ESG Report

Supporting our purpose and our people

Environmental

Sustainability is at the core of our business model. Most of our products are sustainable and are designed to combat environmental challenges facing the built environment. We have a sustainability framework and roadmap that covers our supply chain, businesses, energy, and our conduct. Our sustainability approach allows us to plan for the future, to set targets and metrics as part of our journey to net zero. We have also developed key metrics to help us monitor our ESG journey. Our strategy has three pillars:

Our Products

Environmental Applications

Material Sustainability

Proportion of revenue from environmental solutions

89%

2021/22: 77%

→ See pages 32 to 33 for more on our Sustainable products

Our Planet

Carbon Reduction

Waste & Packaging

GHG intensity

19.45 tCO_2e

2021/22: 20.62 tCO_2e

→ See pages 34 to 37 for more on our Environmental commitments

Our People

Health & Safety and Wellbeing

Equality, Diversity & Inclusion

Code of Conduct

Days lost to accidents

65

2021/22: 89

→ See pages 38 and 39 for more on our People

ESG targets – Roadmap to 2050

	Roadmap measure	2021 data	2022 data	2023 progress	2030 target	2050 target
Sustainable products	Turnover derived from environmental solutions	77%	77%	89%	>80%	>80%
	Product recycled content	27%	27%	27%	>40%	>50%
	Product recyclability	74%	77%	80%	>80%	>90%
GHG emissions	GHG emission[2]	1,804	1,843	1,734	763	Net zero
Waste reduction	Waste diverted from landfill	–	99%	99%	100%	100%
Plastic packaging	Reduction of preventable plastic packaging	–	50%	55%	100%	100%
Health & Safety	Lost days due to accidents	83	89[1]	65[1]	0	0
Diversity & Inclusion	Gender diversity[3]	3:1	3:1	3:1	2:1	1:1

1 51 days lost related to one accident in 2022, 64 days lost related to one accident in 2023.

2 Market-based emissions (scope 1, 2 & partial scope 3) expressed as tonnes of CO_2 equivalents.

3 Male : Female.

Solar panels

Wade have had solar panels in place for ten years, reducing our GHG emissions. Following our Energy Saving Opportunity scheme we are looking to replace gas boilers and roll out solar panels to other parts of our estate where we own the freehold.

How this aligns with our Sustainable Development Goals

See page 40 for more

ESG Report continued

Our Products

We create long lasting, low maintenance, environmentally efficient products which help tackle some of the largest challenges faced by the built environment: building decarbonisation, climate resilience, occupant wellbeing and improving biodiversity.

Environmental Applications

	Building Envelope	Water Management	Housebuilding Products
 Make cities and human settlements inclusive, safe, resilient and sustainable	**Environmental benefits:** Energy efficient buildings/ decarbonisation (improved insulation, carbon absorbing roofs) Green roofs (urban green spaces – occupant wellbeing and biodiversity) Stormwater management (blue roof water retention systems) Market-leading warranties and durability	**Environmental benefits:** Water management (urban and building drainage solutions) Stormwater management (attenuation valves) Typical service lives 20-50+ years	**Environmental benefits:** Energy efficient buildings/ decarbonisation (improved insulation/ventilation) Conservation/biodiversity
 Ensure availability and sustainable management of water	**Demand drivers:** Building legislation (UK building regulations, Future Homes Standard, fire/health & safety regulations) Sustainability standards (LEED, BREEAM) PassivHaus standard goals	**Demand drivers:** Sustainability standards (LEED, BREEAM) Climate change/resilience (flooding risk) National/regional drainage/ wastewater management plans	**Demand drivers:** Building legislation (UK building regulations, Future Homes Standard, fire safety regulations) Sustainability standards (LEED, BREEAM)

Material Sustainability

	Building Envelope	Water Management	Housebuilding Products
 Ensure sustainable consumption and production partners	**Principal materials:** Membranes, insulation, steel, PVC	**Principal materials:** Aluminium, steel, iron	**Principal materials:** Polymers (PP, PVC), steel

We manufacture our products using materials which achieve the desired balance of environmental and operational performance, cost effectiveness, durability, aesthetics and weight.

Our principal materials are metals (primarily aluminium, steel and iron), polymers (polypropylene and PVC) and roofing membranes and insulation.

Using recycled materials is energy and resource efficient. We work with our supply partners to maximise the recycled content of our raw materials, and invest in equipment to allow our manufacturing processes to efficiently use recycled material. The longevity of our products means that products need replacing or repairing less frequently, further reducing the energy needed over a building's lifespan. The majority of our products are also fully recyclable at the end of their useful lives, contributing to responsible consumption patterns.

Metals

Metals tend to be energy intensive to extract and process, but their durability and almost infinite recyclability helps to offset this. Using recycled metals significantly reduces their carbon footprint – in the case of aluminium, recycled material takes up to 95% less energy to produce than primary aluminium. We therefore seek to maximise the proportion of recycled content in our products – as an example, 80% of our aluminium is derived from recycled sources. We use metals in demanding applications where their durability means lower ongoing maintenance and a significantly longer lifespan than competing/alternative products.

Plastics

Plastics products are cheaper and less energy intensive than alternative materials such as metals, although they are less durable, subject to environmental degradation, are derived from limited petrochemical resources, and many can only be recycled a number of times before performance deteriorates. Using recycled materials is resource-efficient; 80% of the polymers we use are recycled rather than virgin material. We use plastic where cost efficiency is paramount, and in applications where the products will typically last as long as the building they are attached to.

Roofing membranes and insulation

The membranes and insulation materials supplied by our Building Envelope division help to protect buildings under some of the industry's leading warranties while contributing significantly to their energy efficiency. We work with our suppliers to maximise the recycled content and lifespan of our products and systems. Cold-applied and self-adhesive installation methods reduce health and safety risks and the energy consumed during installation. We also supply olivine mineral membranes which absorb CO_2 from the atmosphere and helps to offset a building's greenhouse gas emissions. Alongside blue roof and green roofing technologies we strive to improve construction performance whilst considering the wellbeing of the people who inhabit and use these buildings. Increasingly we provide non-combustible materials which are being demanded by our client base to improve building safety.

