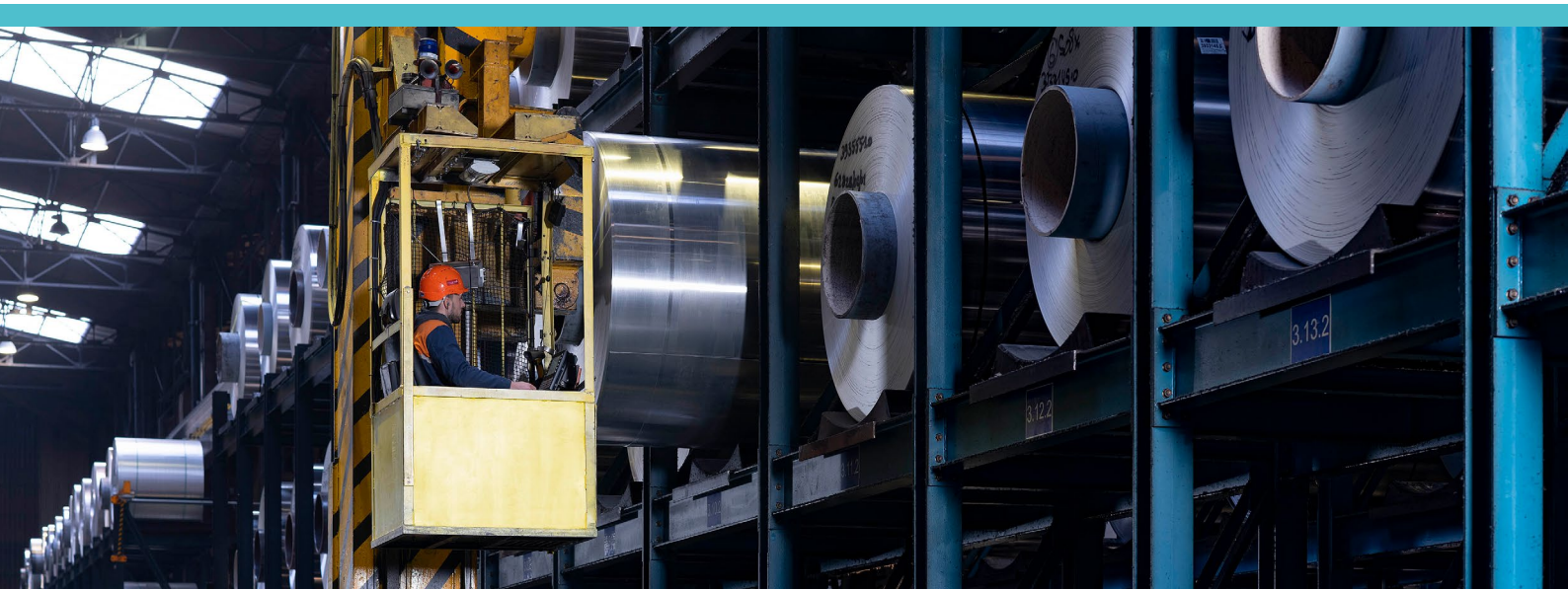
Nevertheless, producing our rolled aluminium products is associated with several environmental and climate impacts. Our production site generates greenhouse gas emissions, noise, wastewater and waste. We comply with environmental regulations and adapt our processes to new and updated legal requirements to reduce our impact on the environment and the neighbourhood.

Taking steps towards carbon neutrality: we supply aluminium body sheets that meet the standards of the Aluminium Stewardship Initiative (ASI) and have a minimal carbon footprint. By enabling significant weight reductions in solutions for multiple sectors, aluminium can make a significant contribution to reducing carbon emissions.

We are committed to producing aluminium products with a minimal carbon footprint, both by collaborating with customers to enhance our products' sustainable features and by minimising our negative environmental impact and taking climate action.

Our goals for protecting the environment are:

- **2025**
  - CO_2e footprint of our aluminium products: 5.0 kg CO_2e/kg alu (scope 1+2+3)
  - 15% reduction in energy (scope 1+2), baseline 2021
  - Increase automotive pre-consumer scrap rate to 35%
- **2030**
  - CO_2e footprint of our aluminium products: 3.5 kg CO_2e/kg alu (scope 1+2+3)



ROLES AND RESPONSIBILITIES

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

OUR COMMITMENT

Our mission and commitment are set out in Aluminium Duffel BV's EHS Policy, which was approved by our Managing Team. The policy complies with the requirements of the ISO 14001 Environmental Management Standard, 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 the environmental risk assessment. Compliance with environmental requirements is monitored during internal and external audits, plant 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 commences the internal emergency plan.

ISO 14001:2015 ALUMINIUM DUFFEL BV CERTIFICATE

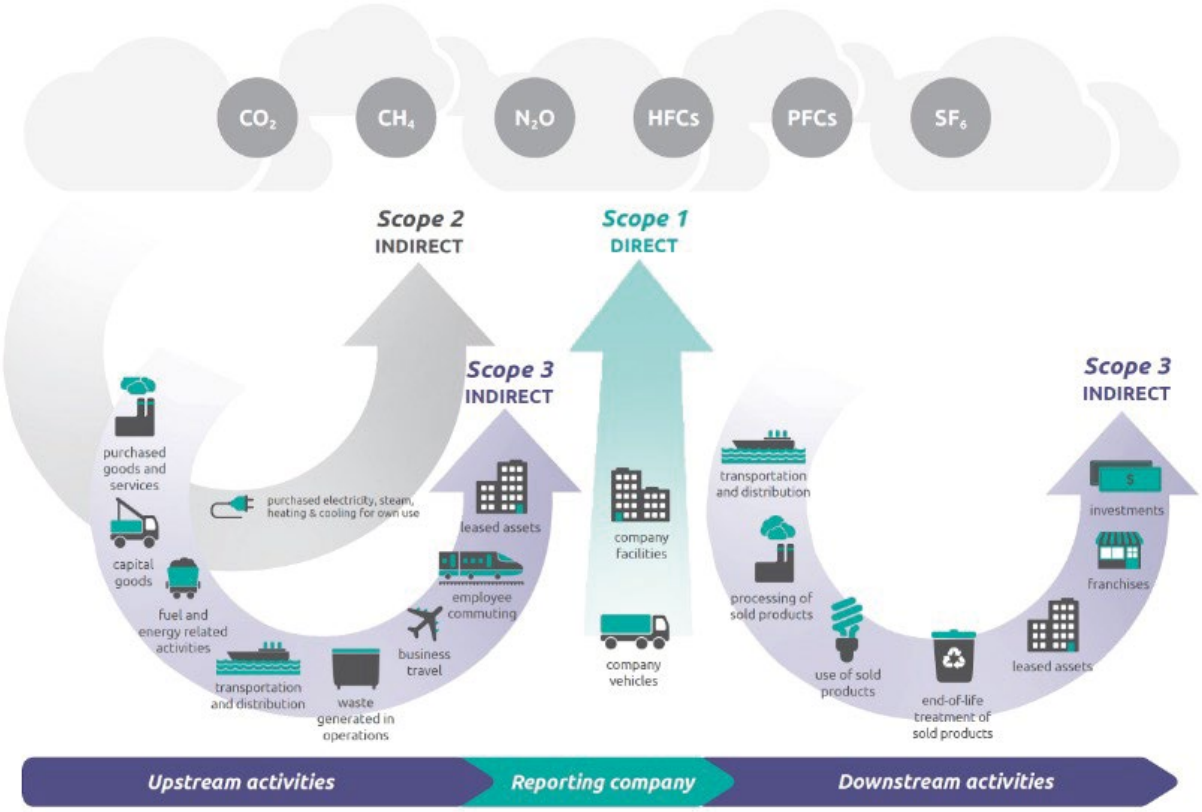
Certified since 2002.

