Aluminium
for the world

Powering a Sustainable Future

Environmental, Social and Governance Report 2024

The Late Amir of Bahrain,
Shaikh Isa
bin Salman Al Khalifa
May God rest his soul
in peace

His Majesty
King Hamad
bin Isa Al Khalifa
The King
of the Kingdom of Bahrain

His Royal Highness
Prince Salman
bin Hamad Al Khalifa
The Crown Prince,
and Prime Minister

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Welcome from our Chairman

Dear Stakeholder,

As the world's largest aluminium smelter on one site, Alba is driven by a legacy of responsible manufacturing that extends far beyond financial success. We envision a future powered by positive impact, not just profit.

Our commitment to world-class environmental, social, and governance (ESG) performance is unwavering. It's woven into the fabric of everything we do, propelling us to create a brighter future for our Company, our industry, our region, and the people we proudly serve.

This deep dedication to sustainability is evident in every facet of our operations: from our fully integrated ESG strategy and our ambitious new decarbonisation roadmap accelerating us toward the Kingdom's Net Zero 2060 ambitions, to our leadership in innovative circular aluminium products - EternAl™. We are also investing in impact-focused initiatives that genuinely make a difference to our environment and to our communities.

This commitment establishes Alba at the forefront of responsible aluminium production and as a leading champion of sustainable development for the Kingdom of Bahrain. We take immense pride in our achievements and the accolades garnered on our sustainability journey thus far. Yet, our focus remains sharply on continuously elevating our standards of transparency, accountability, and sustainability.

We know that exceptional ESG performance is not just a goal, but an increasingly critical marker of true success in today's rapidly evolving world. As this report powerfully demonstrates, our vision for advancing sustainability across our Company, our industry, our region, and our communities only deepened in 2024. Looking ahead, we are more passionate than ever about our shared purpose: to power a truly sustainable future, ensuring prosperity for all, now and for generations to come.

Thank you for being an essential part of Alba's transformative journey.

Khalid Al Rumaihi
Chairman

> **We are committed to the relentless pursuit of world-class environmental, social, and governance (ESG) performance in everything we do.**

CEO Message

At Alba, sustainability isn't just about what we do; it's who we are. As a global aluminium player, we are not envisioning a greener future, we are actively building it through our ESG performance.

By harnessing the power of our talented human capital in 2024, we reduced our environmental impact, fostered positive social change and maintained highest standards of governance. These efforts earned us a coveted spot as one of only two Bahraini companies on the Forbes Middle East list of Sustainability Leaders and cemented our position as the region's first smelter to achieve certification from the Aluminium Stewardship Initiative (ASI) Performance Standard.

Powering a Greener Future: We're making swift progress on our +6 MW Solar Farm, projected to generate an impressive 10,539 MWh annually and slash approximately 7,600 tCO_2e. Furthermore, we've proudly commissioned Power Station 5 Block 4 a full month ahead of schedule. This combined cycle power block boasts an impressive generating capacity of 680.8 MW at 25°C and an outstanding efficiency of 54.6%. These aren't just projects; they are pillars of our sustainable legacy.

Driving Decarbonisation Forward: We've developed Alba's Decarbonisation Roadmap, meticulously aligned with Bahrain's Net Zero targets and the ASI decarbonisation pathway. This roadmap sets clear, ambitious goals for slashing our GHG emissions and charts our definitive course to achieving Net Zero by 2060. We've also proactively prepared Alba for the forthcoming Carbon Border Adjustment Mechanism (CBAM), ensuring our readiness for its 2026 implementation.

Innovating Greener Aluminium: Living up to our reputation as one of the world's top industrial companies for responsible manufacturing, we took a leap towards circularity and green aluminium with the launch of EternAl™. This innovative new line of low-carbon products, containing recycled aluminium, advances our commitment to powering a circular economy and spearheading the delivery of secondary aluminium.

Empowering Our People: We are passionately committed to empowering people and driving social advancement across the Kingdom. This includes prioritising robust support for SMEs, nurturing talent development, championing the professional advancement of Bahraini women and youth, and relentlessly promoting health and safety. We proudly achieved over 29,018,422 Safe Working Hours without any Lost Time Injury by the end of 2024 - a true reflection of our unwavering commitment to our workforce's well-being.

Investing in our Human Capital Potential: We are focused to nurture a dynamic talent ecosystem that champions growth and innovation across all levels in the Company. This commitment is rooted in our robust development programmes designed to enhance our skills, foster leadership capabilities and promote career progression.

Cultivating Communities: Our commitment to community surged by 12% year-over-year reaching c.BD2.4 million in 2024. This substantial funding fueled educational, cultural, sports, health, and industrial initiatives, directly contributing to the growth of communities across Bahrain.

While 2024 ESG report showcases remarkable performance, we believe that sustainability is an ongoing journey, not a fixed endpoint. Thank you for your unwavering support and engagement as we continue our efforts to generate lasting value and power a truly sustainable future for all our stakeholders: our dedicated employees, local communities, valued customers, and, most importantly, the beloved Kingdom of Bahrain.

Ali Al Baqali
Chief Executive Officer

2024 ESG Performance Highlights

92%
Landfill Diversion Rate

69%
increase in environmental conservation projects spend

3.3M
(BHD) revenue from recycled materials

87%
Bahraini National workforce

772,403
hours, training delivered

49%
reduction, Total Recordable Injury Frequency Rate (employees)

39%
reduction, Total Recordable Injury Frequency Rate (contractors)

100%
supplier screening against social criteria (procurement)

57%
local procurement rate

100%
supplier screening against environmental criteria (procurement)

ZERO
incidents of non-compliance with environmental laws and regulations

12%
increase, community investment

ZERO
significant spills or environmental sanctions

ZERO
substantiated customer privacy complaints

4.36/5
customer satisfaction score

About This Report

Alba is pleased to present the company's 2024 ESG report, which provides an overview of our environmental, social, and governance performance between 1 January and 31 December. This annual report showcases our continued progress and our ever-deepening commitment to integrating world-class sustainability standards across all facets of our business.

This ESG report is designed to be read in conjunction with the ESG section of our latest annual report.

Scope & Boundary

This ESG report covers the calendar year ending December 31, 2024. All information and statements disclosed in this report are in reference to Alba's plant/operations in the Kingdom of Bahrain unless otherwise stated.

Materiality

The content of this report focuses on issues that are of significance to all our stakeholders based upon a materiality assessment and review. More information about our materiality process can be found in Appendix G.

Reporting Standards & Alignment with National and International Priorities

This report has been prepared in accordance with GRI Universal Standards (2021) and in alignment with leading frameworks, including the United Nations Sustainable Development Goals (SDGs), the Kingdom of Bahrain's Economic Vision 2030, the Central Bank of Bahrain (CBB) reporting requirements, and the Aluminium Stewardship Initiative (ASI), and with reference to the International Financial Reporting Standards (IFRS) on Sustainability Disclosure.

Assurance

Deloitte and Touche Middle East (DTME) has provided limited assurance on this report, specifically in reference to selected environmental and social key performance indicators (KPIs). The assurance statement can be found on page 107. DTME is an independent entity from Alba up to and including the point of publication of this report. For the content index – Essentials Service, GRI Services reviewed that the GRI content index has been presented in a way consistent with the requirements for reporting in accordance with the GRI Standards, and that the information in the index is clearly presented and accessible to the stakeholders.

Cautionary Statement

This report contains statements that may be deemed as forward-looking statements' that express the way in which Alba intends to conduct its activities. Forward statements can be identified using terminology such as "plans", "aims", "assumes", "continues", "believes", or any variations of such words that certain actions, events or results "may", "could", "should", "might", "will", or "would" be taken or be achieved. Alba has made every effort to ensure the report is as accurate and truthful as possible. However, forward- looking statements by their nature carry inherent risks and uncertainties surrounding future expectations that could cause actual results to differ materially from these projected or implied statements. Such statements are therefore subject to risks that are beyond Alba's ability to control and consequently do not represent a guarantee that events implied in these forward-looking statements will occur.

Feedback

We welcome your feedback on this report. To leave your comments, please use the following links:

- IR@alba.com.bh
- https://www.linkedin.com/company/Aluminium-bahrain
- Aluminium Bahrain (@Alba4World)
- https://www.facebook.com/Alba4World/
- https://www.instagram.com/alba4world
- https://www.youtube.com/Alba4World

Powering a Better Aluminium Industry

Powered by more than 50 years of excellence, safety, environmental responsibility, and community development, Alba is driving the aluminium industry forward through human talent and innovation.

About Alba

The first aluminium smelter in the Middle East and one of the largest in the world, Alba is a cornerstone of the Bahrain economy and a reliable global partner. With a production capacity of more than 1.622M mtpa (2024), we produce high-quality standard and value-added aluminium products for global export.

Our Vision

To drive the aluminium industry forward through human talent and innovation from Bahrain to the world.

Our Mission

To drive long-term sustainable value for all stakeholders by capitalising on the strength of our product portfolio, anchored in our enduring dedication to safety and efficiency.

Headquartered in Askar, Bahrain with sales offices in Europe (Zurich), Asia (Singapore), and a subsidiary in the US, we are a central force in Bahrain's thriving downstream aluminium sector, contributing significantly to the Kingdom's GDP and helping to increase the contribution of non-oil sectors to the Bahrain GDP. Dedicated to social responsibility, we employ an 87% Bahraini (2024) workforce, and we invest heavily in employee training and development. *See the Leading with Integrity section of this report for more information.*

Alba is dually listed on Bahrain Bourse and the London Stock Exchange, and our shareholders include Bahrain Mumtalakat Holding Company B.S.C.© (69.38%), SABIC Industrial Investment Company (20.62%) and General Public (10%). During the period ended 31 March 2025, SABIC Industrial Investments Company sold its 20.62% shareholding in the Company to Saudi Arabian Mining Company (Ma'aden) which then became a shareholder in Alba.

Alba at a Glance

Alba's core business operations are centred around the production of aluminium using our smelter facility. Our operations and facilities encompass:

3,179
employees

280+
global customers

1.622
million tonne annual production capacity

6
reduction lines for smelting
(also called potlines, this is where the aluminium smelting takes place through a series of electrical circuits that connect individual cells or smelting pots).

3
cast houses
(in which molten aluminium is cooled, or cast, into forms such as ingots, extrusion billets, or rolling slabs)

4
carbon plants where anodes are produced and rodded

1
port facility
(including a coke calciner for the production of high-quality calcined petroleum coke, a desalination plant, and a jetty)

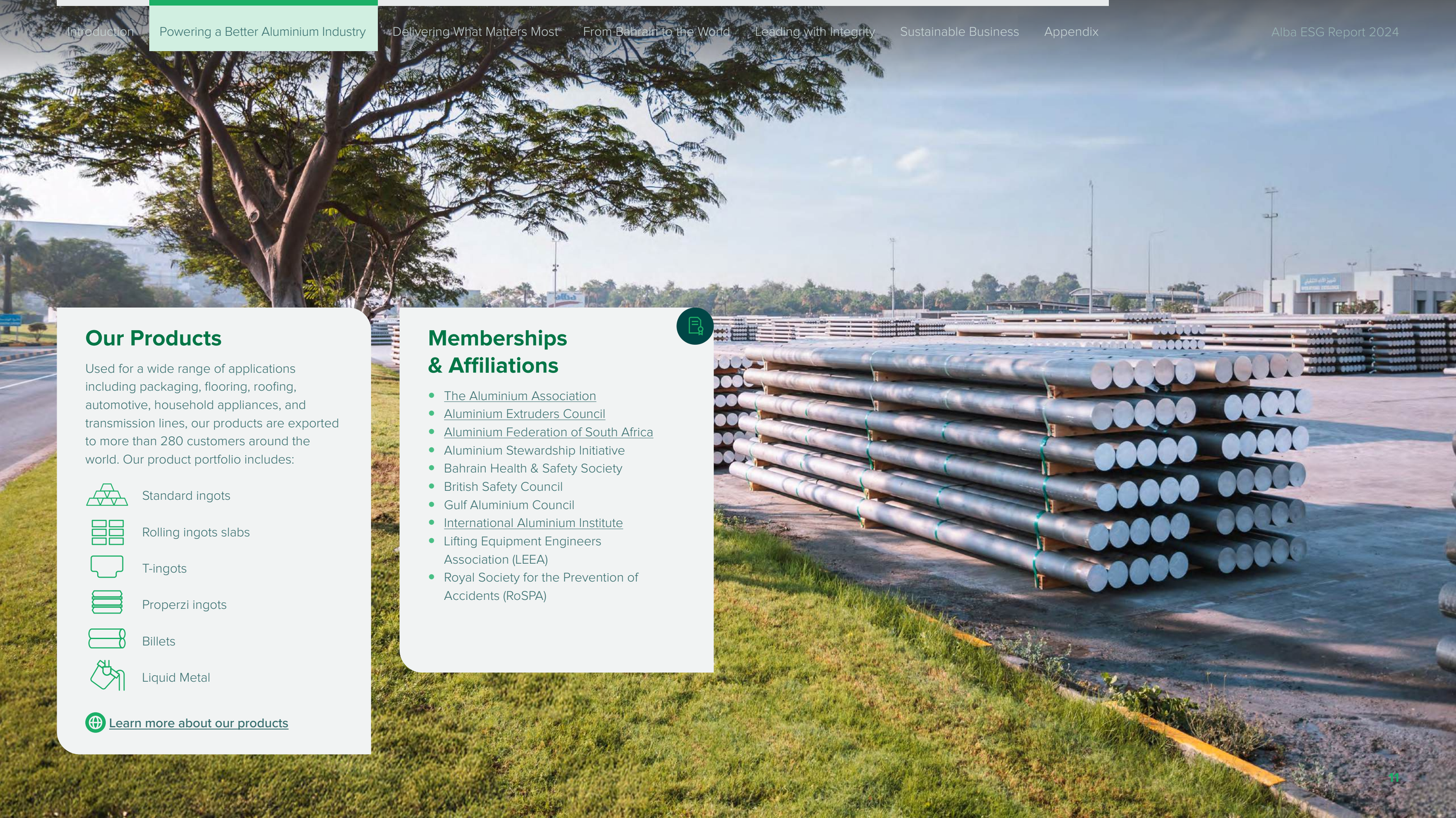
3
power stations

1
Spent Pot Lining facility

Alba Club

Other facilities including:

- engineering/ maintenance workshops
- material storage
- medical centre
- administrative offices



Our Products

Used for a wide range of applications including packaging, flooring, roofing, automotive, household appliances, and transmission lines, our products are exported to more than 280 customers around the world. Our product portfolio includes:

- Standard ingots
- Rolling ingots slabs
- T-ingots
- Properzi ingots
- Billets
- Liquid Metal

Learn more about our products

Memberships & Affiliations

- The Aluminium Association
- Aluminium Extruders Council
- Aluminium Federation of South Africa
- Aluminium Stewardship Initiative
- Bahrain Health & Safety Society
- British Safety Council
- Gulf Aluminium Council
- International Aluminium Institute
- Lifting Equipment Engineers Association (LEEA)
- Royal Society for the Prevention of Accidents (RoSPA)

2024 Awards & Recognition

Guided by the motto "Safety First, Safety Always" Alba prioritises the well-being of its employees and contractors.

The Company has been recognised internationally for its excellent Safety and Health track record with awards such as the RoSPA President's Award for winning RoSPA Gold Medal Award 11 years in a row, the British Safety Council's International Safety Award with Merit along with a 4-Star Audit Rating, and numerous awards from the National Safety Council (NSC). Alba's leadership and commitment to producing aluminium responsibly has also been recognised through awards such as the Grand Prize from Al Bilad's Corporate Social Responsibility awards, as well as recognition on the Forbes Middle East Top 100 Companies.

Leadership Awards

- **Best CEO Award for the Private Sector** for Alba CEO Ali Al Baqali – Bahrain Society of Human Capital Management (BSCM)
- Alba CEO Ali Al Baqali recognised as the highest ranked Bahraini on **Forbes Middle East's Top CEOs list**
- Alba CEO Al Baqali ranked fifth in the Manufacturing & Industrials sector on **Forbes Middle East's 'Sustainability Leaders 2024'**

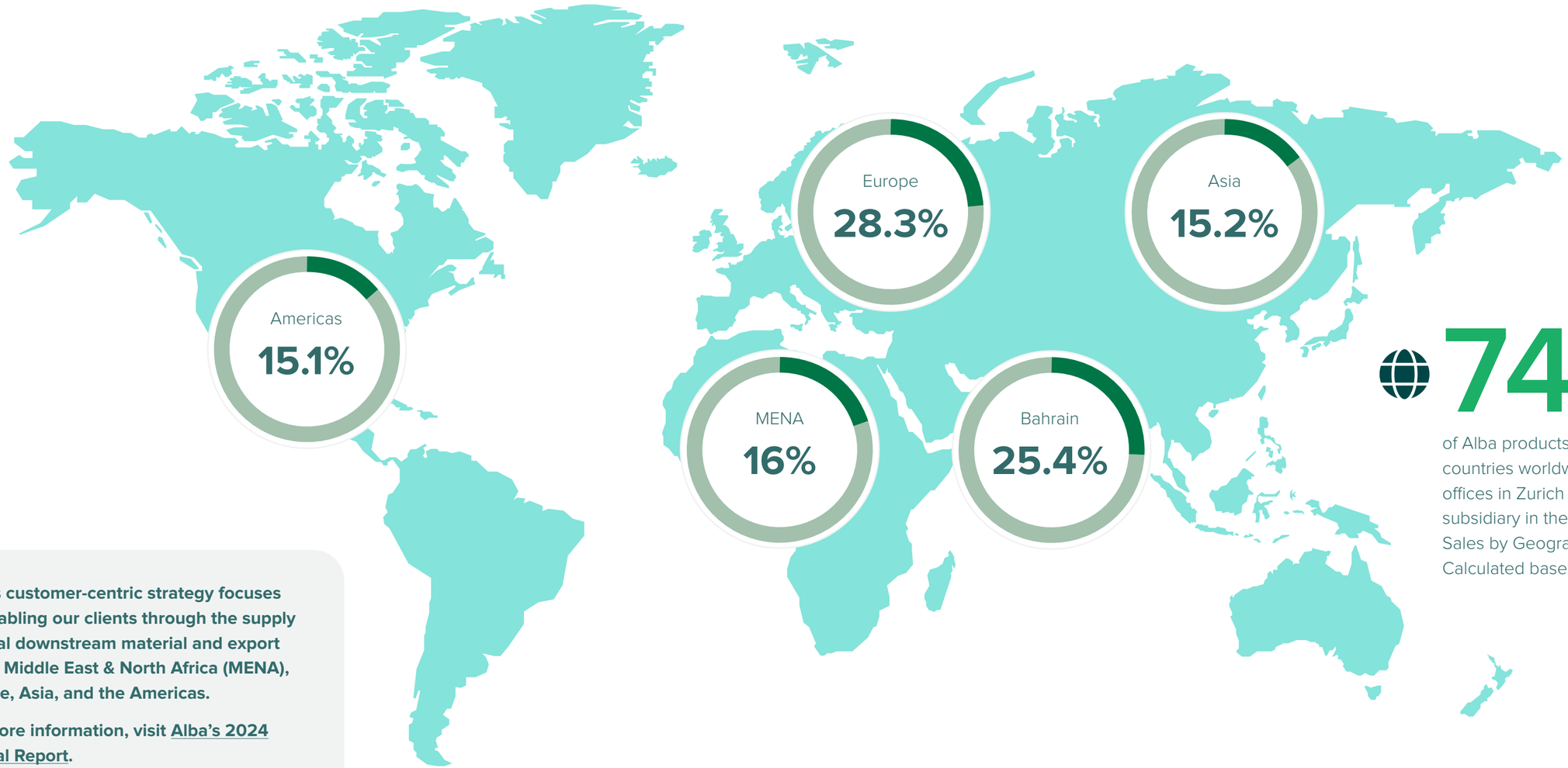
Company Awards

- Ranked as the top Bahraini company in the prestigious **Forbes Middle East's Top 100 Listed Companies** for the second year running.
- **Al Bilad CSR Award Grand Prize** among the 57 Bahraini companies and establishments for Alba's dedication to integrating Corporate Social Responsibility throughout the company
- **President's Award** from the Royal Society for the Prevention of Accidents (RoSPA) for the 2nd consecutive year
- **International Safety Award** from the British Safety Council (BSC) with Merit
- Ranked as one of Al Bilad's **'Top 50 Companies in Bahrain'** for the third year in a row
- **Four major National Safety Council (NSC) USA awards:** the Perfect Record Award, Occupational Excellence Achievement Award, Milestone Award and Million Work Hours Award
- **EcoVadis Platinum Rating (2024)**

Certifications

- Aluminium Stewardship Initiative Performance Standard
- Aluminium Stewardship Initiative Chain of Custody Certification
- International Automotive Task Force (IATF) for Quality Control (16949:2016)
- ISO 14001:2015 (Environment)
- ISO 9001 (Quality)
- ISO 22301 (Business Continuity)
- ISO 27001 (Information Security)
- ISO 45001 (Occupational Health and Safety)
- ISO 18788 (Operations)

Alba around the World



74.6%

of Alba products are exported to 50 countries worldwide through our sales offices in Zurich & Singapore and our subsidiary in the US in Atlanta, Georgia. Sales by Geographic Footprint are Calculated based on Values.

Alba's customer-centric strategy focuses on enabling our clients through the supply of local downstream material and export to the Middle East & North Africa (MENA), Europe, Asia, and the Americas.

For more information, visit Alba's 2024 Annual Report.

Delivering What Matters Most

Powered by our commitment to the highest standards of environmental, social, and governance performance, Alba seeks to create sustainable long-term value for our company, our customers, our communities, and beyond.

Material topics in this section:

- Ethical Governance
- ESG Transparency & Disclosure
- Compliance & Risk

Bahrain Economic Vision 2030

See detailed progress against our KPIs in the Performance Dashboard at the end of this report.

ESG at Alba

Since our inception we have invested in a growing portfolio of business initiatives and environmental and socio-economic projects aimed at enabling sustainable development and social impact.

These tangible efforts to meet the goals of Bahrain's Economic Vision 2030, the Net Zero Carbon targets led by HRH the Crown Prince and Prime Minister of Bahrain, and the UN Sustainable Development Goals have recently included a US $37.5 million investment in a first-of-its-kind zero-waste Spent Pot Lining Treatment Plant, our Block 4 Project at Power Station 5, and the continued development of a +6 MW solar farm.
(See the From Bahrain to the World section of this report for more information on these projects).

Alba is recognised as one of the top industrial companies in the world for our commitment to responsible manufacturing based upon our environmental practices, social contributions, and corporate governance. This commitment is reinforced by our adherence to rigorous international standards for quality and performance, including ISO 9001 (Quality), 22301 (Business Continuity), 14001 (Environment), 27001 (Information Security), 45001 (Occupational Health and Safety), and 18788 (Operations). We also hold accreditation from the International Automotive Task Force (IATF) for Quality Control (16949:2016), and the Aluminium Stewardship Council Initiative (ASI) Chain of Custody Standards, and Ecovadis.

ESG Strategy & Roadmap

Our ESG strategy is anchored in a structured Roadmap that fosters a purpose-driven culture, supports long-term value creation, and strengthens our approach to risk management and business continuity. Developed in alignment with leading global sustainability frameworks including the UN Sustainable Development Goals (SDGs) and the Bahrain Economic Vision 2030, our ESG Roadmap also reflects Bahrain's national climate commitments and regulatory readiness.

Following Bahrain's announcement at COP26 to achieve net-zero carbon emissions by 2060, and the launch of the National Energy Strategy in 2023, our ESG Roadmap aligns with the Kingdom's decarbonization ambitions. It also supports our preparedness for emerging global regulations such as the EU Carbon Border Adjustment Mechanism (CBAM) and responds to increasing customer demand for aluminium products with a lower carbon footprint and higher recycled content.

As part of Bahrain's COP26 commitments, the Kingdom has set the following interim goals to be achieved by 2035:

- Reduce national emissions by 30%
- Double renewable energy deployment compared to COP21 targets
- Quadruple mangrove coverage to enhance natural carbon sinks
- Double tree coverage to support carbon sequestration and biodiversity
- Invest in carbon capture technologies to enable long-term carbon removal

Significant updates are communicated clearly to employees and stakeholders.

For more information please visit our website: Alba's ESG Roadmap – AluminiumBahrain (Alba) (albasmelter.com).

ESG Roadmap

Alba's ESG Roadmap focuses on our sustainability efforts which includes six priority areas of action:

Decarbonisation: reducing GHG emissions from existing and future processes within Alba's operational control (e.g., efficiency improvements, technology upgrades), and in turn supporting Bahrain's commitment to become net zero by 2060.

Green Energy & Aluminium: leveraging renewable energy (e.g., solar, wind, etc.) and renewable energy market mechanisms (such as power purchase agreements and renewable energy certificates) to reduce GHG impacts.

Circular Economy & Secondary Aluminium: Integrating secondary aluminium into the production processes. Recognizing the significant energy savings and environmental benefits associated with recycled aluminium, Alba is actively working to increase the use of recycled content as a strategic pillar in its sustainability journey.

Employee Welfare: ensuring Alba employees feel valued and safe in their working environment and are supported by their employer mentally, physically, and emotionally.

Partnerships: establishing strategic partnerships (e.g., with universities or associations) and mutually beneficial relationships (e.g., with communities, government, etc.) to advance Alba's ESG roadmaps.

Transparency, Communications & Due Diligence: developing a governance structure (e.g., policies, procedures, etc.) and actions (e.g., risk assessments, supplier evaluations, etc.) to ensure consistent, competitive and ambitious ESG communications with key internal and external stakeholders (e.g., reporting, newsletters, etc.).

Each priority is supported by defined key performance indicators (KPIs) with measurable targets, enabling transparent monitoring and continuous improvement. Progress is reported quarterly to the Board, and the Roadmap is regularly updated to reflect evolving ESG trends, strategic developments, and stakeholder expectations.

ESG Framework

Our ESG Framework provides an operating structure for driving impact across the six priority action areas of our ESG Roadmap by organising the most material issues associated with each priority around three core pillars of operation.

Safety, Health and Environmental Responsibility

- GHG Emissions
- Energy Management
- Waste Management
- Water Management
- Biodiversity Preservation
- Health & Safety

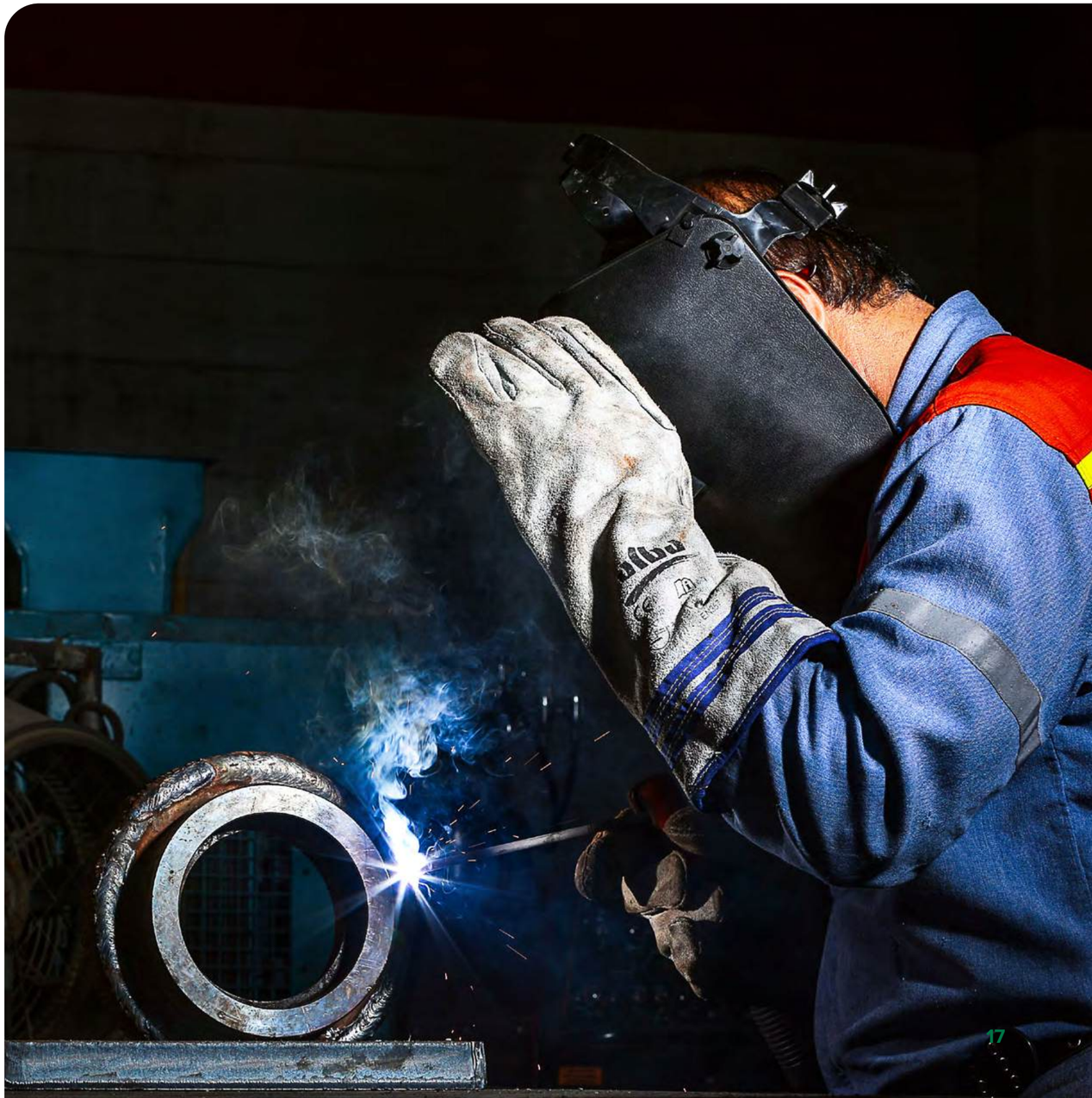
Social and Community Impact

- Human Rights
- Socioeconomic Contribution
- Diversity, Equity & Inclusion
- Talent Attraction & Retention
- Employee Benefits & Welfare

Governance and Management

- Compliance & Risk
- Ethical Governance
- ESG Transparency & Disclosure
- Responsible Sourcing
- Innovation
- Customer Responsibility
- Metal Marketing & Product Labelling

The content of this report is organised according to the three pillars of this framework.



ESG Management

Our ESG management approach closely aligns with our long-term business objectives and corporate strategy, which focuses on being an employer of choice for our region, managing risk, preserving business continuity, and sustaining growth. ESG principles and practices are fully embedded across our core business activities, including strategic decision-making and operations, with a focus on assessing and managing ESG risks and opportunities, understanding lifecycle impacts, and comprehensive sustainability performance. To ensure the ongoing relevance, value, and efficacy of this management approach, we continuously monitor ESG trends, risks, and opportunities, and consider feedback from regular stakeholder engagement.

> **ESG principles and practices are fully embedded across our core business activities, including strategic decision-making and operations, with a focus on assessing and managing ESG risks and opportunities, understanding lifecycle impacts, and comprehensive sustainability performance.**

ESG Governance

Alba's Board of Directors guides the company's overall direction in alignment with our mission, vision, and values and with a strong emphasis on sustainability. Under the leadership of our CEO, Alba's executive team translates the Board's direction and commitments into actionable, target-driven initiatives encompassed by our ESG Roadmap and framework. Our ESG performance is then reported to the Board and its committees by the CEO on a quarterly basis. Specific social impact matters are further addressed by the Nomination, Remuneration and Corporate Governance Committee, while corporate governance and compliance matters are addressed by the Audit Committee, while environmental matters are addressed by the Executive and ESG Committees.

Reporting to the Chief Power Officer, Alba's Director of ESG leads the integration of sustainability into our operations through the implementation of key management systems, ESG risk management, and regulatory compliance. To amplify our ESG Governance, the Director also oversees two critical ESG task forces: our Waste Management Task Force, which is tasked with gathering data on our waste streams, analysing our waste disposal practices, and developing innovative solutions for reducing waste and increasing reuse and recycling, and our GHG Accounting Task Force, which focuses on collecting accurate, high-quality emissions data across the production lifecycle to inform future emissions reduction strategies. *See the Sustainable Business section of this report for more information about our broader governance practices.*

The Board-sub Executive and ESG Committee plays a central role in steering Alba's ESG strategy by overseeing the implementation and performance of the ESG Roadmap. This Committee ensures that ESG initiatives are progressing in alignment with Alba's long-term sustainability goals and regulatory expectations. It conducts quarterly reviews to monitor key developments, assess performance against targets, and address any emerging ESG risks or opportunities. The outcomes of these reviews are reported to the Board on a quarterly, enabling informed decision-making and reinforcing accountability at the highest level of governance. For material topics and ESG KPIs reporting, the responsibility lies with Executive Management, under the leadership of the CEO, ensuring that disclosures reflect Alba's values, commitments, and performance across environmental, social, and governance dimensions.

Materiality

In keeping with our mission, vision, and values, we believe that understanding the material impact and significance of our environmental, social, and governance activities is fundamental to our capacity for transparency, accountability, and effective decision-making.

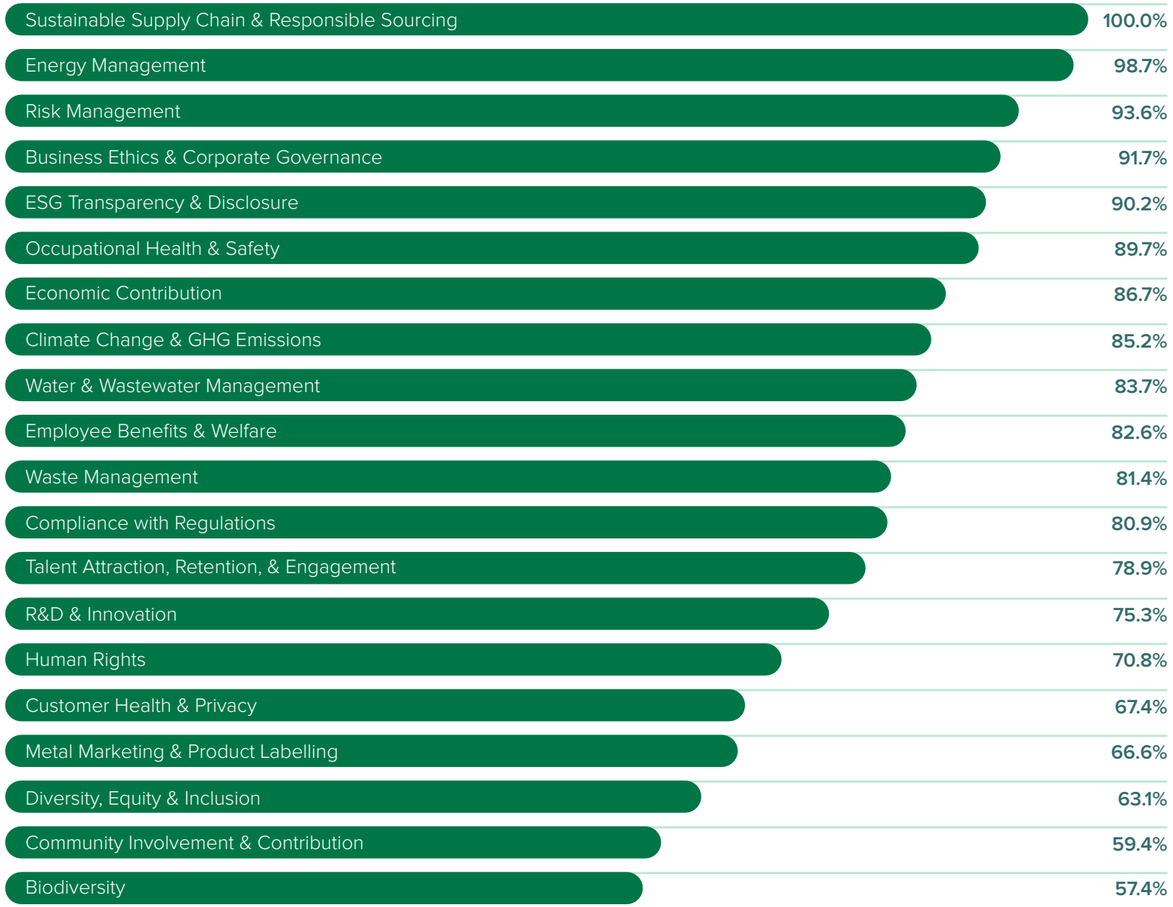
In 2023 we completed a comprehensive materiality assessment to identify and prioritise the issues that matter most to our internal and external stakeholders. Aimed at ensuring our strategy and operations remain focused on the needs, interests, and concerns most significant to our stakeholders and our organisation, the materiality assessment was leveraged external expertise, adhered to the latest GRI standards, and encompassed the double materiality principles of financial and non-financial impact. This in-depth materiality assessment identified 20 priority material topics, which are fully incorporated into our ESG framework.