LSE Green Economy Mark

Alumasc has been recognised by the London Stock Exchange as a contributor to the global green economy. This is awarded to companies and funds that derive more than 50% of revenues from environmental solutions. We provide high-quality, low carbon, sustainable building products, systems and solutions which help manage the scarce resources of energy and water in the built environment and improve the quality of life for the owner/occupier.

How this aligns with our Sustainable Development Goals

ESG Report continued

Our Planet

Carbon reduction

Alumasc appointed Compare Your Footprint/Green Element, a leading carbon and energy management company, to independently assess its greenhouse gas (GHG) emissions in accordance with the UK Government's 'Environmental reporting guidelines: including Streamlined Energy and Carbon Reporting requirements'.

The assessment has used the 2022 emission conversion factors published by the Department for Environment, Food and Rural Affairs (Defra) and the Department for Business, Energy & Industrial Strategy (BEIS) as well as supplier-specific embodied carbon of sold products complemented by average construction materials carbon intensities from the Compare Your Footprint database. The assessment follows the GHG Protocol Corporate Accounting and Reporting methodology specification for dual reporting for Scope 2 – this involves reporting both the location-based and market-based emissions from electricity usage.

GHG emissions and net zero

The table opposite summarises the GHG emissions for the reporting year 1 July 2022 to 30 June 2023. The figures cover our direct emissions (Scope 1 and 2) and those associated with our business travel (partial Scope 3), and are expressed both in absolute terms and per £ million of revenue, which is the most appropriate method to capture levels of business activity. Capturing full Scope 3 emissions, covering our entire value chain, is more challenging, and there is currently no regulatory requirement to publish these. We have however been working with Green Element to identify and quantify them, to aid our decision making processes and determine our journey to net zero, and will publish them in due course.

> "We have reduced our GHG emission intensity by 69% since 2018."
>
> **Simon Dray**
> Group Finance Director

We have continued to focus on reducing our GHG emission intensity, and our location-based emissions (which recognise that 100% of our electricity is derived from renewable sources) have reduced by 57% in absolute terms, and 69% in intensity, since 2018. This has resulted from investments in more efficient plant and machinery, the installation of solar PV systems, rationalisation of our sites, a reduction in business travel and the gradual electrification of our vehicle fleet.

We have developed near-term targets, which aim to reduce our current level of GHG emissions by a further 42% by 2030, consistent with the Science Based Target Initiative (SBTi) targets for limiting global warming to below 1.5C. This will be achieved by further investment in low-carbon plant and machinery and the full conversion of our vehicle fleet (including forklift trucks) to electric, hydrogen or other low-carbon power.

In the coming year we will seek to verify these with the SBTi, while developing plans and targets to achieve company-level net zero by 2050 or earlier.

We are also in the process of preparing Environmental Product Declarations (EPDs) for the Group's product range. These reports detail a product's lifetime environmental impact, including its carbon footprint, ecotoxicity and contribution to ozone depletion, and allow customers to compare different suppliers and materials.

Streamlined energy carbon reporting (SECR 2023)

Mandatory reporting as follows:

Streamlined Energy & Carbon Reporting	2016/17	2021/22	2022/23	% Annual Change
Factor Year	–	2022	2023	(21/22 v 22/23)
Energy consumption (kWh)				
Electricity	–	3,381,655.60	3,066,029.73	-9%
Gas	–	6,198,885.75	6,303,347.24	2%
Transport fuels	–	1,331,086.03	1,057,180.11	-21%
Other stationary fuels	–	94,968.16	63,737.42	-33%
Total energy consumption (kWh)	**–**	**11,006,595.54**	**10,490,294.50**	**-5%**
Emissions (tCO_2e)	4,115.39	2,655.61	2,527.65	-5%
Scope 1				
Emissions from combustion of gas in buildings	–	1,131.54	1,153.06	2%
Emissions from combustion of fuel for transport purposes	–	166.56	141.29	-15%
Emissions from combustion of other stationary fuels	–	21.38	13.63	-36%
Total Scope 1	**1,900.99**	**1,319.48**	**1,307.99**	**-1%**
Scope 2				
Emissions from purchased electricity (location-based*)	1,749.33	658.99	641.74	-3%
Emissions from purchased electricity (market-based**)	–	22.50	6.85	-70%
Scope 1 & 2				
Total Scope 1 & 2 emissions (location-based*)	3,650.32	1,978.48	1,949.73	-1%
Total Scope 1 & 2 emissions (market-based**)	–	1,341.99	1,314.83	-2%
Scope 3				
Category 6: Emissions from business travel in rental cars (fuel purchased)	465.07	203.93	139.63	-32%
Category 3: Upstream emissions from purchased fuel and energy (location-based*)	–	473.20	439.12	-7%
Category 3: Upstream emissions from purchased fuel and energy (market-based**)	–	297.00	279.35	-6%
Total emissions tCO_2e (location-based*)	**4,115.39**	**2,655.61**	**2,528.47**	**-5%**
Total emissions tCO_2e (market-based)**	**–**	**1,842.92**	**1,733.82**	**-6%**
Intensity (Scope 1 & 2 only)				
Intensity ratio: tCO_2e / £ million turnover (location-based*)	34.84	20.35	21.87	7%
Intensity ratio: tCO_2e / £ million turnover (market-based**)		13.80	14.75	7%

Methodology Greenhouse Gas Protocol Corporate Greenhouse Gas Accounting and Reporting Standard

The energy data for some activities at some of our sites was not accessible when calculating emissions totals for last year's SECR. Alumasc has since deployed a more detailed methodology and worked to fill the gaps in last year's data to present a like-for-like comparison with FY22/23 data collection methodology. Alumasc's new data collection process yielded a near-complete data set for this financial year. Estimations based on Alumasc's available data were made when activity data was absent in FY21/22 and FY22/23.

Definitions

***Location-based approach** – reflects the emissions from electricity coming from the national grid energy supply.

****Market-based approach** – reflects the emissions from the electricity sources or products (energy tariffs), that the consumer has specifically chosen.

ESG Report continued

Our Planet continued

Waste and packaging

Scrap and waste

Our manufacturing operations produce very little raw material waste, as it is typically collected, reprocessed and reused in our production processes. Timloc, our most intensive user of plastics, is a signatory to Operation Clean Sweep®, an industry-led programme to prevent plastic particulates from reaching the environment.