GHG Emissions

As an energy-intensive company, we are aware of our product's impact on greenhouse gas (GHG) emissions and our responsibility to protect the environment. Greenhouse gas emissions emanate from burning fossil fuels, solid waste, trees and other biological materials, and are emitted during certain chemical reactions. Aluminium Duffel BV primarily emits CO_2 as a greenhouse gas. In our case, CO_2 is emitted during fuel combustion in boilers and furnaces (Scope 1) and indirectly due to the purchase of electricity (Scope 2).

We primarily focus on energy-reducing and energy-efficiency measures to reduce the amount of carbon dioxide equivalent emissions (CO_2e) we emit (see the 'Energy' section). We prioritise reduction initiatives over carbon offsetting and have no plans to invest in carbon offsetting. In addition to our own CO_2e emissions at Aluminium Duffel BV's production plant, we also focus on lowering the carbon footprint of our aluminium products. See the 'Circular Economy & Materials Use' section for more information.

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 and are a result of 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 carbon-intensive 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 we use energy from renewable sources. This enables us to avoid emissions related to electricity production and consumption.

For 2022, we use the Scope 1 emissions figures in the reports to the Flemish Government under the Energy Policy Agreement (EBO).

Three different figures are listed for our Scope 2 emissions:

- The Scope 2 emissions as reported to the Flemish Government under the Energy Policy Agreement for energy-intensive companies. The Flemish Government publishes the emission factors, and they must be stated in the Energy Policy Agreement (EBO).
- Location-based Scope 2 emissions, calculated with a CO_2-emission factor for the Belgian electricity mix (source: **https://co2emissiefactoren.be/factoren**).
- Market-based Scope 2 emissions, calculated with the CO_2-

emission factor corresponding to the information derived from the Certificate of Origin (COO).

PERFORMANCE SCOPE 3

See topics:

- Transportation
- Mobility
- Circular economy & Material use

	Unit	2022	2021	2020	2019
Finished tons of aluminium products	ton	178,690	181,402	153,700	185,600
Scope 1 Emissions		**32,368**	**33,321**	**29,180**	**32,958**
Scope 1 emissions – *Natural gas*	ton CO_2e	31,462	32,335	28,352	31,851
Scope 1 emissions – *Heating oil*	ton CO_2e	16	14	48	51
Scope 1 emissions – *Internal transportation*	ton CO_2e	890	971	780	1,056
Scope 2 Emissions					
Scope 2 emissions – *Location-based, no GOO*	ton CO_2e	47,760	49,484	41,790	48,818
Scope 2 emissions – *Market-based, GOO*	ton CO_2e	19,104	-	16,716	-
Scope 2 emissions – *Avoided emissions, GOO*	ton CO_2e	28,656	49,484	25,074	48,818
Specific					
Scope 1 emissions	ton CO_2e/ton finished aluminium	0.18	0.18	0.19	0.18
Scope 2 emissions – *Location-based, no GOO*	ton CO_2e/ton finished aluminium	0.27	0.27	0.27	0.26
Scope 2 emissions – *Market-based, GOO*	ton CO_2e/ton finished aluminium	0.11	0.00	0.11	0.00
Scope 2 emissions – *Avoided emissions, GOO*	ton CO_2e/ton finished aluminium	0.16	0.27	0.16	0.26

**Aluminium Duffel BV reports its CO_2-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 particulate matter, nitrogen oxides (NO_x), sulphur dioxide (SO_2) and Total Organic Carbon (TOC). All these compounds have a negative impact on the environment. Therefore, it is our objective to have zero admonitions regarding the environment. To monitor our impact on the environment due to air emissions, we perform self-measurements at 38 emission points in accordance with Flemish and European environmental legislation. These 38 emission points cover 90% of all our air emission points. The frequency of most of the self-measurements is higher than what is legally obliged. For example, the casthouse exhaust is measured every month. These figures are reported to the Flemish Government annually.

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

PERFORMANCE

Air analyses were carried out at 38 emission points in 2022. Seven extra emissions points were defined in 2021, and measurements started in 2022.

	Unit	Total emissions 2022	Total emissions 2021	Total emissions 2020	Total emissions 2019
Particulate Matter	ton	24,120	5,795	5,788	7,343
NOx	ton	5,210	8,961	6,874	15,316
SO_2	ton	13,699	27,469	7,035	6,163
TOC	ton	95,505	57,043	51,370	58,480

Year	Analysis (#)*	Exceedance standard
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 NOx 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 are constantly pondering measures to reduce energy consumption and replace fossil fuels with renewable energy sources.

More than 300 gas and electricity meters help us monitor our energy consumption per department and installation. This information is displayed on our energy dashboard. The energy dashboard is updated every month as soon as the internal monthly energy reports are available. These monthly energy reports are generated by the responsible person from server and manual meter readings. They list the electricity consumption from various electricity meters in kWh. Gas consumption from several meters is recorded in Nm^3 but converted into kWh using the monthly calorific value communicated by our energy supplier.

