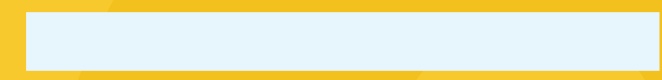


**ESG**



**SUSTAINABILITY  
AT BOAL**

**BOAL**  
GROUP

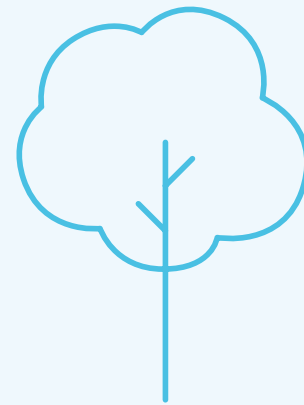


# ESG AT BOAL GROUP

BOAL RANKED #1 IN OUR CATEGORY WITH OUR ESG-SCORE IN 2023

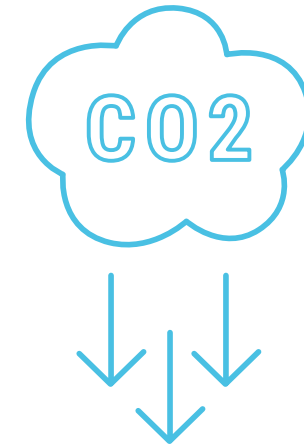
## PRODUCT ENVIRONMENTAL IMPACT

We ensure our products are made in the most sustainable way possible, using recycled materials and with the smallest CO2 footprint possible.



## CO2 REDUCTION ACROSS OUR PROCESSES

Becoming the green supplier for a green world. Not only at our own facilities, but also requiring our suppliers to do so.



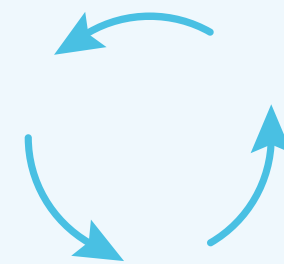
## TRANSPARENCY & REPORTING

Honesty, transparency and integrity are our core values, we exemplify integrity in all BOAL Group activities and relationships.



## PROMOTING THE CIRCULAR ECONOMY

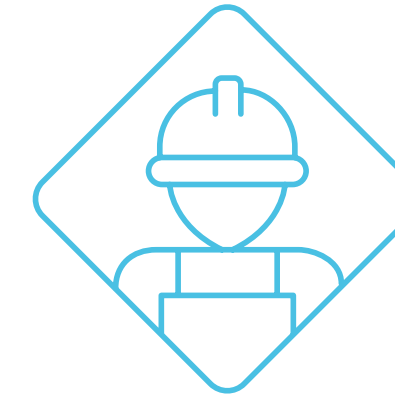
We constantly strive to use less of the Earth's resources more efficiently and productively.



WE WILL CONTINUE TO INVEST IN MAKING OUR PRODUCTS MORE SUSTAINABLE, PROMOTE RESOURCE EFFICIENCY, EXPLORE NEW AVENUES FOR COMMUNITY ENGAGEMENT, AND UPHOLD THE HIGHEST STANDARDS OF CORPORATE GOVERNANCE.

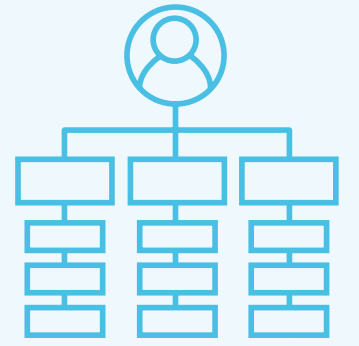
## HEALTH AND SAFETY

Make safety a priority and a passion. Striving for zero accidents and reporting near misses adequately.



## EMPLOYEE DEVELOPMENT

Foster a fair workplace free of harassment and strive for a culture where ethical conduct is recognized, valued.



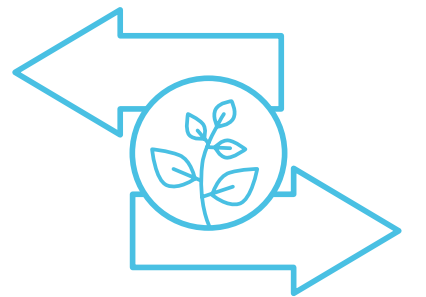
## CUSTOMER SATISFACTION

We are a loyal and reliable supplier and business partner and adhere to the principles of fair trade.



## PRIORITIZING ENERGY EFFICIENCY

Reducing the use of fossil fuels as quickly and safe as possible at our production facilities, offices & car fleet.