Substantially all of our waste streams are now diverted from landfill.

Packaging

The majority of waste we produce is in the form of packaging. We are a member of Valpak for compliance reporting and comply with our obligations under the Producer Responsibility Obligations (Packaging Waste) regulations.

We have targeted a reduction in single-use plastics and an increase in the proportion of recycled packaging we use. Our Housebuilding Products division and Wade and Rainclear, within the Water Management division, now exclusively use packaging made from 100% recycled paper for shipping, which is itself 100% recyclable.

We continue to implement measures to reduce the quantity of packaging used and to improve its recyclability.

Environmental highlights

GHG reduction this year

3%

Reduction in total market-based emission intensity

GHG reduction since 2017/18

69%

Reduction in total market-based emission intensity

Renewable energy

100%

Electricity from renewable sources

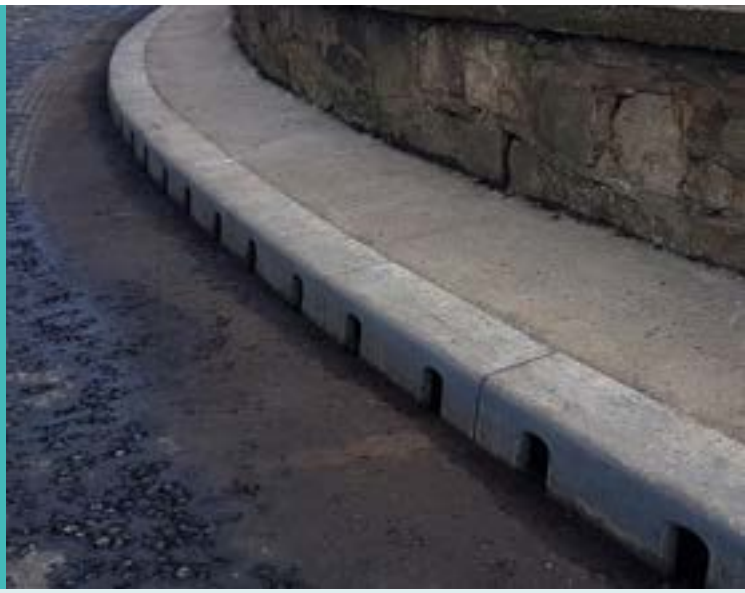
We will focus our attention on the following environmental and sustainability goals:

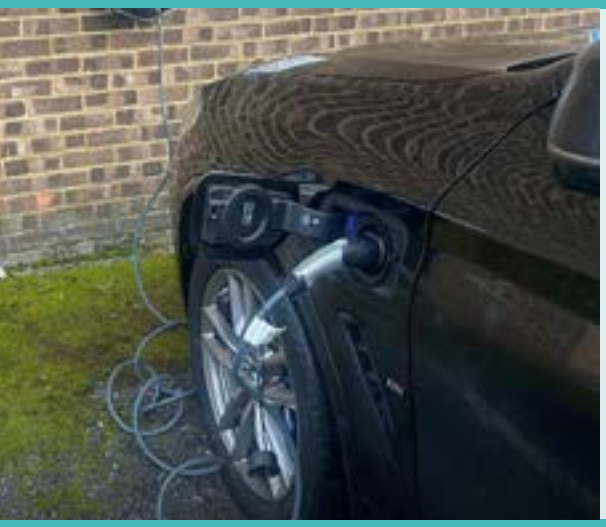
Area	Related risks	Alignment to SDGs
Carbon and energy reduction	Climate change Environmental harm Legal and regulatory	
Waste management and recycling	Environmental impact Sales costs Raw materials Legal and regulatory	
People and wellbeing	Legal and regulatory Climate change	

Kerbdrain

Kerbdrain is manufactured using 70% recycled polymers, with every 500mm unit deriving from 199 plastic bottles, caps, and closures. The result is a product offering exceptional strength (compliant with BS EN 1433:2002 Group 3 kerb side installations) and improved impact resistance provided it is installed in accordance with Gatic's (Gas and Airtight Inspection Covers) installation details. End-of-life units are 100% recyclable.

The carbon impact of each Kerbdrain product represents only 7.65 Kg CO_2eq throughout its life cycle: from raw material through to end of life. This equates to just 1.06 kg CO_2eq per kg of the product. Zero emissions are produced as a result of factory waste.





Electric Vehicle (EV) charging points

We have installed EV charging points at our Burton Latimer, Halstead, Howden and St Helens sites.

How this aligns with our Sustainable Development Goals

Hedgehog Highway

The Hedgehog Highway by Timloc helps to support hedgehog populations, both directly and indirectly. From every sale of the Hedgehog Highway a donation is made to hedgehog conservation organisations to help continue their work in rescuing, rehabilitating and releasing sick or injured hedgehogs. Timloc Building Products has donated over £1,750 to various hedgehog charities across the UK so far.

ESG Report continued

Our People

Health & Safety

Alumasc has a clear primary focus to ensure the Health & Safety of our employees, and this is always the first item at our plc Board and subsidiary meetings. Our CEO is responsible for Health & Safety. All significant incidents are discussed weekly and are reviewed. This ensures that Health & Safety policy implementation and near-miss reporting is discussed. We have a target of zero harm and as part of our targets we report on lost days and the learning from any incident. We recognise the importance of understanding and continually strive to improve our Health & Safety culture. Health & Safety training programmes are delivered to our staff to build on our compliance with industry best practice and to ensure that focus is on continuous improvement.

Our culture is to ensure that all employees understand the importance and take shared ownership to enhance our Health & Safety performance. Engaged and informed employees help us improve our Health & Safety and environmental performance.

Targeted role-related training includes, e-learning to promote employee awareness of their responsibilities, hazards associated with operations and safe ways of working. We operate a formal method of reporting and recording near-misses, hazards, and lost days. Near-miss reporting is encouraged across the business at all levels, and has remained at a high level. Reporting assists with continual improvements and provides information to management on how to improve processes and to ensure safe ways of working. The number of days lost due to accidents during the year was 65 (FY2021/22: 89 days).

Our main Health & Safety KPI, the performance rate index (a relative measure capturing the total amount of lost time and other safety incidents, relating the result to the overall number of hours worked). This is used to measure improvements in our Health & Safety performance. The cumulative PRI score in 2023 was 3.79 compared to 5.03 in 2021/22.