In 2020, we set a goal to reduce our energy consumption by 10% by 2025 (baseline 2019). After establishing an internal energy working group in 2022, this goal was adjusted to a 15% reduction by 2025 (baseline 2021).

It is therefore 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). The aim of these EBOs is 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. At the start of each new EBO cycle, the participating companies are required to draft an energy plan that includes measures to reduce energy consumption and/or increase energy efficiency. These measures are implemented during the EBO cycle, which lasts four years. Implementation of the measures is monitored and audited by the government annually. Sanctions can be imposed if the plan is not followed.

The progress of energy-reducing and energy-efficiency measures is monitored during the Sustainability Steering Committee meetings.

	Unit	2022	2021	2020	2019	2018
Finished tons of aluminium products	ton	178,690	181,402	153,700	185,600	206,915
Total energy consumption within the organisation	**GJ**	**1,396,237**	**1,445,421**	**1,239,774**	**1,408,492**	**1,563,911**
Total energy consumption *from renewable energy*	GJ	503,226	868,993	440,320	857,290	933,167
Total primary energy consumption	**GJ**	**557,527**	**576,428**	**505,907**	**551,202**	**630,744**
Natural gas	GJ	557,308	576,238	505,255	550,521	630,133
Fuel oil (heating)	GJ	219	190	652	681	611
Total secondary energy consumption	**GJ**	**838,710**	**868,993**	**733,867**	**857,290**	**933,167**
Total electricity consumption	GJ	838,710	868,993	733,867	857,290	933,167
of which for cooling	*GJ*	*17,813*	*18,990*	*17,928*	*19,400*	*20,398*
Total bought-in eletricity	GJ	838,710	868,993	733,867	857,290	933,167
*From renewable sources***	*GJ*	*503,226*	*868,993*	*440,320*	*857,290*	*933,167*
From non-renewable sources	*GJ*	*335,484*	-	*293,547*	-	-
Energy intensity (total energy)	**GJ/ton finished aluminium product**	**7.81**	**7.97**	**8.07**	**7.59**	**7.56**

*** Guarantees of Origin*

PERFORMANCE

A new energy working group was established in 2022. Its objective is to reduce energy consumption by 5% per year by 2025 compared to 2021.

This working group focuses on five areas: data, technics, technology, planning and operations. All area managers define and implement initiatives to reduce energy consumption.

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

Energy-reducing measures	GJ/year
Motor efficiency tower pumps cooling water circuit	659
Increasing delta T of cooling water to reduce the flow rate to be pumped to and from the cooling tower – part II	1,142
Replacing 70% of energy-consuming lights in the casthouse	806
Pump cold rolling oil	1,156
Improvement of RRR	6,685
Hydraulic shears hot rolling mill	1,635
Emulsion treatment	608
Total reduction	**12,690**

Materials 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 choosing suppliers, we consider issues like health and safety, human rights, environmental aspects, etc.

A circular economy looks beyond the current 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 content of scrap in our products
- Maximising the recycling of our waste streams
- Closed-loop contracts with our customers

PRIMARY MATERIALS

In the casthouse of Aluminium Duffel BV, 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 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 recycled content we use in our products, the less virgin aluminium is needed in our products. Recycled aluminium requires just 5% of the energy used to produce primary aluminium. Recycling aluminium only creates 5% of the associated greenhouse gases, resulting in greater carbon reduction and a safer environment.

For remelting 60% of the closed-loop scrap (pre-consumer scrap from customers) into slabs, we have a contract with an external foundry that is able to remelt larger quantities of scrap. The other 40% is remelted in our casthouse. We regularly engage with our customers to assess the feasibility of a closed-loop programme. This involves examining whether the alloy mix is acceptable and if the quantity and quality of closed-loop pre-consumer scrap are up to par.

In addition to our own cast alloys, we also purchase rolling slabs for specific alloys or specific applications.

Aluminium Duffel BV conducted an investigation at its manufacturing facilities, including suppliers of materials to our company. We can state that Aluminium Duffel BV is not using conflict minerals for manufacturing 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 PRIMARY MATERIAL

The rate of primary aluminium (virgin aluminium) in our casthouse decreased in 2022 compared to 2021.

Since the Sustainability Steering Committee was established in 2021, the rate of virgin aluminium melted in the casthouse is monitored monthly. The target for this KPI is set at ≤ 32.6%.

We also monitor the rate 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 that is less than or equal to 4 kg CO_2e kg aluminium (Scope 1+2) or virgin aluminium or rolling slabs produced almost entirely with hydroelectric power. No specific target has been set for these KPIs yet.

Material	Unit	2022	2021	2020	2019
Total material	**ton**	**157,755**	**170,351**	**118,883**	**151,353**
Renewable material:					
External scrap*	ton	10,642	6,670	2,260	4,608
Internal scrap	ton	95,771	100,752	79,507	98,699
Non-renewable material:					
Virgin aluminium	ton	49,059	60,370	35,624	45,941
Alloy components	ton	2,283	2,559	1,492	2,033
External scrap	%	7	4	2	3
Internal scrap	%	61	59	67	65
Virgin aluminium	%	31	35	30	30
Alloy components	%	1	2	1	2

** Closed-loop scrap*

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

** At Aluminium Duffel BV, we define 'low carbon' as virgin aluminium/rolling slabs with a CO_2e footprint that is less than or equal to 4 kg CO_2e /kg aluminium (Scope 1+2) or virgin aluminium produced almost entirely with renewable energy.*

Packaging

Packaging helps to protect and ensure the quality of the aluminium products we produce. We use a range of packaging materials, from wood pallets, paper and plastic to steel. All materials have different environmental impacts that we must consider carefully before making any changes.

The impact of plastic pollution in the ocean is detrimental to marine wildlife, the planet and people. The Great Pacific Garbage Patch is made up of individual pieces of plastic that have entered the ocean through a series of deliberate actions. Human action at each stage could make a huge difference.

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

Our internal packaging specialist collects data through calculation files with several conversion factors depending on the packaging product and packaging units.