In 2024 Alba continued the robust and comprehensive approach to materiality we established in 2023. We affirmed that our 2023 methodology remains entirely applicable and effective for identifying and prioritising key ESG issues, and we reviewed all 20 priority material topics including cross-referencing industry peers, regulatory bodies, and ESG rating criteria, to ensure the continued material relevance of each priority topic to our stakeholders and our organisation.

While no significant changes to our core materiality assessment process or our materiality priorities were made in 2024, we did recognise increased pressure from our customers concerning the Carbon Border Adjustment Mechanism (CBAM). In recognition of the growing importance of CBAM, we have chosen to place further emphasis on it in our 2024 disclosures. This focus reflects our commitment to addressing evolving stakeholder expectations and ensuring transparency regarding this critical regulatory framework.

This consistent approach ensures continuity and comparability in our reporting, enabling us to maintain the rigour and depth of analysis that Alba's stakeholders expect, and ensuring our continued adherence to the latest GRI standards and double materiality principles. *Detailed information regarding our materiality assessment process and matrix can be found in our 2023 ESG report.*

Significance and prioritisation of topics based on impacts as validated by stakeholders:*



*Impact scorings ranked from highest to lowest scores

Stakeholder Engagement

Alba is committed to bridging gaps to build better business by maintaining strong relationships with our stakeholders through regular dialogue and communication. We define our stakeholders as the individuals, entities, and organisations who are most impacted by our company and our activities. These include government entities and regulators, investors and shareholders, local communities, employees, customers, suppliers and contractors, and civil society groups.

In addition to using our materiality assessment process to drive a deeper understanding of the significance of our material topics on each of these stakeholder groups, we also have a Stakeholder Engagement Plan in place to proactively address the environmental and social impacts of our operations by outlining clear mitigation controls and transparent communication. Our ongoing stakeholder engagement activities include but are not limited to in-person meetings and dialogue with key stakeholders, regular disclosure and reporting of both financial and non-financial activities, and employee and customer satisfaction surveys.

We also have an accessible Grievance Mechanism in place to ensure that all stakeholders and the public are fully empowered to voice concerns and raise issues. *See the Sustainable Business section of this report for more information on our Grievance Mechanism.*

> **Our ongoing stakeholder engagement activities include but are not limited to in-person meetings and dialogue with key stakeholders, regular disclosure and reporting of both financial and non-financial activities, and employee and customer satisfaction surveys.**

From Bahrain to the World, Advancing a Cleaner Tomorrow

Alba is finding smarter, greener approaches to meeting the world's demand for aluminium.

Material topics in this section:

- GHG emissions
- Energy Management
- Waste Management
- Water Management
- Biodiversity Preservation

SDG Contributions:

Bahrain Economic Vision 2030

2024 Highlights

- Introduced **EternAl**™, a new line of low-carbon aluminium products
- **Zero instances of environmental non-compliance** (including significant spills) or fines/sanctions
- **10 percentage points increase** in landfill diversion rate to 92%
- Introduced annual **Life Cycle Assessments** using our platform and third-party verification
- **Generated more than 950 MWh of energy of energy via the Alba Solar Farm**
- Began sharing quarterly **CBAM reports** in line with EU Commission requirements for the Carbon Border Adjustment Mechanism
- **69% increase in environmental investment** projects spend

Managing Our Environmental Performance

Aluminium is the key component of a vast array of products and processes that enable economies and support quality of life around the world, and Alba is responsible for delivering a significant portion of the world's aluminium supply. That means every step we take towards an even greener aluminium industry gets us collectively closer to a more resilient and regenerative future.

In 2024 we took a major step towards greener aluminium with the launch of EternAl™, a new line of low-carbon aluminium products. Containing recycled aluminium, the products significantly advance our commitment to powering a circular economy and the delivery of secondary aluminium. Introduced in May 2024, the initial EternAl offering includes two variants: EternAl-30, which contains 30% recycled content, and EternAl-15, which contains 15% recycled content.

Aluminium Bahrain has also conducted GHG data collection, consolidation, and checking for the carbon intensity of EternAl-15 and EternAl-30 in alignment with the GHG Protocol (Corporate Accounting and Reporting Standard) and the Greenhouse Gas Protocol from International Aluminium Institute (IAI), and Det Norske Veritas (DNV) has carried out independent verification of the GHG inventory relevant to the quantity of aluminium produced in accordance with the verification principles and requirements as per ISO 14064-3:2019. The verification provides a limited level of verification of ALBA's GHG performance data and applies a ±10% materiality threshold for errors and omissions.

As part of our commitment to industry and stakeholder engagement, Alba representatives also participated in a variety of conferences, meetings and roundtables throughout 2024 including the Decarbonisation Roundtable Series – MENA's Economic Transition – Seizing Green Opportunities for Growth and Human Capital Development, and the Global Water, Energy, and Climate Change Congress (GWECCC). We also continued strategic partnerships with several national universities, including Bahrain Institute of Banking & Finance, Bahrain Polytechnic, University of Bahrain, Ahlia University Bahrain, Arabian Gulf University, University of Technology Bahrain, Applied Science University and Kingdom University Bahrain, to promote ESG awareness and to conduct research on biodiversity and carbon sequestration.

Action Spotlight

Product Life Cycle Assessments (LCAs)

To better understand the quality, performance and impact of our products throughout the lifecycle (from cradle to gate), Alba previously conducted Life Cycle Assessments (LCAs) as per ISO 14040 and ISO 14044 for our products every five years in partnership with a third-party consultancy. Following the successful automation of digitised LCA processes in 2023, in 2024 we transitioned to conducting LCAs and GHG emissions accounting using the LCA for Experts software. The Global Warming Potential (GWP) for the product was 11.53 tonne CO_2 eq per tonne of Al for ALBA's products.

As a next step, Alba is now in the process of developing **Environmental Product Declarations (EPDs)** for customers. Designed to facilitate accurate product comparisons and promote transparency by providing verified environmental impact accounts, the EPDs will use verified LCA data to provide an accessible summary of Global Warming Potential based on product type, along with other sustainability data relevant to the product.

Climate Change & GHG Emissions

Alba fully supports the Kingdom's national strategy for climate change which aims to achieve Net Zero by 2060 with a 30% reduction in GHG emissions by 2035.

As part of this commitment, Alba is actively working towards decarbonisation to align with global climate goals, national commitments, and industry standards such as the Aluminium Stewardship Initiative (ASI) decarbonisation pathway and the International Aluminium Institute (IAI).

Alba has developed a decarbonisation roadmap that aligns with Bahrain's national targets as well as the ASI decarbonisation pathway. The Decarbonisation Roadmap 2060 outlines Alba's current carbon footprint and the aluminium sector, explores decarbonisation pathways, and establishes clear targets for reducing emissions across Scope 1, 2, and 3 categories. It also highlights strategies to maximize scrap utilization and enhance our ESG initiatives. The roadmap focuses on achieving Net Zero emissions by 2060 with a 30% emissions reduction by 2035 by providing a breakdown of Alba's six ESG priorities and their potential emissions reductions. In addition to Scope 1, 2, and 3 emissions reductions, key elements of our decarbonisation pathway include maximising scrap reutilization by securing recycled materials, securing recycling infrastructure and partnership with international recyclers.

To directly drive our decarbonisation objectives, we also have robust mechanisms in place for measuring and monitoring our operational Scope 1 and 2 emissions according to the standards of the Intergovernmental Panel on Climate Change (IPCC) and the International Aluminium Institute (IAI). Data from these monitoring systems is accessible through an online dashboard, enabling the use of real-time performance insights for environmental management, decision-making, and strategic planning. In keeping with our commitment to understanding our environmental impact across the supply chain and product use phases as well as direct operations, in 2024 we began the process of incorporating Scope 3 emissions into our GHG accounting and verification processes.

In 2024 we received a Carbon Disclosure Project (CDP) score of C for climate and B- for water security – a significant improvement from previous years. CDP is a global not-for-profit disclosure system for investors, companies, cities, states, and regions to track their environmental impacts, including GHG emissions, deforestation, and water security.

Company Name	Climate	Forests	Water
Aluminium Bahrain BSC	C		B-

Decarbonisation

- Energy management System (EMS)
- Power Station Efficiency
- Afforestation & Reforestation
- Insert Anode Technology
- Hydrogen
- Carbon Capture & Storage (CC&S)
- Carbon Offsets

Green Energy & Aluminium

- On-Site Solar
- Government Collaboration - Renewable Energy Power Purchase Agreement (PPA)

Circular Economy & Secondary Aluminium

- Securing Recycled Materials
- Securing Recycled Infrastructure
- Partnership with International Recycler
- EternAl

GHG Priorities

Employee Welfare

- Professional Development
- Employee Satisfaction Assessment
- Community ESG Training
- Equal Opportunity Employment

Partnership

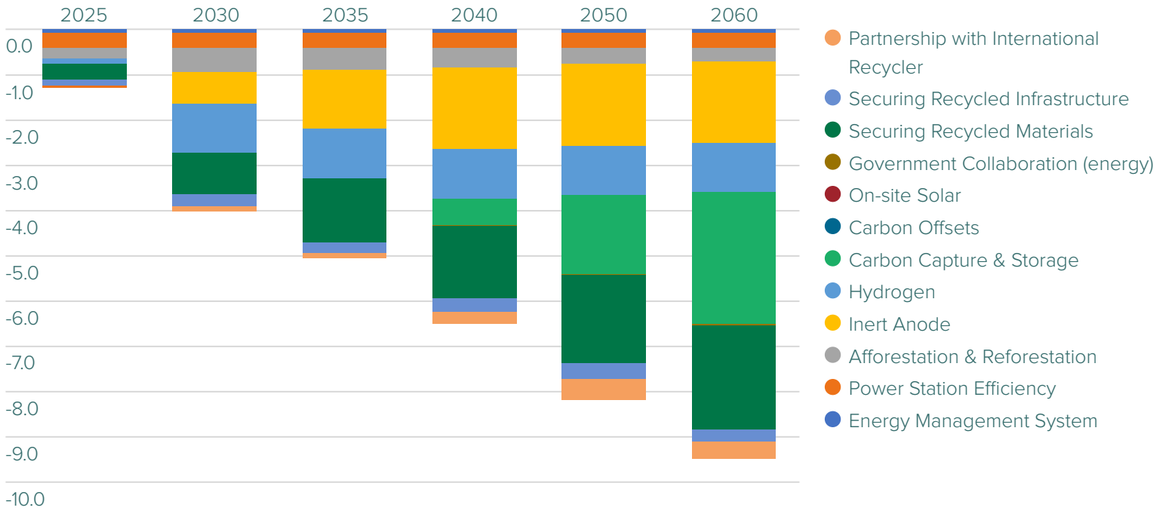
- Green Financing
- University Collaboration
- Collaborations with Think-tanks

Transparency, Communications & Due Diligence

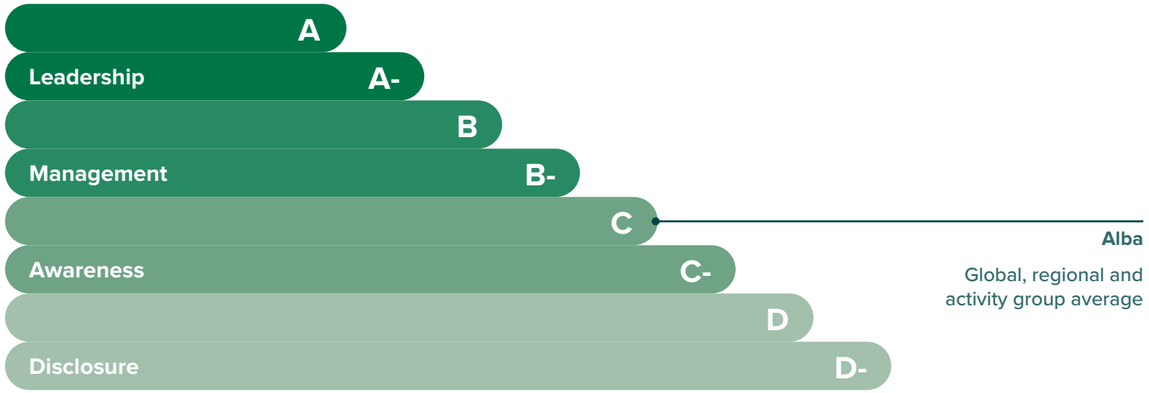
- Website Updates
- ESG Due Diligence
- ESG Disclosure

Stakeholder Priorities

REDUCTION POTENTIAL BY INITIATIVE (tCO_2e/tAl)



CDP CLIMATE SCORE



Other Air Emissions

Beyond GHG emissions, Alba also measures, monitors, and reports other emissions to air including nitrogen oxides (NOx), sulphur oxides (SOx), volatile organic compounds (VOCs), fluorides, PFCs, particulates, and ozone-depleting substances (ODS). We quantify and report on these emissions to local authorities on a regular basis in accordance with local legislation using the calculation methods and approaches set by international standards including IPCC, the American Society for Testing and Materials (ASTM) International, the IAI, and the US Environmental Protection Agency (US EPA). In 2024, NOx emissions decreased by 14% and our SOx emissions decreased by 12%. While VOCs intensity increased by 36.7% due to maintenance activities on the potline FTP/GTC filter bags, the values remained below the legal limit.

Monitoring Emissions

Alba is monitoring its emissions through a range of activities, including:

1. Quarterly manual sampling and reporting on all areas covering the NOx, CO, SO_2, HF, VOCs, PM
2. Continuous Emission Monitoring Systems (CEMS)
   - Two AQMS monitoring stations for monitoring NOx, SO_2, HF, VOCs
   - 8 dust sentries monitoring (wind speed & direction, PM, Temperature, Pressure)
   - CEMS monitoring the HF & dust on roofs & stacks in reduction lines 4-6

In addition, we are exploring opportunities for new developing technologies and digitalization to manage emissions, such as the low NOx burners that installed in kilns in 2024.

Action Spotlight

Low NOx Burners in Kilns

In 2024 we introduced a new generation of low NOx burner nozzles in our kilns, beginning with a trial of 54 nozzles in three burner ramps covering 25% of the plant. The trial resulted in a 10% reduction in NOx emissions by reducing thermal NOx formation during firing by optimising process parameters and fine-tuning gas injection into the flue walls. Based on the promising results of the trial, Alba collaborated directly with the technology provider to specially design and install burner nozzles across 100% of our kilns – resulting in a notable 70% reduction in NOx levels, from 252 to 77 mg/Nm^3.

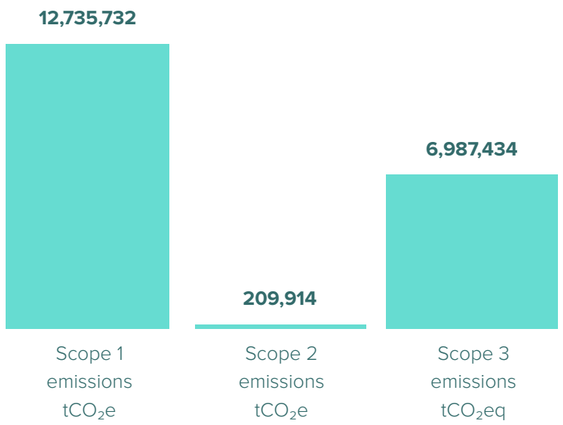
2024 Performance

In 2024 our Scope 1 and 2 GHG emissions totalled 12.9 million metric tonnes of CO_2 equivalent ($mtCO_2e$), equating to 7.98 tCO_2e per metric net finished product (mtNFP). Alba's GHG emissions are 3rd party verified by DNV as per ISO 14064-3:2019. In 2024, we developed our Scope 3 emissions inventory, covering Category 1 (Purchased Goods and Services), Category 3 (Fuel- and Energy-Related Activities), Category 4 (Upstream Transportation and Distribution), and Category 9 (Downstream Transportation and Distribution). Total Scope 3 emissions for the year amounted to 6,987,434 tCO_2eq, with approximately 72.67% attributed to purchased goods and services. Fuel- and energy-related activities were the second-largest contributor, accounting for 16.49% of the total emissions. (Refer to Scope 3 GHG Accounting Report in the Appendix for further details.)

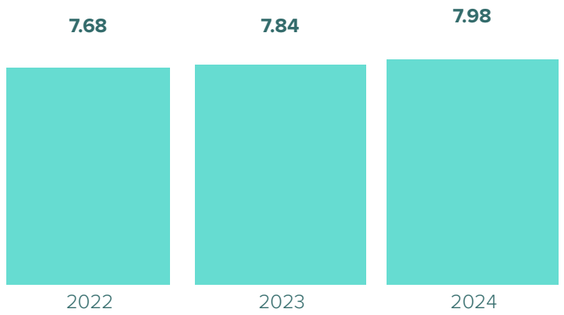
Alba uses the following GHG reporting protocols and standards to measure and disclose our emissions:

1. GHG Protocol: A Corporate Accounting and Reporting Standard, 2015.
2. 2019 refinement to the 2006 IPCC guidelines for national GHG inventories (Chapter 4) - for PFC slope coefficients and weight fractions (C2F6/CF4).
3. IPCC Fifth Assessment Report (AR5) - for the Global Warming Potential (GWP) values of PFC gases.
4. Emission Factors from Cross-Sector Tools, March 2017, of GHG Protocol - for emission factors of Diesel Oil and Gasoline.
5. The Aluminium Sector Greenhouse Gas Protocol from the International Aluminium Institute (IAI), October 2006 – for process-related factors and default values.

GHG EMISSIONS



GHG EMISSIONS INTENSITY (tCO_2e/tAl)



Note: This figure is with GHG savings (with respect to carbon bank savings). If the total GHG savings in 2024 are instead allocated in carbon bank balance, the corporate emissions intensity is approximately 8.05 tCO_2/t AL for Scope 1 and 2.

GHG EMISSIONS 2024 BREAKDOWN (%)

35%
Total indirect GHG emissions (Scope 3)

63.9%
Total direct GHG emissions (Scope 1)

1.1%
Total indirect GHG emissions (Scope 2)

GHG intensity ratio is per tonne of Net finished Product (NFP). Direct emissions (Scope 1) and Indirect emissions (Scope 2) are included in the GHG Intensity ratio calculation. The international GHG Protocol Corporate Standard classifies a company's GHG emissions into three 'scopes'. Scope 1 emissions are direct emissions from owned or controlled sources; Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

Action Spotlight

Managing Product Carbon Footprint – Carbon Banking

Alba has established its private Carbon Bank as a core mechanism to manage and allocate verified greenhouse gas (GHG) emission reductions generated solely from Alba's internal GHG emission reduction initiatives. Unlike typical offset schemes, Alba does not purchase external carbon credits; instead, all offsets are derived from ISO 14064-2 aligned projects developed and executed in-house such as scrap recycling, waste management, and renewable energies. These reductions are registered within Alba's Carbon Offset Registry and added to the Carbon Bank after passing validation criteria set by the ESG team and must pass an annual third-party verification audit. Offsets are tracked through a digital ledger that records project-specific emissions reductions, and product-level allocations. The Carbon Bank undergoes annual internal reviews and is verified by an independent accredited third-party auditor following ISO 14064-3 standards to ensure transparency, traceability, and accuracy. As of the end of 2024 the Carbon Bank's balance stood at 228,550 tonnes of CO_2e generated from decarbonization projects. This figure was obtained post carbon bank verification for 2024 which was completed in June 2025, and includes 2023 and 2024 balance - offsets allocated in 2025 up to and including June 2025.

Action Spotlight

Carbon Border Adjustment Mechanism (CBAM) Compliance

In Q4 2023, Alba began sharing quarterly reports in line with the EU Commission requirements for CBAM, an EU policy designed to prevent "carbon leakage" by ensuring carbon-intensive goods imported to the EU face a carbon price comparable to that of domestically produced goods. In accordance with CBAM mandates for aluminium, importers must submit quarterly reports detailing the quantities of aluminium goods imported into the EU and their associated GHG emissions, including direct and indirect embedded emissions. Importers must also provide information on any carbon prices paid during production. Currently in the transitional phase, CBAM will fully come into effect in 2026. In addition to proactively submitting quarterly reports, Alba is continuously monitoring updates and new regulations to the policy, ensuring we remain in full compliance as the requirements evolve.

Energy Management

Maximising energy efficiency is one of the most powerful levers of change we have for driving down carbon emissions.

By responsibly managing the energy consumed across our operations by diversifying our energy sources and leveraging renewable energy sources where possible in alignment with Bahrain's Economic Vision 2030, we are systematically driving progress towards our own green energy targets as well as supporting the Kingdom's Net Zero 2060 objective.

Natural gas for the generation of electricity constitutes most of the energy consumed by our operations. Electricity produced at our power stations is used to fire our furnaces (e.g. heating), and part of it is exported to Bahrain's National Grid. The heating, cooling, and steam energy we produce is also used on site and is not sold or exported.

When complete, the Alba Solar Farm will generate a projected 10,000 MW hours annually – avoiding approximately

7,600 tCO_2e

In 2024 we also made significant progress towards our increased use of regenerative energy via the Alba Solar Farm, a project involving the installation of approximately 11,300 solar photovoltaic panels across more than 37,000 square metres. One of Bahrain's largest single-site solar projects with the lowest EPC cost per megawatt (MW), solar panels have now been installed on the rooftops of our engineering, medical, and central workshop facilities to directly power Alba's energy requirements through our PS3 central control room. While the installation of additional solar panels is ongoing on structures including the car park and non-operational roofs, the Alba Solar Farm has generated more than 950 megawatt hours (MWh) of energy across 2024.

As a step towards further diversifying our energy portfolio, Alba has issued a tender for up to 500 MW of renewable energy under the Build, Own, and Operate (BOO) principle. Seven technical bids have been received, with the deadline for commercial offers set for 04 May 2025. The limited number of quotes reflects the challenges associated with renewable energy intermittency, as well as land and transmission constraints. Alba has outlined a stringent generation profile of up to 500 MW, accounting for seasonal variations and day/night demand patterns.

We marked a further milestone on our energy efficiency and decarbonisation journey in 2024 with the commissioning of our Power Station 5 Block 4 project. Executed one month ahead of schedule, the Block 4 project is a combined cycle power block with a generating capacity of 680.8 MW at 25°C and an efficiency of 54.6% attached to Power Station Block 5, which supplies power to our potlines alongside Blocks 1-3, Block 4. As part of the ESG Roadmap decarbonisation pathway, Block 4 will expand the nameplate capacity of the PS-5 complex from 1.8 to 2.4 gigawatts (GW) through the use of an advanced high temperature, high efficiency, high capacity, low emissions Mitsubishi gas turbine, a Hitachi steam turbine and an SPX air-cooled condenser along with other electrical and control equipment.

A comprehensive transient analysis was conducted prior to integrating Block 4 into Power Station 5's existing fuel gas network to confirm the absence of operational risks. Four months of smooth operation since commissioning underscore the success of the integration, reflecting our commitment to responsible energy infrastructure development and operational sustainability. Now that the project is commissioned, Power Station 5 efficiency is set to increase from 48.7% to 50.99% during the summer and from 50.02% to 52.25% in the winter. In a further step towards decarbonisation, these higher efficiency levels will amplify our contributions to the Kingdom's 2060 Net Zero target and yielding a projected GHG savings of around six percent.

Other 2024 energy efficiency initiatives included:

- Continuing switching to high-efficiency motors with IE4 efficiency-class motors, to be completed by 2026.
- Issuing a public tender for 500 MW from renewable energy procurement for 25 years.
- Completing an Energy Management System gap analysis study as part of our ESG roadmap with the improvement initiatives scheduled for implementation in 2025.
- Improving potline power consumption and efficiency through an Anode Enlargement Project in Line-6.
- Building a new administrative office to accommodate Carbon 1 & 2 operations and maintenance staff. The new facility features LED lights, thermal insulation, and a new invertor HVAC system to significantly reduce energy consumption and associated GHG emissions.

Action Spotlight

Upgrading our Uninterruptible Power Supply System

Despite production being the most electricity intensive operational activities, we seek to achieve the most energy efficient practices across all our activities. In 2024, to improve resilience and energy performance in our data centre operations, we transitioned our UPS (Uninterruptible Power Supply) system from conventional lead-acid batteries to advanced lithium-ion technology. Unlike their lead-acid counterparts, lithium batteries offer a significantly higher energy density and require less physical space.

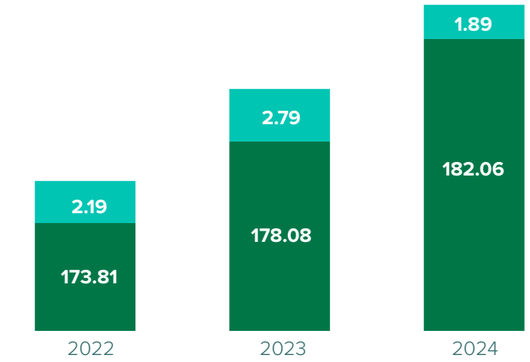
Driven by the need to optimize space usage, reduce energy losses, and ensure uninterrupted service continuity, the transition was more than a simple equipment swap: it required a detailed reconfiguration of charging systems, careful integration of a battery management system for real-time performance monitoring, and adherence to strict safety protocols throughout the installation. Once in place, the new system demonstrated tangible improvements: faster charging cycles helped minimize downtime, the reduced weight and volume of the batteries simplified handling and maintenance, and the extended operational life translated into fewer replacements and lower long-term costs. Beyond operational efficiency, the change also brought about fewer hazardous substances and a longer lifecycle.

2024 Performance

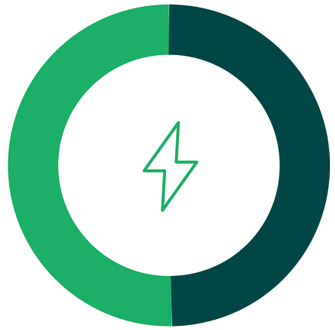
The total energy consumption (both direct and indirect) was approximately 184 million gigajoules (GJ), representing a 1.7% increase compared to last year. However, it is worth noting that electricity imported by the smelter decreased by 32% compared to 2023. Although only a small portion of the consumed energy (0.004%) came from renewable sources, we are actively pursuing opportunities to expand our use of renewable energy across operations.

See the appendix for further details on our energy measurement scope and methodologies.

ENERGY CONSUMPTION (MILLION GJ)



POWER GENERATION VS. POWER CONSUMPTION (MILLION MWh)



23.71 Total Power Generation

23.83 Total Power Consumption

See detailed energy data on pages 71 and 72.

Water & Wastewater Management

Protecting our region's water supply helps to protect the socioeconomic future of the Kingdom of Bahrain and beyond. Alba is heavily focused on eliminating our use of groundwater and ensuring pristine wastewater effluent.

We are committed to making every drop count by continuously improving water stewardship and efficiency across our company, particularly our power station and production plants. In addition, our desalination unit operations are optimized based on steam load to conserve energy and resources. The plant can scale down to fewer units as demand decreases, ensuring efficient water production. In the event of a complete system shutdown, water supply will revert to external sources such as the Electricity and Water Authority (EWA).

Our ESG department consolidates and manages water data from across our operations by collecting data from a range of sources including the Power Station, Calciner and Marine, and external laboratories engaged to support Alba's internal laboratory in comprehensive water quality testing for regulatory compliance. All results are submitted to Bahrain's Supreme Council for the Environment (SCE) on a quarterly basis. Water security data has also been disclosed to the CDP. Audits for water management performance are undertaken in line with wider internal audit procedures.

Water stewardship is integrated into our Environmental Management System (EMS). It also aligns with our ASI Performance Standard & Safety, Health and Environment (SHE) Policy, and a special section of our Power and Calciner & Marine departments are tasked with water management on a day-to-day basis. Their responsibilities include regulating the activities of our three Reverse Osmosis (RO) plants which includes performing water quality analysis by qualified laboratory partners in accordance with standard methods and laboratory SOPs. Parameters analyzed include pH, conductivity, chloride, sulfate, sulfide, total organic carbon (TOC), total alkalinity (TA), total hardness (TH), bacterial analysis, and other inorganic ions.

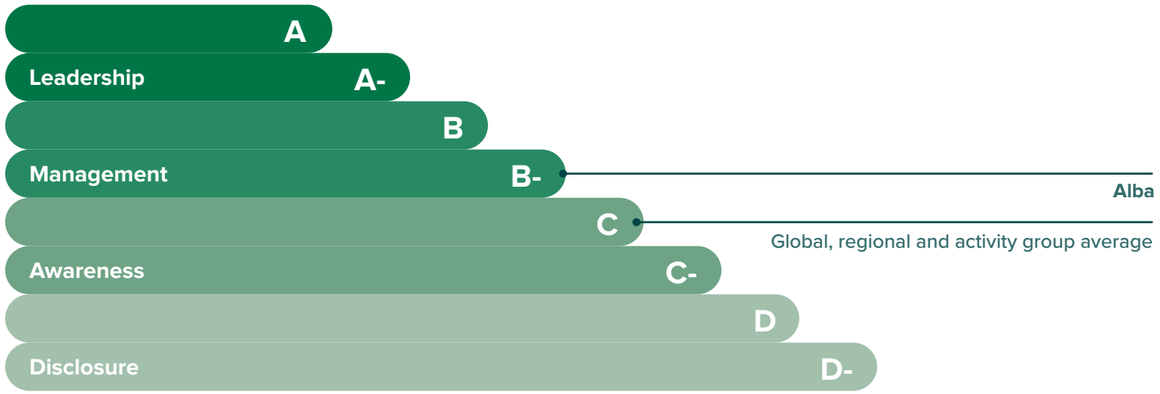
As for our Sewage Treatment Plants (STP), testing is performed by qualified lab partners following standard methods and laboratory SOPs. Parameters include pH conductivity, chemical oxygen demand (COD), total organic carbon (TOC), total nitrogen (TN), turbidity, ammoniacal nitrogen, nitrate nitrogen, nitrite nitrogen, phosphorus.

Action Spotlight

Enhanced Water Management Standards

In 2024, we also introduced the Water Management and Stewardship Standard report to further support our sustainable water management practices. Developed in direct response to the need to alleviate pressure on valuable water resources, the report provides practical guidance to enterprise-wise water consumers, including all Alba smelter, Calciner and Marine regarding how to assess their area's water use and make informed decisions about water management within their respective facilities or areas of operation.

CDP WATER SECURITY SCORE



Wastewater

Alba has implemented a comprehensive set of water saving initiatives focused on reusing various wastewater streams — including blowdowns, reject water, and treated sewage — for landscape and irrigation purposes. Wastewater is collected from multiple operational units and directed to a central reuse system, notably the Oasis Lake.

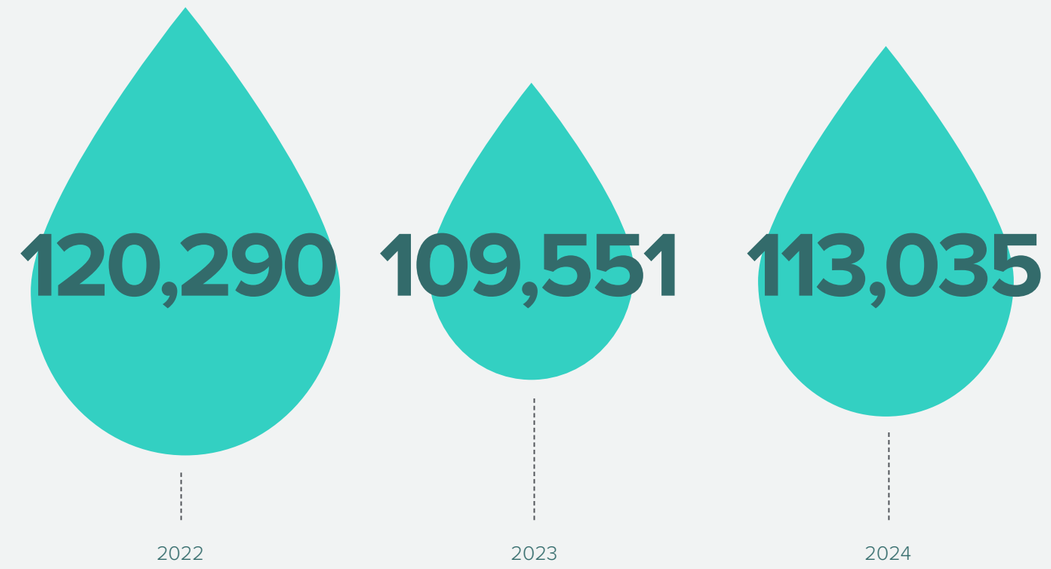
To prevent the discharge of treated water back into the environment and minimise our impact on local water bodies, Alba has three reverse osmosis plants and a water analysis laboratory dedicated to ensure the quality of potable, processed and demineralised water at our facilities meets all quality standards. To further ensure wastewater quality is pristine, effluent water from our power plants and cooling towers is discharged into an artificial oasis and lake before the excess is safely returned to the sea. Water in the oasis is monitored for temperature, pH, turbidity, total suspended particles and other quality measures, and monthly samples are assessed by qualified lab partners in accordance with the American Public Health Association Examination of Water and Wastewater Standard Method (ICP-AES), and the Hach Water and Wastewater Analysis Procedures Manual.

All water-based environmental incidents, such as spillages, are reported to help ensure any wastewater discharge into the sea is within the limits set by the SCE. There have been no reported environmental spills since 2020. We do not measure smells; however, if any suspicions or complaints arise, a full investigation is carried out to ensure there is no harm either to people or the environment.

2024 Performance

98% of water withdrawn by our smelter is already drawn from a sustainable source: desalinated seawater sourced from our Calciner and Marine plant. Water for our remaining facilities operations is drawn from groundwater within our premises. In 2024, Alba operations consumed 3,530 mega litres (ML) of water, while our total water withdrawal was 113,035 ML – a 3.1% increase (due to increase of production & breakdown of calciner water pipeline) versus 2023 and 6% decrease since 2022. Of the total water withdrawal, 111,053 ML (98.2%) was extracted from seawater at the Calciner and Marine plant, whereas the underground water intake at the smelter facility was 1,982 ML (1.8%). The total potable water produced by both the smelter, Calciner and Marine plants remained stable at 10,315 ML. We also maintained our water recycling rate at 6% for both 2023 and 2024.

TOTAL WATER WITHDRAWAL (MEGA LITRES)



98%

of water withdrawn by our smelter is drawn from a sustainable source: desalinated seawater.

Waste Management & Recycling

By reducing our waste to landfill and increasing the supply of recycled materials available for use across our value chain, Alba's ongoing investment in innovative waste management and recycling is enhancing our capacity to generate value for our stakeholders, helping us optimise resource consumption and power resilient circular economy practices across the Kingdom of Bahrain.

Alba's comprehensive waste management strategy is fully integrated into our Environmental Management System and our Safety, Health, and Environment policy. The strategy centres on maximizing the volume of waste material we recycle and upcycle and minimising waste to landfill while safeguarding the environment and protecting human health.

As part of our ongoing efforts to boost employees' knowledge of ESG-related topics and environmentally responsible operations, seven Alba employees successfully achieved Waste Management Diplomas from the Arabian Gulf University in 2024.