Our sites and operations have Health & Safety Committees. We are audited by specialist external Health & Safety consultants and the results of these audits are provided to the plc Board. Any resulting actions are also discussed at the Board and at management meetings.

There has been an overall trend of Health & Safety improvements, due to the focus on our zero-harm target and to continuous improvement by employees and management. The risks encountered arise due to working with machinery, materials handling, operating forklift trucks, and car and lorry use. The business carries out robust Health & Safety risk assessments and oversight ensures that recommendations are implemented.

Wellbeing

We have continued to support hybrid and flexible working where appropriate. This has helped employees with flexibility and improves their work-life balance. We have an app to provide help and assistance with wellbeing – Help-at-hand. This app is available to all employees to download and join, it provides a 24/7 GP service, physiotherapy, counselling, and nutrition advice. Our divisions conduct staff surveys and a note about this in Building Envelope is on this page. The Alumasc benefits hub; also provides discount vouchers for a range of services and goods, it is an app that can be downloaded by all staff. We also offered a Mental Health first aider course (see page 39), that helps to identify and know what to say when people face anxiety, stress or other mental health challenges.

Equality, Diversity and Inclusion

Alumasc is an equal opportunities employer. We are committed to providing an inclusive workplace, encouraging and welcoming diversity, with zero tolerance of harassment or discrimination. Our culture is friendly and welcoming to all. We provide many training opportunities to encourage learning and development for all staff.

We are proud to support staff having training and undertaking studies for qualifications to progress their careers.

Recruitment, training, and development is regardless of religion, ethnicity, gender and sexual orientation. Employees with disabilities are given equality of opportunity with respect to entering and continuing employment with Alumasc. We have examples in the year where adaptions of the workplace or working environment have facilitated opportunities for disabled staff. The Group aims to provide training opportunities that are identical, as far as possible, for disabled and non-disabled employees. Should employees become disabled after joining the Company, every effort is made to ensure that their employment continues, and appropriate training is given. A formal Equality and Diversity Policy has been approved by the Board and applies to all our businesses.

Alumasc recognises the benefit of having the widest range of experience, knowledge, and skills. Management undertakes reviews of staff performance and recognises their achievements. Career progression is extremely important to us for succession planning. Promotions are usually announced at the end of the financial year. For further information see page 39.

Headcount by gender

	Male	Female	Total
Non-executive Directors	2	1	3
Executive Directors	4	0	4
Senior managers	31	11	42
Employees	272	99	371
Total	309	111	420

Code of conduct

Our Governance is built on the expected ethical standards and behaviours of our employees as outlined in our Code of Conduct. We expect employees to have a high degree of integrity and to be honest, responsible, and trustworthy in what they say and do. Upon joining, all employees are provided with the Employee Handbook that incorporates our Code of Conduct. We remind staff of this requirement through training and briefings.

Anti-modern Slavery and Human Trafficking

Our Anti-modern Slavery and Human Trafficking Policy (see – www.alumasc.co.uk/wp-content/uploads/2021/05/Anti-Modern-Slavery-and-Human-Trafficking-Policy.pdf) and annual statements for the Group on anti-modern slavery is published on the UK government site and on our website www.alumasc.co.uk in line with Home Office guidance, along with our previous disclosures. Our Statement for this year will be published in compliance with government requirements before the deadline.

Alumasc expects its suppliers and those in the supply chain to confirm that they have the same or very similar policies in place for anti-modern slavery.

Anti-bribery and corruption

Alumasc has a zero-tolerance approach towards bribery and corruption. Our Anti-bribery Policy gives straightforward and clear advice on the ethical standards and the compliance required. We have long-term relationships with our suppliers that are built on trust and reliability. During the year, Alumasc refreshed its Anti-Fraud Policy and this was reviewed and approved by the Board. A report this year was made on our Anti-bribery programme to the Audit Committee, please see page 75 for further information.

Talent, training and development

During the year, Alumasc sent 44 people on NEBOSH and ISOH training courses.

Noel James, QHSE Manager at Wade, successfully passed all elements and received his NEBOSH National General Certificate in Health & Safety. Noel said, "The quality of the instruction was superb. Although there was an immense quantity of information to digest and homework to complete every evening, I thoroughly enjoyed the course. The practical application of the course content was one of my favourite elements".

How this aligns with our Sustainable Development Goals

Staff health, safety & wellbeing

I am proud to be a Mental Health First Aider with the business, within my role in Human Resources I had a good understanding of wellbeing, but attending the MHFA training was a huge insight to all the different things to think about and how different everyone is. I do think this training is invaluable for businesses, which also shows a commitment to mental health and how we support employees. I have been able to bring the training into practice for many situations and I think employees appreciate having someone trained to point them in the right direction and to just listen to them.

Natasha Blades
HR, Alumasc Water Management Solutions

How this aligns with our Sustainable Development Goals

Colchester Pride

Last year we held a fundraiser – a cakes and sausage rolls sale - for Colchester Pride at our Wade site in Halstead. We are proud to support the LGBTQ+ community and we ran a campaign across our business during Pride month this year.

How this aligns with our Sustainable Development Goals

ESG Report continued

UN SDGs

Sustainability at the heart of everything we do

Our purpose is to make building products for a sustainable future.

Our Sustainability programme has made progress with the assistance of Green Element, our Environmental Social and Governance (ESG) consultants who are in the process of assessing Scope 3, understanding our products and helping us with our targets and metric setting.

Strategy link	Action in the year	UN Sustainable development goals	
Performance	Governance of sustainability		See pages 30 to 36
	Setting metrics and targets		
	Building ESG into our reward programme		
	Reviewing our supply chain as part of Scope 3		
	Improving reporting and disclosure		
	Housebuilding Products certified as a carbon-neutral manufacturer		
Protecting our environment and the planet	Collecting emission data for Scope 3		See pages 34 to 36
	Carrying out an Energy Saving Opportunities audit and actioning recommendations for energy savings		
	Transitioning to an electric motor fleet and installing EV charging points		
	Task Force on Climate-related Financial Disclosures (TCFD)		
	100% renewable electricity		
	Tree planting as offsets (Timloc)		
	Reviewing waste management and water consumption		
Efficiency and people	Focus on health & safety		See pages 38 to 39
	Sustainability is our purpose and a strong part of our culture		
	Agile and efficient operations		
	Focus on training and development, career progression		
	Strong connections to the local communities where we operate		

High level summary of climate-related material risks and opportunities

Through our climate change-related risk workshops we identified our risks and opportunities, that were part of our planning in 2023. At each stage we had input from our advisers, Green Element, about the potential climate-related risk impacts on our buildings, work force, supply chain, stakeholders, and customers.