We comply with industrial packaging regulations because we are a VAL-I-PAC client. There is a take-back obligation for packaging in Belgium. The take-back obligation makes industry responsible for collecting and processing packaging waste; it is managed by VAL-I-PAC. By joining VAL-I-PAC, companies like Aluminium Duffel BV can fulfil their take-back obligation. Member companies pay a contribution based on the type and quantity of packaging placed on the market in Belgium. These financial resources are used to organise selective collection and recycling. VAL-I-PAC reports annually to the Belgian Government.

PERFORMANCE PACKAGING

Packaging for our own aluminium products	Unit	2022	2021	2020	2019
Finished tons of aluminium products	ton	178,690	181,402	153,700	185,600
Renewable packaging		**644**	**609**	**531**	**711**
Wood	ton	546	532	435	618
Plastic	ton	44	29	41	41
Metal	ton	6	6	6	7
Paper & cardboard	ton	48	42	50	45
Non-renewable packaging:		-	-	-	-
Total renewable + non-renewable packaging	ton	644	609	531	711

Packaging sold and returned for reuse	Unit	2022	2021	2020	2019
Wood (wooden pallets)	%	19	12	21	19
Plastic	%	0	0	0	0
Metal	%	0	0	0	0
Paper & cardboard	%	0	0	0	0

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. It is important for our company that all our waste streams be sorted so they can be recycled and reused as much as possible to lower our environmental impact. Our goal is to minimise the landfilling or incineration of waste from our own production, wherever possible.

A certified waste processing company collects and handles our waste streams on-site. This certified waste processing company sorts our production waste for further treatment; it is recycled and reused. The waste processing company collects and communicates data on generated waste to Aluminium Duffel BV through detailed monthly reporting. Only the data for recycled aluminium scrap and dross are collected internally because the waste processing company does not process these recycling streams. The volumes of scrap and dross are weighed at our gates and the entry gates of the processing companies. The metal purchasing department shares these invoices, which include the volumes, with the internal environmental coordinator, who is responsible for reporting waste volumes to the Flemish Government.

The environmental coordinator consults with the waste processing company at regular intervals. This includes annual evaluation consultations, quarterly tactical consultations (including financial topics and problems with waste processing) and monthly production consultations to monitor KPIs and discuss the state of affairs.

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 hazardous product packaging, plastic tapes, glass, PMD (plastic bottles & flasks, metal packaging and drink cartons)) are placed in central locations in the production halls.

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

PERFORMANCE WASTE MANAGEMENT

Waste stream	Unit	2022	2021	2020	2019
Non-hazardous waste					
Waste directed to disposal					
Landfilled non-hazardous waste	ton	-	174	50	0
Incinerated non-hazardous waste:	ton	269	256	261	329
Incineration with energy recuperation	*ton*	*269*	*256*	*261*	*329*
Incineration without energy recuperation	*ton*	*-*	*0*	*0*	*0*
Waste diverted from disposal					
Other non-hazardous waste **(recycled or reused)**:	ton	21,598	22,865	23,400	18,881
Aluminium scrap	*ton*	*16,549*	*17,279*	*19,374*	*9,234*
Aluminium dross	*ton*	*3,701*	*4,074*	*2,704*	*3,660*
Others:	*ton*	*1,348*	*1,512*	*1,322*	*5,987*
Paper and cardboard	ton	117	124	109	132
Electronic equipment	ton	-	2	1	5
Non-aluminium scrap	ton	448	488	456	505
Wood	ton	253	512	358	407
Other		530	386	398	4,938
Total non-hazardous waste	**ton**	**21,867**	**23,295**	**23,711**	**19,210**
Hazardous waste					
Waste directed to disposal					
Landfilled hazardous waste	ton	157	0	0	0
Incinerated hazardous waste:	ton	231	230	192	228
Incineration with energy recuperation	*ton*	*228*	*229*	*191.3*	*227*
Incineration without energy recuperation	*ton*	*3*	*1*	*0.7*	*1*
Waste diverted from disposal					
Other hazardous waste **(recycled or reused)**	ton	770	729	626	628
Total hazardous waste	**ton**	**1,158**	**959**	**818**	**856**
Total Waste		**23,025**	**24,254**	**24,529**	**20,066**

Waste avoided through recycling or reuse													
		2022			2021			2020			2019		
Non-hazardous waste recycled/reused	Unit	On site	Off site	Total	On site	Off site	Total	On site	Off site	Total	On site	Off site	Total
Preparation for reuse	ton	-	26	26	-	14	14	-	-	-	-	-	-
Recycling	ton	-	21,698	21,698	-	21,912	21,912	-	22,642	22,642	-	13,054	13,054
Other recovery operations	ton	-	143	143	-	939	939	-	758	758	-	5,827	5,827
Total non-hazardous waste recycled/reused	**ton**			**21,867**			**22,865**			**23,400**			**18,881**
Hazardous waste													
Preparation for reuse	ton	-	-	-	-	-	-	-	-	-	-	-	-
Recycling	ton	-	758	758	-	-	-	-	-	-	-	-	-
Other recovery operations	ton	-	240	240	-	729	729	-	626	626	-	628	628
Total hazardous waste recycled/reused	**ton**			**998**			**729**			**626**			**628**
Total waste avoided through recycling/reuse	**ton**			**-**			**23,594**			**24,026**			**19,509**

Packaging with purchased materials and products	Unit	2022	2021	2020	2019
Wood	ton	98.33	96.62	67.98	116.25
Plastics	ton	7.22	7.13	6.13	7.90
Metal	ton	8.07	9.99	5.74	9.30
Paper & cardboard	ton	5.8	6.01	5.55	7.15
Total	**ton**	**119.42**	**119.75**	**85.40**	**140.60**