92%

of our total generated waste in 2024 was recycled, and our landfill diversion rate remained above 90%, exceeding our five-year target of 85%.

Powering Circularity

Because a large proportion of the solid waste typically created during the aluminium smelting process is recyclable or reusable, Alba is turning waste into opportunity. For the past several years, Alba has been unlocking a range of innovative avenues for reusing, recycling, and upcycling waste from smelting and other processes. In addition to using some of the post-industrial material as recycled content in our own products, we also sell plastic and scrap aluminium collected during the smelting process for use as input material in the manufacture of new products – keeping material previously considered waste in valuable cycle of use and reuse while opening up new revenue streams in the process.

Since 2022, the facility has received a total of 102,322.4 metric tons (MT) of solid spent pot lining (SPL) waste, along with 12,857 MT of additional waste materials such as shot blast carbon, contaminated butts, and calciner ash. Of this, 96,278.3 MT of dry SPL waste and 11,322.4 MT of other waste have been successfully processed. The facility has manufactured 107,600.7 MT of dry HiCAL 30 product and 115,237.3 MT of wet HiCAL 30 product. A total of 97,533.1 MT of HiCAL product has been dispatched, reflecting consistent operational performance and alignment with waste management and production targets.

> **A total of 97,533 MT of solid SPL waste has been recycled & dispatched since 2022.**

To manage the waste directly generated by our workforce, in 2024 we completed installation of a food waste composter for our canteens with the capacity to treat approximately 125kg of waste per day, producing nutrient-rich compost within 24 hours. All hazardous waste is disposed of by qualified and approved third-party handlers. Our new aluminium dross processing facility will promote further circularity in the aluminium value chain by leveraging state-of-the-art technology to maximize the recovery of valuable aluminium metal while significantly minimizing waste.

Action Spotlight

Closing the Loop on Circular Aluminium with EternAl™

Global consumers, particularly in the automotive and construction sectors, are actively seeking higher volumes of low-carbon materials to meet their sustainability goals, and the ambitious Net Zero targets of multi-national companies is further driving demand. Combined with proliferating regulatory and industry standards for low-carbon materials and rising pressure on exporters to reduce emissions through policies like the EU's CBAM and the IAI GHG initiative (to which Alba is a major signatory), powering a circular economy and secondary aluminium is a key priority on Alba's ESG Roadmap.

In alignment with our own sustainability objectives, global industry trends, and regulatory requirements, Alba launched the EternAl™ brand in 2024. Featuring significant volumes of recycled content, EternAl offers customers a high-quality aluminium product with a significantly reduced carbon footprint. Manufactured from both primary and secondary aluminium, helping to power a circular economy for aluminium by paving the way for a continuous loop of material recycling and reuse. EternAl currently includes three product lines: EternAl-15, EternAl-30, with 15% and 30% recycled content, respectively.

Visit https://www.albasmelter.com/en/article/eternal for more information about EternAl™.

2024 Performance

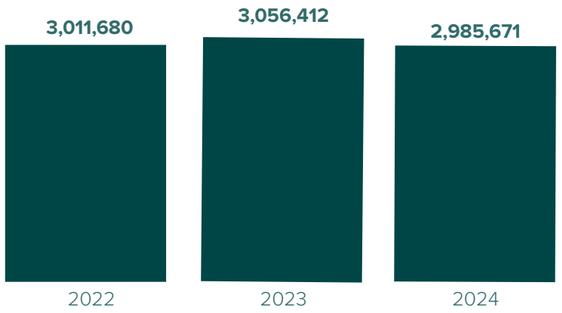
An integrated waste management data system enables us to seamlessly track and trace our waste performance against key performance indicators such as our landfill diversion rate. Data from the system is regularly audited and reported regularly to the CEO via our Environmental Management System.

We used a total of 2.99 million tonnes of materials in 2024, a 2.3% decrease from 2023. We also reduced generated waste by 18% compared to the previous year, which cut landfill volumes by 66%. This represented 113,165 mt of waste, of which 92% was diverted from landfill, including recycled and incinerated waste.

2.3% ↓

reduction of materials purchased in 2024

RAW MATERIALS PURCHASED (TONNES)



WASTE GENERATION AND RECYCLING (TONNES)

Biodiversity Preservation

The rich biodiversity of Bahrain and Alba's proximity to two locations of ecological importance means we are acutely aware of the need to vigilantly protect and encourage thriving, healthy ecosystems.

To help us avoid negative impacts on all natural habitats and species, Alba has implemented the International Finance Corporation Performance Standard 6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources) into our operations. Aligned with the Convention on Biological Diversity, the standard recognises that protecting and conserving biodiversity, maintaining ecosystem services, and sustainably managing living natural resources is fundamental to sustainable development. We uphold this standard through the integration of biodiversity into our SHE policy and across our operational controls, including environmental and social impact assessments (ESIA) for all new projects.

There are two areas of high ecological value near Alba, including Fasht Al Adhm, a sensitive and diverse marine habitat 1.5km southeast of our marine port, and Tubli Bay, a Marine Protected Area and Important Bird Area 1km northeast of Alba Road (the link between our port and smelter). Knowing both areas face pressure from human impacts such as dredging and land reclamation, we carefully undertake a number of proactive steps to preserve these important marine ecosystems.

These include chemical, physical, and biological analysis of discharges from our smelter and calciner through monthly sampling to ensure all effluents are fully compliant with SCE environmental standards and guidelines that are reported on quarterly basis in accordance with the Ministerial Order No. 3 of 2021 standards and regulations for effluent discharge.

Our other biodiversity impact mitigation efforts include habitat restoration, a Marine Water Quality Management Plan (MWQMP), a Marine Noise Management Plan (MNMP), a TSS (Total Suspended Solids) monitoring programme, and a Fuel Spill Contingency Tactical Response Plan (TRP). To support Bahrain's food security targets, Alba is also committed to cultivating 15,000 fish per year through the Alba Fish Farm.

Environmental Investment

In 2024 we invested more than BHD 6 million in Environmental Investment Projects, a 69% increase over 2023. This rise in investment is due to the progress payments done for Engineering's larger projects during 2024 such as new Rotary Coke Coolers 1& 2 at Calciner, plant-wide security CCTV surveillance cameras, and our continued development of the Alba Solar Farm.

Action Spotlight

Building Bahrain's Green Cover

Boosting Bahrain's green cover through the cultivation and planting of mangrove trees is one of Alba's flagship biodiversity initiatives. By providing a protective barrier against storms and sea surges for low-lying land and serving as a carbon sink, mangroves play a critical role in Bahrain's coastal ecosystem. To support Bahrain's National Afforestation Plan, which aims to double tree coverage by 2035, Alba has set an afforestation target of 40,000 trees by 2030. To achieve this goal, we oversee two mangrove nurseries – one at Sanad with a capacity of 40,000 saplings, and one at Alba's own premises which will eventually host 20,000 saplings. To date, we have planted 25,731 trees (an average of 6,000 per year).

25,731

trees planted to date

Biodiversity Mitigation Hierarchy

We follow the globally recognised mitigation hierarchy for biodiversity.

01 Designing the project so that negative effects are avoided

02 Designing the project so that negative effects are reduced

03 Abating either at the project site, or at the receptor

04 Restoring or reinstating a feature after-effects have occurred

05 Compensation for loss or damage

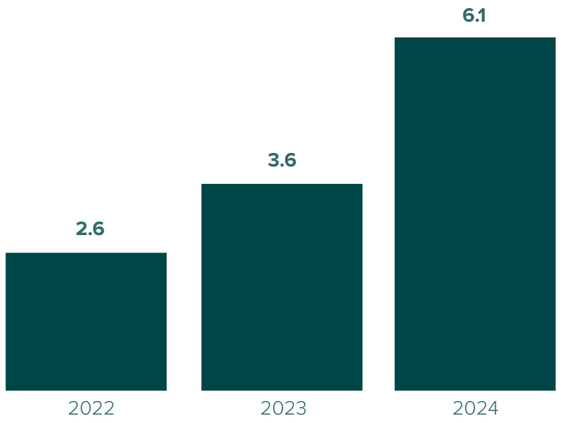
2024 Performance

In 2024, we began to implement a range of actions identified in our biodiversity management plan, including investing BHD 6.1 million in environmental investment projects such as marine noise, water quality management, and afforestation focused on cultivating mangroves seedlings and planting.

Zero

instances of environmental non-compliances (including significant spills) or fines/sanctions in 2024.

ENVIRONMENTAL INVESTMENT PROJECTS (MILLION BHD)



Action Spotlight

Enacting Our Biodiversity Action Plan (BAP)

In 2022, Alba commissioned a biodiversity assessment and action plan (BAP) to manage biodiversity within Alba's Project Area of Influence (AoI). Conducted in accordance with the requirements of the Aluminium Stewardship Initiative (ASI) and the International Convention on Biodiversity (CBD) as part of the ASI accreditation process, the BAP involved two phases.

Phase one included a baseline biodiversity assessment (completed in 2022) of Alba's manufacturing and processing facilities and activities along with an evaluation of any consequential impacts on local, national, or regional marine and terrestrial biodiversity values such as ecosystems, habitats, or species. 17 marine species were included in the study, which identified 5 species as most likely to be present within our AoI.

While the assessment confirmed that Alba's operations are not having any negative impact on our AoI, phase two of the BAP set forth a biodiversity management plan (completed in 2023) built upon insights from the baseline assessment.

Leading with Integrity, Serving with Purpose

Alba powers sustainable growth by fostering a culture that empowers our people, cares for our customers and communities, and encourages social advancement.

Material topics in this section:

- Talent Attraction & Retention
- Health & Safety
- Diversity, Equity & Inclusion
- Employee Benefits & Welfare
- Human Rights
- Socioeconomic Contribution
- Innovation

2024 Highlights

- **87%** Bahraini National workforce
- **642,250 hours**, training delivered
- **12% increase**, community investment
- **39% reduction**, Total Recordable Injury Frequency Rate (contractors)
- **9.7% increase**, employee wages and benefits

SDG Contributions:

Bahrain Economic Vision 2030

Our Workforce

Alba takes pride in being the employer of choice for a diverse group of talented employees from Bahrain and beyond. Knowing people are the heart of our success, we believe that talent, teamwork, inclusion, education and safety are among the most important investments we can make.

This belief is reinforced throughout our business practices by Alba's Social Management System (SMS). Recognised by the Aluminium Stewardship Initiative, the SMS provides a framework for setting goals and monitoring progress towards our social improvement objectives.

As one of Bahrain's largest employers, we aim to nurture a strong workforce by engaging the best talent in our industry and across our region, generating value for our business, our customers and our stakeholders in the process. We strive to provide a safe, empowering, and caring workforce that supports work-life balance and fosters personal and professional growth through a range of benefits, development programmes, and training initiatives.

Nationalisation

Alba fully supports the nationalisation objectives of the Bahrain Vision 2030, and we are committed to providing opportunities for Bahrain nationals wherever possible. In 2024, Bahrain nationals comprised 87% of our workforce, and we remain committed to sustaining this level for the next five years.

3,179

Total Employees

100%

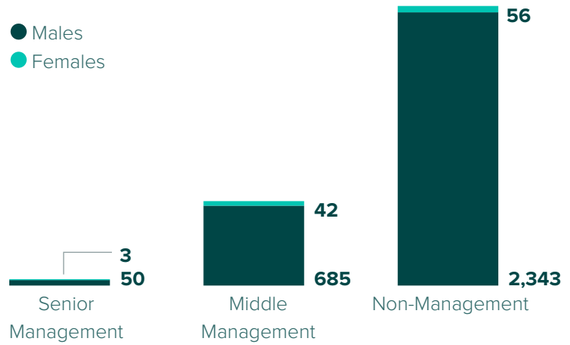
Alba employees received performance reviews

2024 Performance

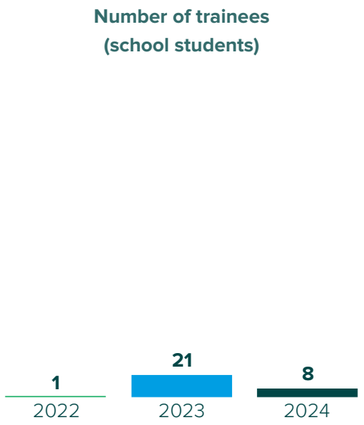
In 2024, our total workforce remained stable at 3,179 full-time employees. The turnover rate was 2.5% (versus 2.4% in 2023). Most of Alba's workforce are site-based.

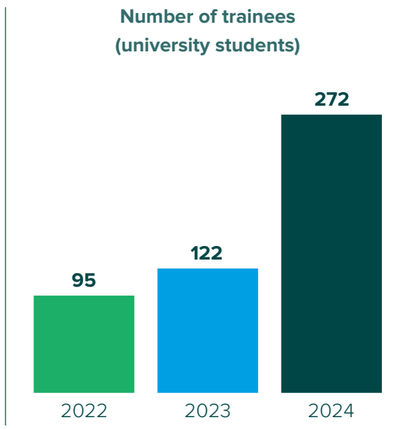
WORKFORCE

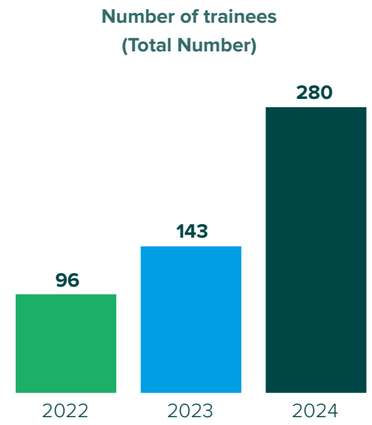
WORKFORCE BREAKDOWN BY EMPLOYMENT LEVEL



TRAINEES







Human Rights

Alba is unequivocally committed to respecting and protecting human rights across our business practices, policies, operations, and value chain, and we take a zero-tolerance stance on child and forced labour (see our statement on Modern Slavery and Human Trafficking).

We fully support equal employment, non-discriminatory processes, and the right to freedom of association whereby employees that have no responsibilities for formulating or deciding on company policies have the right to join the Alba Trade Union and/or the Alba Labour Union. We also ensure our wages meet or exceed minimum thresholds in line with local industry standards (there is no approved law in Bahrain to specify minimum living wage), uphold stringent health and safety standards, and comply with applicable laws and industry standards on working hours.

Our Code of Conduct asserts our human rights commitment and encapsulates our support for the UN Guiding Principles on Business and Human Rights, the Universal Declaration of Human Rights, the International Labour Organisation Conventions, and Bahrain's Labour Law No. 36 (2012), and other national laws on human rights. The Code of Conduct applies to every Alba employee, representative, and we extend the same expectations to our contractors and vendors. Additionally, all Alba agreements include clauses that incorporate human rights concerns or human rights screening requirements. These clauses are included in our *Social Performance Requirements Applicable to Contractors (Rev.02 02/2025),* which sets forth the mandatory social performance requirements required of our suppliers and is referenced in all agreements.

This commitment is further reinforced through our Recruitment Policy, Social Management Policy, our Security Code of Practice, and we have clear procedures in place to address any infringements, including disciplinary proceedings, grievance mechanisms, and the Alba Committee. Employees are trained on each of these policies, and we conduct regular social audits of contractors and subcontractors to ensure their compliance.

2024 Performance

In 2024, Alba conducted 13 quarterly Social Performance Reviews on construction contractors and 16 Social Performance Reviews on operations contractors. We also published a Human Rights Assessment Report for PS5 Block 4 (officially published in Jan 2024).

30 Alba operations were also subject to human rights assessments. 937 hours of human rights training were delivered to 278 employees – 8.8% of the entire workforce. In our supply chain, 100% of new significant investment agreements/contracts that included human rights clauses were screened – see page 78.

937

hours delivered (a 46% increase) of human rights training to 278 employees to raise their awareness of human rights policies and procedures.

100%

of our agreements include clauses incorporating human rights concerns or have undergone human rights screening.

Zero

violations or grievances related to human rights were identified in 2024 – this has been the case for the last five years.

Human Rights performance

278

employees attended Human Rights Training

30

operations subject to Human Rights Reviews or Impact Assessments

Diversity, Equity & Inclusion (DEI)

Championing equal opportunity gives everyone a seat at the table, creating a stronger team, a more resilient company, and greater value for all our stakeholders We have embedded the principles of diversity, equity, and inclusion across our company, with a particular focus on building a gender-balanced workforce and creating opportunities for Bahraini nationals in support of the Kingdom's Economic Vision 2030.

Zero

recorded incidents of discrimination

Alba has three fundamental practices in place to help us achieve these aims:

01. Merit-Based Advancement:
All advancements within Alba are determined upon merit and performance alone, with clear, consistent criteria applied to all candidates for vacant job posts and promotion given to the most capable. Fair salaries are provided based upon the HAY Job Evaluation System, and we strive to ensure compensation is commensurate with work experience.

02. Development Opportunities:
We seek to provide all Alba employees with access to opportunities and support for improving their qualifications and skills in line with their role and responsibilities.

03. Fair and Equitable Disciplinary Processes:
No individual who is part of a disciplinary review shall be denied the opportunity to forward their case or grievance to the HR Department, and every individual is presumed innocent of any / all violations unless a thorough investigation proves otherwise. All disciplinary actions strictly follow Alba's Disciplinary Procedure and Guide. *See page 61 to learn more about our grievance mechanisms.*

2024 Performance

There were no recorded incidents of discrimination in 2024.

Women represented 3% of Alba's total workforce in 2024 (corresponding to 101 females out of 3,179 employees). The proportion in management positions remained stable, with 42 in middle management and 3 in senior management roles (see page 55 for Board diversity). Each female employee received an average of 179 hours of training during the year.

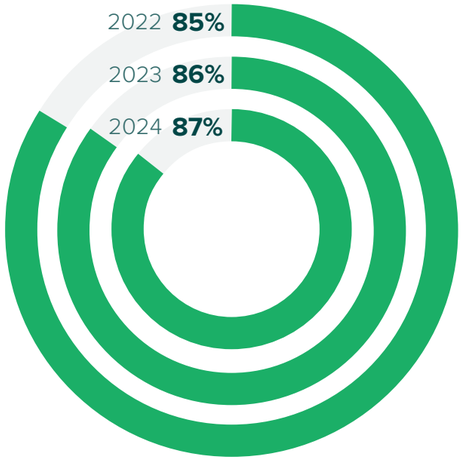
Our Nationalisation rate stood at 87% in 2024, a slight increase from 2023. Our youth employment rate was 18.2% (versus 18.8% in 2023).

87%

nationalisation rate in 2024

WOMEN IN THE WORKFORCE

NATIONALS IN THE WORKFORCE



Talent Attraction, Retention & Engagement

Alba seeks to build a future-ready workforce by maintaining transparent, clear, and accessible recruitment practices that encourage diversity across age and gender.

In 2024 we engaged an independent partner to conduct an anonymous employee satisfaction survey to help us identify opportunities to better support and engage our employees. 2,466 Alba employees (78% of our workforce) participated in the survey, which asked employees for their perception, experience and feedback on a comprehensive range of topics related to our corporate practices and work environment. The survey indicated a highly positive sentiment towards Alba overall, with the most positive feedback received for our safety, leadership, and communication practices.

2,466

Alba employees participated in the employee satisfaction survey

Action Spotlight

Enabling Women at Alba

We are purposefully working to improve gender parity across Alba through a variety of initiatives focused on recruiting, engaging, and promoting women within our workplace. In 2024 101 (3%) of our employees were women, including three women in senior management and 42 women in middle management.

To support and enable women at every stage of their career with Alba, we provide targeted training on human rights, mental health, and equal opportunity in collaboration with the National Institute of Human Resources Bahrain. Every year, we also hold a special event on Bahraini Women's Day to celebrate the contributions of our female employees, including the nine women who have completed more than 20 years of service with us.

Action Spotlight

Supporting Bahraini Youth

As part of our commitment to driving sustainable economic growth and supporting the ambitions of Bahrain's Vision 2030, Alba has a strong focus on supporting the development of young Bahrainis through a robust youth employment initiative.

280

internships for Bahraini youth provided in 2024

For the past several years, we have steadily increased opportunities for Bahraini youth through hands-on internships and work placements across our operational and support functions. In 2024, we significantly increased the training and development opportunities presented to university students, with 280 students from Bahraini schools and universities participating internships at Alba – an increase of 137 from 2023.

Training & Development

Regular training empowers and mobilises employees at every stage of their career, providing them with the skills they need to thrive in their roles and contribute to our success. Alba's training programmes encompass a diverse range of topics that cater to individual needs for upskilling or reskilling.

In 2024 the training opportunities offered to employees included:

Technical training, including Artificial Intelligence Knowledge, a Parker Technical Day Training for Maintenance Teams, and a Metallurgy SEM Training by ThermoFischer.

Soft Skills training, including Leadership Trust in Management & Personal Leadership, IATF 16949 & ISO 20858 Standard & Internal Auditing, and London Metal Exchange training.

Compliance training, including Fundamentals of Compliance Investigation, a Certificate in Strategic Internal Communication and a GAC Cyber Security Seminar.

Academic development, including a Professional Diploma in Human Rights, a Diploma in Mechanical, Electrical Engineering, and the Pearson BTEC Inter Diploma L3 Mechanical.

BSc programmes in fields such as Mechanical Engineering, Mechatronics, Business Administration, and Environmental Engineering.

MBA Programmes & MSc Programmes in Occupational Medicine and Business Administration.

Safety & ESG training, including Low Carbon Aluminium, ESG Training, and LEEA-Lifting Accessories.

We also offered programmes in English language proficiency, along with functional skills development trainings such as SAP Modules, Microsoft Excel, and PowerPoint.

With knowledge retention a priority, we target a 70% success rate in post-course evaluations across all our education and training offerings. To measure the impact of our training programmes, we utilize a multifaceted approach that includes pre- and post-training assessments designed to gauge knowledge gain, and employee feedback on the training experience. Knowing the true test of training effectiveness is demonstrated by the application of knowledge on the job, we also involve line managers to evaluate how well trainees are using their newfound skills in real-plant situations. This ensures our training initiatives translate into tangible improvements in employee performance.

8%

of total employee and contractors' hours were spent in training programmes in 2024, exceeding the industry benchmark of 5% of employee hours.

2024 Performance

In 2024 we were proud to deliver 772,403 collective training hours to our employees and contractors, representing a financial investment of BHD 1.8 million – we accomplished 8% training hours out of total work hours for employees and contractors, notably higher than the industry benchmark of 5%.

Training Hours for 2024 (including Contractors)

772,403
Total Training Hours (Alba & Contractors) (out of hours worked)

209
Male Training Hours Employee/Year

179
Female Training Hours Employee/Year

642,250
Total Training Hours (Alba)

28hrs
Senior Management Training Average Employee/Year

232
hours of Non-Management Training Average Employee/Year

130,153
Total Training Hours (Contractors)

111hrs
Management Training Average Employee/Year

21
TDP Programmes for Management Employees (started in 2023)

8%
Training Hours Percentage (out of hours worked)

145
Skills Matrix assessments for Non-Management employees (started in 2023)

Employee Benefits & Welfare

Offering a competitive package of benefits is one of the ways we ensure our people feel cared for, recognised, and appreciated throughout their tenure with us. Designed to help employees enjoy a healthy and rewarding work-life balance, our benefits package encompasses medical health, family life, and personal needs as well as compensation.

In 2024 Alba's benefits for full-time employees and their families (including those on temporary contracts) included primary health insurance (including optical and dental cover, in-patient and outpatient care, treatment abroad, and accidents), a savings benefit scheme, and a pension contribution matching scheme in which employees contribute 7% and Alba contributes 23% to the Social Insurance Organisation (SIO) while an employee is in service. A Group Life Insurance and Personal Accident Insurance Policy covers employees for death (any cause), permanent total or partial disability, terminal illness, and passive war risks.

Additional benefits offered in 2024 included family insurance, group life insurance, housing loans, education payments, condolence support, Eid and Iftar meals during Ramadan, annual bonuses, gold cards, subsidized meals, laundry facilities, long service awards, marriage/child gifts, birth/school gifts, travel allowances, resettlement loans, salary advances, special compassionate leave, fee payments for work permits, resident permits, central population registration, transport facilities, and cash leave passage (the provision of air fares to enable expat employees to travel home when on leave).

Alba employees and their families also have access to the Alba Club, a 39,420 square meters state-of-the-art sports and recreation club, as well as a club allowance. Employees are also eligible for a 100% attendance award, and safety awards.

Parental Leave

Alba's parental leave policy provides female employees with 60 calendar days of paid maternity leave and the option of 15 additional unpaid days. Upon return to work, women are also provided with approximately two hours each day to feed their children up to age two.

11

Female employees in 2024 took maternity leave with an 100% return-to-work rate.

Employee Wellbeing

In addition to health insurance, Alba provides onsite medical services for our employees through an in-house healthcare facility, which provides emergency response care, primary healthcare, and occupational healthcare.

We also offer routine health checks and awareness campaigns. In 2024, these included programmes and lectures by specialists in the field covering topics including: Work/Life Balance & Managing Stress, Workplace Well-being and Support, Protecting Workers from Health Hazards, Staying Safe & Healthy during the Holy Month, a breast cancer awareness workshop, and Bloom Every Day – a breast cancer awareness campaign during Breast Cancer Awareness month aimed at promoting education, diagnosis and prevention through early detection.

Health & Safety

Driven by our motto Safety First, Safety Always, Alba strives to foster a culture that makes safety everyone's priority. Our top-down, bottom-up approach to ensuring a healthy, secure workplace for our employees and contractors is modelled by our executive team and CEO, who receives regular briefings from the Directors of our SHE, Fire, and Security departments. Executives also make regular stops to our "shop floor" to emphasise our safety priorities and engage with employees and contractors.

Alba's management approach to health and safety is directed by our SHE policy and our Safety Code of Practice and operationalised via our Occupational Health and Safety Management System (OHSMS). This ISO 45001:2018 system requires us to establish SMART (specific, measurable, attainable, relevant, and time-bound) goals for health and safety performance across the company as required by our Safety Code of Practice. The SHE Policy, Safety Code of Practice and OHSMS apply to all Alba employees and contractors.

In 2024 we began developing a dedicated health and safety strategy designed to leverage the stringent standards of the British Safety Council's 5-Star programme, which benchmarks organisations against industry best practices. Currently in development, the comprehensive strategy will enhance our health and safety culture and performance by integrating risk assessment, hazard identification, employee training, and legal compliance into a robust framework.

> **As of 31 December 2024, Alba has achieved a record-breaking 29,018,422 safe working hours with no lost time injury.**

Health and Safety Management

Part of Alba's integrated management system, our ISO 45001:2018 compliant OHSMS reinforces our duty of care to employees and contractor personnel by providing a framework for integrating process-based safety and risk-based thinking across the entirety of our operations. The comprehensive system applies to the production and marketing of primary aluminium from alumina, calcination of petroleum coke, water desalination, anode manufacturing, smelting, casting, and captive power generation. It also ensures Alba's full compliance with all applicable contractual and legal requirements for health and safety.

In 2024 we completed the recertification requirements for ISO 14001:2015 and ISO 45001:2018 management standards after completing the required internal audit and external audits. The scope and boundary of ISO 14001:2015 includes the production, marketing of primary aluminium from alumina, it also includes the calcination of petroleum coke, water desalination, anode manufacturing, smelting, casting, collection and processing of spent pot lining and captive power generation.

The external audit identified no major/minor non-conformities, and Alba is certified to both standards until 2027, as well as the Aluminium Stewardship Initiative Performance Standard, and the Aluminium Stewardship Initiative Chain of Custody Certification. Certification covers the Alba Smelter Facility including our Calciner and Marine Terminal as well as and Spent Pot Lining Treatment Plant.

Safety Risk Management

Rooted in the belief that prevention is the most effective safety measure, Alba's Safety Code of Practice provides comprehensive guidance for all employees and operational contractors on identifying and controlling risks and hazards. Designed to ensure a safe working environment for our employees, community, neighbours and other stakeholders, the Code establishes hazard identification procedures to address both routine and non-routine occupational activities, including those associated with contractor-provided activities and equipment. To ensure the continuous improvement and adaptation to new risks and hazards, these procedures are reviewed and updated at least once every three years.

Superintendents or supervisors for each Alba department hold responsibility for identifying and managing risks with the support of the SHE department. All identified risks are recorded in the Alba risk register, and a designated risk assessment team is responsible for implementing control measures to mitigate those risks to acceptable levels using a well-defined hierarchy of controls that comply with national and international legal standards.

Should an incident occur, our accident reporting mechanism is governed by a Ministerial Order that integrates Occupational Safety and Health Administration standards, RIDDOR requirements, and other local requirements.

Health & Safety Training

Health and Safety training continues to play a crucial role in embedding health and safety competency and our Safety First, Safety Always mindset throughout Alba. All safety training is managed by SHE department, ensuring ongoing alignment with feedback, evolving requirements related to safety statistics, incident investigations, inspections, and audit outcomes.

3,373

employees completed 22,711 hours of health and safety training in 2024.

Each Alba department develops an annual Training Master Plan that identifies necessary competencies for employees and contractor workers. Supervisors then register employees into our training portal, select appropriate courses, and receive confirmation receipts for employees pre- and post-training. The Alba Code of Practice also sets forth specific requirements for Health and Safety training for new recruits and the development of specific SHE orientation programmes focused on communicating site-specific hazards, safe work practices, and emergency procedures to individual departments. Alba is also certified as an Institute of Occupational Safety and Health (IOSH) – approved training provider for IOSH Managing Safely and ISO Working Safely – programmes that significantly elevate the competency of employees and contractor workers.

In 2024, a total of 3,373 employees completed a range of training programmes, including general and department-specific SHE inductions, IOSH Managing Safely and IOSH Working Safely, Risk Assessment, Permit to Work, Environmental Awareness, Manual Handling, Fire Fighting, First Aid, Safe Lifting Operation, Direct Current Hazard, Confined Space Entry, and Safety Observations as well as Safe System of Work training, Incident-Accident Investigation courses, Firefighting, Job Safe Practice (JSP) writing, Basic Industrial Hygiene, Direct Current (DC) Hazard training, and more.

When it comes to safety training, Alba treats contractors similarly to full-time employees, ensuring they receive the necessary training in the same capacity. In 2024, 3,469 contractors were trained in H&S practices. A strict awareness regime further ensures entrants are fully aware of SHE issues, and badges for contractors and visitors are issued only after completing security and SHE inductions delivered by SHE professionals.

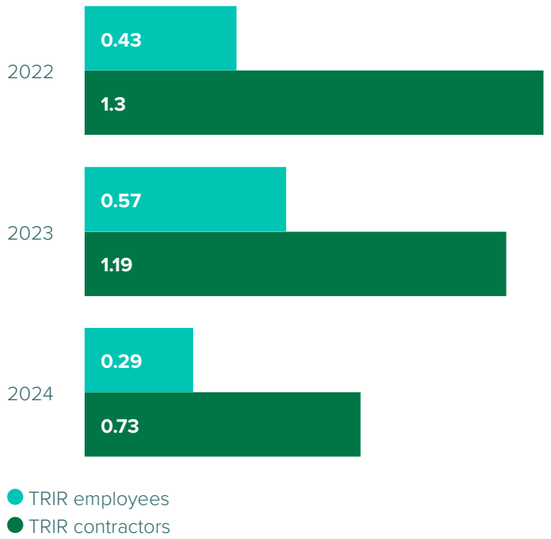
> **When it comes to safety training, Alba treats contractors similarly to full-time employees, ensuring they receive the necessary training in the same capacity.**

2024 Performance

As of 31 December 2024, we achieved **29,018,422** Safe Hours without any Lost Time Injury. This accomplishment, coupled with no recordable work-related ill health and eight consecutive years of zero heat-related illnesses and injuries, underscores our commitment to maintaining high safety standards and effectively addressing heat stress concerns.

There were 20 total injuries in 2024, down from 35 in 2023, and 4 recordable injuries, down from 9 in 2023.

TRIR



49%

decrease in Employees TRIR (per million hours worked)

39%

decrease in contractors TRIR (per million hours worked)

Zero

LTIR employees (per million hours worked)

Zero

employee or contractor fatalities maintained in 2024

Socioeconomic Contribution

Alba understands the power of economic development to drive social advancement, and we are committed to using our role as one of Bahrain's leading economic contributors to accelerate sustainable socioeconomic development throughout our region.

Our ESG strategy and roadmap is geared to help Alba keep pace with shifting consumer demand for companies that demonstrably support sustainable consumption and production. We reinforce our sustainable impact through stable and strong financial returns, job creation and the mobilisation of our national workforce, and direct contributions Bahrain's communities.

2024 Performance

Total Production

1,622 MT

Total Revenue

BHD1.6b

a 5% increase from 2023

Supporting SMEs

Through our role in Bahrain's Aluminium Downstream Park, we are significantly increasing the contribution of non-oil sectors to Bahrain's GDP through our 2024 GDP contribution of 12%. To further encourage and support SMEs in our region, we provide a competitive bidding process that emphasises equal opportunity.

Community Involvement

We are committed to strengthening the capacity and resilience of the communities our employees, contractors, neighbours, and stakeholders call home. To accomplish this, Alba focuses on building trusted, long-lasting relationships with local communities through innovative, sustainable projects and partnerships that add value, respect local customs and support local needs.

12%

increase in Alba's total community investment to BHD 2.4 million.

15.8%

increase in employee volunteer hours with more than 200 employees contributing more than 1,000 hours to mission-driven community causes.

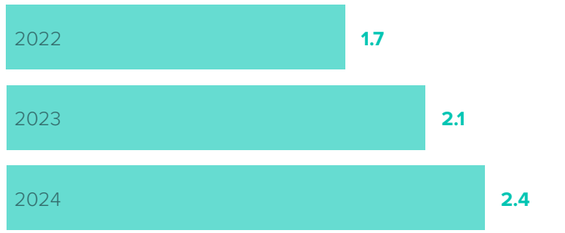
Every Corporate Social Responsibility (CSR) project we support must directly consider ESG impact, including the cultural and educational requirements of Bahrain's Economic Vision 2030, as part of our mandate within the GCC. In addition, our stakeholder engagement process includes multi-year commitments with community partner organisations to monitor the progress of the CSR projects we support.

To further ensure that our operations have a positive impact on local communities, we are in the process of developing a comprehensive tracking system to monitor and assess our activities in this area. Alba's major 2024 CSR project, the King Hamad Highway plantation, was tracked using Alba's Purchase Ordering system, which issues payments based on certain completion milestones (e.g. 50% and 100% of the project). Regular annual and one-off payments for CSR projects and initiatives are tracked in SAP. Media coverage is also tracked upon completion of any project, initiative or programme using our daily media report and Alba's communication channels. All ad-hoc communication and updates are also initiated whenever required should any CSR project need further interventions.

2024 Performance

We seek to make investments that produce a valuable impact on the local communities in which we operate. In 2024, our total community investment increased by 12%, approximately BHD 2.4 million, during which time we contributed to 11 causes through community investment, charitable donation, and sponsorship.