## ENVIRONMENT | SOCIAL | GOVERNANCE

### A BRIGHTER WORLD FOR EVERYONE

In the next 40 years Global food demand will increase by 50%. As a consequence we must produce more food in the next four decades than we have in the last 8000 years of agriculture combined. As a company, we are committed to finding innovative solutions to address this crisis and partnering with stakeholders across the globe to create a brighter future for everyone.





01.

# FOREWORD BY THE CEO



## 1.1 SUSTAINABILITY LEADERSHIP

After an eventful year, both on global level and within our company's reach, we are honoured to present our Environmental, Social, and Governance (ESG) Report for 2023. At BOAL Group, we recognize the pivotal role businesses play in shaping a sustainable and responsible future. Our adherence to ESG principles reflects not only our compliance with regulations, but also our commitment to creating long-term value. Making societal impacts, and practicing environmental stewardship.

This report reviews our progress in ESG areas over the past year, building on the initiatives outlined in previous reports. The BOAL Group ESG Report 2023 encapsulates our multifaceted approach to sustainability, illustrating our efforts in driving positive change across our operations.

### **Environmental Stewardship:**

In 2023, we at BOAL Group, actively sought to further reduce our carbon footprint and enhance resource efficiency. Through strategic investments in renewable energy sources, energy-efficient technologies, and sustainable supply chain practices, we achieved a significant reduction in our environmental impact. These efforts underscore our dedication to combating climate change and preserving our planet for future generations.

### **Social Responsibility:**

Our commitment to social responsibility is demonstrated by robust initiatives in health and safety and by nurturing a workplace culture that prioritizes the well-being and development of our employees. We also engaged with the community by sponsoring the International BOAL Youth Football Tournament and supporting various other events. Furthermore, we continually strive to promote

inclusive development, diversity and inclusion, and educational support through internships and graduation projects.

### **Governance Excellence:**

Transparency, accountability, and ethical business practices are the cornerstones of our governance framework. In 2023, we continued to strengthen our corporate governance structures, ensuring compliance with international standards. We are building on the successes of the past year and setting new benchmarks for our ESG initiatives. Our commitment to sustainability goes beyond compliance, focusing on innovation, collaboration, and measurable impacts.

At BOAL, we understand that the journey towards sustainable business practices is ongoing, and we remain steadfast in our dedication to continuous improvement. By fostering an environment of trust

and integrity, we uphold the highest standards of corporate governance, promoting long-term stability and resilience. We look forward to updating you on our progress and achievements in the coming years as we collectively work towards a more sustainable and equitable future.

Thank you for your continued support.

**Edwin van den Berg**  
**CEO**



## 1.2 PROGRESSING TOWARD A SUSTAINABLE FUTURE

As we reflect upon our ESG journey throughout the year 2023, we see the Environmental, Social, and Governance commitment made in the previous year, translated into tangible results far surpassing our initial expectations. From the inception of our ESG journey in late 2021, we've witnessed substantial advancements on all material topics. Our ESG roadmap, coupled with ambitious targets, was not just a plan on paper. It directed our actions across the organization, emphasizing our dedication to making a real impact on environmental conservation, social responsibility, and robust governance.



### ENVIRONMENT

Investment in, and start of, the installation of 1400 renewable energy solar panels at BOAL Systems.

Further investigations on energy reducing measurement at the extrusion plants (energy saving capex initiatives brought to attention again and recalculated).

Replacing the billet oven in the UK with a more efficient oven reducing gas consumption by 40%.

Switching to 100% green electricity for our UK plant.

Soft launch of the Easyjoint coupling for recyclable insulation panels, making the use of sealant unnecessary.

Launch of the enhanced version of an accordion netting system requiring less materials, while granting customers an energy efficient and biodiversity friendly crop protection solution.

First constructive steps toward the development of our own recycled or low carbon aluminum products have been taken with the expectation of launching in 2024.

First steps have been taken to implement 'as a service' business models in our Horti division allowing for closed loop systems, reducing the footprint of our products.

### SOCIAL

Streamlining health and safety policies resulted in a unified BOAL Group safety standard. Our commitment to a safe work environment is clear: aiming to minimize incidents and injuries.

Safety fence project for press 2 at Extrusion NL completed, enhancing workplace safety.

Implementation of new stricter procedures on maintenance of factories.

Project with the Hogeschool Rotterdam. Students visited Extrusion NL and advised on how BOAL Extrusion could increase sustainability on all ESG topics including new innovative technologies.