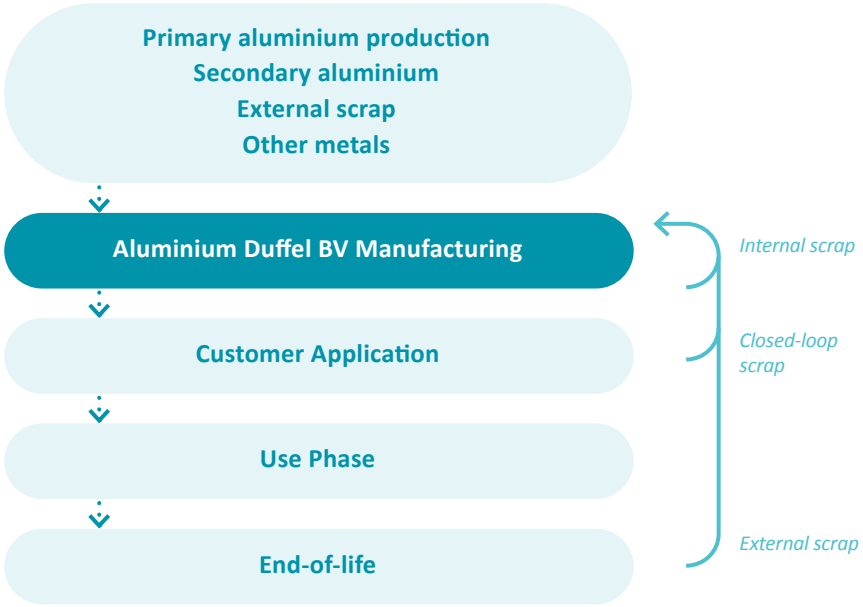
Closed-Loop Recycling

Many of our customers further process our semi-finished products into finished products, creating scrap along the way. Instead of selling this high-quality scrap on the open market, Aluminium Duffel BV takes back scrap from several customers to recycle it into a new product for the same customers. This closed-loop process maintains the integrity of the product, reduces energy, material costs and use, 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 collaborating with our suppliers and customers to identify new sources of aluminium scrap and innovative ways to reuse aluminium. Our scrap aluminium includes material bought from traders and distributors and scrap returned by customers (pre-consumer scrap).

By 2025, we want to increase our customer input scrap rate (vs. total Automotive volume) to 35% (18% in 2019) for Automotive products and improve our metal yield by 5% (baseline 2019). As a consequence, we will reduce our internal scrap.

Increasing the share of scrap also includes 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 positively contribute 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 CLOSED-LOOP RECYCLING

	Unit	2022	2021	2020	2019
Recycling content final product*	%	71	67	70	73
Customer closed-loop scrap*	%	21	17	17	18
Remelt scrap ingots from dross **	%	0.74	0.40	0.49	0.60

**only automotive 6xxx alloys taken into account (communication Dir. Supply Chain)*
*** (RSI relative to total volume melted in Duffel Casthouse)*

WATER USAGE

Aluminium processing requires a relatively small amount of water compared to other industries. Water is primarily used for cooling..

Although our business is not located in an area of water stress, 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 has started in 2022 and will continue in 2023. In 2022, the internal drainage system was surveyed. It was determined which roofs of the buildings need to be legally disconnected and if this is technically feasible.

	Unit	2022	2021	2020	2019
Total process water consumption	m^3	479,515	495,550	430,599	486,111

Transport

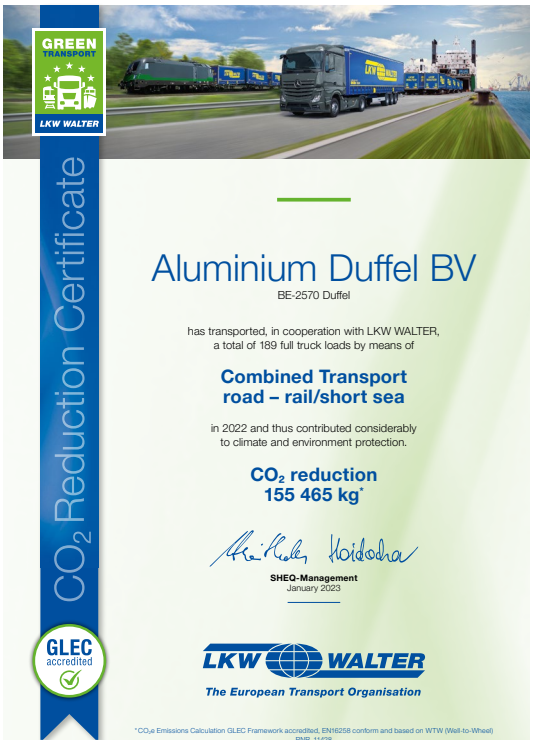
For Aluminium Duffel BV, transport covers the arrival of raw materials to the delivery of aluminium products to our customers and everything in between. Our objective is to optimise this transport traffic and reduce its environmental impact.

Duffel started using multimodal transportation in 2019. Finished products are transported to our customers by combined road and rail. This results in lower emissions because more items are transported by rail. It also allows more coils to be loaded per trailer. Due to exemptions to the maximum load in multimodal transport, three coils can now be loaded per trailer; this was previously limited to maximum two coils per trailer.

The multimodal transport route runs from Duffel to Germany via truck and from there to Hungary by train. An identical multimodal transport route runs from Duffel to Germany via truck and then to Scandinavia by train.

PERFORMANCE

Every year, Aluminium Duffel BV receives a certificate from the transport company stating the amount of CO_2 emissions we reduced by using multimodal transport. In 2022, Aluminium Duffel BV lowered its CO_2 emissions by 155,465 tons.



Case Study #3

Green Transport Move

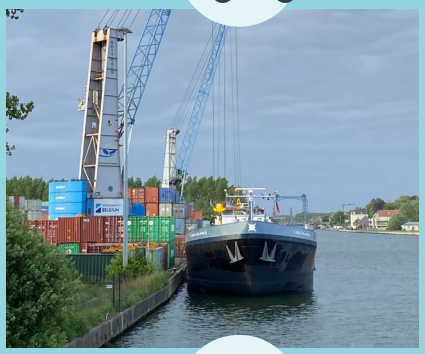
Export containers to Antwerp by barge

We have implemented a new transport scheme that exports containers by barge to the port of Antwerp. The initiative reduces road transport to the port by 72%, saving 56,000 road kilometres per year.

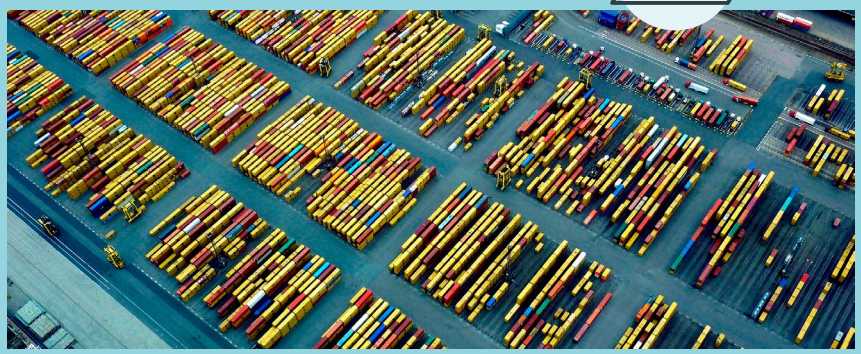
This project brings us a step closer to reducing the carbon footprint of our products. Use of the barge will reduce CO_2 emissions by 62 tons per year. This is equivalent to the emissions of 16 Flemish households.