COMMUNITY INVESTMENT (BHD MILLIONS)



EMPLOYEE VOLUNTEERING (HOURS)

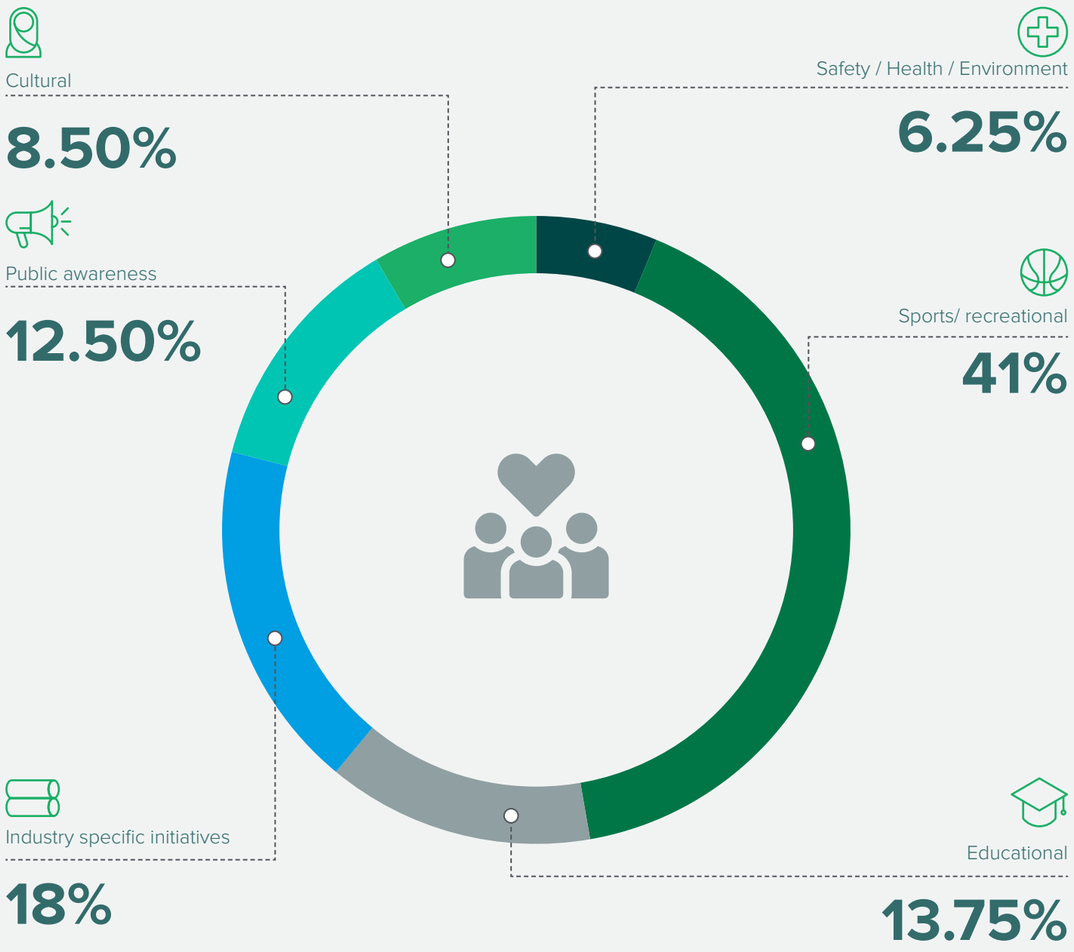
Community Investment, Charitable Donations & Sponsorships 2024

Community Investments		
Major Contributions	**Cost (BHD)**	**Description**
Sponsorship of Rashid Horse Racing New Grand Stand Project	500,000	Part of a multi-year 1.5 Million BHD investment to revamp the main grandstand for hosting global events.
Sponsorship of HRH Crown Prince International Scholarship Programme	200,000	This pivotal project in Bahrain selects a group of high school graduates to enable them to join elite universities.
Sponsorship of Rashid Horse Racing Turf Series Trophies	150,000	A strategic partnership with Rashid Club Alba to sponsor a number of trophies to promote the sport in the region.
Sponsorship of Bahrain's National Celebrations during the month of December 2024	50,000	Bahrain Tourism Authority held community based cultural and traditional celebrations to boost the local economy and promote Bahrain.
Shaikh Ebrahim Cultural Centre for research and studies	40,000	A strategic partnership with Shaikh Ebrahim Centre to support research projects related to the preservation of Bahraini history and culture.
Injaz Bahrain 20 year anniversary celebration 2024	20,000	The 20th anniversary of Injaz Bahrain programmes and initiatives. Alba provided financial and volunteer support for various programmes and initiatives.
Sponsorship of Nasser Vocational Training Centre	10,000	Support for Nasser Vocational Training Centre in the preparation of educational facilities and equipment for their students and to extend its industry expertise.

Charitable Donations		
Major Contributions	**Cost (BHD)**	**Description**
Sponsorship of Isa bin Salman Educational Charitable Fund for needy Bahraini students	750,000	This fund was established with the aim of providing financial support for high achieving Bahrain students to complete their university education in various fields.
Sponsorship of Fallen Servicemen Fund 4th payment	20,000	A multi-year agreement with this fund to provide financial help and support to the families of fallen servicemen.
Sponsorship of Open Prisons Programme by MOI	5,000	Important support for the open prisons programme for the rehabilitation of inmates in collaboration with the Ministry of Interior.
Sponsorship of Bahrain Down Syndrome Society	4,000	Much-needed support for the families and parents of children with Down Syndrome in the Kingdom of Bahrain through programmes and initiatives.

Our 2024 charitable donations increased in 2024 as a result of our BHD 1.5 million investment in the Isa bin Salman Educational Charitable Trust, which helps students in need complete their higher education by providing scholarships and financial aid. We also made a one-off payment towards the 20 year anniversary of Injaz Bahrain, the flagship non-profit educational organization in Bahrain. The increase in our support for industry-specific initiatives centred around the sponsorship of two bi-annual events: the Bahrain International Airshow and Aluminium 2024 at Dusseldorf. These events did not take place in 2023. Our sports investments in 2024 focused on directing funds towards larger events with better coverage and scope.

BREAKDOWN OF COMMUNITY INVESTMENT BY CATEGORY



Innovation & Operational Excellence

Alba combines talent and innovation to power operational excellence while finding smarter, greener approaches to meeting the world's demand for aluminium.

Powered by Industry 4.0 technology – connectivity, advanced analytics, automation, and advanced manufacturing technologies – we are transforming the traditional aluminium production model with agile, innovative ways of working, inventive new products and services, improved asset reliability and streamlined processes all championed by an enterprise-wide spirit of entrepreneurship.

Rooted in Bahrain and reaching beyond, Alba is forging the future of aluminium driven by innovation, powered by our people, and united by a bold vision to inspire progress across industries and generations.

Ali Al Baqali
CEO

We are strengthening our competitive advantage across the value chain through the embrace of technologies that enable better quality performance measurement and continuous improvement through more accurate tracking. Taken together, these tools have become a vital tool in our ongoing efforts to reduce our carbon footprint, strengthen our safety and risk prevention tactics, and boost our operating efficiencies and ESG performance. Alba is already using technology to reshape our business and supply chain through a range of innovative developments including additive manufacturing, advanced materials, artificial intelligence, augmented and virtual reality, autonomous vehicles, big data analytics, blockchain, drones, renewable energy, robotic process automation, and robotics.

In 2024 we achieved a savings of BHD 59.57 million against a target of 60 million in 2024 through a range of enterprise-wide operational excellence and innovation initiatives such as Lean Six Sigma Projects and Training, Digital /Industry 4.0 project implementation, Employee Good Suggestions, Business Continuity Management, an Energy Management gap analysis, extending training programmes to external stakeholders including the Ministry of Interior (MOI), Arab Open University, Bapco, and Nasser Vocational Training Center (NVTC), and collaboration with external organisations.

2024 Performance

94

employees awarded with Lean Six Sigma Certification

438

employees trained on continuous improvement initiatives including Six Sigma, RCA, Kaizen, BCM, Statistical analysis and CAPEX

244

employees trained in digital skills development

3

employees “certified SIRI assessors” through Ministry of Industries I-Factories programme

Energy Management System gap analysis

study was completed as part of ESG roadmap with an initiatives review and implementation scheduled for 2025

24

Industry 4.0 projects successfully implemented, with 42 additional projects in progress

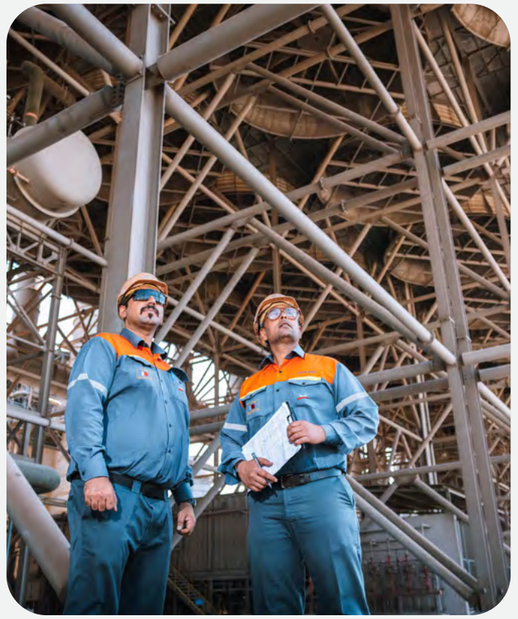
200

5S certified areas for enhancing good housekeeping, safety and successful 5S implementation

Action Spotlight

Towards Sustainable Aluminium: Harnessing Industry 4.0

The deployment of advanced technologies such as artificial intelligence (AI), Internet of Things (IoT), and Big Data analytics is revolutionising Alba’s operations. The synergy between Alba’s drive to more sustainable aluminium and Industry 4.0 technologies is powering more precise, impactful, and continuous improvement initiatives across our enterprise – optimising our cost reductions and powering our path to a better future.



We are harnessing key components of these “Industry 4.0” technologies including:

- Embedded sensor networks to provide real-time data on critical operational parametres such as temperature and energy consumption.
- AI-driven Predictive Maintenance to prevent costly unplanned downtime and extend machinery lifespan by forecasting equipment issues before they occur, optimising process control, and stabilising production.
- Digital Inventory Management using IoT-enabled tracking systems for real-time visibility into raw material inventories, optimizing ordering processes and reducing risks of stockouts or overstocking.
- Advanced Process Optimisation using machine-learning algorithms to refine the smelting process by analysing historical and real-time sensor data.
- Adjusting cell voltage, bath chemistry, and pot feeding schedules for higher metal yields and lower energy consumption.

Sustainable Business, Powered by Progress

Alba fosters a culture of integrity through robust governance, deeply embedded ethical principles, open dialogue with stakeholders, and a driving commitment to transparency.

Material topics in this section:

- Compliance & Risk
- Ethical Governance
- ESG Transparency & Disclosure
- Responsible Sourcing
- Metal Marketing & Product labelling
- Customer Responsibility

SDG Contributions:

Bahrain Economic Vision 2030

2024 Highlights

- **100%** supplier screening against social criteria (procurement)
- **100%** supplier screening against environmental criteria (procurement)
- **57%** local procurement rate
- **7.83/10** customer satisfaction rate
- **Zero** substantiated customer privacy complaints

Corporate Governance

World-class business ethics, robust governance practices, and rigorous risk and compliance measures are the driving force behind our mission to build a resilience, future-proof business that generates long-term value for our customers.

Values

- S — Safe & Green
- T — Team
- E — Ethics
- E — Excellence
- R — Resilience

Our governance performance is regularly assessed via internal audits to test compliance with established policies and procedures, as well as identify internal control gaps that could affect the efficacy of our management approach. Annual performance reviews for management and key personnel, employee surveys focused on corporate conduct, governance, and communication, and ongoing investor relations and engagement with analysts, civil society organisations, and other stakeholders are also used to drive the continuous improvement of our governance.
See pages 20 and 103 for more information on stakeholder engagement.

Our Board & Governance Structure

Alba is governed by a Board of Directors comprised of 10 non-executive members of whom 40% are independent, 2 are female, and 30% fall into the 30-50 age bracket. Our corporate governance guidelines clearly define the roles and responsibilities of Board members, along with those of management and other key personnel. *See detailed Board data on pages 79 and 80.*

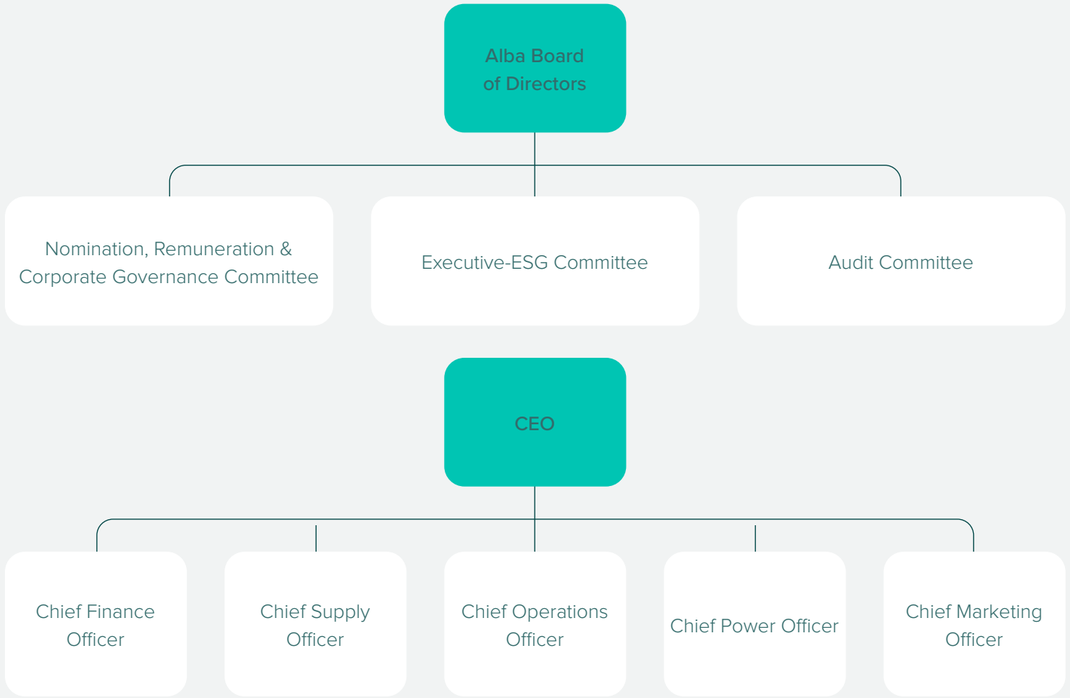
10

non-executive members on Alba's Board in 2024, including 2 women.

30%

of the Board is in the 30-50 age bracket, and 40% of members are independent directors.

Directors are appointed to serve on the Board by Alba's major shareholders every three years. One fully independent director is also elected during our Annual General Meeting (AGM) by holders of the 10% of publicly held shares. Once directors are elected, our Nomination, Remuneration, and Corporate Governance committee assesses the biographies, skills, and expertise of newly appointed directors to determine which committees they are best suited to serving, and these recommendations are subsequently submitted for approval by the Board. The Board's activities are supported by three Board committees: the Nomination, Remuneration, and Corporate Governance committee, the Executive & ESG committee, and the Audit Committee.



Learn more about our Corporate Governance Board
Read our Board of Directors Report

Under the guidance of the Board and its committees and in alignment with Alba's corporate objectives, Alba's executive leadership is responsible for helping to set strategy and lead Alba's operations on a day-to-day basis. The Executive Leadership Team reports directly to the board on a quarterly basis with emphasis on our ESG performance, which is carefully reviewed by the CEO and circulated in advance of the meeting.

Executive Remuneration

Executive remuneration at Alba is directly linked to four KPIs focused on safety, production, net profit, and individual performance. ESG performance is inextricably linked to these KPIs through Alba's focus on environmentally responsible production and consumption, and on health and safety. Furthermore, the bonus scheme for our Chief Executive Officer is linked to four criteria, including one which is ESG-related.

> **Diverse leadership is our strategic edge, it's how we govern wisely, act boldly, and deliver value that lasts.**

Eline Hilal
Board Secretary

Alba's remuneration policies for members of the highest governance body (CXOs) are designed to align individual performance with Alba's strategic objectives, including its impact on the economy, environment, and people.

The current remuneration framework is directly linked to four key performance objectives:

01 **Safety** – Reflecting Alba's commitment to social responsibility and employee well-being.

02 **Profitability** – Supporting sound governance and financial sustainability.

03 **Production** – Driving operational efficiency and output.

04 **Individual Targets** – Encouraging personal accountability and leadership effectiveness.

These objectives are embedded into annual performance reviews and incentive structures, ensuring that executive compensation supports Alba's broader ESG goals.

Full remuneration disclosures are available in Alba's 2024 Corporate Governance Report.

Board Evaluation & Training

Alba conducts an annual performance assessment of the Board and its committees, including individual evaluations, to ascertain the Board's capacity to provide a high level of judgement. For the year ending 2024, all members of the Board of Directors completed an annual evaluation with satisfactory outcomes. In addition, an induction session on Alba and our ethical governance practices was conducted for newly appointed directors in alignment with Bahrain's Corporate Governance Code: Principle 4, and HC High Level Control Volume 6 by CBB. Existing board members also continued to advance their ESG knowledge and skills through participation in courses provided by the GCC Board Directors Institute.

The Corporate Secretariat oversees the annual evaluations of the performance of Alba's highest governance body in managing the company's economic, environmental, and social impacts. These evaluations are conducted in line with local regulatory requirements and recognised best practice standards, including the Corporate Governance Code. Although the process is carried out internally, it follows structured, transparent, and objective procedures designed to ensure accountability and continuous improvement in governance oversight.

2024 Performance

BOARD OF DIRECTORS	2022	2023	2024
Percentage of board seats occupied by independent directors	50%	40%	40%
Percentage of non-executive members of the Board of Directors	100%	100%	100%
Remuneration (BHD)	412,000	420,000	420,000
Remuneration (BHD) – Chairman	60,000	60,000	60,000
Remuneration (BHD) – Directors	352,000	360,000	360,000

Business Ethics

The principles of ethical business practice are enshrined in the Alba Code of Conduct, which applies to all employees, contractors, stakeholders, and partners.

Rooted in our company values, the code extends beyond compliance alone to guide us in making the right choice in any situation. The Code sets out Alba's guidelines for an array of critical ethical considerations and topics, including conflicts of interest, anti-competitive practices, anti-money laundering, bribery and corruption, gifts and entertainment, protection against fraud and theft, accurate reporting, and political activity.

To ensure ongoing relevance to all material standards, the code is regularly assessed as part of our routine internal audit evaluations of governance structures, policies and practices, including monitoring compliance with our Anti-Bribery and Corruption Policy.

Living our values isn't a moment, it's a mindset. At Alba, we embed integrity into every action, embrace the strength of our differences, and uphold our duty to each other and the world around us.

Khalid Turani
Chief Internal Auditor and Risk Officer

Zero

confirmed incidents of corruption for four consecutive years

359

employees were trained on business ethics, as well as anti-bribery and anti-corruption, in 2024

Code of Conduct

Alba's Code of Conduct emphasises compliance with laws, regulations, and the highest standards of integrity and personal conduct. Organised into four key sections, the Code sets forth our expectations and standards for ethical behaviour and business practices in alignment with our mission, vision, and values.

- **Valuing All People:** respect, non-harassment, fair treatment, and equal opportunity.
- **Safety and Health:** the importance of safety and health considerations in the workplace.
- **Ethical Business:** conflicts of interest, anti-competitive practices, anti-money laundering, bribery and corruption, gifts and entertainment, protection against fraud and theft, accurate reporting, and political activity.
- **Information and Confidentiality:** the handling of confidential information, representing the company, and the use of information technology.

The Code is integrated across all operational policies and procedures related to human resources, procurement, environmental management, health and safety, and anti-corruption and other areas of activity. All Alba employees must adhere to the Code, which is included in our employee onboarding process. The Code is also distributed to vendors, customers, and suppliers to ensure their alignment with our ethical standards, and it is publicly available on our website.

The Code is regularly updated to ensure its alignment with the most current legislation, and changes are communicated to all employees through re-launch events and other communications. Periodic awareness campaigns are conducted throughout the year to reinforce the importance of the Code, its values, and expected behaviours.

Anti-Bribery and Corruption

While Alba has recorded zero cases of corruption in recent years, we are acutely aware that bribery and corruption are an inherent risk within our industry. In 2022 we carried out a high-level risk assessment covering 100% of our operations under our Enterprise Risk Management Framework. This assessment resulted in the addition of stronger anti-corruption and bribery controls within our Code of Conduct, along with targeted training for the Board, senior management, and all Alba personnel.

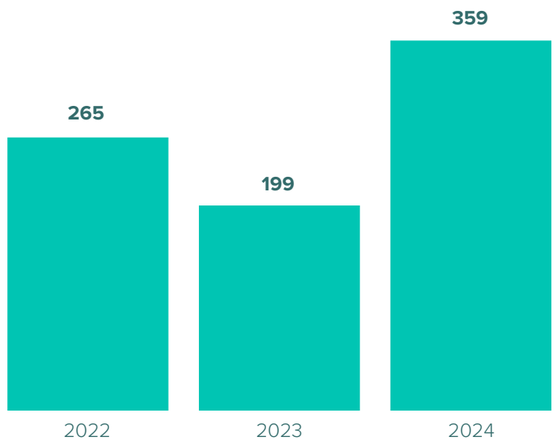
Zero

cases of corruption were reported in 2024.

Our Board-approved Anti-Bribery and Corruption Policy further encapsulates our zero-tolerance stance on bribery and corruption. Applicable to all employees, contractors, Board members, and stakeholders, the policy clearly defines responsibilities and accountabilities and provides guidance for conduct in a range of scenarios or instances, and processes for reporting breaches or concerns, investigations, and the consequences of failure to comply with the policy.

Anti-corruption assessments, including a review of our anti-corruption and bribery controls, are incorporated into our annual Internal Audit Plan and carried out under our Ethics Risk Assessment process on a regular basis.

NUMBER OF EMPLOYEES TRAINED ON BUSINESS ETHICS (INCLUDING ANTI-BRIBERY AND CORRUPTION)



Annual Fraud / Integrity Line Report for 2024

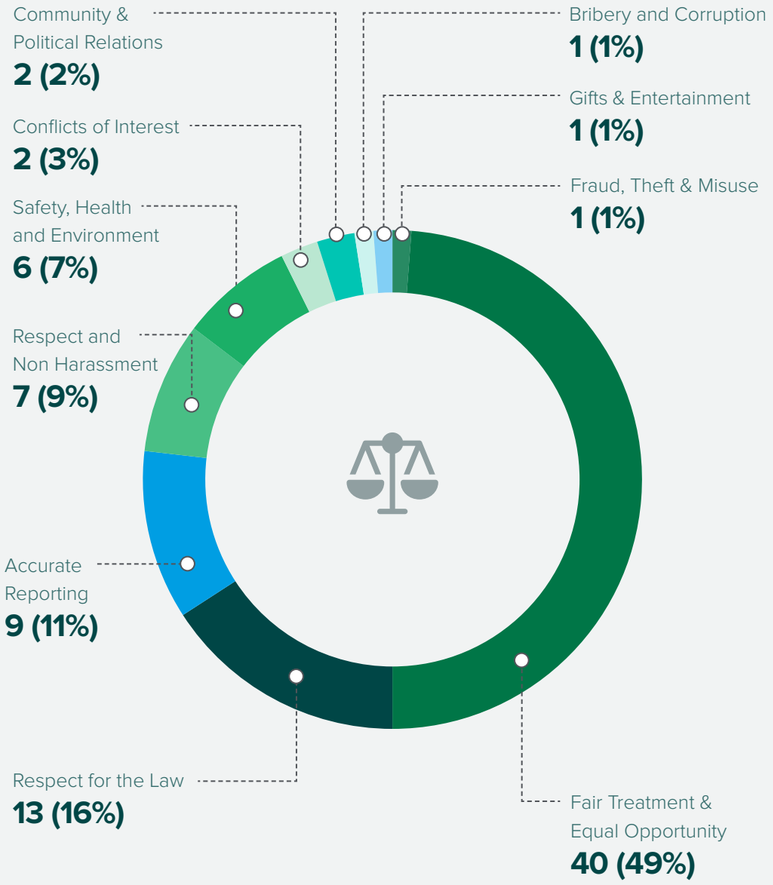
There were no identified cases in 2024 of significant fraud or bribery affecting Alba.

82 reported concerns were received through the Alba Integrity-Line, our confidential reporting hotline, in 2024 (2023: 37 cases).

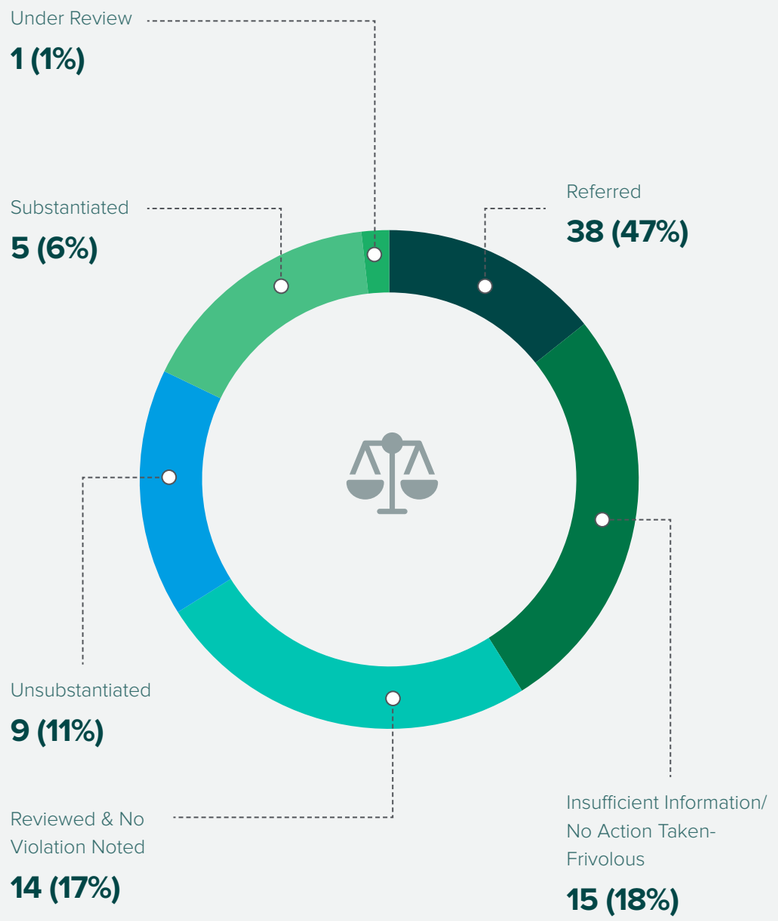
The following is an analysis of the full 82 cases raised via Integrity-Line during 2024:

- **34%** of cases were raised in English, while **66%** were raised in Arabic.
- **96%** of cases were raised via the internet, and **4%** were raised via call centre.
- **99%** of cases were raised anonymously, while ONLY **1%** of cases, the reporter provided their name.
- **90%** of those that raised cases indicated that they were an employee of Alba, **1%** indicated that they were Supplier/Contractor/Agent and **9%** as others.

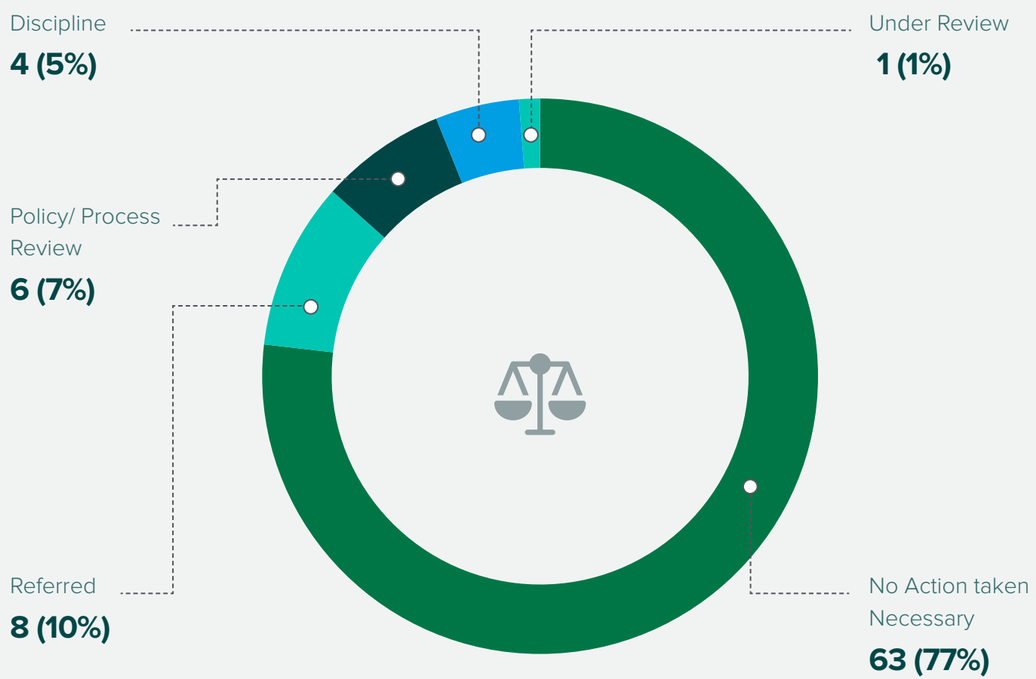
2024 ALLEGATIONS (AS CATEGORISED BY REPORTERS)



PRIMARY OUTCOMES OF CASES CLOSED IN 2024



ACTIONS TAKEN OF CASES IN 2024



Grievance Mechanism

We believe that every person should have the opportunity to communicate a grievance, concern, or breach of our Code of Conduct safely, securely, and without fear of retribution. Anyone, including our employees, suppliers, contractors, and customers, can submit a grievance, concern or breach of code via the Alba Integrity Line, which is independently operated, confidential, and available in multiple languages 24 hours a day, every day. The line can be access via a toll-free phone system, our intranet, or the Alba website. We track, evaluate, and swiftly respond to all grievances with action plans and follow up steps in accordance with the processes set forth in our Grievance Policy.

Compliance & Risk

Alba's track record of compliance with national and international laws and regulations extends for more than 50 years. Our corporate compliance team has full oversight of all company-wide compliance requirements, embedding relevant rules and regulations across policies and procedures maintained by each department. In turn, each department has a further responsibility to identify and uphold all regulatory compliance requirements aligned to their area of operation.

Alba also has appropriate mechanisms in place for the monitoring and oversight of our regulatory compliance. From an ESG standpoint, environmental requirements are reviewed by the Safety, Health, and Environment Executive Committee on a quarterly basis, as well as within quarterly risk management reports. Updates regarding new regulatory requirements and on any compliance breaches are communicated to the Board Audit Committee for review and action.

Zero

instances of non-compliance with laws and regulations were recorded in 2024.

Our compliance risk is assessed through regular Enterprise Risk Assessments and an Internal Audit Plan that incorporates control tests for compliance with regulatory requirement. Anti-corruption and bribery controls are also assessed regularly through these internal audits.

Risk Management

Risk management is a critical pillar of Alba's governance framework, ensuring our ability to identify, assess, and mitigate potential risks that could impact our strategic objectives, operations, reputation, and compliance across all facets of our organization, including our operational, financial, environmental, and social domains.

Key areas of risk for Alba include compliance with legal and regulatory requirements, the safeguarding of assets, and the protection of employees, customers, and communities. Specifically, Alba faces a range of internal risks arising from production practices, supply chain management, financial performance, regulatory compliance, and strategic initiatives, plus external risks related to economic fluctuations, market volatility, geopolitical events, and technological advancements.

To effectively manage these and other risks, we take a structured, collaborative approach led by our Risk team under the Chief of Internal Audit (CIA). The CIA reports directly to the Board Audit Committee (BAC) on a quarterly basis, providing updates on key risk areas, including Operational, Financial, Cybersecurity/ Compliance/Legal, and ESG (Environmental, Social, and Governance) risks. The internal audit department further ensures the effectiveness of our risk process by offering independent assurance, identifying gaps, and recommending improvements to the Enterprise Risk Management framework (ERM).

The ERM framework outlines clear guidelines and procedures for identifying, assessing, and managing risks with the primary goal of ensuring that risks are maintained within an acceptable level. Key targets include the regular identification of emerging risks, implementation of mitigation strategies, and monitoring of Key Risk Indicators (KRIs). Operational risks are further addressed by following ACOP 042A: Hazard Identification, Risk Assessment and Control, ensuring a consistent, standardised approach company-wide.

In addition, the internal audit department conducts periodic risk-based audits to assess the effectiveness of the ERM framework and ensure that risk management practices align with organizational objectives. Risk-related incidents are reported through Alba's Incident Reporting system, and all employees and stakeholders can report concerns related to risks directly to the Risk team for review and action.

53

environmental risk assessments conducted in 2024.

Risk Governance

Under the oversight of our ERM and Compliance functions, each Alba department holds responsibility for proactively identifying compliance and risk associated with their area of operation. In turn, Alba's Risk Department reports to the Chief Internal Audit Officer and Risk Officer, who report to the Audit Committee on a quarterly basis. The Risk Department is responsible for proposing and maintaining the ERM framework, fostering a risk-aware culture, coaching departments on risk management processes, facilitating the identification and evaluation of risks, consolidating and reporting changes to Alba's risk profile to the CEO and Audit Committee, regularly updating the CEO and Audit Committee on the status of risk mitigation proceedings, and escalating reporting when necessary. Every five years, the Board Audit Committee appoints an independent body to audit and assess the effectiveness of Alba's ERM processes.

Data Privacy & Security

In a fast-changing, highly globalised digital business environment, maintaining the privacy and security of all company, employee, supplier, and customer data has become a core part of our operating procedures.

Knowing the digital business landscape also poses significant risks to data privacy and systems security, we place a high priority on ensuring the confidentiality and security of customer data through a multifaceted approach cybersecurity across our culture and operations. The development and enforcement of rigorous cybersecurity policies and procedures is at the core of our strategy. These policies encompass a wide range of measures including stringent access to control mechanisms that ensure only authorised personnel have access to sensitive customer information and that advanced encryption technologies are in place to protect data while it is both at rest and in transit.

For the past four years, we have had zero security breaches, zero customer complaints, and zero complaints from regulatory bodies or external substantiated parties on customer privacy and losses of customer data.

To complement these polices, we invest in regular security awareness training for all employees, reinforcing the critical importance of safeguarding customer data and educating everyone on the latest cybersecurity best practices and threat avoidance strategies. Our cybersecurity team implements a layered security approach that integrates the latest technologies and tools for real-time threat detection and response, including deployment of next-generation security solutions such as firewalls, intrusion detection systems, and endpoint protection platforms which are all continuously updated to defend against evolving threats. Through our adherence to international security standards such as ISO 27001:2013 (which will be migrated to 2022) and the implementation of CIS controls, we further ensure customer information remains protected. The scope of our ISO 27001:2013 certification covers Alba's Information Security Management System for Corporate IT infrastructure systems. The certificate can be viewed via accessed from the Certificates section of Alba's website.

We are also proud to be the first industrial company in the Gulf region to achieve ISO 18788 for our security management system. Building on our ISO 27001-aligned information technology (IT) security policies and procedures, the ISO 18788 certification awarded by Bureau Veritas confirms Alba's ability to conduct professional security operations that meet the requirements of our clients and other stakeholders plus adhere to applicable laws and human rights requirements.

In 2024 Alba embarked upon a Personal Data Protection and Data Protection Gap Assessment to help identify any gaps between our current data protection practices and the requirements set forth by all relevant data protection regulations. The Gap assessment is on track for completion in early 2025, and insights from the assessment will be applied to the improvement of our data security and privacy practices.

Metal Marketing & Product Labelling

Customers are increasingly shifting their sourcing and purchase decisions towards companies with responsible business practices and ESG performance that align with their own values. Making sure the metal products we sell are safe and of high quality and transparently communicating with our customers through our marketing and labelling of products are two of the ways we assure customers of Alba's long-standing commitment to quality, performance, and sustainability.

Managed by our Marketing Department, Alba's product labelling system ensures all customer requirements are clarified and agreed at the contract stage and correctly recorded in our Systems, Application, and Products Data Processing (SAP) Enterprise Resource Planning (ERP) system at the time of order. To enable clear identification and traceability of Alba's products up and down the value chain, all cast products are then clearly identified with ink marking, engravings, and QR codes (for some products) and bar code labels are attached based upon customer requirements. Product labelling data including basic information on alloy size, sales order number, and country of origin, as well as any additional information required by the customer. The number of complaints related to product identification and labelling is carefully monitored as part of our Quality Policy, which emphasises on-time delivery and our commitment to technical support.

Where applicable, we also make Materials Safety Data Sheets (MSDS) available to help provide customers with transparent information about our products. Also referred to as a Safety Data Sheet, each MSDS provides comprehensive information regarding a product, including potential hazards, safe handling and storage procedures, and emergency measures.