In-company lecture for New York University students on Sustainability.

Lecture for CFO executive program at the VU University Amsterdam on successful implementation of BOAL's ESG strategy.

Panel discussion on implementing ESG within horticulture on the Greentech exhibition.

Diversity & Inclusion campaign executed internally and externally.

Comprehensive onboarding program launched for new employees.

Start of the implementation of the full fledged HR-system improving information for both employees and leadership.

Implementation of an automated recruitment system to attract new talent.

# GOVERNANCE

Complied with Carbon Border Adjustment Mechanism (CBAM) resulting in a complete and timely CBAM reporting.

First full UN Global Compact Communication on Progress (COP) report submitted.

Further alignment with Aluminum Stewardship Initiative (ASI) and preparation for membership and certification.

Further alignment with Corporate Sustainability Reporting Directive (CSRD) and preparation for 2025 reporting.

Risk assessment on the aluminum supply chain, in line with future Corporate Sustainability Due Diligence Directive (CSDDD) legislation.

Preparations have started for alignment with ISO 14067 standards for both extrusion plants.

Regular open communication on various ESG-topics through the internal newsletters & townhall meetings.

Various meetings and workshops organized for customers at Extrusion and Systems on the relevance of ESG and to share best practices.

Part of the decarbonization panel of the Morningstar Sustainalytics Summit in Amsterdam as a testimony to the BOAL ESG Roadmap.

Permanent expansion of the ESG team with young talents to further explore and emphasize the options to become more sustainable.

Internal communications campaign performed on creating awareness and to activate colleagues to support the ESG efforts.

Extensive ESG Awareness campaign executed on social media.

**'OUR JOURNEY TOWARDS ESG EXCELLENCE IS A TESTAMENT TO OUR BELIEF THAT RESPONSIBLE BUSINESS PRACTICES NOT ONLY DRIVE POSITIVE CHANGE BUT ALSO CREATE ENDURING VALUE FOR ALL STAKEHOLDERS'**



## **Organizational Strengthening**

Our focus on our organizational pillars ensures sustained high performance and engagement. As part of our commitment to leadership development and organizational resilience, we provided targeted leadership training for our Senior Leadership Team. This initiative is designed to enhance decision-making, foster innovation, and ensure that our leaders are well-equipped to drive our sustainability goals forward.

## **Global Accountability: Embracing Transparency and Reporting**

*UN Global Compact:* By joining the UN Global Compact in 2022, we committed to transparent reporting through the Communication on Progress framework. This move reinforces our dedication to international standards in sustainable business practices.



*SDGs Collaboration:* Proudly standing as pioneers in our industry, we collaborate with governments, industry bodies, and peers to champion the United Nations Sustainable Development Goals (SDGs). Our commitment reflects our ambition to be a positive force globally.

## **Annual risk rating & recognition**

A comprehensive ESG risk rating was performed by Sustainalytics (a Morningstar company) in the second quarter of 2023. We received our rating in June. It was an incredible reward for the steps we have taken in terms of ESG.

Sustainalytics annually recognizes companies excelling in ESG Risk Ratings. Companies that are strong outperformers in their respective regions or continents receive the “Regional Top Rated Badge.” BOAL has been honored with this distinction. Additionally, leaders within their industries are awarded the “Industry Top Rated

Badge,” with BOAL achieving the number one position in its industry. The most prestigious award, the “Global Top 50 Badge”, which BOAL received for the second consecutive year, is reserved for the top 50 companies worldwide that exhibit the best overall ESG risk ratings, selected from over 15,000 companies comprehensively assessed by Sustainalytics.

In summary, our ESG journey in 2023 resulted in concrete achievements and clear commitments. Looking forward, BOAL Group remains resolute in its dedication to sustainability, recognizing that our actions today shape tomorrow’s world. Together, as a united force for positive change, we move forward into a future where environmental responsibility, social equity, and robust governance create a lasting legacy.