We identified our risk horizon timeframes as: short term as one year; medium term as up to five years; and longer term as ten years.

TCFD		Climate-related risks and opportunities	Potential financial impact	Strategic response/ mitigations/opportunities	Short term	Medium term	Long term
Transitions risks							
Policy & Legal	Reporting obligations.	Enhanced reporting is required by government, regulators, investors, customers, sector associations and to align with our strategic framework.	Low risk: Increased compliance costs, but low impact.	Implementing robust and repeatable reporting systems with guidance from climate change and environmental reporting experts, who also alert us to future reporting requirements to enable strategic planning to fulfil all our mandatory reporting responsibilities.	Yes	Yes	Yes
	Mandates on and regulation of existing products and services.	Risk: Mandates must be factored into making our products meet legislative requirements. Opportunities: Our product sales are often a result of regulation and specifications.	Low risk: If not anticipated and factored into design and processes, these types of changes could impact our sales and order books.	We will continue to follow our building products regulations and any updates assiduously and to communicate upcoming legislation and guidance as soon as it becomes available to ensure future-proofing and to meet the market need of new product designs.	Yes	Yes	Yes
	Increased pricing of GHG emissions.	Carbon taxes are likely to increase and impact cost of production. Opportunity: To sell more energy-efficient systems (e.g. Roofing see pages 27 and 28).	Low risk: Due to rise of renewables and efficiency strategies.	Use of new technology to reduce energy use. Innovative sustainable building products coupled with a purpose to promote low carbon products ensuring any carbon taxes will be minimised.	Yes	Yes	Yes
	Carbon pricing mechanisms.	Risk that higher carbon pricing may increase the cost of production.	Low risk: We do not anticipate this will be a major risk due to our low usage of energy.	Our commitment to a low/zero carbon target minimises the future cost of carbon.	Yes	Yes	Yes

Low risk	Financial impact from nil to <£50,000, minor legal or regulatory matter, no risk to staff or business activity.
Medium risk	Financial impact from £50,000 to £250,000, potential regulatory, H&S requirements, single incident or one-off.
High Risk	Financial impact >£250,000, potential risk to the Company, employees, customers.

ESG Report continued

TCFD		Climate-related risks and opportunities	Potential financial impact	Strategic response/ mitigations/opportunities	Short term	Medium term	Long term
Technology	Costs to transition to lower emissions technology, for example, electric vehicles.	Risk: Cost to transition to new machinery. Opportunity: Newer machinery lowers carbon emissions and reduces production costs.	Medium risk: Potential of an impact on sales if costs rise and if new low energy using technology is not implemented quickly enough.	Energy-efficient newer machinery results in lower carbon, cheaper more efficient, production opportunities.	Yes	Yes	Yes
	Unsuccessful investment in new technology.	Risk: New technology does not perform as expected.	Low risk.	A strict QA process involved with procurement ensures that this would not occur. All prototypes and new machinery are tested. Capital expenditure requests require a return on investments and payback.	Yes	Yes	Yes
	IT transition/ pace.	Risk: Failure to act quickly for IT transitions. Opportunity: To gain a deeper knowledge about our customers, sales and markets to enable us to focus on these areas.	Low risk: Fast speed of change needed to reduce costs.	Experienced IT team enables the business to be nimble/agile in making changes. Need to be agile and act quickly in gathering data.	Yes	Yes	Yes
Markets	Increased costs of raw materials. Uncertainty in market signals.	Risk: Increase in demand for low carbon materials, coupled with volatility in raw material prices, could increase costs.	Low risk: Forecast material costs are priced into the business model and production costs.	Material costs are factored into our pricing model. Continue to follow our risk-related processes for horizon scanning and receiving alerts for any potential future materials pricing increases.	Yes	Yes	Yes
	Rise in risk-based pricing of insurance policies (beyond demand elasticity).	Insurance for Alumasc could be at risk of potential future premium increases (depending on location/design etc.) due to climate change.	Low risk: In the medium to longer term the risks of some increases in specific insurance premiums could be correlated with physical climate change risks to properties.	Unlikely to be a risk in the short term due to current and short-term future insurance premium pricing levels (which have recently dropped back). Alternative insurance offerings are available if needed.	Yes	Yes	Yes

See pages 57 to 60 for Principal risks and uncertainties.

TCFD		Climate-related risks and opportunities	Potential financial impact	Strategic response/ mitigations/opportunities	Short term	Medium term	Long term
Reputation	Increasing stakeholder/ employee pressure to meet higher and harder ESG targets.	Low risk as part of our purpose. Opportunity: Growing markets and demand.	Medium to high risk: Need to maintain market position and protect our reputation by meeting metrics and targets.	Continually seeking to improve products for sustainability and low carbon content. Need to meet targets to ensure we maintain our status of being an attractive employer. Work with our environmental partners to attain incrementally improving sustainability, social and governance scores.	No	Yes	Yes
	Changes in customer preferences.	Risk: Potential loss of market share to others. Opportunity: To innovate and provide more desirable products and solutions to combat climate change.	Low risk: Potential risk to market share.	Innovating and improving products to provide these to the market as needed.	No	Yes	Yes
	Negative press coverage related to support of any projects with negative impacts on the environment (e.g. deforestation) and then damage the brand.	Risk: Association or procurement for a project with negative press comment. Continue to be a top brand for sustainable and low carbon products to keep market share.	Low risk: Given our customer base due to the types of goods we sell from this is unlikely to be problematic.	Review and consideration of supply chain, and customers to avoid projects/partnerships that could result in negative media coverage. Training of staff on climate-related risk to remove this risk and establishing a risk culture. Ensure the right QA and certifications are offered on products. To mitigate this risk, the business will need to ensure the right accreditation for products and to ensure they are supplied to approved programmes/projects.	Yes	Yes	Yes
Physical Risks							
Acute	Increase of severity of weather events, droughts, heatwaves.	Risk: Impact on employees getting to work, impact on customers and power supply. Potential impact on the ability to operate, depending on location. Opportunities: To help our customers and communities to combat climate change with our products and solutions.	Medium risk.	Adaption needed and new ways of working with more self-sufficient technology to drive increased production. Backup systems to be created to deal with extreme weather events. Cooling systems in place in most of our properties. As part of our Energy Saving Opportunity Scheme (ESOS) and property audit, we consider the necessary changes.	Yes	Yes	Yes