In 2024 we took further steps towards modernising our product labelling approach using QR codes for our products.

Zero

reported health or safety concerns from Alba customers in 2024.

Quality Management

Our ISO 9001:2015 certified Quality Management System (QMS) and Quality Management Policy ensures that the highest product standards quality are applied across the entire lifecycle of our products with an emphasis on quality and purity. Implemented across all our activities, the QMS ensures smooth, efficient operations throughout the product lifecycle, including analysis of customer requirements and processes, improvement of existing processes and/or development of new processes, raw materials purchasing, and the production of primary metal and calcined petroleum coke.

Both the QMS and our Quality Management Policy are periodically audited by our Internal Audit team as well as for vendors as a requirement of the QMS. Alba also holds IATF 16949:2018 certification for Specific Billet Alloys and Sizes for Ships.

99.86%

metal purity average in 2024

Product Life Cycle Assessments

To better understand the quality, performance and impact of our products throughout their lifecycle (from cradle to gate), Alba has previously conducted LCA of our products every five years in partnership with a third-party consultancy. With the successful automation of digitised LCA processes in 2023 using a new software platform, in 2024 transitioned to conducting annual LCAs for our products with third-party verification of the assessments. This move to annual LCAs equips us to more closely monitor the quality and environmental impact of our products, giving us greater agility to evolve our production and quality standards in real time. *See the From Bahrain to the World section of this report for more information on LCAs.*

ASI Certification

Alba is proud to hold certification from the Aluminium Stewardship Initiative (ASI) as confirmation of our adherence to the highest environmental, social, and governance standards, and our dedication to ethical and sustainable production processes.

ASI Certification reinforces Alba's pledge to deliver responsibly sourced, high-performance aluminium that supports our customers' values and their pursuit of a more sustainable world.

Hisham Al Kooheji
Chief Marketing Officer

Customer Satisfaction

Alba sees customer satisfaction as one of our biggest indicators of success. On a day-to-day basis, our customer services, marketing, and technical teams are dedicated to the continuous improvement of our business processes as we strive to exceed customer expectations for quality and service. In 2024 we launched an online customer portal to help Alba customers with self-service features, improving their experience and simplifying interactions with the company, saving time, reducing costs, and increasing overall customer satisfaction.

7.83

overall satisfaction score out of 10 in our 2024 customer survey based on responses from 207 customers.

Each year we also work tirelessly to measure and improve our customer experience drawing on insights from annual surveys and direct customer feedback. In 2024 we refined our customer survey to better encompass the full scope of our customer experience and to boost engagement in line with market trends. 84% of our customers (207) were surveyed, resulting in an overall satisfaction score of 4.36 out of 5.

2024 Customer Survey Results

Our 2024 customer survey showed an average satisfaction score of 7.83 / 10 based on the responses of 207 customers. The survey asks our customers to rate their satisfaction with Alba based upon a range of factors, including product quality, delivery performance, communication, responsiveness, problem resolution, technical support, proactiveness, environmental commitment, and overall performance.

Sustainable Supply Chain & Responsible Sourcing

Responsibly managing our supplier relationships and sourcing practices is critical to human rights, fair labour, anti-corruption, environmental stewardship, and sustainable economic development.

Our approach to sustainable sourcing and supply chain management focuses on two priorities: supporting local suppliers and building end-to-end transparency through a clear chain of custody. These aligned approaches are the foundation for a resilient, ethical supply chain that powers our contributions towards national and international sustainability goals and stakeholder expectations for ESG leadership.

Supporting Local Suppliers

Alba supports the ambitions of Bahrain's Economic Vision 2030 through our support for local suppliers and contractors. In addition to prioritising engagement with local suppliers wherever possible, we are also deeply committed to ensuring equal opportunities are provided to local small and SMEs, developing them through a competitive bidding process, while ensuring they meet all internal and international benchmarks for quality, service, and ESG performance. In 2024, our spend with local suppliers represented 57% of our total spend.

Building End-to-End Transparency

Ensuring the visibility of sustainability performance across the entire value chain, from raw materials and last-mile logistics to product returns and recycling, enables Alba to make strategic, responsible sourcing decisions in line with our procurement standards. It also empowers our customers to make their own informed purchasing choices. Alba is proud to be the first entity in the Middle East to have achieved the ASI Chain of Custody Standard V2 certification, which encompasses the Alba smelter site and our Calciner and Marine plant. Awarded in 2023, the certification sets forth responsible sourcing and sustainable production requirements from mining or recycling through final product, providing a common reference point for establishing a clear chain of custody for ASI-certified aluminium.

Our commitment to responsible sourcing is enshrined in Alba's Sustainable Procurement Policy and reinforced by a range of other policies including our SHE Policy, Quality Policy, Anti-Corruption Policy, and our Social Management Policy. All suppliers must also adhere to our Code of Conduct, which sets forth Alba's commitment to ethical, responsible business practices. *All key procurement policies are available on our website.*

To strengthen our supply chain risk management practices, we established an ESG Risk Committee in 2024. The committee is chaired by Alba's Chief Supply Officer with member representation from the Safety and Health, ESG, Supply Chain, and Social Management departments. The committee reviews ESG risks related to Strategic Supply and Planning (SSP), high-risk major raw materials suppliers, and major suppliers providing migrant and unskilled manpower to Alba. To support the committee, we also developed a new supply chain due diligence and responsible sourcing standard operating procedure (SOP) to ensure comprehensive screening and risk classification of high-risk suppliers. If necessary, further due diligence will be implemented with high-risk suppliers in the form of questionnaires for environmental, social, and governance practices. As part of its Responsible Sourcing Policy, Alba has successfully conducted risk-based due diligence across its supply chain. This process was carried out in alignment with the OECD's Five-Step Framework for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (CAHRA), as well as the ASI Performance Standard Version 3.

Supplier Screening

To ensure all Alba suppliers meet our high standards, safety, environmental, and social standards are integrated into the conditions of every contract.

Our procurement policy also requires that all suppliers and contractors receive a full briefing on Alba's vision and mission, strategic goals, Code of Conduct, SHE policies and other related policies as part of their onboarding. In addition, suppliers must complete an environmental self-assessment and select suppliers must also complete a social questionnaire. The relevant requirements for contractors' safety, health, environmental and social performance and monitoring are available via Alba's website. As part of our social responsibilities, Alba also screens the accommodation provided by our major service and manpower providers to ensure fully compliance with all local, national, and international rules and regulations for labour, safety, and welfare. For the last four years, no contracts have been declined based upon environmental or social screening outcomes.

2024 Performance

100%

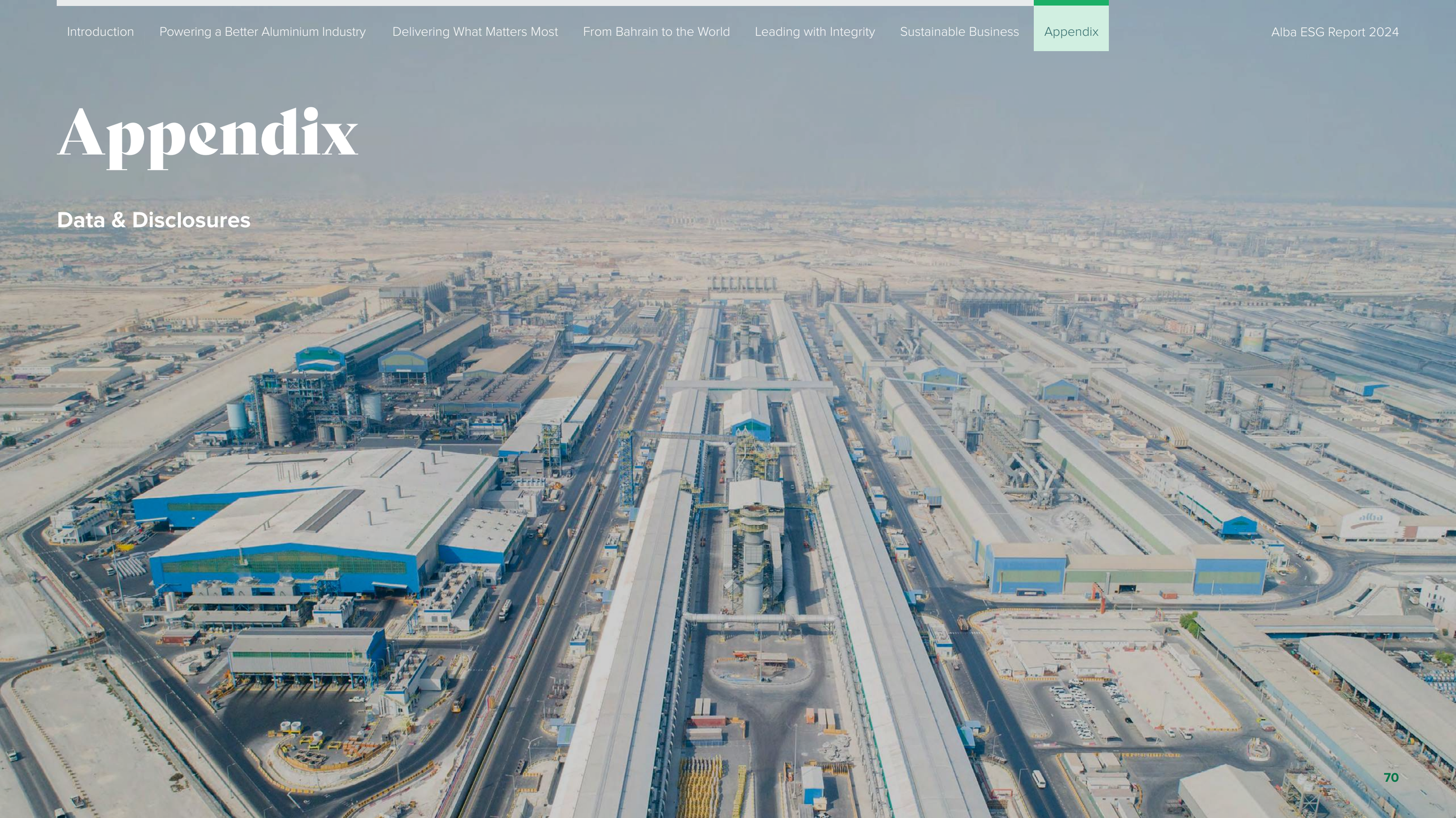
of new significant suppliers were screened for environmental and social performance in 2024.

57%

spending on local suppliers

Appendix

Data & Disclosures



Appendix A: Detailed Data

ENVIRONMENT

GHG Emissions

GHG EMISSIONS	2022	2023	2024
Total Scope 1 and 2 GHG emissions (tCO_2e)[1]	12,290,636	12,703,398	12,945,646
Total direct GHG emissions (tCO_2e)	12,199,433	12,683,282	12,735,732
Total indirect GHG emissions (tCO_2e)	91,203	20,116	209,914
GHG emissions intensity ratio (tCO_2e/t Al)	7.68	7.84	7.98
GHG emissions from fuel consumption (tCO_2e)	256,864	323,447	318,552
GHG emissions from electricity consumption (tCO_2e)	9,449,204	9,324,167	9,468,485
Biogenic CO_2 emissions (tCO_2e)	0	0	0

SCOPE 3 EMISSIONS (2024)	EMISSION (tCO_2eq)	PERCENTAGE CONTRIBUTION
Total	6,987,434	100%
Breakdown by category		
1. Purchased goods and services	5,078,107	72.67%
3. Fuel and Energy	1,152,203	16.49%
4. Upstream Transportation and distribution	591,271	8.46%
9. Downstream Transportation and distribution	165,854	2.37%

NOX, SOX, AND OTHER SIGNIFICANT AIR EMISSIONS	2022	2023	2024
NOx (tonnes)	10,056	10,561	9,080
SOx (tonnes)	16,819	27,819	24,477
SOx Intensity (kg/t Al)	10.50	17.17	15.09
VOC (kg/t Al)	0.031	0.057	0.078
Total fluorides (tonnes)	891	1,020	1,075
PFC (kg/t Al)	0.032	0.015	0.020
Particulates emission (kg/t Al)	1.26	0.98	1.61
Total weight of air pollutants (SOx, NOx, CO, PM, Heavy Metals, POP, VOC, ODS, NH_3) (tonnes)	112,850	127,965	122,876

Energy Management

ENERGY CONSUMPTION	2022	2023	2024
Total energy consumption (GJ)	175,997,455	180,875,816	183,959,498
Energy intensity ratio (kwh/kgAl)	14.55	14.65	14.69
Total direct energy consumption (GJ)	173,812,431	178,083,845	182,069,489
Total indirect energy consumption (GJ)	2,185,024	2,791,971	1,890,008
Electricity from EWA (GJ)	2,185,024	2,791,971	1,890,008
Heating Consumption (GJ)	5,979,235	5,666,511	5,544,666
Cooling Consumption (GJ)	0	0	0
Steam Consumption (GJ)	0	0	0
Total fuel consumption (Litres)	7,926,189	8,191,324	8,211,449

1 In 2024, ALBA refined its Scope 2 greenhouse gas (GHG) emissions calculation methodology in alignment with the GHG Protocol.

To illustrate the impact of this change, if ALBA applied it retrospectively to the reporting years 2022 and 2023, the Scope 2 emissions for those years would be:

- 2022: 249,747 metric tonnes CO_2e, resulting in 12,449,180 metric tonnes CO_2e total GHG emission, and GHG emission Intensity ratio of 7.78 metric tonnes CO_2e per metric tonnes of Aluminium. This represents a 1.29% percentage increase in total GHG emissions for 2022 compared to the previous methodology.
- 2023: 303,589 metric tonnes CO_2e, resulting in 12,986,871 metric tonnes CO_2e total GHG emission, and GHG emission Intensity ratio of 8.01 metric tonnes CO_2e per metric tonnes of Aluminium. This represents a 2.23% percentage increase in total GHG emissions for 2023 compared to the previous methodology.

ENERGY CONSUMPTION	2022	2023	2024
Total natural gas consumed (MMBTU)	167,102,271	170,946,087	173,654,380
Natural gas consumed in the power plant (MMBTU)	161,435,286	165,575,496	168,399,266
Natural gas consumed in the smelter (MMBTU)	5,048,033	4,893,508	4,622,596
Natural gas consumed in the calciner (MMBTU)	618,952	477,083	632,514
Total fuel consumed internally (diesel and gasoline) (MMBTU)	277,190	286,485	287,189
Electricity imported (MWh)	606,951	775,548	525,002
Electricity exported (MWh)	377,686	717,678	404,516

TOTAL ELECTRICAL ENERGY PRODUCTION AND CONSUMPTION	2022	2023	2024
Total energy production (GJ)	83,412	85,118	85,365
Diesel consumed by plant infrastructure (litres)	7,460,000	7,714,000	7,733,000

POWER GENERATION	2022	2023	2024
Total Power Generation (MWh)	23,047,818	23,685,947	23,712,549
Exported (-) (MWh)	377,686	717,678	404,516
Imported (+) (MWh)	606,951	775,548	525,002
Total Power Consumption (MWh)	23,277,083	23,743,817	23,833,035
Total Aluminium Production (Net Finished) (MT)	1,600,111	1,620,665	1,622,261

ENERGY EFFICIENCY	2023 PERFORMANCE	2024 TARGET	2024 PERFORMANCE	2025 TARGET
Average gross volt per pot	4.32	4.30	4.34	4.293
Specific energy consumption (kWh/kg)	13.71	13.67	13.74	13.645

EMPLOYEES TRAINING	2022	2023	2024
Number of employees trained on energy conservation, climate actions and other environmental issues	134	122	78

Water Management

WATER CONSUMPTION AND RECYCLING	2022	2023	2024
Total water consumption (Mega Litres)	3,524	3,503	3,530
Total water withdrawal (Mega Litres)	120,290	109,551	113,035
Groundwater (Mega Litres)	1,004	1,675	1,982
Seawater (Mega Litres)	119,286	107,877	111,053
Produced water (Mega Litres)	10,290	10,955	10,315
Fresh water used (from company generated) – (Mega Litres)	3,524	3,503	3,530
Water discharged to sea (excluding non-contact cooling water) (Mega Litres)	102,271	99,036	103,799
Water recycled or reused (Mega Litres)	231	218	196
Recycled water as percentage of total water consumed (%)	7%	6%	6%

Waste Management

RAW MATERIALS PURCHASED	2022	2023	2024
Total materials purchased (tonnes)	3,011,680	3,056,412	2,985,671
Non-renewable materials purchased [Alumina] (tonnes)	3,011,680	3,056,412	2,985,671

EFFLUENTS AND WASTE (MT)	2022	2023	2024
Total waste generated[2]	93,673	138,105	113,165
Total waste disposed	15,679	24,828	8,368
Total hazardous waste disposed	0	0	0
Total non-hazardous waste disposed	15,679	24,828	8,368
Incineration (without energy recovery)	252	289	230
Landfilling	15,679	24,828	8,368
Total waste recycled	77,742	112,988	104,567
% of waste recycled out of total generated waste	83%	82%	92%

2 Refers to the total quantity of waste produced including hazardous and non-hazardous waste measured in metric tonnes.

MATERIALS USED THAT ARE RECYCLED INPUT MATERIALS	2022	2023	2024
Non-renewable materials purchased	3,011,680	3,056,412	2,985,671
Dross recovery (%)	20.62%	26.90%	25.11%
Amount of Dross recovered and reused in Alba operations (MT)	4,398.10	5,150.90	4,954.22
Savings resulted from Dross recovery and reuse (USD)	6,450,458	6,440,200	6,738,928
Total waste recovered (MT)	77,724	112,988	104,567
Unrecycled[3] waste compared to waste generated each year (%)	12.78%	6.62%	7.40%

TOTAL WASTE (MT)	2022	2023	2024
Carbon dust	3,662	2,762	6,321
Cast iron slag	2,414	4,032	0
Office and cafeteria waste	511	463	458
General waste	1,497	1,800	1,799
Refractory waste	5,810	4,202	4,650
Construction waste	994	9,323	12,252
Calciner bag house ash	233	244	56.16
Medical waste	0.44	0.33	0.27
Tree and grass (landscaping)	26	1	0.58
SPL steel	4,092	6,672	10,037
SPL hazardous	29,483	28,350	37,550
Construction	2,960	36,062	2,530
Steel	2,800	2,722	2,902
Steel + cast iron	509	583	643
Timber	1,504	1,816	2,176
Batteries	27	34	22

TOTAL WASTE (MT)	2022	2023	2024
Oil drums	42	26	24
Tires & rubber belts	136	146	169
Aluminium	8	15	4
Copper	5	8	7
Filter elements	78	109	451
Plastic	30	60	52
Paper	112	95	89
Jumbo bags	74	69	71
Rodding reject material	4,764	3,646	2,829

WASTE (MT)	2022	2023	2024
Total weight of hazardous waste by disposal methods[4]	33,827	36,351	47,817
Reuse	0	0	0
Recycle	33,575	36,062	47,587
Incineration	252	289	230
Landfill	0	0	0
Onsite storage	0	0	0
Total weight of non-hazardous waste by disposal methods[5]	59,846	101,754	65,348
Reuse	5,325	5,684	6,610
Recycle	38,824	71,241	50,363
Composting[6]	18	1	7
Incineration	0	0	0
Landfill	15,679	24,828	8,368

3 Refers to the total quantity of solid waste that cannot be processed or recycled into new products including hazardous and non-hazardous waste.
4 There has been zero hazardous waste in offsite storage, composting, recovery or deep well injection for the last three years.
5 There has been zero non-hazardous waste in offsite storage, recovery or deep well injection for the last three years.
6 This KPI accounts only for the food and biomass composted inside ALBA by the composting machine, the input of the machine includes the food waste, the grass, trees, etc.

RECYCLING (MT)	2022	2023	2024
Plastic	30	60	52
Paper	112	95	89
Oil	305	247	223
Scrap steel (including SPL steel)	6,892	9,394	12,939
SPL Carbon	0	5,440	3,072
SPL Silicon Carbide	N/A	N/A	N/A
SPL waste recycled (solid)	31,278	35,323	35,163

REVENUES FROM RECYCLED MATERIALS (BHD)	2022	2023	2024
Plastic	900	1,800	1,560
Paper	5,049	4,275	2,225
Oil	14,043	5,496	22,163
Anode Butts (From Power Outage in 2011)	33,782	50,619	410,000
Scrap steel (including SPL steel)	899,704	1,676,430	1,397,591
SPL Carbon	0	0	0
SPL Silicon Carbide	0	0	0
Steel	266,000	258,590	281,494
Cast Iron	43,265	49,555	54,655
SPL Steel	633,704	1,417,840	1,116,097
Timber	9,024	10,896	15,232
Batteries	4,860	6,120	4,004
Oil Drums	994	3,466	3,198
Aluminium	4,800	9,000	2,400
Copper	11,000	17,600	12,600
Jumbo Bags	888	888	710
Total (BHD)	1,928,013	3,512,576	3,323,928

Environmental Investment & Compliance

ENVIRONMENTAL INVESTMENT	2022	2023	2024
Investment in environmental projects (Million BHD)	2.6	3.6	6.1

ENVIRONMENTAL COMPLIANCE	2022	2023	2024
Incidents of non-compliance with environmental laws and regulations (#)	0	0	0

SPILLS	2022	2023	2024
Total number of significant spills (>one barrel)	0	0	0
Volume of spills (litres)	0	0	0

SOCIAL

Talent Attraction & Retention[7]

EMPLOYMENT BY CONTRACT	2022	2023	2024
Full-time employees	3,146	3,150	3,179
Males	3,039	3,048	3,078
Females	107	102	101
Part-time employees	0	0	0
Total work force	3,146	3,150	3,179

EMPLOYMENT BY DURATION OF CONTRACT	2022	2023	2024
Permanent employees	3,146	3,150	3,179
Males	3,039	3,048	3,078
Females	107	102	101
Temporary employees	0	0	0
Males	0	0	0
Females	0	0	0

7 Headcount data have been compiled from SAP, reflecting figures as at the close of each financial year

EMPLOYMENT BY REGION[8]	2022	2023	2024
Total number of employees (Asia)	5	4	4
Total number of employees (Europe)	5	5	5
Total number of employees (MENA)	3,136	3,141	3,170

WORKERS WHO ARE NOT EMPLOYEES*	2022	2023	2024
Number of workers who are not employees (e.g. suppliers, joint ventures.)	1,060	1,148	1,211

EMPLOYMENT BY LEVEL	2022	2023	2024
Senior Management	51	52	53
Males	48	49	50
Females	3	3	3
Middle Management	700	720	727
Males	659	680	685
Females	41	40	42
Non-Management	2,395	2,378	2,399
Males	2,332	2,319	2,343
Females	63	59	56
Total FTE	3,146	3,150	3,179

EMPLOYMENT BY AGE	2022	2023	2024
18-30	668	591	577
31-50	2,189	2,212	2,196
51 and above	289	347	406

EMPLOYMENT BY NATIONALITY	2022	2023	2024
Number of local	2,673	2,696	2,752

EMPLOYMENT BY NATIONALITY	2022	2023	2024
Number of expatriates	473	454	427
Percentage of locals in the total workforce	85%	86%	87%
Number of National senior management	37	39	39
Percentage of senior management at significant locations of operation that are hired from the local community	0%	0%	0%

INTERNSHIPS	2022	2023	2024
Number of trainees (school students)	1	21	8
Number of trainees (university students)	95	122	272
Total number of trainees	96	143	280

EMPLOYEE TURNOVER	2022	2023	2024
Total number of employees who left the organization	65	79	78
Workforce turnover rate (%)	2.06%	2.50%	2.40%
BY GENDER			
Total number of employees who left the organization (Female)	3	8	3
Total number of employees who left the organization (Male)	62	71	75
BY AGE:			
Total number of employees who left the organization (18-30)	19	20	18
Total number of employees who left the organization (31-50)	30	44	37
Total number of employees who left the organization (51 and above)	16	15	23
BY JOB CATEGORY:			
Total number of employees who left the organization (Senior Management)	2	1	4
Total number of employees who left the organization (Middle Management)	17	22	20
Total number of employees who left the organization (Non-Management)	46	56	54

*The number of workers data was extracted from SAP at the end of the reporting period. The same methodology was applied for the previous years.

8 This is referring to geographical region

EMPLOYEE TURNOVER	2022	2023	2024
BY REGION[9]:			
Total number of employees who left the organization (Asia)	22	24	28
Total number of employees who left the organization (Europe)	2	3	3
Total number of employees who left the organization (MENA)	41	52	47

NEW HIRES	2022	2023	2024
Total number of new employees who joined the organization	81	83	105
BY GENDER			
Total number of new employees who joined the organization (Female)	6	3	1
Total number of new employees who joined the organization (Male)	75	80	104
BY AGE:			
Total number of new employees who joined the organization (18-30)	66	68	91
Total number of new employees who joined the organization (31-50)	13	15	13
Total number of new employees who joined the organization (51 and above)	2	0	1
BY JOB CATEGORY:			
Total number of new employees who joined the organization (Senior Management)	0	0	3
Total number of new employees who joined the organization (Middle Management)	7	13	8
Total number of new employees who joined the organization (Non-Management)	74	70	94
BY REGION[10]:			
Total number of employees who joined the organization (Asia)	11	7	3
Total number of employees who joined the organization (Europe)	2	2	1
Total number of employees who joined the organization (MENA)	68	74	101

TRAINING	2022	2023	2024
Total training hours (Alba employees + contractors)	604,719	640,661	772,403
Total number of training for total workforce (hours)	550,319	561,770	642,250
Total number of training for contractors (hours)	54,400	78,891	130,153
Total number of training for males (hours)	532,962	547,900	624,342
Total number of training for females (hours)	17,357	13,870	17,908
Average hours of training per year per male employee	175	180	209
Average hours of training per year per female employee	162	136	179
Average hours of training per year per employee	175	178	202
Average hours of training for senior level	38	22	28
Average hours of training for middle level	95	110	117
Average hours of training for non-management	201	202	232
Total cost of training (BHD)	1,521,000	1,821,007	1,829,919
Average cost of training per individual (BHD)	484	578	577
Total trainees and sponsored students	96	239	145
Number of trainees: school students	1	21	8
Number of trainees: university students	95	122	272

EMPLOYEES RECEIVING REGULAR PERFORMANCE AND CAREER DEVELOPMENT REVIEWS	2022	2023	2024
% of female workforce	100%	100%	100%
% of Male workforce	100%	100%	100%
Number of TDPs for management	93	76	60
Number of Al Jisr for non-management	62	58	56
Skill matrix for non-management	374	376	145
% of employees received skill related training	81%	80%	78%

9 This is referring to geographical region
10 This is referring to geographical region

EMPLOYEE ENGAGEMENT	2022	2023	2024
% of employees covered by formally elected employee representatives	71%	71%	70%

FEMALE PARTICIPATION IN THE ORGANIZATION WORKPLACE AND MANAGEMENT (%)	2022	2023	2024
% of Non-management	2.6%	2.5%	2.3%
% of Middle management[11]	5.9%	5.6%	5.8%
% of Senior management [12]	5.9%	5.8%	5.7%

DISCRIMINATION	2022	2023	2024
Total number of incidents of discrimination	0	0	0
Number of incidents reviewed by the organization	43	37	82
% of employees received DEI training	0%	6%	2%

Health and Safety

OCCUPATIONAL HEALTH & SAFETY[13]	2022	2023	2024
Total manhours (employees)	6,920,400	6,907,380	6,933,276
Total manhours (contractors)	4,585,860	4,192,740	2,753,784
Lost Time Injury (LTI)	1	1	0
Lost Time Injuries Rate (LTIR)	0.0172	0.0178	0
Lost Time Injuries Frequency Rate (LTIFR)	0.086	0.089	0.000
Total Recordable Injuries	9	9	4
Total Recordable Injury Frequency Rate (TRIR) for employees	0.43	0.57	0.29
Total Recordable Injury Frequency Rate (TRIR) for contractors	1.3	1.19	0.73
Fatalities as a result of work-related injury (contractors and employees)	0	0	0
Number of fatalities as a result of work-related ill health (employees)	0	0	0
Number of fatalities as a result of work-related ill health (contractors)	0	0	0

OCCUPATIONAL HEALTH & SAFETY[13]	2022	2023	2024
Number of cases of recordable work-related ill health (employees)	0	0	0
Number of cases of recordable work-related ill health (contractors)	0	0	0
Sick leave (number of days)	50,041	44,776	41,978
Near Miss Incidents	9,007	12,398	13,161
Employees trained in health and safety practices	3,684	3,666	3,373
Contractors trained in health and safety practices	2,917	3,790	3,469
Safety observations reported (unsafe act and unsafe condition)	100,495	117,530	119,690
Safety Audits	1,877	1,230	1,047
Percentage of workforce represented in joint management – worker health and safety committees (including walkthrough)	100%	100%	100%
Percentage of workers who are not employees of Alba but whose work is controlled by Alba's Health and Safety management system	100%	100%	100%

Employee Benefits & Welfare

PARENTAL LEAVE	2022	2023	2024
Total number of employees that were entitled to parental leave	91	86	85
Male	0	0	0
Female	91	86	85
Number of female employees who took parental leave	10	4	11
Percentage of female employees that returned to work after maternal leave	100%	100%	100%
Number of female employees that returned to work after maternal leave ended that were still employed 12 months after their return to work	10	4	11
Number of male employees who took parental leave	0	0	0
Percentage of male employees that returned to work after paternal leave	0%	0%	0%

11 A rounding correction has been applied to the 2022 figure, which was reported as 5.8; the full figure is 5.88.
12 A rounding correction has been applied to the 2022 figure, which was reported as 5.8; the full figure is 5.86.
13 The data presented includes both employees and contractors. All activities are conducted in accordance with Alba's Standard Operating Procedures (SOPs).

PARENTAL LEAVE	2022	2023	2024
Number of male employees that returned to work after paternal leave ended that were still employed 12 months after their return to work	0	0	0

PAY GAP	2022	2023	2024
% of average unadjusted gender pay-gap	-5.75%	-4.24%	-7.46%

Human Rights

HUMAN RIGHTS	2022	2023	2024
Operations that have been subject to human rights reviews or human rights impact assessments[14]	32	47	30
% of operational sites assessed for human rights impact or risk	0	0	100%[15]
Number of employees attended human rights policies or procedures training	179	193	278
Number of hours of training on human rights policies or procedures training	202	640	937
Percentage of employees trained in human rights out of total workforce	5.7%	6.1%	8.8%
Percentage of agreements that included clauses incorporating human rights concerns or that have undergone human rights screening	100%	100%	100%
Percentage of security personnel who received formal training in human rights	0	93	0
Percentage of new significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	100%	100%	100%

Socioeconomic Contribution

ECONOMIC PERFORMANCE FROM METAL SALES	2022	2023	2024
Total production (tonnes)	1,600,111	1,620,665	1,622,261
Revenues (million BHD)	1,841	1,544	1,622
Net profit (million BHD)	416	118	185
EBITDA (million BHD)	565	302	353

ECONOMIC PERFORMANCE FROM METAL SALES	2022	2023	2024
EBITDA (%)	31%	20%	22%

DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED	2022	2023	2024
Direct economic value generated and distributed (net)	22.61%	7.64%	11.38%
Year to year variance	-6%	-15%	4%
Contribution to GDP	12%	12%	12%

EARNINGS PER SHARE	2022	2023	2024
Earnings Per Share (fils)	294	83	130

DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED (MILLION BHD)	2022	2023	2024
Operating costs	1,189	1,135	1,144
Employee wages & benefits	98	113	124
Payments to lenders	21	49	32
Payments to government	3	3	4
Total	**1,311**	**1,301**	**1,303**
Taxes paid to the Kingdom of Bahrain	NA	NA	NA
Depreciation	127	134	138
Derivatives	0	1	-2
Others	-9	-3	2
Revenue	1,841	1,544	1,622
Other Income	5	7	4
Total Revenues	1,846	1,551	1,626
Net Income	416	118	185

14 2024 Breakdown; 13: Quarterly Social Performance Reviews on Construction Contractors, 1: Human Rights Assessment Report for PS5 Block 4 (officially published in Jan 2024). 16: Social Performance Reviews on Operation Contractors

15 https://www.albasmelter.com/uploads/Block_4_Human_Rights_Assessment_Report.pdf

PRODUCTION (SALES BY PRODUCT LINE) (MT)	2022	2023	2024
Standard Ingots	257,144	193,673	143,122
High Quality Sheet Ingots	0	99,098	133,119
Foundry Alloyed Ingots	287,410	351,178	309,674
Liquid Metal	278,846	301,834	313,411
Extrusion Billets	589,854	528,515	543,029
Rolling Slabs	186,857	146,367	179,906

SPENDING ON RAW MATERIAL BY REGION (BHD)[16]	2022	2023	2024
Bahrain	0	0	0
Middle East	76,673,726	44,319,542	29,683,662
Far East	82,804,011	83,280,099	75,539,401
Southeast Asia	0	0	0
Europe	70,594,932	57,547,850	38,883,050
Africa	0	0	0
N. America	0	16,942,174	0
S. America	7,990,647	7,164,610	0
Australia	463,763,926	416,668,624	516,933,996
Total	701,827,242	625,922,899	661,040,109

PROJECT AL HASSALAH - COST OPTIMISATION PROJECT	2022	2023	2024
Al Hassalah progress (million USD) - Actual	44.55	44.32	59.57
Al Hassalah progress (million USD) - Target	40	40	60
Operational efficiency ($/MT)	27.84	27.35	36.72

COMMUNITY INVESTMENTS (BHD)	2022	2023	2024
Community investment	1,682,154	2,101,796	2,345,035
Community investment as % of pre-tax profits	0.4%	1.8%	1.3%

16 Figures are for Major Raw Materials (Extracted from SAP), prices are market driven.

COMMUNITY INVESTMENT (% BY CATEGORY)	2022	2023	2024
Sports/ recreational	45.91%	64%	41%
Cultural	6.69%	8%	8.50%
Public awareness	6.72%	11.50%	12.50%
Industry specific initiatives	14.86%	4.30%	18%
Educational	15.58%	3.60%	13.75%
Safety/ Health/ Environment	10.24%	8.60%	6.25%

COMMUNITY DONATIONS AND SPONSORSHIPS (BHD)	2022	2023	2024
Community Donation	4,623	3,000	0
Sponsorship	1,677,531	2,098,796	2,345,035

VOLUNTEERING	2022	2023	2024
Number of volunteers	51	55	230
Employee volunteer hours	136	898	1,040

Innovation

INNOVATION	2022	2023	2024
Strategic research partnerships	1	2	2
Good suggestions submitted	28	68	49

GOVERNANCE

Ethical Governance

BOARD DIVERSITY	2022	2023	2024
Total number of Board members	10	10	10
BY GENDER:			
Male	7	7	8

BOARD DIVERSITY	2022	2023	2024
Female	3	3	2
BY AGE:			
Under 30	0	0	0
30-50	3	3	3
Over 50	7	7	7

BOARD INDEPENDENCE	2022	2023	2024
Seats occupied by independent directors (%)	50%	40%	40%
Non-executive members (%)	100%	100%	100%

BOARD TRAINING AND EVALUATION	2022	2023	2024
Total number for training hours delivered to board members	115	30	115
Average number of training hours delivered to board members (hrs/ board member)	12	10	12
Total number of performance evaluations conducted for the board	3	3	3
Board's performance evaluation result	The Board performed an evaluation assessment in Q1. Ten evaluations were received and the outcomes reviewed in Q2.	The Board performed an evaluation assessment in Q1 2024. The evaluations were received, and the outcomes will be reviewed in Q2 2024.	In Q1 2025, the Board conducted an evaluation assessment. The findings were reviewed in Q2 2025, with no need for any specific changes.