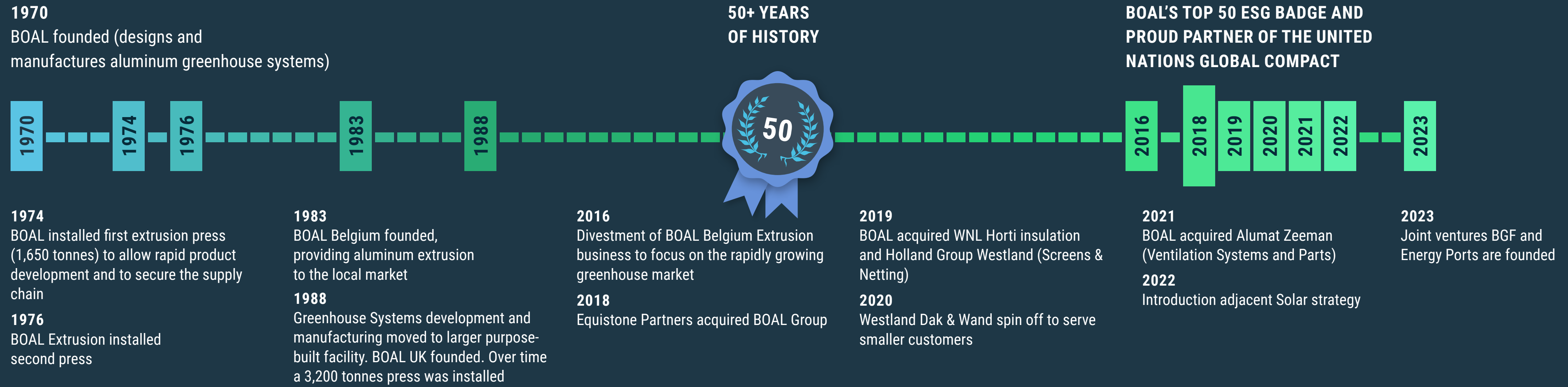
*Copyright ©2023 Sustainalytics. All rights reserved. This section contains information developed by Sustainalytics (www.sustainalytics.com). Such information and data are proprietary of Sustainalytics and/or its third party suppliers (Third Party Data) and are provided for informational purposes only. They do not constitute an endorsement of any product or project, nor an investment advice and are not warranted to be complete, timely, accurate or suitable for a particular purpose. Their use is subject to conditions available at <https://www.sustainalytics.com/legal-disclaimers>*

02.

# COMPANY PROFILE



# HORTICULTURE IS IN OUR ROOTS AND TOGETHER WITH SOLAR IT WILL PROPEL US INTO A SUSTAINABLE FUTURE



## 2.1 HORTICULTURE IS IN OUR ROOTS AND TOGETHER WITH SOLAR IT WILL PROPEL US INTO A SUSTAINABLE FUTURE

It is our purpose to partner with builders and growers globally, empowering them with innovative solutions, to help feed & power a growing population. We are committed to contribute to a sustainable future for all.

Since 2022, around 75 percent of greenhouse growers have reported adjusting their cultivation strategies due to the financial burdens of fluctuating energy costs and rising interest rates. This has also impacted BOAL, a supplier in the horticulture industry.

In order to achieve a global Net Zero by 2050 (COP28) the consumption of electricity globally is expected to rise from 19% in 2022 to 56-66% in 2050 (source: Energy Transitions Commission). This trend not only challenges our efforts to reduce CO2 emissions, but also aligns with our goal to support the growing needs for food and energy of the global population.



Fortunately, BOAL's aluminum extrusion business is not solely reliant on horticulture. Our aluminum profiles are employed across a variety of sectors, with a particular emphasis on the solar industry, which is central to the energy transition. Aluminum is perfectly suited for solar mounting systems, because it is lightweight yet robust and

capable of withstanding severe wind and snow loads. Moreover, aluminum frames are resistant to corrosion and weathering, which extends the lifespan of solar panels. Our aluminum frames are favored in the solar panel industry for their combination of strength, durability, and cost-effectiveness. Despite a temporary slowdown in

growth, our strategic focus on the solar sector ensures our resilience through various economic cycles.