ESG Report continued

TCFD		Climate-related risks and opportunities	Potential financial impact	Strategic response/ mitigations/opportunities	Short term	Medium term	Long term
	Heavy precipitation.	Logistics and possibly the ability of staff to travel for work may be affected by floods and landslides. Opportunities: We sell products to assist efficient drainage that are sustainable and durable.	Low risk: Unlikely to financially impact business operations in the UK, continuity plans are in place.	Buildings are reviewed for resilience and business continuity plans are in place for alternative transportation of goods. Most of our employees are located nearby our operations or, where possible, have the ability to work from home if needed.	Yes	Yes	Yes
	Landslip/ subsidence, increased risk of wildfires.	Risk to property and customer buildings. Logistics and staff travel. Opportunities: To have solution such as Bluroofs to assist with water storage.	Low risk: Property insurance inspections help us to mitigate risk/ potential impacts.	All areas of operation are reviewed as part of an annual exercise to review our business continuity plans as part of our insurance programme.	Yes	Yes	Yes
	Coldwaves/ frost.	Potential impact on logistics.	Low risk.	Plan to undertake more climate change risk studies and to enhance the future required adaptations and business continuity plans.	Yes	Yes	Yes
Chronic	Heat stress and permafrost thawing, water stress, rising sea levels.	Impact on transport networks, roads and harbours. Opportunity: To further develop products and solutions to meet customer requirements.	Medium risk.	Property and machinery are reviewed for resilience. A small amount of water is used in the manufacturing process. We could use grey water for some internal facilities, where possible. Some offices have water storage and zip taps. Ensure water meters are situated where they can be monitored and recorded.	No	No	Yes
	Changing wind and temperatures.	Potential impact on the supply chain. Potential risks to energy suppliers.	Medium risk: Potential impact on logistics.	Ensure continued innovation for production of weather-resistant and climate change adaptive products. Ensure continued long-term durability.	No	No	Yes
	Soil degradation.	Risk to some projects and customer concerns.	Low risk.	Ensure that plants used for green roofs are resilient against soil degradation.	No	No	Yes

Plans for 2023/24

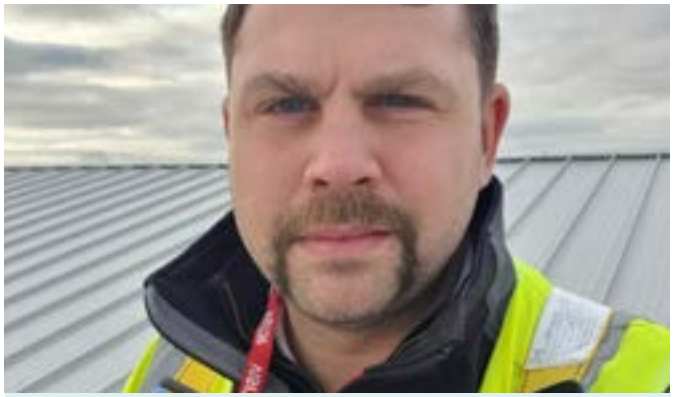
- Enhance business continuity planning to cover in more detail plans for chronic risk, especially with respect to medium and long-term horizons;
- Focus on embedding climate change initiatives and risk management within the business so that management of climate change risks becomes part of the Group's culture;
- Hold another workshop on climate change risk analysis and include mitigation training;
- Create a climate change 'tool kit' of resources for use across the business;
- Share best practice planning across the business;
- Innovation to create more sustainable products; and
- Consider further opportunities to accelerate growth.

As a business we understand climate-related risk as we innovate and design products to help our customers combat this in the built environment. In view of the increase in demand that will occur to cope with, for example, increased precipitation, we aim to grow organically and inorganically. New business buildings will be energy efficient, and we will seek to mitigate any climate-related risks that emerge.

Employee Engagement

At Building Envelope we conducted a survey focused on six main areas to provide a rounded overview of participants' thoughts, namely: around the demands of their job role, how much control or autonomy individuals feel they have, how supported they feel when they are at work, relationships and forging positive working environments, an understanding of their role in the Company and how this fits within the wider Company.

Building Envelope is actively seeking feedback and expect the results to provide the division with a greater understanding of employee wellbeing, as well as areas where there may be opportunities for improvement.



Movember

James Cramp, Regional Manager at Building Envelope (Roofing), completed his 11th year of Movember. So far James has raised £3,500 in aid of men's prostate cancer research and men's mental health, two major killers of men in the UK.

How this aligns with our Sustainable Development Goals

Kettering Rugby Football Club

Our Burton Latimer site has good connections with Kettering Rugby Football Club and are silver sponsors of the club.

How this aligns with our Sustainable Development Goals

Twinkling Stars

In support of a colleague, AWMS has supported the Twinkling Stars Appeal: It is based at Kettering General Hospital and supports families through bereavement.

ESG Report continued

Task Force on Climate-related Financial Disclosures (TCFD)

Our Boards and divisions recognise the substantial commitment required within the construction industry, as well as our own responsibility as a manufacturer, to produce an expanded range of climate-resilient building products. Alumasc has evolved to become a leading provider of water management and sustainable building products.

Our primary objective is to deliver the most environmentally friendly products possible to our customers and through our distribution channels. To support us in this endeavour, we have engaged the services of Green Element. We have agreed to utilise *OneClick*, a software system, to provide Environmental Product Declarations (EPDs) for our manufactured products. By adopting the climate reporting frameworks of both the TCFD (Task Force on Climate-related Financial Disclosures) and SBTi (Science Based Targets initiative), we aim to provide our stakeholders with deeper insights into the progress of our climate change mitigation strategy.