See more data in our Corporate Governance Report

ANTI-CORRUPTION	2022	2023	2024
Operations assessed for risks related to corruption (%)	100%	100%	100%
Employees trained on anti-corruption (%)	100%	100%	100%

REMUNERATION (BHD)	2022	2023	2024
Chairman	60,000	60,000	60,000
Directors	352,000	360,000	360,000
Total	**412,000**	**420,000**	**420,000**

Data Privacy & Security

CUSTOMER PRIVACY	2022	2023	2024
Total number of substantiated complaints received concerning breaches of customer privacy	0	0	0
Complaints from regulatory bodies	0	0	0
Complaints received from outside and substantiated parties	0	0	0
Numbers of IT security incidents or/and breaches	9	6	0

Customer Responsibility

CUSTOMER SATISFACTION	2022	2023	2024
Customer Satisfaction Rate	8.51	7.84	7.83
Annual targets	8	8	8
Number of products recall and customers complaints	0	0	0

METAL MARKETING & PRODUCT LABELLING	2022	2023	2024
TOTAL SALES AND BREAKDOWN BY REGION			
Total Sales ('000 BHD)	**1,840,924**	**1,543,908**	**1,621,728**
Bahrain	23%	24%	26%
Asia	15%	15%	15%
Europe	22%	24%	28%
Other MENA	21%	21%	16%
Americas	19%	16%	15%

Responsible Sourcing

PROCUREMENT SPENDING ON LOCAL SUPPLIERS	2022	2023	2024
Local Procurement (%)	48%	55%	57%

PROCUREMENT SPENDING ON LOCAL SUPPLIERS	2022	2023	2024
Total spending on suppliers and contractors (million BHD)	477	338	296
Spending on locally based suppliers and contractors (million BHD)	228	185	169

PROCUREMENT SUPPLIER SOCIAL ASSESSMENT - GENERAL SCREENING	2022	2023	2024
NEW SUPPLIERS THAT WERE SCREENED USING SOCIAL CRITERIA			
Number of significant suppliers	27	27	7
Number of total suppliers screened	18	11	7
% of total suppliers screened	67%	41%	100%
% of contracts declined	1	0	0
EXISTING SUPPLIERS THAT WERE SCREENED USING SOCIAL CRITERIA			
Number of significant suppliers	244	163	57
Number of total suppliers screened	246	165	57
% of total suppliers screened	99%	99%	100%
% of contracts declined	0	0	0

PROCUREMENT SUPPLIER ENVIRONMENTAL ASSESSMENT - GENERAL SCREENING	2022	2023	2024
NEW SUPPLIERS THAT WERE SCREENED USING ENVIRONMENTAL CRITERIA			
Number of significant suppliers	28	6	4
Number of total suppliers screened	28	6	4
% of total suppliers screened	100%	100%	100%
% of contracts declined	0	0	0
EXISTING SUPPLIERS THAT WERE SCREENED USING ENVIRONMENTAL CRITERIA			
Number of significant suppliers	241	38	5
Number of total suppliers screened	242	40	5
% of total suppliers screened	99.6%	95%	100%
% of contracts declined	0	0	0

SUPPLIERS	2022	2023	2024
% of suppliers that were audited	30%	80%	90%

STRATEGIC SUPPLIERS AND HUMAN RIGHTS- GENERAL SCREENING	2022	2023	2024
Percentage of agreements that include clauses incorporating human rights concerns or that have undergone human rights screening	100%	100%	100%

STRATEGIC SUPPLIER SOCIAL ASSESSMENT - GENERAL SCREENING	2022	2023	2024
EXISTING SUPPLIERS THAT WERE SCREENED USING SOCIAL CRITERIA			
Number of significant suppliers	26	18	23
Number of total suppliers screened	15	14	23
% of total suppliers screened	30%	80%	90%
% of contracts declined	30%	20%	0%

Appendix B: Detailed Description of Impacts

IMPACTS REFER TO	TOPIC NAMES FINALISED FOR ALBA'S ESG REPORTING
The acknowledgment, assessment, and management of the impacts associated with climate change resulting from global warming. In particular Alba's contribution of GHG emissions to air, resulting from fossil fuel-based energy generation, Bauxite Mining, Alumina Refining and Aluminium Smelting Electrolysis. This involves recognising the direct impacts that Alba's operations contribute to climate change, such as changes in temperature patterns or global warming, increased energy consumption, scarcity of water and food,, as well as indirect impacts such as regulatory shifts affecting emissions standards and market demand for sustainable products. GHG Emissions also encompasses potential and actual negative impacts and risks posed by climate-related events, such as extreme weather phenomena, sea-level rise, and disruptions to Alba's supply chain.	GHG Emissions
Strategic planning, monitoring, and optimisation of energy resources and consumption within Alba's operations. This encompasses practices aimed at enhancing energy efficiency, minimising waste, and adopting lower emitting or renewable energy sources. Energy Management also entails recognizing the actual or potential negative impacts and risks associated with energy consumption, such as increased vulnerability to energy price fluctuations, supply chain disruptions due to energy-related issues, and exposure to regulatory changes impacting energy usage.	Energy Management
Systematic planning, organisation, and implementation of processes to handle, collect, transport, dispose of, or recycle waste generated through Alba's operations. This encompasses strategies aimed at minimising waste production, promoting recycling, and ensuring compliance with environmental regulations. Waste Management also involves recognising the actual and potential negative impacts, risks associated with improper waste handling, such as health and safety hazards to workers and communities, legal and regulatory non-compliance leading to financial penalties and litigation, financial risks including increased operational costs and budget uncertainty, reputational damage due to negative publicity, and supply chain risks such as service disruptions or conflicts with Alba's sustainability objectives.	Waste Management
Alba's commitment to responsibly managing water resources throughout its operations and supply chain, ensuring that water is used efficiently and sustainably. This involves implementing water stewardship principles and practicing conservation measures, investing in water-efficient technologies, reducing water pollution, and collaborating with stakeholders to address shared water challenges in the communities where the company operates. This topic encompasses recognising both potential and actual negative impacts, including risks associated with water scarcity, competition for water resources, regulatory requirements related to water quality and discharge standards, and potential impacts of water pollution on ecosystems and human health. Furthermore, there are financial risks such as increased operational costs for water procurement, treatment, and compliance, potential fines or penalties for non-compliance with regulatory standards.	Water Management
Alba's commitment to protecting and conserving the variety of life on earth, including the diversity of ecosystems, species, and genetic resources. This involves implementing responsible materials sourcing and production practices that minimise potential or actual negative impacts on ecosystems, habitats, and species, as well as promoting sustainable land use. Both potential and actual impacts include, risks associated with habitat destruction, fragmentation, and degradation due to industrial activities, extraction of natural resources, and land use changes.	Biodiversity Preservation
Ethical responsibility of respecting and safeguarding the fundamental rights and dignity of all individuals affected by Alba's operations, including employees, suppliers, customers, and communities. This encompasses principles such as fair labour practices, non-discrimination, freedom of association, and the protection of workers' well-being. Both actual and potential negative impacts include risks such as labour rights violations, unsafe working conditions, forced labour, child labour, discrimination, and infringement of workers' rights along the supply chain.	Human Rights

IMPACTS REFER TO	TOPIC NAMES FINALISED FOR ALBA'S ESG REPORTING
The active engagement and participation in the local or broader community where Alba operates, with the aim of making positive contributions beyond business activities. This involves initiatives, partnerships, and programs designed to address community needs, enhance social wellbeing, and contribute to sustainable development. Actual and potential impacts, including positive contributions such as improved access to education/training, healthcare, and social services, environmental conservation efforts, economic development opportunities, and enhanced social cohesion. Financial aspects as well as contributions to higher levels of economic productivity through diversification, technological upgrading, and innovation. Positive impacts may include job creation, economic growth, and enhanced competitiveness resulting from investments in innovation, technology, and diversification efforts. Additionally, economic contributions can lead to increased prosperity and well-being for communities where the company operates, as well as improved standards of living and opportunities for socioeconomic development. However, negative impacts, risks and challenges may include economic volatility, market fluctuations, and the need for continuous adaptation to changing economic conditions and competitive pressures.	Socioeconomic Contribution (combines the topics of community involvement and contribution, and economic contributions)
Cultivating a supportive work environment at Alba that embraces and celebrates the unique characteristics of every individual, while providing equitable opportunities for growth and success. This involves fostering a sense of belonging and inclusivity for all employees, regardless of their gender, nationality, age, race, ethnicity, sexual orientation, disability, or other distinct attributes. For example, where positive impacts may include increased employee satisfaction, creativity, and innovation, as well as enhanced organisational performance and reputation, negative impacts, risks and challenges may include instances of discrimination, harassment, or bias, which can lead to negative impacts on employee morale, productivity, and organisational culture.	Diversity, Equity & Inclusion
Creating and sustaining a motivated, engaged, and professionally fulfilled workforce, while striving to be an employer of choice. This involves ongoing communication with employees to understand their needs and aspirations, as well as implementing programmes, trainings, and development sessions aimed at enhancing their skills and overall capabilities. A focus on talent attraction, retention, and engagement enhances Alba's reputation as an employer of choice, attracting top talent and driving organisational success. However, negative impacts risks and challenges may include issues such as talent shortages, which can negatively impact productivity, innovation, and overall business performance.	Talent Attraction & Retention
Incentives and support programmes that Alba provides to employees beyond their basic salaries, with the goal of enhancing their overall well-being and job satisfaction. This encompasses a range of offerings, including health insurance, retirement plans, paid time off, flexible work arrangements, wellness programmes, professional development opportunities, and other initiatives aimed at creating a positive and supportive work environment. To provide context, positive impacts may include increased employee morale, motivation, and loyalty, leading to improved retention rates and a more engaged workforce. Additionally, offering competitive employee benefits and welfare programmes can enhance Alba's attractiveness as an employer, helping to attract and retain top talent. However, negative impacts, risks and challenges may include issues such as rising costs of benefits administration, compliance with regulatory requirements, and ensuring equitable access to benefits for all employees.	Employee Benefits & Welfare

IMPACTS REFER TO	TOPIC NAMES FINALISED FOR ALBA'S ESG REPORTING
Ensuring Alba maintains a safe and healthy work environment for all employees. This involves implementing robust policies, procedures, measures, and training programmes to minimise workplace hazards, prevent accidents, and protect the well-being of workers. Positive impacts may include reduced incidents of workplace injuries and illnesses, improved employee morale and productivity, and enhanced organisational reputation. Additionally, prioritising occupational health and safety can lead to cost savings by reducing workers' compensation claims, insurance premiums, and downtime associated with accidents or injuries. However, negative impacts and financial risks may include costs associated with implementing and maintaining health and safety programmes.	Health & Safety
Measures and practices implemented by Alba to safeguard the well-being and personal information of customers. This involves ensuring the confidentiality and security of customer data, respecting privacy preferences, and adhering to relevant data protection regulations. Additionally, it may include initiatives to promote the health and safety of customers, such as providing accurate product information, offering safe and reliable products/services, and addressing customer well-being concerns. Positive impacts may include enhanced customer trust, loyalty, and satisfaction, leading to increased sales, brand reputation, and market competitiveness. Prioritising customer health and privacy helps mitigate potential or actual negative impacts and risks such as data breaches, privacy violations, regulatory penalties, and reputational damage.	Customer Responsibility
Product labelling ensures transparent communication about the composition, origin, and other relevant details of metal-based goods. Positive impacts may include increased customer trust, brand reputation, and market demand for sustainably produced metal products. Additionally, adherence to industry standards, certifications, and environmentally friendly practices in marketing and product labelling efforts can enhance the company's competitiveness and market positioning. However, negative impacts may include issues such as lack of transparency in product labelling, and non-compliance with regulatory requirements.	Metal Marketing & Product Labelling
Investing in the development of new technologies, products, and processes that improve efficiency, sustainability, and overall performance within the metals and mining sector. By fostering a culture of innovation and supporting research initiatives, the Alba aims to stay competitive in the market, meet evolving customer needs, and address environmental and social challenges. Positive impacts may include increased operational efficiency, reduced environmental footprint, enhanced product quality, and expanded market opportunities through the introduction of innovative products and processes. Additionally, investing in research, development and innovation can lead to improvements in workplace productivity, employee engagement, and talent attraction. However, negative impacts risks and challenges may include high investment costs, and uncertain returns on investment.	Innovation
Conformance with relevant laws, rules, standards, and guidelines that govern its operations. It involves ensuring that Alba conducts its business activities in a manner that complies with local, national, and international regulations applicable to its industry and geographical locations. Positive impacts may include maintaining legal standing, reducing the risk of fines, penalties, and legal disputes, and fostering a positive environmental and social impact by aligning the company with sustainable practices and responsible governance. Additionally, compliance with regulations can enhance Alba's reputation, build trust with stakeholders, and mitigate risks associated with non-compliance. However, negative impacts risks and challenges may include the complexity and frequent changes in regulatory requirements, and compliance costs. This includes not only financial risks but also factors such as operational, strategic, reputational, environmental, and regulatory risks. Positive impacts may include improved decision-making, enhanced business resilience, and protection of stakeholder interests through proactive risk identification and mitigation. However, negative impacts, risks and challenges may include the failure to identify or adequately respond to risks, resulting in potential financial losses, or regulatory non-compliance	Compliance & Risk (combines the topics of compliance and risk management)

IMPACTS REFER TO	TOPIC NAMES FINALISED FOR ALBA'S ESG REPORTING
Alba's commitment to establishing and maintaining a robust governance framework that ensures transparency, accountability, and adherence to the highest ethical standards. This involves implementing policies and procedures that guide decision-making, promote responsible business practices, and emphasise a culture of integrity. Positive impacts may include enhanced reputation, increased investor confidence, and improved stakeholder trust resulting from transparent and accountable business practices. Additionally, a strong emphasis on business ethics and corporate governance can help mitigate potential or actual negative impacts and risks such as corruption, conflicts of interest, and unethical behaviour, which can lead to legal liabilities, and potential financial losses.	Ethical Governance
The extent and quality of information provided by Alba regarding its Environmental, Social, and Governance (ESG) practices. This involves openly communicating relevant data and details about the company's sustainability initiatives, ethical business practices, and governance structures. Positive impacts may include enhanced stakeholder trust, improved reputation, and increased investor confidence resulting from transparent communication of ESG performance. Additionally, transparent ESG disclosure can lead to better informed decision-making by investors, customers, employees, and other stakeholders, as well as improved accountability and alignment with stakeholder expectations. However, negative impacts, risks and challenges may include concerns about data accuracy, inconsistent reporting standards, and the need for continuous improvement in ESG performance.	ESG Transparency & Disclosure
Alba's dedication to transparent and ethical practices throughout its supply chain. This commitment includes supporting local suppliers, promoting local content, and implementing a traceability system to meticulously track the journey of raw materials and final products, ensuring responsible sourcing and minimising environmental and social impact. Positive impacts may include enhanced supplier relationships, reduced supply chain risks, and improved social and market reputation resulting from transparent and ethical practices in sourcing and supply chain management. Additionally, sustainable supply chain practices can lead to cost savings, operational efficiencies, and increased resilience to market disruptions. However, negative impacts, risks and challenges may include supply chain disruptions, compliance issues, and damage associated with unethical sourcing practices or supplier misconduct.	Responsible Sourcing

Appendix C: Glossary

ACRONYM	DEFINITION
ACOP	Approved Code of Practice
AGM	Annual General Meeting
AI	Artificial Intelligence
AoI	Area of Influence
APM	A.P.Moller-Maersk
AQMS	Air Quality Monitoring System
AR5	IPCC Fifth Assessment Report
ASI	Aluminium Stewardship Initiative
ASTM	American Society for Testing and Materials
BAC	Board Audit Committee
BAP	Biodiversity Action Plan
BAPCO	Bahrain Petroleum Company
BHD	Bahraini Dinar
BOO	Build, Own, and Operate
BSC	British Safety Council
BSCM	Bahrain Society of Human Capital Management
BTEC	Business & Technology Education Council
BTU	British Thermal Unit
CAHRA	Conflict-Affected and High-Risk Areas
CAPEX	Capital Expenditures
CBAM	Carbon Border Adjustment Mechanism
CBB	Central Bank of Bahrain
CBD	Convention on Biodiversity

ACRONYM	DEFINITION
CCTV	Closed-circuit Television
CDP	Carbon Disclosure Project
CEMS	Continuous Emission Monitoring Systems
CEO	Chief Executive Officer
CIA	Chief of Internal Audit
CIS	Centre for Internet Security
CO	Carbon Oxide
CSR	Corporate Social Responsibility
DC	Direct Current
DEI	Diversity, Equity & Inclusion
DNV	Det Norske Veritas
DTME	Deloitte and Touche Middle East
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortization
EMS	Environmental Management System
EPD	Environmental Product Declarations
EPC	Engineering, Procurement, and Construction
ERM	Enterprise Risk Management framework
ERP	Enterprise Resource Planning
ESG	Environmental, Social, and Governance
ESIA	Environmental and Social Impact Assessments
EU	European Union
EWA	Electricity and Water Authority
FTE	Full-time Employee

ACRONYM	DEFINITION
FTP	Fume Treatment Plant
GAC	Gulf Aluminium Council
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GJ	Gigajoules
GRI	Global Reporting Initiative
GTC	Gas Treatment Centre
GW	Gigawatt
GWECCC	Global Water, Energy, and Climate Change Congress
GWP	Global Warming Potential
HC	High-Level Controls
HF	Hydrogen Fluoride
HR	Human Resources
HRH	His Royal Highness
HVAC	Heating, Ventilation, and Air Conditioning
IAI	International Aluminium Institute
IATF	International Automotive Task Force
ICP	Inductively Coupled Plasma – Atomic Emission Spectroscopy
IFRS	International Financial Reporting Standards
IOSH	Institute of Occupational Safety and Health
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization

ACRONYM	DEFINITION
IoT	Internet of Things
IT	Information Technology
JSP	Job Safe Practice
KPI	Key Performance Indicators
LCA	Life Cycle Assessments
LED	Light Emitting Diode
LEEA	Lifting Equipment Engineers Association
LTI	Lost Time Injury
LTIR	Lost Time Injury Rate
LTIFR	Lost Time Injury Frequency Rate
MBA	Master of Business Administration
MENA	Middle East & North Africa
ML	Mega Litres
mtpa	Metric tonnes per annum
MMBTU	Million British Thermal Units
MNMP	Marine Noise Management Plan
MOI	Ministry of Interior
MSDS	Materials Safety Data Sheets
MT	Metric tonnes
MW	Megawatt
MWQMP	Marine Water Quality Management Plan
NFP	Net Finished Product
NOx	Nitrogen Oxides
NSC	National Safety Council
NVTC	Nasser Vocational Training Centre
ODS	Ozone-depleting Substances

ACRONYM	DEFINITION
OHSMS	Occupational Health and Safety Management System
QMS	Quality Management System
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations
RO	Reverse Osmosis
RoSPA	Royal Society for the Prevention of Accidents
SABIC	Saudi Basic Industries Corporation
SAP	Systems, Application, and Products
SCADA	Supervisory Control and Data Acquisition
SCE	Supreme Council for the Environment
SDG	Sustainable Development Goal
SHE	Safety, Health and Environment
SIRI	Smart Industry Readiness Index
SMEs	Small and Medium-Size Enterprises
SMS	Social Management System
SOP	Standard Operating Procedure
SOx	Sulphur Oxides
SPL	Spent Pot Lining
SSP	Strategic Supply & Planning
STP	Sewage Treatment Plants
TRIR	Total Recordable Injury Frequency Rate
TRP	Tactical Response Plan
TSS	Total Suspended Solids
UN	United Nations
UPS	Uninterruptible Power Supply
US EPA	United States Environmental Protection Agency
USD	United States Dollar

ACRONYM	DEFINITION
VOC	Volatile Organic Compounds

Appendix D: GRI Content Index

For the Content Index – Essentials Service, GRI Services reviewed that the GRI content index has been presented in a way consistent with the requirements for reporting in accordance with the GRI Standards, and that the information in the index is clearly presented and accessible to the stakeholders.

STATEMENT OF USE	Aluminium Bahrain B.S.C (Alba) has reported in accordance with the GRI Standards for the period 1st January 2024 to 31st December 2024.
GRI 1 USED	GRI 1: Foundation 2021
APPLICABLE GRI SECTOR STANDARD(S)	None

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
GENERAL DISCLOSURES					
GRI 2: General Disclosures 2021	2-1 Organizational details	7, 9, 10, 13	A grey cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available.		
	2-2 Entities included in the organization's sustainability reporting	7			
	2-3 Reporting period, frequency and contact point	7			
	2-4 Restatements of information	71			
	2-5 External assurance	107			
	2-6 Activities, value chain and other business relationships	9-11, 13			
	2-7 Employees	10, 74-75			
	2-8 Workers who are not employees	75			
	2-9 Governance structure and composition	55-57 Corporate Governance Report 2024 Board of Directors Report 2024			
	2-10 Nomination and selection of the highest governance body	55-57			
GRI 2: General Disclosures 2021	2-11 Chair of the highest governance body	56 Corporate Governance Report 2024			
	2-12 Role of the highest governance body in overseeing the management of impacts	18			
	2-13 Delegation of responsibility for managing impacts	18			
	2-14 Role of the highest governance body in sustainability reporting	18			
	2-15 Conflicts of interest	59, 60 Corporate Governance Report 2024			
	2-16 Communication of critical concerns	20, 39, 40, 59, 60, 61, 103			
	2-17 Collective knowledge of the highest governance body	15, 16, 56, 57			
	2-18 Evaluation of the performance of the highest governance body	57, 80			
	2-19 Remuneration policies	56 Corporate Governance Report 2024			
	2-20 Process to determine remuneration	Corporate Governance Report 2024			
	2-21 Annual total compensation ratio	See Fixed Remunerations in the Corporate Governance Report 2024			
	2-22 Statement on sustainable development strategy	4			
	2-23 Policy commitments	16, 26, 30, 32, 35, 39, 44, 46, 58, 59, 61, 64, 66, 68, 69			
	2-24 Embedding policy commitments	16, 26, 30, 32, 35, 39, 44, 46, 58, 59, 61, 64, 66, 68, 69			
	2-25 Processes to remediate negative impacts	20, 34, 35, 39, 40, 61, 82, 83			
	2-26 Mechanisms for seeking advice and raising concerns	20, 39, 40, 61			

GRI 2: General Disclosures 2021	2-27 Compliance with laws and regulations	35, 39, 58, 60-62			
	2-28 Membership associations	11			
	2-29 Approach to stakeholder engagement	20, 102, 103			
	2-30 Collective bargaining agreements	Omitted	All	Not applicable	It is not a common practice in the Kingdom of Bahrain to agree on the employment T&Cs collective bargaining. The working conditions and employment terms are not influenced by the collective bargaining agreements of other employees or agreements from other organisations.
MATERIAL TOPICS					
GRI 3: Material Topics 2021	3-1 Process to determine material topics	19, 20, 102, 103	A grey cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available.		
	3-2 List of material topics	17			
GHG EMISSIONS					
GRI 3: Material Topics 2021	3-3 Management of material topics	23-26, 82, 83			
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	25, 71, 95-101			
	305-2 Energy indirect (Scope 2) GHG emissions	25, 71, 95-101			
	305-3 Other indirect (Scope 3) GHG emissions	25, 71, 95-101			
	305-4 GHG emissions intensity	25, 95-101			
	305-5 Reduction of GHG emissions	23-26, 71, 95-101			
	305-6 Emissions of ozone-depleting substances (ODS)	24, 71, 95-101			
	305-7 Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions	24, 71			

ENERGY MANAGEMENT					
GRI 3: Material Topics 2021	3-3 Management of material topics	27-29, 82, 83			
GRI 302: Energy 2016	302-1 Energy consumption within the organization	27-29, 71, 72, 95-101			
	302-2 Energy consumption outside of the organization	Omitted	GRI 302-2 is not covered	Not applicable	Alba does not consume energy outside its organisational scope and boundary
	302-3 Energy intensity	27-29, 71			
	302-4 Reduction of energy consumption	27-29, 71			
	302-5 Reductions in energy requirements of products and services	27-29			
WATER MANAGEMENT					
GRI 3: Material Topics 2021	3-3 Management of material topics	30-31, 82, 83			
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	30-31, 95-101			
	303-2 Management of water discharge-related impacts	30-31, 82, 83			
	303-3 Water withdrawal	72			
	303-4 Water discharge	72, 95-101			
	303-5 Water consumption	72, 95-101			
WASTE MANAGEMENT					
GRI 3: Material Topics 2021	3-3 Management of material topics	32-33, 82, 83			
GRI 301: Materials 2016	301-1 Materials used by weight or volume	6, 22-24, 32-22, 72, 73			
	301-2 Recycled input materials used	6, 22-24, 32-22, 72, 73			
	301-3 Reclaimed products and their packaging materials	Omitted	GRI 301-3 is not covered	Not applicable	In 2024, Alba did not utilize any reclaimed products in its operations, rendering the quantity of reclaimed packaging material is inapplicable.

GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	32, 82, 83			
	306-2 Management of significant waste-related impacts	72, 82, 83			
	306-3 Waste generated	33, 72			
	306-4 Waste diverted from disposal	72			
	306-5 Waste directed to disposal	72			
BIODIVERSITY PRESERVATION					
GRI 3: Material Topics 2021	3-3 Management of material topics	34-35, 82, 83			
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Omitted	GRI 304-1 is not covered	Not applicable	Our operations are not located in or adjacent to protected areas or areas of high biodiversity outside protected areas
	304-2 Significant impacts of activities, products and services on biodiversity	34-35, 82, 83			
	304-3 Habitats protected or restored	39-40 Alba 2022 ESG Report (P. 40)			
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Omitted	GRI 304-4 is not covered	Information unavailable/ incomplete	Alba conducted a Biodiversity assessment in 2022 that covered IUCN Red List species. Further updates will be reported in due course
GRI 306: Effluents and Waste 2016	306-3 Significant spills	35, 74			
TALENT ATTRACTION & RETENTION					
GRI 3: Material Topics 2021	3-3 Management of material topics	41-43, 82, 83			
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	76			
	404-2 Programmes for upgrading employee skills and transition assistance programmes	41-43			
	404-3 Percentage of employees receiving regular performance and career development reviews	76			

HEALTH & SAFETY					
GRI 3: Material Topics 2021	3-3 Management of material topics	46-47, 82, 83			
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	46			
	403-2 Hazard identification, risk assessment, and incident investigation	46, 47, 63			
	403-3 Occupational health services	46, 47			
	403-4 Worker participation, consultation, and communication on occupational health and safety	46, 47			
	403-5 Worker training on occupational health and safety	47, 77			
	403-6 Promotion of worker health	44, 45			
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	46, 47			
	403-8 Workers covered by an occupational health and safety management system	77			
	403-9 Work-related injuries	77, 95-101			
	403-10 Work-related ill health	77			
DIVERSITY, EQUITY & INCLUSION					
GRI 3: Material Topics 2021	3-3 Management of material topics	40, 82, 83			
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	40, 55, 79, 80			
	405-2 Ratio of basic salary and remuneration of women to men	Omitted	GRI 405-2 is not covered	Confidentiality constraints	While this is for Board of Directors and CXOs in yearly corporate governance report, the same is not made available for wider employees for confidentiality reasons

EMPLOYEE BENEFITS & WELFARE					
GRI 3: Material Topics 2021	3-3 Management of material topics	44, 45, 82, 83			
GRI 402: Labour/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	Omitted	GRI 402-1 is not covered	Confidentiality constraints	We adhere to legal and contractual obligations concerning notice periods, which are managed internally
GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	Omitted	GRI 202-1 is not covered	Confidentiality constraints	Not disclosed in this report due to internal confidentiality policies
	202-2 Proportion of senior management hired from the local community	75			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	75, 76			
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	44, 45			
	401-3 Parental leave	44, 77, 78			
HUMAN RIGHTS					
GRI 3: Material Topics 2021	3-3 Management of material topics	39, 82, 83			
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	40, 77			
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Omitted	GRI 407-1 is not covered	Not applicable	Our operations and suppliers adhere to local and international labour laws that support the right to freedom of association and collective bargaining
GRI 408: Child Labour 2016	408-1 Operations and suppliers at significant risk for incidents of child labour	Omitted	GRI 408-1 is not covered	Not applicable	Our operations and suppliers are compliant with international labour standards and regulations prohibiting child labour
GRI 409: Forced or Compulsory Labour 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour	Omitted	GRI 409-1 is not covered	Not applicable	Our operations and suppliers are in compliance with international standards and regulations against forced or compulsory labour
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	78			
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	Omitted	GRI 411-1 is not covered	Not applicable	Within Bahrain, there is no indigenous peoples
SOCIOECONOMIC CONTRIBUTION					
GRI 3: Material Topics 2021	3-3 Management of material topics	48-51, 82, 83			
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	78			
	201-2 Financial implications and other risks and opportunities due to climate change	Omitted	GRI 201-2 is not covered	Information unavailable/ incomplete	Limitations in our risk assessment and reporting systems. We are actively enhancing these systems to address this information in future reports
	201-3 Defined benefit plan obligations and other retirement plans	Omitted	GRI 201-3 is not covered	Confidentiality constraints	Information on defined benefit plan obligations and other retirement plans cannot be disclosed due to internal confidentiality policies

GRI 201: Economic Performance 2016	201-4 Financial assistance received from government	Omitted	GRI 201-4 is not covered	Not applicable	Financial assistance from the Government was not sought in 2023
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	49, 50			
	203-2 Significant indirect economic impacts	48-51, 79			
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programmes	21, 48-51, 102, 103			
	413-2 Operations with significant actual and potential negative impacts on local communities	Omitted	GRI 413-2 is not covered	Information unavailable/ incomplete	Current limitations in our impact assessment and reporting processes. We are working to enhance these processes and will address this information in future reports
GRI 415: Public Policy 2016	415-1 Political contributions	Omitted	GRI 415-1 is not covered	Not applicable	Political contributions are not applicable as our organization does not make any political donations or contributions
GRI 207: Tax 2019	207-1 Approach to tax	Annual Report 2024			
	207-2 Tax governance, control, and risk management	Annual Report 2024			
	207-3 Stakeholder engagement and management of concerns related to tax	Annual Report 2024			
	207-4 Country-by-country reporting	Omitted	GRI 207-4 is not covered	Not applicable	Alba has one site and is operating in Bahrain
ETHICAL GOVERNANCE					
GRI 3: Material Topics 2021	3-3 Management of material topics	55-61, 82, 83			
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	80, 58-59			
	205-2 Communication and training about anti-corruption policies and procedures	58			
	205-3 Confirmed incidents of corruption and actions taken	58			
COMPLIANCE AND RISK					
GRI 3: Material Topics 2021	3-3 Management of material topics	62, 63, 82, 83			
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Omitted	GRI 206-1 is not covered	Not applicable	Due to its competitive position in the global market, Bahrain's regulatory environment, and its government ownership structure.
CUSTOMER RESPONSIBILITY					
GRI 3: Material Topics 2021	3-3 Management of material topics	65, 67, 82, 83			
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	80			
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	65			
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	None			
METAL MARKETING & PRODUCT LABELLING					
GRI 3: Material Topics 2021	3-3 Management of material topics	65, 66, 82, 83			
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	65			
	417-2 Incidents of non-compliance concerning product and service information and labeling	None			

GRI 417: Marketing and Labeling 2016	417-3 Incidents of non-compliance concerning marketing communications	None			
RESPONSIBLE SOURCING					
GRI 3: Material Topics 2021	3-3 Management of material topics	68, 69, 82, 83			
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	68, 69, 80			
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	81			
GRI 308: Supplier Environmental Assessment 2016	308-2 Negative environmental impacts in the supply chain and actions taken	Omitted	GRI 308-2 is not covered	Information unavailable/ incomplete	Limitations in our supply chain data and monitoring systems. We are working to enhance these systems to better track and address environmental impacts and will aim to include this information in future reports
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	81			
	414-2 Negative social impacts in the supply chain and actions taken	Omitted	GRI 414-2 is not covered	Information unavailable/ incomplete	Limitations in our supply chain monitoring and reporting systems. We are actively working to improve these systems to better address and report on social impacts and will include this information in future reports

TOPICS THAT ARE NOT COVERED BY THE GRI TOPIC STANDARDS		
INNOVATION		
GRI 3: Material Topics 2021	3-3 Management of material topics	52, 53
ESG TRANSPARENCY & DISCLOSURE		
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 70-81

Appendix E: CBB Index

KPI	REFERENCE(S)	COVERAGE IN REPORT
ENVIRONMENT		
E.1: Environmental Oversight The company should describe its management and board oversight on climate related risks and opportunities. Unit: Statement/Description	GRI 3: Material Topics 2021 TCFD: Strategy - Recommended Disclosure (a) and (b) CDSB Framework: REQ-01, REQ02	Yes - Pg 15-18 and Pg 86
E.2: Energy Consumption The company should provide information on both direct and indirect energy usage. Direct energy usage refers to energy that is generated and used on property owned or operated by the company. Indirect energy usage refers to energy that is generated elsewhere, such as through utilities, but is used by the company. Unit: megawatt hours (MWh) or gigajoules (GJ) or multiples	GRI: 302-1, 302-2: Energy 2016	Yes
E.3: Energy Intensity The company should report total annual energy usage per output scaling factor (such as sales or revenue). Unit: gigawatt-hours (GWh) per million BHD/USD or multiples	GRI: 302-3: Energy 2016	Yes
E.4: Energy Mix The company should provide a breakdown of its energy consumption by source. Unit: Percentage (%)	GRI 302: Energy 2016	Yes - Million GJ
E.5: Greehouse Gas (GHG) Emissions The company should report its total Greenhouse Gas Emissions Unit: metric tons of CO_2 or equivalent	GRI 305: Emissions 2016 GHG Protocol: Calculation Tools and Guidance	Yes
E.6: Emission Intensity The company should report annual GHG emission scaled by a relevant scaling factor (such as size (e.g. m2 floor space), employment (e.g. headcount) and monetary units (e.g. revenue or sales)). Unit: metric tons of CO_2 or multiples per unit of scaling factor	GRI 305: Emissions 2016 GHG Protocol: Calculation Tools and Guidance	Yes
E.7: Climate Risk Mitigation The company should describe its climate risk identification process, assessment, management processes, and report annual investment in infrastructure, resilience, and product development. Unit: Statement / Description and monetary value in BHD/USD	TCFD: Risk Management - Recommended Disclosure (a) and (b) CDSB Framework: REQ-03	Yes - Pg7, Pg23-24 and Pg 86
E.8: Water Usage The company should report total annual amount of water withdrawn, consumed, recycled. Unit: cubic meters (m3) or equivalent	GRI 303: Water and Effluents 2018 CDP Water Security Reporting Guidance 2022	Yes
E.9: Waste Generation The company should report total weight of waste generated and a description of its waste disposal method. Unit: Statement /Description and weight in metric tons or equivalent.	GRI 306: Waste 2020	Yes
E.10: Emission Targets The company should provide a description of emission targets set, and steps taken to achieve them, including energy conservation measures. Unit: Statement/Description	GRI 3: Material Topics 2021 GRI 305: Emissions 2016	Yes - 30% reduction in GHG emissions by 2035 and net zero by 2060
SOCIAL		
S.1: Total Workforce by sex, age-group, and employment type The company should report the composition of its total workforce by sex, employment type and age group. Unit: Amount and Percentage (%)	GRI 2: General Disclosures 2021 GRI 405: Diversity and Equal Opportunity 2016	Yes
S.2: Child and Forced Labour The company should provide a statement of policies it applies to prohibit child/ and or forced labour within the company, and if it considers policies that prohibit that same for their suppliers and/or vendors. Unit: Statement/Description	GRI 2: General Disclosures 2021 GRI 405: Diversity and Equal Opportunity 2016	Yes

S.3: Employee Turnover The company should report the total annual turnover (whether voluntary or involuntary) categorised by sex and age group. Unit: Amount and Percentage (%)	GRI 401: Employment 2016	Yes
S.4: Gender Pay Ratio The company should report the median total compensation for men compared to the median total compensation for women (as a ratio). Unit: Ratio	GRI 405: Diversity and Equal Opportunity 2016	No - While this is for Board of Directors and CXOs in yearly corporate governance report, the same is not made available for wider employees for confidentiality reasons
S.5: Health and Safety The company should report the total number of injuries and fatalities occurred, lost days due to work injury and a description of occupational health and safety measures. Unit: Amount and Description	GRI 403: Occupational Health and Safety 2018	Yes
S.6: NonDiscrimination The company should provide a description of its harassment and/or non-discrimination policy. Unit: Statement/Description	GRI 406: NonDiscrimination 2016 GRI 3: Material Topics 2021	Yes
S.7: Nationalisation The company should report on the number and percentage of national employees, as well as initiatives to increase nationalisation. Unit: Amount and Statement/Description	GRI 406: NonDiscrimination 2016 GRI 3: Material Topics 2021	Yes
S.8: Community Investment The company should provide detailed information on the scope and impact of its community investment activities, as well as amount invested in community as a percentage of company revenue. Unit: Description and Percentage (%)	GRI 3: Material Topics 2021	Yes
S.9: Human rights The company should provide a description of its policy on human rights. Unit: Statement/Description	GRI 412: Human Rights Assessment 2016 GRI 3: Material Topics 2021	Yes
S.10: Management Composition/Diversity The company should report the percentage of male to female metrics broken down by various organisational levels. Unit: Percentage (%)	GRI 405: Diversity and Equal Opportunity 2016	Yes
S.11: Development and Training The company should report average hours of training that its employees have undertaken during the reporting period. Unit: Percentage (%)	GRI 404: Training and Education 2016	Yes
GOVERNANCE		
G.1: Board Composition The company should report the composition of the Board categorised by directors, such as the chairman, executive directors, non-executive directors, and independent nonexecutive directors. Unit: Statement/Description	GRI 2: General Disclosures 2021	Yes
G.2: Collective Bargaining The company should report on the total enterprise headcount covered by collective bargaining agreements (Unions) and the process in which employees' contracts with their employers to determine their terms of employment. Unit: Description and amount	GRI 407: Freedom of Association and Collective Bargaining 2016	No
G.3: Whistleblowing The company should provide a description of the mechanisms used to discuss and report on behaviour. Unit: Statement /Description	GRI 2: General Disclosures 2021	Yes
G.4: Data privacy The company should Report if it follows a Data Privacy policy and if the company has taken steps to comply with Personal Data Protection Law (PDPL) rules. Unit: Statement / Description	GRI 2: General Disclosures 2021	Yes
G.5: Disclosure Practices The company should provide a description of its sustainability disclosure practices. Unit: Statement /Description	GRI 2: General Disclosures 2021	Yes

G.6: Conflict of interest The company shall describe the processes for the highest governance body to ensure that conflicts of interest are prevented and mitigated. Unit: Statement / Description	GRI 2: General Disclosures 2021	Yes
G.7: Supplier Code of Conduct The company should report if it has established a Supplier Code of Conduct. Unit: Statement / Description and Percentage (%)	GRI 2: General Disclosures 2021	Yes
G.8: Incentivised Pay The company should describe the processes for incentivising executives to perform sustainably. Unit: Statement /Description	GRI 2: General Disclosures 2021	Yes - Refer to GRI 2-19 Remuneration policies / Pg56 and Pg 86. Executive remuneration is currently based on financial, operational, and strategic business objectives.
G.9: Ethics & Anticorruption The company should describe its policy on ethical conduct and anti-corruption. Unit: Statement / Description and Percentage (%)	GRI 2: General Disclosures 2021 GRI 3: Material Topics 2021	Yes
G.10: Assurance The company shall describe the processes by which its sustainability disclosures are assured or validated. Unit: Statement /Description	GRI 2: General Disclosures 2021 GRI 3: Material Topics 2021	Yes

Appendix F: Reporting Boundaries & Methods

Scope of Reporting
The selected 13 Key Performance Indicators cover Alba's plant/operations within the Smelter Plants from 1 January to 31 December of the year.