## BOAL'S MATERIAL TOPICS

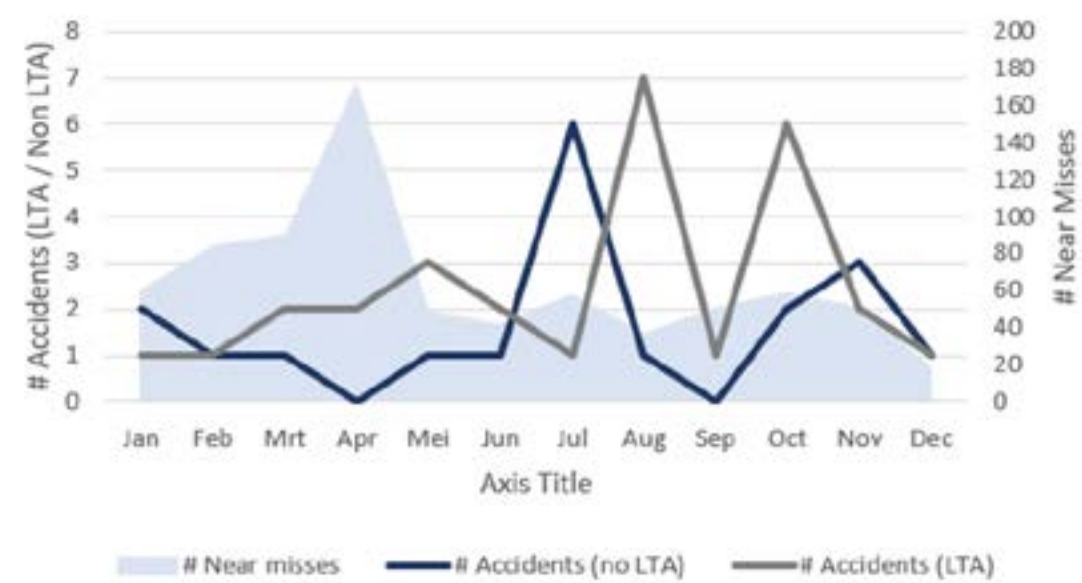
- Scope 1 + 2 CO2 Emissions / Energy efficiency
- Scope 3 CO2 Emissions
- Health & Safety
- Employee Development
- Circular Economy / Product Environmental Impact
- Customer Satisfaction
- Transparency & Reporting

## TRANSPARENCY & REPORTING

- ESG governance mechanisms & reports implemented
- Awarded with the Sustainalytics 2024 Global Top 50 Badge
- Committed to UN Global Compact "Communication on Progress"

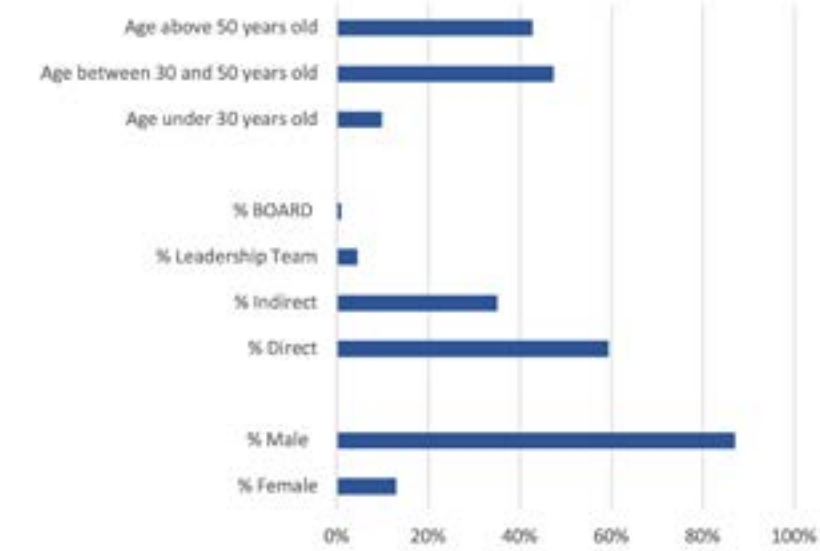
## HEALTH & SAFETY

NEAR MISSES & ACCIDENTS (NON LTA / LTA)



## 461 EMPLOYEES

FIXED STAFF BOAL GROUP



## 5% REDUCTION IN CO2 EMISSIONS PER TONNE ALUMINUM IN 2023

## CIRCULAR ECONOMY / PRODUCT ENVIRONMENTAL IMPACT

- Insect netting to reduce pesticides and enhance biodiversity
- Climate screens and sandwich panels to reduce energy usage
- Focus on aluminum with reduced carbon emissions and high percentage of recycled content

## 2.2 BUSINESS UNITS, PRODUCTS, AND MARKETS

**BOAL Extrusion** specializes in the production of extruded aluminum products whereby profiles are formed in a specific shape by pressing these through a die. As already indicated, next to building greenhouses and solar panel mounting systems, the extruded aluminum profiles can be used to make a wide range of products, including, curtain wall systems, aluminum luminaires profiles for LED lights and window and door frames. BOAL Extrusion has a reputation for producing high-quality, custom extruded aluminum products that meet the unique needs of its customers.

The company utilizes state-of-the-art technology and equipment, and employs a team of skilled professionals to design, manufacture and deliver the products to the customers. BOAL Extrusion is committed to providing excellent customer

service and is dedicated to continuously improving its operations to meet the evolving needs of the industry. Our key focus at BOAL Extrusion is to reduce our CO2 footprint by reducing the use of energy and of natural gas in particular.