To implement the scheme, we teamed up with the Hutchison terminal (TCT) in the city of Willebroek. Empty 20' containers are picked up at the terminal to be loaded in Duffel. Afterwards, they are picked up at the terminal and then loaded in Duffel. They are sent back to TCT for transport by barge. "Aluminium Duffel is very aware of the social impact of its transport, both in terms of traffic jams to Antwerp and CO_2 emissions," says Brahim El Boussatati, Shipping & Warehousing Manager. "This project has led to a large reduction in the number of road kilometres. This is better for the environment and local traffic. The transport initiative is a great example of a sustainable solution that adds value to our products and has a positive impact on the community."

Duffel



TCT Willebroek



Port of Antwerp

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 away), employees can opt to use public transport. Aluminium Duffel BV also offers bike leasing options, including e-bikes and speed pedelecs.

PERFORMANCE MOBILITY

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

Product Stewardship

When considering the environmental impact of our products, we look at the entire life cycle of our products, including design, production, packaging, transport, use and end-of-life. By collaborating with our customers, we try 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-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*. 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 to assess 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 our products' upstream impacts and downstream benefits. It helps determine 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, compliant 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 2022 Sustainability Report, we will only report on the global warming potential of our products.

Scope 1 emissions include those from combustion in in-house boilers, furnaces and vehicles on Aluminium Duffel BV's premises. (kg CO_2e)

Scope 2 emissions are those associated with the electricity Aluminium Duffel BV purchases. (kg CO_2e)

Scope 3 emissions are all other indirect emissions that occur in our value chain (suppliers, purchased goods and services, business travel, transport, etc.). (kg CO_2e)

Cradle-to-gate: All emissions generated starting with 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 raw materials (virgin / primary) and scrap aluminium, alloying components, auxiliary chemicals, transportation, fuels and electricity generation impacts.

When taking the cradle-to-gate results into consideration for our group of products, only 5% of the CO_2e emissions are allocated to our aluminium casting and rolling process (Scope 1 + 2). That means the other 95% of CO_2e emissions come from our suppliers, 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.

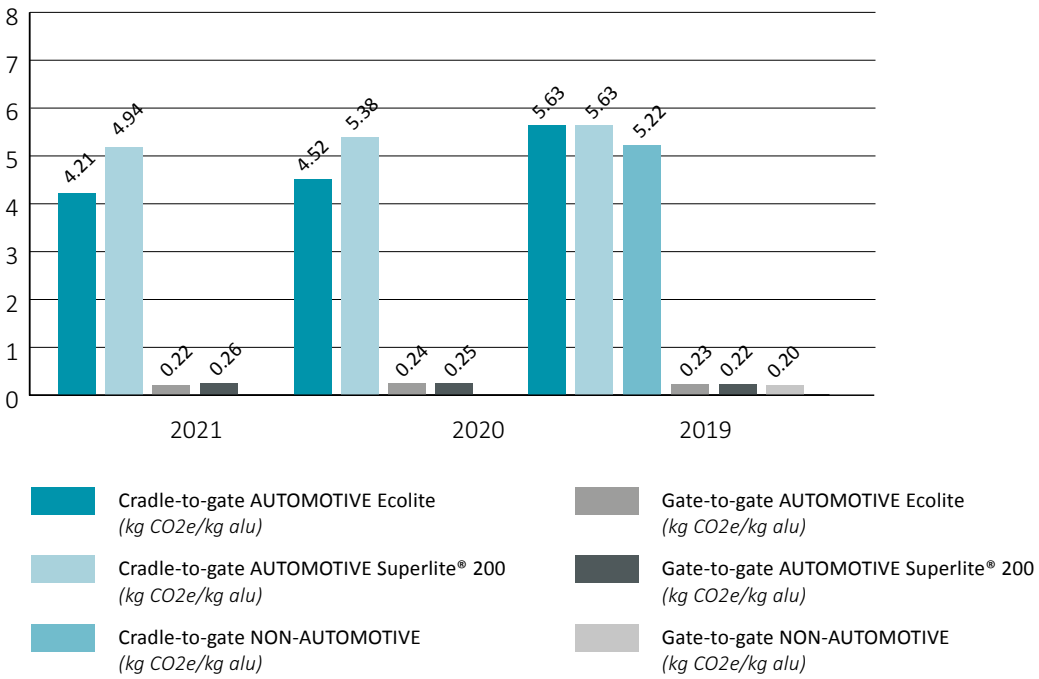
In 2022, updated LCAs for the automotive products Ecolite and Superlite®200 were published with data from 2021. The results of the LCAs of our automotive products show year-on-year improvement in the reduction of the associated Global Warming Potential (GWP). This has been achieved through the following actions:

- 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% energy 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 2023 with data from 2021.

***GWP AUTOMOTIVE products** (Ecolite & Superlite® 200)*
and NON-AUTOMOTIVE products

	Unit	2021	2020	2019
AUTOMOTIVE Ecolite				
Gate-to-gate *(Scope 1+2)*	kg CO_2e/kg alu	0.22	0.24	0.23
Scope 3	kg CO_2e/kg alu	3.99	4.28	5.40
Cradle-to-gate *(Scope 1+2+3)*	kg CO_2e/kg alu	4.21	4.52	5.63
AUTOMOTIVE Superlite® 200				
Gate-to-gate *(Scope 1+2)*	kg CO_2e/kg alu	0.26	0.25	0.22
Scope 3	kg CO_2e/kg alu	4.94	5.13	5.41
Cradle-to-gate *(Scope 1+2+3)*	kg CO_2e/kg alu	5.2	5.38	5.63
NON-AUTOMOTIVE				
Gate-to-gate *(Scope 1+2)*	kg CO_2e/kg alu	/	/	0.2
Scope 3	kg CO_2e/kg alu	/	/	5.02
Cradle-to-gate *(Scope 1+2+3)*	kg CO_2e/kg alu	/	/	5.22



Case Study #4

Aluminium Fair

From 27 to 29 September, our company was present at the world's largest aluminium trade fair, ALUMINIUM 2022.