Total Direct Energy Consumption

DEFINITION
The natural gas energy that is consumed internally both to generate electrical power and inside the smelter plants in addition to any liquid fuel (Diesel and Gasoline) used to operate the operational vehicles.

SCOPE
It covers the reporting period 1 January to 31 December of the year.

The scope of Direct Energy Consumption data covers Alba's production operations in Bahrain. This metric is reported on the actual consumption basis where the Fuel (Diesel and gasoline) used by Alba's operational vehicles while natural gas is used as the energy source in Alba's power stations to generate captive electrical power and operate the burners of cast house furnaces, anode baking kilns, and calciner kilns. The electricity is then used in different process units within the smelter. Base year for the calculations is 2022. Data was verified and approved by a third party.

UNITS
Giga-Joules (GJ), British Thermal Units (BTU)

METHOD
Natural Gas purchased from Tatweer Petroleum (National operator of natural gas wells) is used to generate electrical power by using combined-cycles generators and for heating purposes. The electrical energy is then used internally to produce the Aluminium metal. A small portion of the generated electrical energy may be exported to the National Grid in some months as part of an energy exchange agreement between Alba and Electricity and Water Authority (EWA); this portion is subtracted from the total generated electrical power since it is not consumed by Alba.

Total Direct Energy used:
Energy & Emission calculations are on the same base/ concept:

TDE = *ENG + ENF - EEE*

Where:

TDE = Total Direct Energy (in GJ)

ENG = Energy from Natural Gas consumption (in GJ)

ENF = Energy from fuel (Diesel & Gasoline) consumption (in GJ)

EEE = Energy from Exported Electricity (in GJ)

Natural Gas consumption:
Energy from Natural Gas consumption:
ENG = NGC x CF

Where:

ENG = Energy from Natural Gas consumption (in GJ)

NGC = Natural gas consumed (in GBTU)

CF = Conversion factor (1,055.1 GJ/GBTU)

Fuel consumption:
Diesel and Gasoline received/consumed amount are determined from the monthly fuel invoicing from the supplier and as recorded in SAP system.

Energy from fuel consumption (Diesel and Gasoline):
$ENF = (V_D \times p_D \times NCV_D) + (V_G \times p_G \times NCV_G)$

Where:

ENF = Energy from fuel consumption (Diesel & Gasoline) –> (in GJ)

V_D = Volume of consumed Diesel (in lit.)

p_D = Density of Diesel in (kg/lit)

NCV_D = Net calorific values of Diesel in (GJ/Gg)

V_G = Volume of consumed Gasoline (in lit.)

p_G = Density of Gasoline in (kg/lit.)

NCV_G = Net calorific values of Gasoline in (GJ/Gg)

Diesel fuel density (kg/l)	0.84
Gasoline fuel density (kg/l)	0.74
Diesel NCV (TJ/Gg)	44.30
Gasoline NCV (TJ/Gg)	43

Exported Electricity:
SOURCE
The Exported electricity is provided by Power Operations team on monthly basis which is based on the SCADA system recording as well as determining based on metered electrical power supplied to the Grid as recorded by control and monitoring systems.

Energy from Exported Electrical:
$EEE = EE \times 3.6\ GJ/MWh \times 1/p$

Where:

EEE = Energy from Exported Electricity (in GJ)

EE = Exported Electricity (in MWh)

3.6 = conversion factor from MWh to Gigajoule

p = Power Station efficiency (%)

Total Indirect Energy Consumption

DEFINITION
The electrical energy that is imported from the National Grid and consumed internally within the organization (Smelter, Calciner, Alba Club … etc.) to support our operations & welfares.

SCOPE
It covers the reporting period 1 January to 31 December of the year. The electrical power is generated by the Electricity and Water Authority (EWA) through combined cycle plants using Natural Gas as the energy source then imported by Alba. The energy is used by Alba for producing Aluminium. This metric is reported on an actual consumption basis. Base year for the calculations is 2022.

UNITS
Giga-Joules (GJ), million Standard Cubic Feet (MMSCF), British Thermal Units (BTU)

METHOD
The figures are extracted from the control and monitoring system (metered electrical power) in units of MWh and converted to GJ as per the below formula:

Import(GJ) = Import(MWh)×3.6 (GJ/MWh)

Environmental Investment (Investment in environmental projects)

DEFINITION
Actual expenditures spent on various projects relating to activities which may fall under one or more criteria as listed below:

- Climate Impact: voluntary projects that aim to support climate change mitigation efforts or adapt to climate change impacts.
- Resource Conservation: voluntary projects that aim to promote the sustainable use of natural resources, reduce waste generation, and support conservation of energy.
- Pollution Prevention: voluntary projects that aim to minimize pollution and emissions, promote clean technologies, and improve air and water quality.
- Environmental Compliance: projects to ensure compliance with applicable environmental laws, regulations, and standards.

SCOPE
The scope covers the spend allocated to the projects mentioned in any of the categories above and developed in Alba Smelter, Calciner and Marine Treatment Plant, Spent Pot Lining (SPL) Treatment Plant and Alba Club in Bahrain from 1 January 2024 to 31 December 2024.

UNITS
Bahraini Dinar (BHD)

METHOD
Actual sum of money Alba has spent on payments relating to environmental projects as per the definition.

SOURCE
All values are documented into Alba's SAP system and financial log register.

Greenhouse Gas (GHG) Emissions Intensity Ratio

DEFINITION
The greenhouse gas emission intensity ratio is defined as the Total Scope 1 and 2 of Greenhouse Gas Emissions that is expressed in ton of CO_2e per ton of Net Finished Product.

UNITS
Ton of Carbon dioxide equivalent per ton of Net Finished Product (tCO_2e/tAl).

METHOD
The method used for determining the tCO_2e is covered under the Intergovernmental Panel for Climate Change (IPCC) and the International Aluminium Institute (IAI) GHG Protocol and Guideline which are translated in Alba internal policy and procedure under SOP 75.33 [GHG Reporting and Calculating Greenhouse Gas (GHG) Emissions] by using the latest Assessment Reports as applicable. Base year for the calculations is 2022. Scope 1 and scope 2 data was verified and approved by a third party.

A. 2006 IPCC Guidelines for National Gas Inventories, Volume 2 Energy, Chapter 2 Stationary Combustion

B. The Aluminium Sector Greenhouse Gas Protocol (addendum to the WRI/WBCSD Greenhouse Gas Protocol), Greenhouse Gas Emissions Monitoring and Reporting by the Aluminium Industry

The guideline requirements are stated in the Standard Operation Procedure (SOP 75.33, Reporting and Calculating Greenhouse Gas (GHG) Emissions).

Activity Data
Source of these emissions are as follows:

Scope 1 covers emission from:
Combustion of Natural Gas as follows:
Where the total amount of NG used (power generation, heating purposes in cast house, carbon, reduction lines & SPL) is considered, the emission from NG usage is obtained by entering the NG amounts from supplier invoices and using the calculated emission factor that are obtained by the following steps & equations:

- Calculate the Molar Carbon content for each carbon-based component based on the mole fraction:

Molar Carbon content=mole fraction ×no.of Carbon atoms in the component ×12.011 (g/mol C)

- Calculations of Carbon Content of Natural Gas (kg C / kg NG):

Carbon content of Natural Gas (kgc/kg_{NG})=(Total molar Carbon content)/(Total Molecular weight of N)

Total Molecular weight of NG= Σ(molar mass based on mole fraction)

CO_2 content (kg_{CO2}/kg_{NG}) =Carbon content × 44/12

- Calculations of NG Density

NG density =Specific gravity of NG × Air density

NG density =0.684 × 0.0765=0.0523 lb_m/ft^3

NG density =0.0523 × 0.4536=0.02372 kg/ft_3

Where:

Specific Gravity of NG = 0.684

Air Density = 0.0765 lb_m/ft^3 = 1.225 $kg/(m^3)$

Conversion Factors: 1 kg/m^3 = 0.06243 lb_m/ft^3

lb_m to kg Conversion: 1 lb_m = 0.4536 kg

Calculations of CO_2 emission generated from the use of Natural Gas using the a site-specific natural gas emission factor study conducted by Alba in according to the below two standards

1 - CALCULATION TOOL FOR DIRECT EMISSIONS FROM STATIONARY COMBUSTION, Version 3.0, July 2005, A WRI/ WBCSD Tool.

2 - COMPENDIUM OF GREENHOUSE GAS EMISSIONS METHODOLOGIES FOR THE NATURAL GAS AND OIL INDUSTRY (2021)

E_{CO2}= CO_2 content (kg CO_2 / kg NG) * Density (NG kg/ft^3) * Fuel Consumed (10^6 ft^3)

- The chemical analysis for Natural gas (monthly basis) is loaded in a prepared calculation sheet.
- The final figure for emission factor is obtained by taking weighted average for two different NG (Kuff & Residual) amounts and analysis.
- The final figure is linked to other calculation sheets to obtain the CO_2 values from the used NG in that area.

$E_{GHG,NG}$ (tCO_2e)= FC_{NG} (MMBTU)×EF_{GHG} (tCO_2/MMSCF) ÷ NG_{CV} (MMBTU/MMSCF)

Or $E_{GHG,NG}$ (tCO_2e)= FC_{NG} (MMSCF)×EF_{GHG} (tCO_2/MMSCF)

Where:

$E_{GHG,NG}$ = GHG Emissions from usage of Natural Gas (in tones CO_2 equivalent)

FC_{NG} = Amount of fuel (Natural gas) consumed within Alba (in Million BTU)

EF_{GHG}, Fuel type = GHG emission factor for Natural Gas (in tones CO_2/MMSCF), calculated earlier.

NG_{CV} = Natural Gas Calorific Value (in MMBTU/MMSCF)

Combustion of Diesel and Gasoline used in vehicles:

Calculating the amount of CO_2 from fuels (Diesel & Gasoline) used, the volume is obtained from suppliers' invoices (in Liters) and applying in the equation below from the Emission Factors from Cross Sector Tools March 2017 of GHG Protocol (available at https://ghgprotocol.org/calculation-tools-and-guidance)

E_{CO2} (Fuel) = ($V_{D\ or\ G}$ x $EF_{D\ or\ G}$)

Where:

E_{CO2} (Fuel) = CO_2 emissions from fuel consumption (in ton CO_2)

$V_{D\ or\ G}$ = Volume of received/consumed fuel (Diesel or Gasoline) (in Liters)

$EF_{D\ or\ G}$ = Emission Factor for fuel (Diesel or Gasoline) (in t CO_2/Lit.)

Diesel Emission Factor (tCO_2/lit.), (EF_D)	0.00268
Gasoline Emission Factor (tCO_2/lit.), (EF_G)	0.00227

Usage of Soda Ash (Na_2CO_3) in the electrolysis cells at the Reduction Lines

Calculating the emission from Soda Ash usage is by obtaining the amount from SAP (which is supplied from Alba store to the plant), and applying the below equation and default values are from the international standards (the International Aluminium Institute, *The Aluminium Sector Greenhouse Gas Protocol: Addendum to the WRI/WBCSD Greenhouse Gas Protocol)*

E_{CO2} (Soda Ash)= ($Q_{Soda\ Ash}$ x $P_{Soda\ Ash}$) x (44/106)

Where:

E_{CO2} (Soda Ash) = CO_2 emissions from Soda Ash consumption (in ton CO_2)

$Q_{Soda\ Ash}$ = Quantity of Soda Ash (Na_2CO_3) consumed (in ton)

$P_{Soda\ Ash}$ = Purity of Soda Ash consumed (IAI default value = 0.95)

44/106 = CO_2 Molecular Mass: Na_2CO_3 Molecular Mass (ratio)

Combustion of Pitch Volatiles during the baking of anodes at the Kilns

Calculating the emission from Pitch Volatile process is by obtaining the data from systems (SAP, MES, SCADA … etc.) and applying the below equation and default values are from the international standards (the International Aluminium Institute, The Aluminium Sector Greenhouse Gas Protocol: Addendum to the WRI/WBCSD Greenhouse Gas Protocol)

E_{CO2} *(Pitch Volatile)*= [GA-((H_w x GA)/100)-BA-WT] x (44/12)

Where:

E_{CO2} (Pitch Volatile) = CO_2 emissions from pitch volatile during operation (in ton CO_2)
GA = weight of loaded green anodes = (GAW / BAW) x BA
GAW = Green anode weight (in ton)
BAW = Baked anode weight (in ton)

BA = Baked anode production (in ton)

H_w = Hydrogen content in green anodes (in weight %, IAI default value = 0.5)

WT = Waste tar collected (in ton, IAI default value = 0.005 * GA)

44/12 = CO_2 Molecular Mass: Carbon Atomic Mass (ratio)

Consumption of Packing Coke during baking of anodes at the Kilns

Calculating the emission from Packing Coke process is by obtaining the data from systems (SAP, MES, Laboratory reports … etc.) applying the below equation and default values are from the international standards (the International Aluminium Institute, The Aluminium Sector Greenhouse Gas Protocol: Addendum to the WRI/WBCSD Greenhouse Gas Protocol)

E_{CO2} (Packing Coke) = [PCC x BA x ((100-S_{PC}-Ash_{PC})/100)] x 44/12

Where:

E_{CO2} (Packing Coke) = CO_2 emissions from Packing Coke operation (in ton CO_2)

PCC = Packing Coke Consumed (in ton, the IAI default value = 0.015 ton/ton BA)

BA = Baked anode production (in ton)

S_{PC} = Sulphur content in packing coke, weight % = 2

Ash_{PC} = Ash content in packing coke, weight % = 2.5

44/12 = CO_2 molecular mass: Carbon atomic mass ratio

During the calcination of Green Petroleum coke (GPC) in the Calciner plant

Calculating the emission from Calcination process is by obtaining the data from systems (SAP, MES, SCADA, Lab analysis reports … etc.) applying the below equation and default values are from the international standards (the International Aluminium Institute, The Aluminium Sector Greenhouse Gas Protocol: Addendum to the WRI/WBCSD Greenhouse Gas Protocol)

E_{CO2} *(calcination)*= [[[GC x ((100-H_2O_{GC}-V_{GC}-S_{GC})/100)]-[(CC+UCC+DE) x ((100-S_{CC})/100)]] x 44/12]+[GC x 0.035 x (44/16)]

Where:

E_{CO2} = CO_2 emissions due to Calcination process (in ton CO_2)

GC = Green coke feed (in ton)

H_2O_{GC} = Humidity in green coke (in weight %)

V_{GC} = Volatiles in green coke (in weight %)

S_{GC} = Sulphur content in green coke (in weight %)

CC = Calcined coke produced (in ton)

UCC = Under-calcined coke collected (in ton)

DE = Coke dust emissions (in ton)

S_{CC} = Sulphur content in calcined coke (in weight %)

44/12 = CO_2 Molecular Mass: Carbon Atomic Mass (ratio)

44/16 = CO_2 Molecular Mass: CH_4 Molecular Mass (ratio)

Consumption of carbon anodes in the Reduction Lines:

Calculating the emission from anode consumption is by obtaining the data from systems (SAP, MES, SCADA … etc.) applying the below equation and default values are from the international standards (the International Aluminium Institute, The Aluminium Sector Greenhouse Gas Protocol: Addendum to the WRI/WBCSD Greenhouse Gas Protocol)

E_{CO2}= [MP x NAC x ((100-S_a-Ash_a)/100)] x (44/12)

Where:

E_{CO2} = CO_2 emissions (in tCO_2)

MP = Total Net Finished Production (in tons)

NAC = Net anode consumption (in tonne per tonne aluminium)

S_a = Sulphur content in baked anodes (in weight %)

Ash_a = Ash content in baked anodes (in weight%)

44/12 = CO_2 Molecular Mass per Carbon Atomic Mass (Ratio)

GHG from Perfluorocarbons (CF4 and C2F6) during anode effect in the Reduction Lines as follows:

Calculating the emission from PFCs is by obtaining the data from systems (ALPSYS, IRPMS, MES … etc.) applying the below equation and default values are from the international standards (the International Aluminium Institute, The Aluminium Sector Greenhouse Gas Protocol: Addendum to the WRI/WBCSD Greenhouse Gas Protocol and in addition, New PFC guidelines (2019 refinement to the 2006 IPCC guidelines for national GHG inventories))

R_{CF4}= AEF ×AED × S_{CF4}

R_{C2F6}= R_{CF4}×$F_{C2F6/CF4}$

E_{CF4}= R_{CF4}×MP

E_{C2F6}= R_{C2F6}×MP

E_{eCO2} (tCO_2)= ((6,630*SE_{CF4})+(11,100*SE_{C2F6}))/1000

Where:

R_{CF4} = Emission rate of CF_4 (in kg CF_4)

AEF = Anode effect frequency (in number)

AED = Anode effect duration (in Minutes)

S_{CF4} = Slope coefficient for CF_4 (in kg CF_4 per anode effect minute)

R_{C2F6} = Emission rate for C_2F_6 per kg C_2F_6

$F_{C2F6/CF4}$ = Weight fraction of C_2F_6 / CF_4

MP = Net Finished Production (in tons)

E_{CF4} = Emissions of tetrafluoromethane (in kg CF_4)

E_{C2F6} = Emissions of hexafluoroethane (in kg C_2F_6)

E_{eCO2} = CO_2 equivalent emissions (in tons)

Scope 2 covers emission from:

electricity imported from national grid (EWA) and utilized within Alba processes i.e.; Electricity to calciner, smelter's power operations & Alba club From the electricity usage:

Emission from electricity usage such as:

- Smelter power exchange (Import/Export) exported is considered as Scope 1.
- Calciner electricity usage from national grid (if from Alba production then, it is already calculated with the total power generated).
- Alba club electricity.

That are obtained from the supplier (EWA) invoices and emission is calculated using the following equation:

$E_{GHG, Elec.}$ (tCO_2e)= Elec. (MWh)×$EF_{GHG, Elec.}$ (tCO_2/MWh)

Where:

$E_{GHG,Elec.}$ = GHG Emissions from electricity usage (in tones CO_2 equivalent)

Elec. = Amount of electricity consumed within Alba, calciner … etc. (in MWh)

$EF_{GHG,Elec.}$ = Emission factor for electricity usage (in tones CO_2/MWh) which is calculated as follows:

$E_{GHG, Elec.}$ (tCO_2e/MWh)= *T.Em.* (tCO_2e)*/T.Elec. (MWh*)

Where:

$EF_{GHG,Elec.}$ = Emission factor for electricity usage (in tones CO_2/MWh)

T.Em. = Total Emission from electricity production by power plants GTs (in tones CO_2 equivalent)

T. Elec. = Total amount of electricity produced by same power plants (in MWh)

Albas' Carbon Bank covers saving emissions:

Definition

The Carbon Bank represents the total amount of greenhouse gas (GHG) emissions avoided through sustainable practices within ALBA, including the utilization of scrap aluminium, the adoption of renewable energy sources, and the implementation of effective waste management strategies.

Units

Tons of Carbon dioxide equivalent (tCO_2e)

Method

Alba calculates in-house GHG emission savings, which are recorded as part of ALBA's Carbon Bank, in alignment with the GHGs accounting practices. All savings are subsequently verified by an independent third party.

After Alba verifies and finalizes the total GHGs, the accounting is applied to determine the equivalent CO_2 savings associated with secondary aluminium usage, renewable energy generation, and dross recovery. This is done by adding up the equivalent amount to the total absolute emissions.

Where applicable, verified emission savings from Alba's Carbon Bank are allocated to a specific batch, region, or to ALBA's corporate-level GHG accounting.

Other emissions calculation, as follows:

To calculate other emission (NOx, SO2, VOC, Fluoride … etc.) and other sustainability requirements, the sum of each pollutant is added up from the various sampled plants which is obtained from multiplying the concentration by the flow and then converting to tons, as in the following example equations:

V_{St} (m^3/month) = F_{st} x 3600 x 24 x. D_{no}

Where:

V_{St} = Volume flow rate (in m^3/month)

F_{St} = Stach flow rate (in m^3/Second)

3600 = conversion from Seconds to Hours (in Sec./Hr.)

24 = conversion from Hours to days (in Hr./day)

$D_{no.}$ = Number of days per month (in days/month)

E_{NOx} (ton) = C_{NOx} x V_{st}/1,000,000

Where:

E_{NOx} = NOx Emissions from certain stack (in tons)

C_{NOx} = NOx concentration in the same stack (in mg/Nm^3)

V_{St} = Volume flow rate (in m^3/month)

1,000,000 = conversion from milligram to tone (in mg/ton)

PWE_{NOx} (ton) = Sum of all area emission

Where:

PWE_{NOx} = Plant Wide NOx Emissions (from Carbon, Reduction lines, Power … etc.)

Calculation of various data requirements from emissions as intensity (NOx, SO2, VOC, Fluoride … etc.) the following equations are used:

In_{others}=(kg/tAl) = (E_{others} x 1,000)/P_{Al}

Where:

In_{others} = Emission Intensity of pollutants (NOx, SO2, VOC, Fluoride) (in kg/ ton of Aluminium)

E_{others} = Emissions of pollutants (NOx, SO2, VOC, Fluoride) (in tons)

1,000 = conversion from tons to kilogram (in kg/ton)

P_{Al} = Aluminium Production (in tons)

Water consumption

Definition

This is to disclose the water consumption that was utilized within ALBA premises & activities (Smelter, Alba club & Calciner) which is identified as the potable water usage.

Units

Cubic meters (m^3) or Mega litres (Ml)

Method

In Alba smelter, we produce potable water through extraction of brackish water, and processing it through RO plants. We have 3 RO plants [1,2,3] recovery [0.75, 0.6, 0.75 respectively]. This water is also being consumed along with the water received from the desalination plant in the calciner and marine.

Activity Data

The quantities of water such as withdrawal, produced & consumed are determined by calculating differences between the start-of-current month reading and the start-of-previous month reading that are recorded/through SCADA system obtained from integrators installed in the pipelines, local totalizers (withdrawal, production, distribution, disposal … etc.) in each facility (ROs & desalination units). These monthly differences are then aggregated to obtain cumulative values for each water-related KPI.

Source of data are divided into two main sources (Smelter & Calciner) and the procedures are as follows:

- Smelter (from ROs plants & Calciner additional support):

Monthly Data Recording

The final, accepted, and confirmed monthly data are recorded in Excel using the following data collection methods, formulas, and calculations:

- Produced Water: Primarily from local flow meters determined by calculating differences between the start-of-current month reading and the start-of-previous month reading that are recorded/through SCADA system obtained from integrators installed in the pipelines, local totalizers (withdrawal, production, distribution, disposal … etc.) in each facility (ROs & desalination units). In case the reading was not taken (integrator issue, accidentally missed to record … etc.) the team is doing the backwards calculations from the current available reading which is approximating the daily average.

$RO_{\text{Calculated Reading}}$ (m^3) = (*Actual Totalizer Difference (m^3) ×month's number of days*)/(*month' s number of days+days the reading was missed*)

- Borewell Extraction: Calculated using a specific formula (detailed below).
- For RO1 potable water plant: RO1 potable water production/Recovery (0.75)

$RO1_{Well\_abstraction}$ (m^3) = ($RO1_{Production}$ (m^3)/(*Recovery* (0.75))

Note: RO1 potable water recovery is 75% as per design data.

- For RO2 potable water plant: Total RO2 potable water production/Recovery (0.6)

$RO2_{Well\_abstraction}$ (m^3) = ($RO2_{Production}$ (m^3)/(*Recovery* (0.6))

Note: RO2 potable water recovery is 60% as per design data.

- For RO3 potable water plant: RO3 potable water production/Recovery (0.75)

$RO3_{Well\_abstraction}$ (m^3) = ($RO3_{Production}$ (m^3)/(*Recovery* (0.75))

Note: RO3 potable water recovery is 75% as per design data.

- The sources of information, data evidence, sources of evidence are recorded as well.
- The monthly data is recorded (manually/from system) then final, accepted, and confirmed monthly data are recorded in excel spreadsheet. It is determined by calculating differences between the start-of-current month reading and the start-of-previous month reading that are recorded/through SCADA system obtained from integrators installed in the local totalizer.

W_{Dis} (m^3)= R_F- R_I

Where:

W_{Dis} = Water discharged to the sea (in m^3)

R_F = Final SCADA reading (in m^3)

R_I = Initial SCADA reading (in m^3)

- Calciner covers:
  - **Water Production (m^3):**

    Water production data for each desalination unit (Units 1–4) is obtained from the SCADA system. To calculate the monthly production, the current reading for each unit is subtracted from its corresponding reading from the previous month. The results from all units are then summed to determine the total monthly water production.

$W_{Pr.}$ (m^3)= R_F- R_I

Where:

$W_{Pr.}$ = Water production (in m^3)

R_F = Final SCADA reading (in m^3)

R_I = Initial SCADA reading (in m^3)

Raw Water Intake from Sea (m^3):
Daily intake readings are manually recorded. At the end of the month, the total raw water intake is calculated by summing the cumulative daily figures.

Brine Discharge to Sea (m^3):
Brine discharge is calculated using the formula:

Brine Discharge (m^3) = Raw Water Intake (m^3) – Distillate Water Production (m^3)

$W_{Br.}$ (m^3) = W_{IT}- $W_{Pr.}$

Where:

$W_{Pr.}$ = Water production (in m^3)

$W_{Br.}$ = Brine Water back to the sea (in m^3)

W_{IT} = Water intake from the sea (in m^3)

Water consumption = (RO1+ RO2 + RO3 + $W_{Pr.}$) - ($W_{Br.}$ + $W_{Dis.}$)

Water discharged to Sea (excluding non-contact cooling water)

Definition

This disclosure pertains to the monitoring of water discharge/disposal to the sea from ALBA premises including Smelter & Calciner.

Units

Cubic meters (m^3) or Gega litres

Method

In smelter we have a pipeline that caries alba treated effluent and discharge it to the sea. The pipeline has an integrated flowmeter, that measures the exact quantity of water being discharged to the sea. The quantities of discharged/disposed water to the sea are measured by calculating differences between the start-of-the-current month and the start- of- the-previous month readings that are recorded from water flow/integrators installed at each facility/pipelines (smelter & calciner). These monthly differences are then aggregated to obtain cumulative values for each water-related KPI.

Activity Data

Sources of data are divided into two main sources (Smelter & Calciner) and the procedures are as follows:

- Smelter:

The monthly data is recorded (manually/from system) then final, accepted, and confirmed monthly data are recorded in excel spreadsheet. It is determined by calculating differences between the start-of-current month reading and the start-of-previous month reading that are recorded/through SCADA system obtained from integrators installed in the local totalizer.

W_{Dis} (m^3)= R_F- R_I

Where:

W_{Dis} = Water discharged to the sea (in m^3)

R_F = Final SCADA reading (in m^3)

R_I = Initial SCADA reading (in m^3)

In case the reading was not taken (integrator issue, accidentally missed to record … etc.) the team is doing the backwards calculations from the current available reading which is approximating the daily average.

$Effluent_{Calculated\ Reading}$ (m^3) = (*Actual Totalizer Difference (m^3) ×month's number of days)/(month' s number of days+days the reading was missed*)

- Calciner covers:

The monthly data is recorded (manually/from system) then final, accepted, and confirmed monthly data are recorded in excel spreadsheet to get the monthly disposed/discharged amount by the following calculations:

W_{Dis} (m^3)= R_F- R_I

Where:

W_{Dis} = Water discharged to the sea (in m^3)

R_F = Final SCADA reading (in m^3)

R_I = Initial SCADA reading (in m^3)

Raw Water Intake from Sea (m^3):
Daily intake readings are manually recorded. At the end of the month, the total raw water intake is calculated by summing the cumulative daily figures.

Brine Discharge to Sea (m^3):
Brine discharge is calculated using the formula:

Brine Discharge (m^3) = Raw Water Intake (m^3) – Distillate Water Production (m^3)

$W_{Br.}$ (m^3) = W_{IT} - $W_{Pr.}$

Where:

$W_{Pr.}$ = Water production (in m^3)

$W_{Br.}$ = Brine Water back to the sea (in m^3)

W_{IT} = Water intake from the sea (in m^3)

Water discharged to Sea (effluents – Alba Smelter & Calciner)

Water discharged to Sea = $W_{Br.} + W_{Dis}$

SPL Waste Recycled (Solid)

DEFINITION

Spent Pot Lining (SPL) is a solid hazardous waste generated by the primary aluminium smelters. The electrolytic reduction cells (pots) are made up of steel shells with carbon and refractory linings.

Once the refractory and carbon lining have reached the end of their useful life, the pot is taken out of service and the lining removed is known as Spent Pot Lining. The delined SPL is transported to Alba SPL Treatment Plant which once treated, it gets converted to useful product (HiCAL), then shipped abroad to customers.

SCOPE

This KPI covers the HiCAL product (Treated Spent Pot Lining and other smelter waste material), which is dispatched to the customer within the period 1 January 2024 to 31 December 2024. As per the incoterms (FCA), the ownership of the product gets transferred to the buyer when the HiCAL product is delivered to the Khalifa Bin Salman Port which is managed by APM Terminals.

UNITS

Tonnes of HiCAL dispatched (t).

METHOD

The net weight of the HiCAL product dispatched is recorded at the SPL Treatment Plant's weighbridge post which Bills of Lading and invoices are generated ahead of shipment to customers. The delivery of the last container to the Port will be considered for Dispatched Completion Date.

SOURCE

The weight of each dispatched container of the HiCAL product is included in the SPL Treatment Plant's weighbridge system as well as the Bill of Lading. The date of dispatch is extracted from Export Booking Enquiry (APM Terminals Website - https://www.apmterminals.com/en/bahrain/track-and-trace/booking-enquiry)

Lost Time Injury ("LTI") Incidents

DEFINITION

Lost Time Injury (LTI) is an injury resulting from a work-related incident experienced by an employee(s) while attending to his/her duty as stated per the job description as well as contractor personnel under the direct supervision of Alba team while being on Alba premises. The LTI is applicable to the injuries that will not allow the employee and/or contractor personnel from attending the next shift of his/her normal duty.

SCOPE

This KPI covers the Lost Time Injury within the period 1 January 2024 to 31 December 2024.

UNITS

Number of Lost Time Injuries (LTI) within the reporting period.

METHOD

Alba will capture the Lost Time Injuries in its central Safety Statistics' Reports after exhausting the process of verifying the encounter of the Lost Time Injury as defined. All injuries experienced at the facility involving any injured personnel(s) will be reported to Alba Medical Centre. The injury details will be recorded in the Medical Injury Report (MIR) system initiating a notification to a dedicated management team. The assigned Medical Officer will categorize the injury according to Alba's guidelines then classify the injury based upon the examination and condition basis. The Lost Time Injury category will be fed to the central Safety Statistics system which once done can't be modified. The necessary reports will be published by the responsible person in the injured department. The Lost Time Injury Data can be extracted from the central Safety Statistics system.

SOURCE

Number of LTI is extracted from the official Alba Incident Statistics System.

Lost Time Injury Rate (LTIR)

DEFINITION

A mathematical calculation that describes the number of lost time cases per 100 full-time employees and Manpower Contractors in any given time frame using the following formula. Alba's Code of Practice (ACOP-28), Safety Scheme and Statistics:

LTIR = ((Number of LTI (During Selected Period)) / (Total Manhours Worked)) x 200,000

Total Manhours Worked is the total workhours performed on-site, and it is being calculated using the following formula:

Total Manhours Worked = (Total Number of employees
+
Total Number of Manpower Contractors) * 6 hours
* number of days worked

SCOPE

This KPI covers the LTIR within the period 1 January 2024 to 31 December 2024.

UNIT

Rate of LTI within the reporting period.

METHOD

Lost Time Injury cases are systematically recorded through the Alba Incident Statistic System, alongside daily tracking of total manhours worked. The LTI frequency is then calculated based on the specified reporting period.

SOURCE

Official Alba Incident Statistics System.

Lost Time Injury Frequency Rate (LTIFR)

DEFINITION

A mathematical calculation that describes the number of lost time cases per 100 full-time employees and Manpower Contractors in any given time frame using the following formula Alba's Code of Practice (ACOP-28), Safety Scheme and Statistics:

LTIFR = ((Number of LTI (During Selected Period)) / (Total Manhours Worked)) x 1,000,000

Total Manhours Worked is the total workhours

performed on-site, and it is being calculated using the following formula:
Total Manhours Worked = (Total Number of employees + Total Number of Manpower Contractors) * 6 hours * number of days worked

SCOPE
This KPI covers the LTIFR within the period 1 January 2024 to 31 December 2024.