In the previous year, we voluntarily disclosed our approach through the TCFD, and this year we dedicated time to assess climate change risks and conduct workshops with our business partners to shape our approach. The workshops were instrumental in identifying key risks and evaluating corresponding opportunities ranked against the risks. We also ensured alignment of climate change risks with our Group's risk framework by incorporating them into our overall risk management approach. Furthermore, Alumasc has developed scenario analyses for specific risks.

Outlined below is a summary of our achievements during the 2022-23 period and our plans for the upcoming year.

TCFD element and disclosure

Governance	
(a) Describe the Board's oversight of climate-related risks and opportunities	**Current approach:** The Board oversees climate change-related risks and opportunities as part of its risks reviews and strategy meetings which encompass ESG considerations as well as innovation and ESG practices in the built environment. Each of the divisions has a lead for ESG or a designated head of sustainability, whose role is to focus on ESG targets and to ensure metrics are reported to the divisional boards. **Future plans:** Reportable metrics are to be discussed at the Board together with a reporting cycle as part of the rolling agenda. → See pages 41 to 44, and 56
(b) Describe management's role in assessing and managing climate-related change risks and opportunities	**Current approach:** Climate-related matters are considered as part of our business continuity planning. Our progress on greenhouse gas (GHG) monitoring is already tracked as part of our Streamlined Energy and Carbon Reporting (SECR) reporting obligations. This ensures we have a systematic approach to measuring and reporting our GHG emissions annually. This year, we with our new partner Green Element, have adopted a more sophisticated approach and methodology for this reporting. **Future plans:** As part of our plans, reportable metrics related to climate risk will be presented and discussed at Board meetings. These reporting metrics will be part of our reporting cycle and part of our rolling agenda. We will have a regular structured consideration and consideration at Board and divisional Board meetings. Climate change-related risk is discussed as part of the risk management process together with transitional risks and regulatory policy and compliance risks are captured as part of the risk management process, non-financial disclosures, and annual reporting. → See page 56

At Alumasc, we have a profound understanding of the climate risks that affect both people and our planet. We firmly recognise our responsibility to mitigate these risks by driving reductions in our business processes and practices. In addition, we are highly focused on fostering innovation and developing sustainable products that directly combat climate change.

Strategy

(a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term	**Current approach:** As part of our comprehensive approach, we have conducted cross-departmental training and workshops involving business units and leadership. In these sessions we have successfully identified climate-related risk over our short, medium and long-term horizons (one, five and ten years). This assessment encompasses a detailed list of transitional, acute physical and chronic physical risks. We have identified climate-related opportunities that align with our core business model, which revolves around the design and provision of sustainable and climate-resilient building products. Our aim is to enable our customers and stakeholders to thrive in a changing climate and to support the transition to net-zero homes. The risks and opportunities are listed in the table on pages 41 to 44. **Future plans:** We will refine our business plans, continually revisit and improve the evaluation of the risks so far identified, and commence assessing the financial burden of each risk in more depth. We will implement further risk workshops to communicate these improvements and changes with each of the divisions with their sustainability leads to ensure that the Company's overarching climate-related risk strategy is known at all levels. **Progress:** During the year we developed our climate-related risk register with our divisional representatives and considered transitional, acute and chronic risks. **See Strategic Report pages 3, 22 to 23, and 41 to 44**
(b) Describe the impact of climate-related risks and opportunities on the organisation's business, strategy, and financial planning	**Current approach:** Following our workshops, we have begun to identify the potential impact of climate-related risks and opportunities. The pace of action needs to be swift to avoid any impact on our reputation and to reflect the speed of the development of new approaches in the built environment, the expectations of our customers, and stakeholders. The Board recognises the pace of change required to respond to climate change and requests of our shareholders, stakeholders and to be part of the transition to a low carbon future. Alumasc's business model is designed to provide products to enable our customers to have sustainable and low-carbon products that enable them to also make the transition. **Future plans:** The timescales of climate-related risk, the impact, and mitigating measures will need to be reviewed and scheduled as part of the Board's rolling agenda. **See Strategic Report pages 22 to 44** **See Risk Management page 56**

ESG Report continued

Strategy *continued*

(c) Describe the organisation's strategy, taking into consideration different climate-related scenarios, including 2°C or lower	**Current approach:** We have identified various scenarios following workshops. To enhance our risk assessments, we have evaluated the resilience of climate risks identified under three plausible climate-related scenarios: 1.5°C, 2°C, and 3°C. This assessment was conducted with our partners, Green Element, to ensure a comprehensive analysis of our risk landscape. **Future plans:** Following our initial approach to TCFD, business continuity plans have been reviewed to ensure they consider these plausible risks, and that the climate change risk is reflected in each business plan. → See Scenarios page 50

Risk Management

(a) Describe the organisation's approach for identifying and assessing climate-change related risks	**Current approach:** The Board is responsible for overseeing climate-related risk and opportunities. With our business sustainability partners, Green Element, we initiated a workshop and liaised with each business to identify climate change risk. As part of the overall risk management process this will be provided to the Board. Internally, senior management reviews climate-related risks and opportunities. **Future plans:** During the next year, the Group will implement ways to monitor and implement processes to accompany the overall risk management process. It will include reviews of short, medium and long-term risk and ensure that climate change risk is also included as part of any M&A opportunities. → See ESG metrics and targets page 56
(b) Describe the organisation's processes for managing climate-related risks	**Current approach:** Following the identification of climate-related risks and opportunities in 2022, Alumasc has identified as part of the Energy Saving Opportunities Scheme, ways to reduce its emissions, either as part of manufacturing processes or in fleet initiatives with electric vehicles. The process involved the review and development of initiatives with individual business units. **Future plans:** Following the quantification of climate-related risk in 2022/23, the assessment of the risk of flooding and wildfires was considered. The focus will be on transition and short-term plans as this works alongside our business model. We will also consider our products and strategy in light of these changes. → See climate-related material risks and opportunities pages 41 to 44, and 56
(c) Describe how processes for identifying and assessing, and managing climate-related risks are integrated into the organisation's overall risk-management	**Current approach:** Climate change risk is a principal risk and is evaluated as part of our risk-management framework, business continuity planning and our internal controls process. Risks are discussed by management teams, divisional boards and then provided to the main plc Board. Climate-related risks are managed in the same ways as other risks (e.g., cyber, people, etc). **Future plans:** We are planning to ensure that briefings and training accompanies information on climate change risk scenarios provided to our people. We will continue to seamlessly incorporate reporting on climate change risks into our current processes. → See Risk Management page 56