Companies from the entire aluminium value chain gathered together. 1,000 exhibitors and 23,000 professional visitors participated. During the fair, you could find 31 colleagues from our Sales and Metal purchasing teams. A total of 73 meetings took place in our conference rooms.

A lot of people visited our stand and we received many positive reactions. Our colleagues were delighted to make new contacts and see old acquaintances again.

Ensuring we behave as a responsible business

Emergency Preparedness

Emergency preparedness refers to the procedures in place to minimise damage to people, property and the environment in the event of a specific emergency. Energy crises, climate change, fires or supply chain crises can impact our people, our business and our environment.

A general emergency procedure is in place. It ilt includes activation of the crisis team in the event of an emergency (fire, serious occupational accident, environmental incident). Task forces are set up in case of other crises (e.g., pandemic, energy). Depending on the urgency, daily follow-up meetings are held. Our internal intervention team is available 24/7 to respond to emergencies. We have an experienced team of 30 people. Several team members also volunteer with local fire departments.

We perform annual emergency drills with all Aluminium Duffel BV employees. These drills are documented and evaluated.

Our management team conducts a context analysis at least once a year. It includes the review of internal and external PESTEL (political, economic, social, technological, environmental and legal) factors and their impact on our business (risk or opportunity).

PERFORMANCE

In 2022, the planned week-long event with a multidisciplinary team to establish timing/resources/priorities for determining OCAPs (Out of Control Action Plan) for all risk departments in case of flooding, did not take place. Based on a risk assessment, made together with our insurer, flooding was assessed as unlikely to occur. Nevertheless, we will continue to include this action point in the medium term.

115 employees attended the first aid refresher course in 2022, which covers 12% of the Aluminium Duffel population.

Innovation Management

Customers are constantly looking for more sustainable products: products with a higher recycled content, a lower carbon footprint, lightweight components, and materials to improve end-of-life recycling.

To provide customers with such materials, Aluminium Duffel BV has an innovation centre (28 FTE) in which teams focus on R&D materials, R&D surface, product technology, and product and process technology.

The innovation centre develops high-quality, sustainable solutions for our customers and, at the same time, improves our own processes. This is how Aluminium Duffel BV aims to meet customers' requirements and become their preferred supplier.

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 parts.
- The development of a high-strength crash-absorbing aluminium alloy as an alternative to heavier steel crash components.
- A unique two-in-one surface treatment for automotive body sheets, which can reduce the use of chemicals in our plant and at the customers' factory.
- Improved anisotropic deep drawing quality for container production, requiring less trim and improving the metal yield in the customer's process.

PERFORMANCE

The short list below is a summary of the main research projects in the R&D programme for the year 2022. Basic knowledge research continues to run in parallel with product developments and is largely driven by the knowledge requirements needed for these development projects.

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

- Project on the impact of more scrap input in castings and end products
- Project on uni alloy to reduce the variety of alloys in an end product
- Project for better surface quality
- Project on the effects of cold rolling and intern annealing (time and temperature) on microstructure
- Project on coating fuel cells
- Project to optimise thermo-mechanical processing to reduce material consumption.

Case Study #5

New Product Superlite®200AL1

Aluminium Duffel has introduced a new quality of Automotive Outer Body Sheet: Superlite®200AL1.

'AL1' stands for 1 all-round quality outer body for the premium car segment as it will replace the Superlite®200ST, -RF, -NG and -IH variants.

This means that our customers will no longer have to worry about selecting the right specific product depending on the processing and end application.

Instead, they can choose one standard product, Superlite®200AL1, for all outer body panels and closures such as roofs, doors, trunk lids, hoods, body side panels, etc.

This new product was developed by a multidisciplinary team using a strictly defined methodology called APM (Aluminium Duffel Product Management).

We are gradually introducing this new alloy to the market.

Customer Relations

Customer satisfaction is important to Aluminium Duffel BV because we want to be the first supplier of choice for our key customers. Our goal is to be best in class in customer satisfaction by 2025. 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 FTEs) is in close contact with our customers. Through customer visit reports and monthly sales meetings, the key account managers report to management on various topics, including sustainability.

BIANNUAL CUSTOMER SURVEY

The last customer survey was conducted in 2021. There were 163 customer responses to the survey, which was organised in accordance with ISO requirements for tracking customer satisfaction. In addition to a high response rate of 24%, our customers rated us very positively.

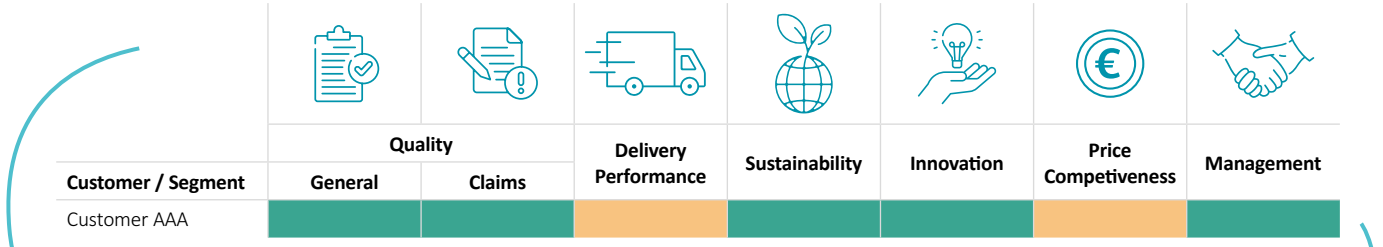
A very high net promoter score of 39 indicates that a large portion of our customers would recommend purchasing our products and services to other people or companies. Such a high score is unique for a metal company like ours. An average score for the metal producing companies ranges between 8-20.

Our product quality was rated as most important and highly satisfactory by customers in both the automotive and industrial business segments. Our customers usually rank us either first or second in their business.

Overall, the survey results show that our employees' ongoing commitment to the success and continuity of our business pays off. We were able to improve the perceived quality of our products and services, which was already high, despite seriously troubled market conditions during the COVID-19 pandemic.

CUSTOMER SATISFACTION SCORECARD

In order to have a more direct and continuous customer satisfaction 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.