UNIT
Rate of LTI within the reporting period.

METHOD
Lost Time Injury cases are systematically recorded through the Alba Incident Statistic System, alongside daily tracking of total manhours worked. The LTI frequency is then calculated based on the specified reporting period.

SOURCE
Official Alba Incident Statistics System.

Near Miss Incidents

DEFINITION
An undesired event, which, under slightly different circumstances, could have caused harm (injury or ill health) to people, damage to property, or loss to the process. (Production or business interruption) (There is no loss). Alba's Code of Practice (ACOP-54), Incident Reporting and Investigation.

SCOPE
This KPI covers the NM reported within the period 1 January 2024 to 31 December 2024.

UNIT
Number of NM within the reporting period.

METHOD
An online Incident Reporting System is available 24/7, allowing supervisors, employees, and contractors to report any Near Miss (NM) events. Once submitted, reports are reviewed by the management team and, upon approval, are circulated plant-wide. The approved NM count is directly integrated into the Safety Statistics System and reflected on the relevant dashboard.

SOURCE
Official Alba Incident Statistics System.

Total Recordable Injuries

DEFINITION
This is the term used to describe an injury which was recorded in the organization's reporting system but not necessarily reported to the legislative authorities. Those injuries are internally reported and recorded, which includes First Aid injury, Minor injury and Restricted Work Case injury.

- **First Aid injury:** Treatment of minor scratches, cuts, burns, splinters and other injuries where treatment is normally evaluated by the Medical Officer, or other approved physician. Such cases will not be counted in the statistics.
- **Minor injury:** Injury by which the injured requires treatment by the Medical Officer or nurse or other medical professional. These injuries are more serious than those requiring simple first-aid treatments but are less than the Restricted Work Cases (RWC) where the employee can go back and perform the normal assigned duties.
- **Restricted Work Cases Injury:** An Injury by which an employee(s) required a treatment/intervention by the Medical Officer and the injury resulted in assigning the injured to another duty, usually of a less demanding physical nature (light/restricted duty), until recovery allows return to his/her normal assigned duty.

Only the First Aid injuries will not be included in the Statistics calculation. Alba's Code of Practice (ACOP-54), Incident Reporting and Investigation.

SCOPE
This KPI covers the Recordable Injuries within the period 1 January 2024 to 31 December 2024.

UNIT
Number of Recordable Injuries within the reporting period.

METHOD
Alba will capture the Recordable Injuries in its central Safety Statistic Reports after exhausting the process of verifying the encounter of the Lost Time injury, Restrict Work Case injuries and Minor injuries as defined in Alba's Code of Practice (ACOP-54), Incident Reporting and Investigation. All injuries experienced at the facility involving any injured personnel(s) will be reported to Alba Medical Centre. The injury details will be recorded in the Medical Injury Report (MIR) system initiating a notification to a dedicated management team. The assigned Medical Officer will categorize the injury according to Alba's guidelines then classify the injury based upon the examination and condition basis.
The injury category will be fed to the central Safety Statistics system which once done can't be modified.
The necessary reports will be published by the person responsible in the injured department. The Recordable Injury Data can be extracted from the central Safety Statistics system.

SOURCE
Number of Recordable Injuries is extracted from the official Alba Incident Statistics System.

Training Hours Recorded

DEFINITION
Total Training Hours attended by Alba employees.

SCOPE
This KPI covers each training session attended by an Alba employee which is then recorded along with its duration and other relevant details in SAP database from 1 January 2024 to 31 December 2024.

UNITS
Hours

METHOD
When a training event is planned as part of the yearly Training Plan, Skills Matrix evaluation, Training Development Programmes (TDPs) and Master Training Plan, it is then entered in SAP database with all relevant details including duration of the training event. When the training event takes place, the employees attending the course are then recorded in SAP database as well as other details relating to the training event.

Any course to be given during the year would be advertised along with its outline, duration, training provider and location on Intranet and the monthly Inter: Connect platform (email notification) to employees.

Post any training event, the attendance sheets for the in-house training, confirmation of attendance for the external training, screenshots for online virtual courses are used to enter the details of the attendees such as badge number, department, designation, and Training Hours.

For employees on long-term training, the time spent on training is calculated according to the general number of hours in a programme, and days spent on leaves are not deducted from the total hours for the purpose of calculation of total Training hours.

SOURCE

Information about every course, its attendees, their departments, duration, provider, location etc. are extracted from SAP database through SAP Transaction ZHRTRN04 for reports.

Appendix G: Materiality Assessment Process and Matrix

In our 2023 report, a comprehensive materiality assessment was conducted to identify and prioritise issues of concern, interest, and impact for both internal and external stakeholders.

The following steps outline the process for our materiality assessment:

As part of continuous improvements to our materiality assessment process, we have recognised the following considerations, or challenges, that may affect the outcomes of our assessment:

Subjectivity and stakeholder diversity: Defining what constitutes an impact or what's material to stakeholders can be subjective. Varying perspectives from individuals and organisations we engage with can influence this assessment.

Evolving Standards: Materiality standards and can evolve over time, particularly in sustainability reporting are constantly evolving. This can make it challenging to maintain a consistent assessment approach over time.

Alba 2023 ESG Report, Materiality Assessment Process

Steps Taken Description Understanding Alba's current context

This initial step included identifying and defining Alba's stakeholder groups, along with the areas of interaction where they are most impacted by our activities (further details on Stakeholder Engagement can be found on page 13 and 14)

Identifying Actual and Potential Impacts

To identify material issues, a two-pronged approach was undertaken:

- **Impact Assessment:** We conducted a comprehensive study to define the impacts of our business and operations, considering both internal (inward) and external (outward) factors. This included financial and non-financial impacts across the organisation.
- **Stakeholder Engagement:** A long list of potential material issues was developed and used during stakeholder sessions to explore their perspectives on the impact of our activities.

Materiality was further determined by evaluating these issues against industry benchmarks:

- **Industry Peers:** We analyzed practices of regional and international industry leaders, as well as relevant regulatory bodies like the ASI (Aluminium Stewardship Initiative).
- **Reporting Standards:** The assessment considered applicable reporting frameworks such as GRI (Global Reporting Initiative), IFRS (International Financial Reporting Standards), and CBB (Central Bank of Bahrain).
- **ESG Rating Criteria:** We reviewed the specific criteria used by ESG rating agencies within our industry context.

Assessing the Significance of Impacts

We further engaged stakeholders through a survey to evaluate the significance of impacts:

- Identification of positive and negative impacts, and categorisation
- Identification of severity and likelihood scores for negative impacts

Prioritising the most significant impacts for 2023 reporting disclosures

Through a prioritisation exercise, we identified the most significant impacts of our business for inclusion in this report. This exercise considered two key factors:

- **Impact Significance:** We ranked the identified impacts based on their relative importance and potential consequences.
- **Material Topic Alignment:** We mapped these impacts to relevant material topics, ensuring comprehensive disclosure within the report.

Below is the finalized list of material topics for Alba's ESG reporting, ensuring that all identified impacts are captured throughout the assessment:

E

- GHG Emissions
- Energy Management
- Waste Management
- Water Management
- Biodiversity Preservation

S

- Human Rights
- Socioeconomic Contribution (combines the topics of community involvement and contribution, and economic contributions)
- Diversity, Equity & Inclusion
- Talent Attraction & Retention
- Employee Benefits & Welfare
- Health & Safety
- Innovation

G

- Compliance & Risk (combines the topics of compliance and risk management)
- Ethical Governance
- ESG Transparency and Disclosure
- Responsible Sourcing
- Metal Marketing & Product Labelling
- Customer Responsibility

Our Stakeholder Engagement Plan

GOVERNMENT ENTITIES AND REGULATORS

Areas of Concern
- Compliance with business, SHE laws and regulations
- Minimise Alba's environmental impact
- Transparency, performance, and activity reporting
- Implement rigorous internal audit processes and controls

Engagement Methods
- Annual performance and sustainability reporting
- Ongoing communication on various topics of shared interest
- Infrastructure development (such as Malkiya Beach)

Material Issues of Interest
- GHG Emissions
- Energy Management
- Water Management
- Waste Management
- Biodiversity Preservation
- Talent Attraction & Retention
- Health & Safety
- Diversity, Equity & Inclusion
- Human Rights
- Socioeconomic Contribution
- Compliance & Risk

INVESTORS AND SHAREHOLDERS

Areas of Concern
- Effective environmental management system
- Cost savings through SHE implementation
- SHE continuous improvement and Alba's sustainable development
- Profitability and achieving operational and financial targets

Engagement Methods
- Management Review Meetings
- Internal audits and inspections
- Performance reporting

Material Issues of Interest
- GHG Emissions
- Energy Management
- Talent Attraction & Retention
- Health & Safety
- Ethical Governance
- Compliance & Risk
- ESG Transparency and Disclosure

LOCAL COMMUNITIES

Areas of Concern
- Alba's commitment to being a socially responsible employer that offers employment opportunities to Bahraini's
- Considerations of environment and workforce health impacts across areas of constructions and operations

Engagement Methods
- Training and engagement workshops
- Considerations prioritised to Bahraini job applicants
- Support local suppliers and partners
- CSR initiatives and volunteering events

Material Issues of Interest
- Water Management
- Waste Management
- Biodiversity Preservation
- Talent Attraction & Retention
- Diversity, Equity & Inclusion
- Health & Safety
- Human Rights
- Socioeconomic Contribution

EMPLOYEES

Areas of Concern
- A positive and healthy working environment
- Professional development, training and career growth
- Clearly defined duties, responsibilities, accountability and authority
- Timely salary payments

Engagement Methods
- Ongoing meetings, awareness
- sessions, workshops and training
- Integrity Line to report any incidents
- of suspected wrongdoing
- Labour union and Code of
- Practice on safety
- Code of Conduct for fair treatment
- and equal opportunities

Material Issues of Interest
- Talent Attraction & Retention
- Energy Management
- Health & Safety
- Diversity, Equity & Inclusion
- Employee Benefits & Welfare
- Human Rights
- Customer Responsibility

CUSTOMERS

Areas of Concern
- Effective management of customer issues
- Zero SHE incidents and violations
- Quality and timely delivery of products and services

Engagement Methods
- Customer feedback forms
- Customer complaints mechanism
- Website & Email

Material Issues of Interest
- Innovation
- Compliance & Risk
- Responsible Sourcing
- ESG Transparency and Disclosure

SUPPLIERS AND CONTRACTORS

Areas of Concern
- Environmentally responsible workplace
- Timely payments

Engagement Methods
- Formalised tender process, and the supplier SHE Code of Conduct
- Supplier selections, evaluations, meetings, events and audits
- Product safety and quality information

Material Issues of Interest
- Human Rights
- Compliance & Risk
- Responsible Sourcing
- ESG Transparency and Disclosure

CIVIL SOCIETY GROUPS *INCLUDING PEERS, INDUSTRIAL ASSOCIATIONS, NON- GOVERNMENTAL ORGANISATIONS, SPECIAL INTEREST GROUPS, MEDIA, UNIVERSITIES, AND RESEARCH INSTITUTIONS*

Areas of Concern
- Ethical business practices
- Support industry-wide initiatives
- Share technical data, knowledge, and expertise

Engagement Methods
- Enterprise Risk Management (ERM) framework
- Environment and Social Impact Assessments (ESIA)

Material Issues of Interest
- GHG Emissions
- Energy Management
- Water Management
- Biodiversity Preservation
- Human Rights
- Socioeconomic Contribution
- Ethical Governance
- ESG Transparency and Disclosure

Strategic Risks

RISKS	MITIGATION MEASURES
Strategic Risks	• Competition: Quality control, diverse product options, Marketing strategy, etc. • Sustainability: ESG roadmap, renewable energy target plan, communication and reporting, etc. • Reputation: Publications, Daily monitoring and monthly analysis, crisis communication policy, etc.
Operational Risks	• Disruptive technology: Industry 4.0, developing and upskilling resources, etc. • Major raw material supply: Diversified sources, quality management, Procurement strategy, Gulf Cooperation Council (GCC) collaboration. • Supply chain disruptions: Contingency routes, Safety stock, communication and collaboration.
Compliance Risks	• Ethics: Through Code of Conduct, Integrity line, Integrity programmes, Conflict of interest, Internal audits, etc. • Environment: Waste management strategy, Compliance framework, SPL plant, ISO 45001, FTP, GTC, CEMS, etc. • Corporate Governance: Corporate governance guidelines approved, appointment of Head of compliance, Board and Board Committee charters and annual agenda timetable, Independent external Board survey, etc.
Reputational Financial Risks	• Insurance: Comprehensive insurance policy, Insurance assessment by an independent consultant. • Loan covenant: Monitoring and reporting, refinancing loan, off-balance financial sheet used. • Forex and Interest rate: interest rate collar and knock out swaps, Refinancing loans, Hedging, Daily cashflow monitoring, etc.

Appendix H: Scope 3 GHG Accounting Report

Summary Scope 3 GHG Accounting Report (2024)

Aluminium Bahrain B.S.C (Alba) is a world-leading aluminium smelter with a proud 50-year legacy in operational excellence, safety, environmental responsibility, and community development. A cornerstone of the Bahrain's economy, Alba produces high-quality aluminium, including standard and value-added products, which are exported to over 270 customers globally. Alba has been recognised for its initiatives to produce Aluminium responsibly through awards such as Top ESG performer in Bahrain by ESG Invest, Safeguard Label from Bureau Veritas and Best Corporate Governance Award by Ethical Boardroom.

Alba engaged Sphera Solutions, Inc. to support in Scope 3 Inventorization and emission accounting across four Scope 3 categories in accordance with the Corporate Value Chain Standard and aligned with IAI Scope 3 calculation guidance. This report provides Greenhouse gas emissions inventory –Scope 3 of Aluminium Bahrain for the year 2024 (January 2024 to December 2024). The reporting processes and emission categorization are consistent with the IAI's Scope 3 calculation guidance and Corporate Value Chain Standard of GHG Protocol.

Alba's Scope 3 GHG emissions accounting has been conducted in accordance with the following:

- ISO 14064-1:2018 - Greenhouse gases Part 1
- Greenhouse Gas Protocol - A Corporate Accounting and Reporting Standard
- Greenhouse Gas Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard
- IAI Scope 3 Calculation Guidance (sectoral guidance)

Based on the IAI Scope 3 GHG guidance tool, data from the working group members was analysed to determine the average contribution of each category to total Scope 3 emissions through horizontal averaging. Category 1 (purchased goods and services) exhibited the highest contribution, followed by Category 3 (fuel and energy-related activities). Conversely, Category 4 (upstream transportation and distribution) and Category 9 (downstream transportation and distribution) demonstrated minimal contributions to Scope 3 emissions. The Scope 3 calculations for categories 2, 5, 6, 7, and 10 have not yet been evaluated or calculated due to the absence of predefined emission factors. Categories 8, 11, 12, 13, 14, and 15 were excluded based on their irrelevance to the primary aluminium value chain

Primary activity data related to purchased/sold goods and services; transportation and energy consumption was collected for the year 2024 (January 2024 to December 2024) and utilized for assessment of scope 3 calculations.

The cradle to gate emission factors for purchased goods or services per unit of mass (Kg CO_2e/kg) as well as emission factors for fuel and energy related activities per unit of energy (Kg CO_2e/MJ) has been considered from LCI database from Sphera MLC version 2024.1 is used. (https://sphera.com/life-cycle-assessment-lca-database/) The Emission factors for road and Marine transportation of purchased goods as well as the sold goods per unit Tonne-Kms (Kg CO_2e/TKm) has been considered from IAI Scope 3 calculation guidance tool.

Results and Analysis

The Scope 3 emissions for Alba in the year 2024 amount to 6,987,434 tCO2e, as per both the GHG standard and the sector standard. Breaking this down further, Category 1 (purchased goods and services) is the highest contributor, accounting for 72.67% of the total emissions. Category 3 (fuel and energy-related activities) is the second highest, contributing 16.49% to the total Scope 3 emissions. The remaining applicable categories contribute 10.84% to the emissions, with Category 4 (upstream transportation and distribution) and Category 9 (downstream transportation and distribution) contributing 8.46% and 2.37%, respectively. The table below provides a detailed breakdown of emissions across the Scope 3 categories.

Table 1 Scope 3 Emission Break Up by Category

Categories	Emission (tCO_2eq)	Percentage Contribution
1. Purchased goods and services	5,078,107	72.67%
3. Fuel and Energy	1,152,203	16.49%
4. Upstream Transportation and distribution	591,271	8.46%
9. Downstream Transportation and distribution	165,854	2.37%
Total	**6,987,434**	**100.00%**

Category 1, which includes purchased goods and services, is the largest contributing category among all Scope 3 categories for Alba. The total emissions for Category 1 are 5,078,107 tCO2e, accounting for 72.67% of the total Scope 3 emissions. Within Category 1, alumina has the highest share, contributing 70.98% of the total emissions (3,604,302 tCO_2e). This is followed by green and calcined petroleum coke, which contributes 11.79% (598,664 tCO_2e), liquid pitch, accounting for 3.37% (171,317tCO_2e), and alloys, which contribute 8.67% (440,126 tCO_2e). Other materials, such as aluminium fluoride, cathode, anode, sodium carbonate, ceramic filters, and refractories, collectively contribute 5.19% (263,698 tCO_2e)

Category 3 is the second highest contributing category, accounting for 1,152,203 tCO2e, which represents 16.49% of total Scope 3 emissions. The distribution of emissions from different energy sources reveals that natural gas is the dominant contributor, accounting for 95.70% of total emissions (1,102,611 tCO_2e). Electricity follows, contributing 4.30% (49,592 tCO_2e). Category 4 emissions total 591,271 tCO_2e, accounting for 8.46%, and Category 9 emissions amount to 165,854 tCO_2e, representing 2.37% of overall Scope 3 emissions.

The GHG emissions intensity for the product was calculated as follows: The overall Scope 3 emissions intensity stands at 4.31 tCO_2e. Breaking this down further, Category 1 emissions intensity is measured at 3.13 tCO_2e, Category 3 emissions intensity at 0.71 tCO_2e, Category 4 emissions intensity at 0.36 tCO_2e, and Category 9 emissions intensity at 0.10 tCO_2e.

Client: Aluminium Bahrain B.S.C

Title: Summary Scope 3 GHG Accounting Report (2024)

Report date: 24/06/2025

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On behalf of Sphera Solutions, Inc., and its subsidiaries

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More information is provided in the detailed Scope 3 calculation sheet.

This report has been prepared by Sphera Solutions, Inc. ("Sphera") with reasonable skill and diligence within the terms and conditions of the contract between Sphera and the client. Sphera is not accountable to the client, or any others, with respect to any matters outside the scope agreed upon for this project.

Sphera disclaims all responsibility of any nature to any third parties to whom this report, or any part thereof, is made known. Any such, party relies on the report at its own risk. Interpretations, analyses, or statements of any kind made by a third party and based on this report are beyond Sphera's responsibility.

If you have any suggestions, complaints, or any other feedback, please contact us at servicequality@sphera.com.

Appendix I: LCA Report Summary

Summary LCA Report

Aluminium Bahrain B.S.C (Alba) is a world-leading aluminium smelter with a proud 50-year legacy in operational excellence, safety, environmental responsibility, and community development. A cornerstone of the Bahrain's economy, Alba produces high-quality aluminium, including standard and value-added products, which are exported to over 270 customers globally. Alba has been recognised for its initiatives to produce Aluminium responsibly through awards such as Top ESG performer in Bahrain by ESG Invest, Safeguard Label from Bureau Veritas and Best Corporate Governance Award by Ethical Boardroom.

Alba engaged Sphera Solutions Inc. to conduct Life Cycle Assessment (LCA) of Average Aluminium Product based on the framework of ISO 14040 and ISO 14044 standards. Subsequent to the Goal and Scope finalization, Collection of data for the identified products via detailed questionnaires, data completeness check and validation were carried out. The LCA model of the products were developed in Sphera's LCA FE 10.8 software and MLC database version 2024.1. Once modelled, the potential environmental impacts were evaluated for Acidification Potential (AP), Eutrophication Potential (EP), Global Warming Potential (GWP 100 years), Photochemical Ozone Creation Potential (POCP), Abiotic Depletion Potential (ADP), Primary Energy and Blue Water Consumption, etc.

The product is an Average Aluminium Product (aluminium foundry alloy, aluminium ingot (high purity), aluminium P1020 alloy, aluminium ingot (alloy), aluminium billets, aluminium properzi, and other products) manufactured by Alba. The primary data is collected for the year 2023 (Jan 2023 to Dec 2023). While for upstream materials and energy, LCI database from Sphera MLC version 2024.1 is used. (https://sphera.com/life-cycle-assessment-lca-database/) over cradle to gate system boundary and the functional unit is 1 Tonne of "Average Aluminium Product".

The production phase includes the production of the raw materials (alumina, green petroleum coke, calcined petroleum coke, liquid pitch, cathode, aluminium fluoride, alloying elements, refractories etc..), auxiliary material production, upstream transportation, manufacturing process (anode production, electrolysis and cast house) and waste treatment.

The life cycle impact assessment is predominantly based on CML2001 – Jan. 2016 methodology and USEtox method endorsed by the UNEP/SETAC Life Cycle Initiative is selected for evaluation of toxicity related environmental impacts. These indicators are scientifically and technically valid. A peer review or third-party verification was not conducted for this study.

LCIA Results for 1 Tonne of Average Aluminium Product:

Table below shows the environmental impacts for 1 tonne of average aluminium product. This includes raw materials (alumina, green petroleum coke, calcined petroleum coke, liquid pitch, cathode, aluminium fluoride, alloying elements, refractories etc..,), energy (natural gas, and electricity), transport of raw materials and waste management.

Table: LCIA Results for 1 Tonne of Average Aluminium Product

Environmental Quantities	Unit	Total
Global Warming Potential (GWP 100 years), Incl biogenic carbon	tonne CO_2 eq.	11.53
Global Warming Potential (GWP 100 years), excl biogenic carbon	tonne CO_2 eq.	11.53
Abiotic Depletion (ADP elements)	kg Sb eq.	2.91E-03
Abiotic Depletion (ADP fossil)	MJ	163698.45s
Acidification Potential (AP)	kg SO_2 eq.	23.65
Eutrophication Potential (EP)	kg Phosphate eq.	3.12
Ozone Layer Depletion Potential (ODP)	kg R11 eq.	7.02E-09
Photochem. Ozone Creation Potential (POCP)	kg Ethene eq.	1.83
Primary Energy Demand (PED)	MJ	168164.76
Ecotoxicity (recommended only)	CTUe	6.92
Human toxicity, cancer (recommended only)	CTUh	2.70E-07
Human toxicity, non-canc. (recommended only)	CTUh	9.66E-09
Blue Water Consumption	kg	13887.74

Driven by market forces, stakeholder demand and the critical relevance of climate change and energy efficiency, an in-depth analysis of Global Warming Potential (GWP) was carried out while other impact categories were also calculated and examined. The Global Warming Potential (GWP) over 100 years, excluding biogenic carbon, is 11.53 tonne CO_2 eq., with the electrolysis stage contributing the most at 68.17%, followed by alumina production at 19.34%, and anode production at 8.15%. Within the electrolysis stage, which totals 7.86 tonne CO_2 eq., the major contributors are electricity (75.84%), CO_2 and PFCs emissions (20.02%), transportation of alumina (3.09%). This underscores the significant impact of the electrolysis stage and the critical role of electricity in the overall carbon footprint, highlighting areas for potential improvements to reduce greenhouse gas emissions.

Additionally, in line with general practices in the aluminium sector, the Global Warming Potential (GWP) of the product was adapted to calculate the Scope 1, Scope 2, and selective categories[1] of Scope 3 GHG emissions intensity. This approach aligns with the two standards: the Corporate Standard and the Corporate Value chain (Scope 3) Standard of the Greenhouse Gas Protocol. The GHG emissions intensity for the product was calculated as follows: Scope 1 emissions were 7.25 tonne CO_2 eq., Scope 2 emissions were 0.24 tonne CO_2 eq., and Scope 3 emissions were 4.04 tonne CO_2 eq.

[1] Selective categories of Scope 3 include purchased raw materials, upstream production of fuel, transportation of raw materials, and waste treatment

Appendix J: Assurance Statement

Deloitte and Touche Middle East (DTME) has provided limited assurance over Aluminium Bahrain B.S.C.'s claim that this report is prepared in accordance with the GRI Sustainability Reporting Standards, including assurance on selected environmental and social key performance indicators (KPIs) prepared in accordance with the Basis of Reporting (Reporting Boundaries and Methods).

Independent Limited Assurance Report

Independent Limited Assurance Report to Aluminium Bahrain B.S.C

We have been engaged by Aluminium Bahrain B.S.C ("ALBA" or the "Company") to perform a limited assurance engagement relating to the selected sustainability metrics ("Selected Information") presented in Table 1 below prepared in accordance with Aluminium Bahrain B.S.C Basis of Reporting ("Basis of Reporting"); and to perform limited assurance procedures on the preparation of the Environmental, Social and Governance Report 2024 ("ESG Report") in accordance with the Global Reporting Initiative Sustainability Reporting Standards (the "GRI Standards" or "GRI") assessed against the reporting criteria presented in GRI (Section 3, GRI 1: Foundation 2021), collectively the "Applicable Criteria" for the year ended 31 December 2024.

Table 1 – Selected Information

SELECTED INFORMATION	ASSURED FIGURE FOR THE YEAR ENDED 31 DECEMBER 2024	ESG REPORT 2024 PAGE
Total direct energy consumption (GJ)	182,069,489	P. 29, 71
Total indirect energy consumption (GJ)	1,890,008	P. 29, 71
GHG emissions intensity ratio (tCO_2e/t Al)	7.98	P. 25, 71
Investment in environmental projects (Million BHD)	6.1	P. 34, 35, 74
SPL waste recycled (solid) (MT)	35,163	P. 74
Total number of training for total workforce (hours)	642,250	P. 43, 76
Lost Time Injury ("LTI")	0	P. 47, 77
Total Recordable Injuries	4	P. 47, 77
Lost Time Injury Rate (LTIR)	0	P. 47, 77
Lost Time Injuries Frequency Rate (LTIFR)	0	P. 77
Near Miss Incidents	13,161	P. 77
Total water consumption (Mega Litres)	3,530	P. 72
Water discharged to sea (excluding non-contact cooling water) (Mega Litres)	103,799	P. 72

Use of report

This report is made to Aluminium Bahrain B.S.C, in accordance with the International Standard on Assurance Engagements 3000, Assurance Engagements Other than Audits or Reviews of Historical Financial Information, ("ISAE 3000 (Revised)"), the International Standard on Assurance Engagements 3410 "Assurance Engagements on Greenhouse Gas Statements" ("ISAE 3410"), issued by the International Auditing and Assurance Standards Board (IAASB) and our agreed terms of engagement. Our work has been undertaken so that we might state to ALBA those matters we are required to state to them in this limited assurance report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than ALBA for our work, for this report, or for the conclusion we have formed.

Our conclusion

Based on our work as described in this report, nothing has come to our attention that causes us to believe that:

- The Selected Information, as set out in the Table 1 and as disclosed in the ESG Report 2024 has not been prepared, in all material respects, in accordance with the Basis of Reporting as shown on pages [95-103] of the ESG Report 2024 (Appendix F: Reporting Boundaries & Methods); and
- the ESG Report for the year ended 31 December 2024 has not been prepared, in all material respects, in accordance with the GRI Standards.

Respective responsibilities

ALBA management is responsible for:

- Establishing the Basis of Reporting for preparing the Selected Information;
- The preparation of the calculation for the Selected Information in accordance with the Basis of Reporting;
- Ensuring that the information provided under the Selected Information is properly prepared in accordance with the Basis of Reporting and confirming the measurement or evaluation of the Selected Information against the applicable Basis of Reporting;
- Designing, implementing and maintaining internal processes and controls over the Selected Information that are relevant to the preparation of the Selected Information to ensure the information is free from material misstatement, whether due to fraud or error; and
- Calculating and reporting the Selected Information in accordance with the Basis of Reporting.
- The preparation of information provided for the Sustainability Report in accordance with GRI Standards;
- Determining sustainability objectives in relation to the sustainability performance, identifying stakeholder groups and determining material topics to be included in the Report.

Our responsibility is to express a conclusion on the Selected Information based on our procedures. We conducted our engagement in accordance with ISAE 3000 (Revised) and ISAE 3410, in order to state whether anything had come to our attention that causes us to believe that the Selected Information has not been prepared, in all material respects, in accordance with the Basis of Reporting as defined within the ESG Report 2024 and that the ESG Report has not been prepared, in all material respects in accordance with the GRI Standards for the year ended 31 December 2024. In conducting our limited assurance engagement, we have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA Code).

Our procedures consisted primarily of:

- Understanding the roles and responsibilities involved in the preparation, governance, and oversight of the Selected Information, and assessing its preparation against the Basis of Reporting.
- Conducting enquiries with management to understand how the Basis of Reporting has been applied in preparing the Selected Information.
- Assessing the compilation of the Basis of Reporting against market practices.
- Reviewing and evaluating the Basis of Reporting for measurement and reporting of each selected sustainability metric, comparing it to the actual calculations performed by ALBA to support the Selected Information shown in Table 1.
- Verifying the selected sustainability metrics against ALBA internal calculations and supporting documentation.
- Assessing the availability and quality of evidence provided to support the Selected Information.
- Confirming the Selected Information against ALBA internal calculations and supporting documentation.
- Accumulating misstatements and control deficiencies identified and assessing whether material.
- Interviewed management and those with operational responsibility for the development of the ESG Report to assess the application of the GRI Standards in the preparation of the document;
- Understood, analysed and assessed the key structures, processes, procedures and controls relating to the preparation of the ESG Report;
- Evaluated whether the management approach for the material sustainability issues presented in the ESG Report are consistent with our overall knowledge and experience of sustainability management and performance at the Company;
- Assessed the completeness and accuracy of the GRI content index with respect to the GRI Standards requirements, including the review of the reasons for omission; and,
- Compared the content of the ESG Report against the findings of the aforementioned procedures.

Basis of Reporting

The Basis of Reporting is published within the ESG Report 2024 (Appendix F: Reporting Boundaries & Methods, Pages [95-103]).

The self-defined applicable criteria; the nature of the Selected Information; and absence of consistent external standards allow for different, but acceptable, measurement methodologies to be adopted within the organisation. The adopted measurement methodologies may also impact comparability of the Selected Information reported from year to year within an organisation as methodologies develop.

Inherent limitations

Our engagement provides limited assurance as defined in ISAE 3000 (Revised) and ISAE 3410. The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement and consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Inherent limitations exist in all assurance engagements due to the selective enquiry of the information being examined. Therefore fraud, error or non-compliance may occur and not be detected. Our work does not involve testing the operating effectiveness of controls over the underlying data, nor have we sought to review systems and controls beyond those relevant to the Selected Information.

Our independence and competence

We complied with Deloitte's independence policies, which address and, in certain cases, exceed the requirements of the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants in their role as independent auditors, and in particular preclude us from taking financial, commercial, governance and ownership positions which might affect, or be perceived to affect, our independence and impartiality, and from any involvement in the preparation of the report.

We applied the International Standard on Quality Management ("ISQM") 1, Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements. Accordingly, we maintained a comprehensive system of quality management including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Deloitte & Touche (M.E.)
Manama, Kingdom of Bahrain

13 October 2025

Deloitte.

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Independent Limited Assurance Report

Independent Limited Assurance Report to Aluminium Bahrain B.S.C

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Table 1 – Selected Information

Selected Information	Assured figure for the year ended 31 December 2024	ESG Report 2024 page
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Use of report

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Our conclusion

Based on our work as described in this report, nothing has come to our attention that causes us to believe that:

- The Selected Information, as set out in the Table 1 and as disclosed in the ESG Report 2024 has not been prepared, in all material respects, in accordance with the Basis of Reporting as shown on pages 95-103 of the ESG Report 2024 (Appendix F. Reporting Boundaries & Methods); and
- the ESG Report for the year ended 31 December 2024 has not been prepared, in all material respects, in accordance with the GRI Standards.

Respective responsibilities

ALBA management is responsible for:

- Establishing the Basis of Reporting for preparing the Selected Information;
- The preparation of the calculation for the Selected Information in accordance with the Basis of Reporting,
- Ensuring that the information provided under the Selected Information is properly prepared in accordance with the Basis of Reporting and confirming the measurement or evaluation of the Selected Information against the applicable Basis of Reporting;
- Designing, implementing and maintaining internal processes and controls over the Selected Information that are relevant to the preparation of the Selected Information to ensure the information is free from material misstatement, whether due to fraud or error; and
- Calculating and reporting the Selected Information in accordance with the Basis of Reporting.
- The preparation of information provided for the Sustainability Report in accordance with GRI Standards;
- Determining sustainability objectives in relation to the sustainability performance, identifying stakeholder groups and determining material topics to be included in the Report.

Our responsibility is to express a conclusion on the Selected Information based on our procedures. We conducted our engagement in accordance with ISAE 3000 (Revised) and ISAE 3410, in order to state whether anything had come to our attention that causes us to believe that the Selected Information has not been prepared, in all material respects, in accordance with the Basis of Reporting as defined within the ESG Report 2024 and that the ESG Report has not been prepared, in all material respects in accordance with the GRI Standards for the year ended 31 December 2024. In conducting our limited assurance engagement, we have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA Code).

Our procedures consisted primarily of:

- Understanding the roles and responsibilities involved in the preparation, governance, and oversight of the Selected Information, and assessing its preparation against the Basis of Reporting
- Conducting enquiries with management to understand how the Basis of Reporting has been applied in preparing the Selected Information
- Assessing the compilation of the Basis of Reporting against market practices.
- Reviewing and evaluating the Basis of Reporting for measurement and reporting of each selected sustainability metric, comparing it to the actual calculations performed by ALBA to support the Selected Information shown in Table 1.
- Verifying the selected sustainability metrics against ALBA internal calculations and supporting documentation
- Assessing the availability and quality of evidence provided to support the Selected Information.
- Confirming the Selected Information against ALBA internal calculations and supporting documentation.
- Accumulating misstatements and control deficiencies identified and assessing whether material.
- Interviewed management and those with operational responsibility for the development of the ESG Report to assess the application of the GRI Standards in the preparation of the document;
- Understood, analysed and assessed the key structures, processes, procedures and controls relating to the preparation of the ESG Report;
- Evaluated whether the management approach for the material sustainability issues presented in the ESG Report are consistent with our overall knowledge and experience of sustainability management and performance at the Company;
- Assessed the completeness and accuracy of the GRI content index with respect to the GRI Standards requirements, including the review of the reasons for omission; and,
- Compared the content of the ESG Report against the findings of the aforementioned procedures.

Basis of Reporting

The Basis of Reporting is published within the ESG Report 2024 (Appendix F. Reporting Boundaries & Methods, Pages 95-103).

The self-defined applicable criteria; the nature of the Selected Information; and absence of consistent external standards allow for different, but acceptable, measurement methodologies to be adopted within the organisation. The adopted measurement methodologies may also impact comparability of the Selected Information reported from year to year within an organisation as methodologies develop.

Inherent limitations

Our engagement provides limited assurance as defined in ISAE 3000 (Revised) and ISAE 3410. The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement and consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Inherent limitations exist in all assurance engagements due to the selective enquiry of the information being examined. Therefore fraud, error or non-compliance may occur and not be detected. Our work does not involve testing the operating effectiveness of controls over the underlying data, nor have we sought to review systems and controls beyond those relevant to the Selected Information

Our independence and competence

We complied with Deloitte's independence policies, which address and, in certain cases, exceed the requirements of the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants in their role as independent auditors, and in particular preclude us from taking financial, commercial, governance and ownership positions which might affect, or be perceived to affect, our independence and impartiality, and from any involvement in the preparation of the report.

We applied the International Standard on Quality Management ("ISQM") 1, Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements. Accordingly, we maintained a comprehensive system of quality management including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements

Deloitte & Touche

Deloitte and Touche – Middle East
Partner Registration No. 157
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