Metrics and targets

(a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in-line with its strategy and risk management process	**Current approach:** We have agreed to use science-based targets, and these will be as follows: Scopes 1 & 2 – a reduction of 42% in emissions by 2030. Our baseline year is 2016/17. **Future plans:** We will expand our targets to assess climate risks and opportunities. Once the work to assess Scope 3 has been complete there will be an opportunity to consider a science-based Scope 3 emissions reduction near-term target. **See ESG targets page 31**
(b) Disclose Scope 1, Scope 2 and if appropriate Scope 3 GHG and related risks	**Current approach:** We have disclosed Scopes 1, 2 (and limited Scope 3) in prior years in our SECR report (see pages 34 to 35). We are currently completing an assessment for a full Scope 3 emissions and a target for reduction will be set. Our climate-related risks are listed in our material risks and opportunities register on pages 41 to 44. **Future plans:** The methodology for calculating Scope 1, 2 and 3 emissions will be refined, and we will establish a faster way to track and report on this. **See pages 34 to 35**
(c) Describe the targets used by the organisation to manage climate-related risks and opportunities	**Current approach:** We will set a target to reduce our Scope 1 and 2 emissions by 42% by 2030; once we have established our total Scope 3 emissions we will also set a target for reduction. We expected to have gathered all our Scope 3 data later on this year. **Future plans:** Our Board and management teams will look for further actions that can be taken to add to our decarbonisation plans. **See pages 34 to 35**

Strategy

Alumasc is exposed to risks and opportunities from climate change. Our purpose – to create building products for a sustainable future – clarifies our position in terms of opportunities, as a provider of climate change adaptation solutions. Alumasc seeks to mitigate the physical and financial risks. Solutions/products to mitigate climate-related risk are part of our core business to help others manage their transitional risks. While Alumasc is focused primarily on the UK, the business also exports goods abroad and will plan to grow global markets for key products that help manage some of the built environment challenges from climate change.

Climate-related risk has been assessed over three different time horizons, and we have as a start focused on shorter-term mitigation strategies as everyone seeks to implement plans and mitigations to reduce climate-related risk in a move to keep climate change to 1.5° Celsius or below.

The assessment of risk was guided by risk scenarios discussed with the business and those risk scenarios available from outside agencies (Met Office UKCP18). We looked at three climate change scenarios, incorporating both physical and transitional risks, one from 1.5° to 3°C.

For the summary of climate-related material risks and opportunities see pages 41 to 44.

ESG Report continued

		Potential materiality			Strategic response and mitigations
		2023-30 (short term)	2031-40 (medium term)	2041-50 (long term)	
Scenario 1 - 1.5° C	Some changes have taken place and to achieve this goal there has been an unprecedented change in behaviour.	25% 	50% 	50% 	Strategic response developed in the roadmap and developing a data strategy for metric reporting. Data on water use being collected. Renewable energy in place together with a plan to reduce energy use being developed. Using machinery using lower energy use, understanding Scope 3 to develop reduction targets. Target of enhancing our sustainable product portfolio to be developed by 2024/25 and putting in place EDPs for product categories during 2024. Our adoption of *OneClick* will support this aim. Continued investment in new manufacturing machinery and processes, including a focus on reduction.
Scenario 1.5 - 2° C	Some challenges to mitigate.	0% 	50% 	75% 	Continued investment in R&D to develop new products and to research potential new materials for use in the built environment.
Scenario 2 - 3° C	High degree of challenges to mitigation.	0% 	50% 	75% 	Further development of new products and innovation to provide resilience to cope with the changing environment.

Consideration has been given to IEA scenarios and RCP2.5 and RCP 8.5, and the financial impacts are deemed to be the same.

easyHotel, Cardiff

Environmentally focused solution

Extreme weather events are now the new normal, says the World Meteorological Organisation. Our rainfall patterns are becoming increasingly unpredictable, and we must plan accordingly to adapt the built environment to help alleviate flood risk.

The solution used was an Alumasc BluRoof technical specification, project design, and support service for stormwater management. The products used were: 400m^2 Derbigum BluRoof built-up system with 150mm thermal insulation.

Priorities for 2023/24

Priorities for 2023	How these have been/will be delivered	References
Revisiting the list of perceived risks and opportunities: We will provide more data on these and integrate these concerns more with our strategic plans and financial analysis.	An initial workshop and review of the risks has taken place. We propose to have follow-up workshops and to integrate our climate-related risk process with the Group-wide risk registers process.	See pages 46, 56
Climate-related scenario risks: There will be a further review of these with the businesses with further focus on the acute and chronic risks and this will have further attention within the combined risk approach for our new product innovation plans.	We are planning further calls with our Sustainability leads across the business and we will be incorporating climate-related risk reporting into our risk management process.	See pages 41 to 44
Supply chain resilience: We are training and providing additional know-how on improving resilience and enhancing our supplier questionnaires to evaluate sector exposure and resilience.	Sustainability leads in the business and procurement personnel have joined the Supply chain School of Sustainability.	See pages 54 to 55
Impact assessments and scenario analysis: These will be further developed in 2023.	We are comfortable that the impact assessments reflect the climate-related risks, however, this will be refined in 2023/24 as part of our Sustainability and reporting plans.	See page 50

Priorities for 2024	Our plans
Horizon scanning for future risks and opportunities	We will ensure that our climate-related plans and risks are incorporated into the Board's rolling agenda, our divisional Board meetings and the information is shared top-down.
Metrics and targets	Once we have collected and analysed the full Scope 3 emissions data, we will set reduction targets for all our businesses.

Our suppliers

Our partnership with suppliers plays an important part in our business, and we expect them to act ethically and share in our sustainability journey. Given a proportion of our Scope 3 emissions will come from our suppliers, we have been collecting data from them to determine our Scope 3 baseline emissions inventory. We will continue to work with them to ensure that they use recognised Environmental, Social and Governance standards. We continue to ensure that our suppliers support our aim of recognition under the SDGs and support our ESG journey.

How this aligns with our Sustainable Development Goals