7 KPIS

- **PPM / Product Quality:** PPM Score evaluation. If not available, how do you rate quality?
- **Claims:** Are the number of claims and our claims handling in line with your expectations?
- **Delivery Performance:** How do you rate our On Time / In Full deliveries?
- **Sustainability:** We strive to be a sustainable producer of aluminium. How do you rate our sustainability?
- **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?
- **Managment:** How do you rate the overall management and execution of our business?

3 SCORES

- Satisfied
- Acceptable but improvements desired
- Unacceptable

Specific areas for improvement have been identified by the management team as a result of this fast and continuous probing of customer satisfaction in our key customer base.

MONTHLY CUSTOMER EVALUATION REPORTS

In addition to responding to surveys or questionnaires, customers customers 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 on a monthly basis and shared with all relevant departments. It is presented and discussed at monthly quality meetings toensure appropriate implementation of initiatives to safeguard our high levels of customer satisfaction across all 7 KPIs.

Partnership

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 sustain trust with our stakeholders. Through dialogue, we keep abreast of sustainability opportunities, risks and emerging trends. Our stakeholders are selected through a process of 'context management' so they understand the organisation and its context. During this process, interested parties (stakeholders) are identified, including their internal and external issues. Every year, the list of stakeholders for the quality, environment, health and safety management system is reviewed. This review encompasses an update of the stakeholders' needs and expectations and an assessment of their importance for the realisation of Aluminium Duffel BV's purpose and strategy.

Stakeholder	What we provide
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.

Initial contact was made with a start-up company ValCUN in 2021. ValCUN's molten metal deposition technology has great potential to reduce the environmental impact of metal adaptive manufacturing. In 2022, a delegation from Aluminium Duffel visited Valcun. During an interesting tour of the company, we explored potential value additions to each other in the near future. A new visit from Valcun to Aluminium Duffel is scheduled for 2023.

Memberships and Certifications

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:

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. One example is '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 #6

Our plant impresses during European Aluminium visit

After being postponed for almost two years due to the pandemic, 15 of European Aluminium's newest recruits finally visited our plant as part of their training.

Their offices are located in Brussels, and Duffel is just a stone's throw away.

After a warm welcome from Geert Vannuffelen, our guides for the day, Stephan Heyvaert, Florencia Cioffi and Davy Haepers, took the group on a tour of our plant.

According to our company tour guides, the audience was very interested, well disciplined and asked intelligent and relevant questions. They enjoyed the tour, were grateful to see the plant and thanked us profusely.Most visitors had never been to an aluminium rolling mill before and were quite amazed. Eva Tormo, Environment Health and Safety Manager, said: "During the visit, I was impressed by the high standard your company sets for plant tours".

Thanks to everybody who contributed to the swift execution of the visit!

Associations and Political Lobbying

We are an active member of the leading economic, industry and specialist associations at the national and international levels. Members are encouraged to work together, not only with policymakers but also with stakeholders.

Agoria	We are a member of this 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	Our organisation is a member of the Flemish network of companies. It is an employers' organisation which stands for doing business together and growing together for the well-being of all.

GRI Content Index

Statement of use	Aluminium Duffel has reported the information cited in this GRI content index for the period from 1 January 2021 to 31 December 2022 with reference to the GRI Standards.
GRI 1 used	GRI 1: Foundation 2021

GRI STANDARD	DISCLOSURE	LOCATION
GRI 2: General Disclosures 2021	2-1 Organizational details	p. 7 & 10
	2-2 Entities included in the organization's sustainability reporting	p. 7
	2-3 Reporting period, frequency and contact point	p. 7
	2-4 Restatements of information	p. 7
	2-6 Activities, value chain and other business relationships	p. 10
	2-7 Employees	p. 27- 29
	2-22 Statement on sustainable development strategy	p. 6 & 15
	2-27 Compliance with laws and regulations	p. 9 & 38
	2-28 Membership associations	p. 61
	2-29 Approach to stakeholder engagement	p. 58- 61
	2-30 Collective bargaining agreements	p. 26
GRI 3: Material Topics 2021	3-1 Process to determine material topics	p. 16- 19
	3-2 List of material topics	p. 17
GRI 301: Materials 2016	3-3 Management of material topics	p. 35- 36 & p. 42- 45
	301-1 Materials used by weight or volume	p. 42- 44
	301-2 Recycled input materials used	p. 42- 44
	301-3 Reclaimed products and their packaging materials	p. 42- 44
GRI 302: Energy 2016	3-3 Management of material topics	p. 35- 36 & p. 42- 44
	302-1 Energy consumption within the organization	p. 39- 40
	302-3 Energy intensity	p. 39
	302-4 Reduction of energy consumption	p. 40
GRI 305: Emissions 2016	3-3 Management of material topics	p. 35- 39 & p. 49- 51
	305-1 Direct (Scope 1) GHG emissions	p. 36- 38 & p. 21
	305-2 Energy indirect (Scope 2) GHG emissions	p. 36- 38 & p. 21
	305-4 GHG emissions intensity	p. 37
	305-5 Reduction of GHG emissions	p. 40 & p. 48- 53
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	p. 38

GRI STANDARD	DISCLOSURE	LOCATION
GRI 306: Waste 2020	3-3 Management of material topics	p. 35- 36 & p.49
	306-1 Waste generation and significant waste-related impacts	p. 45- 46
	306-2 Management of significant waste-related impacts	p. 44
	306-3 Waste generated	p. 45- 46
	306-4 Waste diverted from disposal	p. 45- 46
	306-5 Waste directed to disposal	p. 45- 46
GRI 403: Occupational Health and Safety 2018	3-3 Management of material topics	p. 22- 24
	403-1 Occupational health and safety management system	p. 22- 24
	403-2 Hazard identification, risk assessment, and incident investigation	p. 22- 24
	403-3 Occupational health services	p. 23
	403-4 Worker participation, consultation, and communication on occupational health and safety	p. 22- 24
	403-5 Worker training on occupational health and safety	p. 23- 24 & p. 30
	403-6 Promotion of worker health	p. 22- 23 & 25
	403-9 Work-related injuries	p. 22- 25
GRI 404: Training and Education 2016	3-3 Management of material topics	p. 30
	404-2 Programs for upgrading employee skills and transition assistance programs	p. 30

AD Aluminium Duffel

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