**BOAL Systems** specializes in the design, manufacturing, and supply of high-quality aluminum systems for both horticulture and solar panel mounting. BOAL Systems' in-depth engineering knowledge and close relationship with BOAL Extrusion delivers innovative sustainable solutions which makes them a popular choice among its customers.

The high-quality insulation systems of **WNL Horti Insulation** are an essential part of the energy conservation strategy implemented in high-tech greenhouses. By adding insulated sandwich panels to roofs, sidewalls and front walls, which do not require any sunlight, growers will conserve

a significant amount of energy. Production and service rooms equipped with insulation panels constitute safe workspaces and storage rooms with a stable atmosphere, thus conserving energy and possibly reducing food wastage. WNL offers various types of advanced joined panels (no sealant necessary) and integrated roofing systems, suited to the characteristics, and intended use of each type of greenhouse.

To make an additional contribution to strengthen biodiversity, insect netting is a real value add. **Holland Netting**, as a pioneer and world leader in this area, is known for its focus on innovation, quality, and sustainability in the horticultural industry. Windows equipped with insect-netting reduce pesticide use and improve biodiversity, whereby recent scientific studies show that insect netting has no adverse effects on the greenhouse's climate.

Horticulture screen systems for greenhouses have undergone a tremendous development in recent years. Screens are fulfilling more and more functions like temperature regulation, energy saving, light management, and humidity control. All contributing to a sustainable food production. As versatile supplier of screen systems, **Holland Screens** is planning to go even further and is currently looking at integrating the circular economy philosophy into its operations.

The wisdom that repairing parts is much more sustainable than completely renewing entire greenhouse systems, has been embedded at Alumat Zeeman for many years. With the state-of-the-art machine park, combined with decades long extensive industry knowledge, **Alumat Zeeman** offers parts, industrial processing, screen & ventilation systems while being both service-oriented and environmentally friendly.

**BOAL Group Flexibell** is at the forefront of supplying high-tech greenhouse solutions in China, significantly influencing the local agricultural sector's growth and sustainability. By focusing on local production, BOAL Group Flexibell enables greenhouse builders to bypass the usual high logistics costs. This strategic local production not only supports rapid response to market demands but also reduces the environmental impact associated with long-distance transportation considerably.

**Energy Ports** is on a mission to make sustainable energy more accessible by transforming familiar spaces such as parking lots into sources of renewable power with their innovative solar ports. With a commitment to integrating renewable energy gracefully into existing settings, Energy Ports advocates for multifunctional land use, enhanced with cutting-edge solar technology. Their efforts pave the way towards a greener, more sustainable future.





03.

# SUSTAINABILITY MOTIVATION, MANAGEMENT AND STRATEGY

### 3.1 MOTIVATION / PART OF THE CORPORATE STRATEGY / SUSTAINABLE VALUE CREATION

The BOAL Group remains fully committed to creating value in a sustainable manner, which is a cornerstone of our corporate strategy and all key decision-making processes. We believe that by proactively managing ESG risks and opportunities, we can ensure the long-term performance of our business and contribute to the well-being of society and feeding and powering a growing population. Furthermore, by transparently reporting our performance in these areas, we demonstrate our accountability to our stakeholders. We see the future in sustainable value creation, and we are confident that our commitment to ESG will enable us to create value for all our stakeholders in the long term, all whilst ensuring to operate in an environmentally, socially, and ethically responsible way. In 2023 we further integrated our ESG principles into our operations and governance

structures, and report on our performance in these areas through our annual Sustainability report.

### 3.2 MATERIALITY ASSESSMENT AND STAKEHOLDER MANAGEMENT

In our business operations we see every day that our material topics chosen two years ago are still relevant. Also, our basis of extensive internal ESG performance metrics like Diversity of workforce, Health and Safety performance, Gas and Electricity usage / CO2 footprint have not yet lost any of their value and are the basis on which we try to improve in the ESG field every day. We therefore believe that also in 2023 our 7 material topics still embody the key drivers of our ESG strategy:

- Scope 1 + 2 CO2 Emissions / Energy Efficiency
- Scope 3 CO2 Emissions
- Health & Safety
- Employee Development

- Circular Economy / Product Environmental Impact
- Customer Satisfaction
- Transparency & Reporting

Recognizing the rapid pace of global change, we commit to regularly evaluate the relevance of our sustainability focus areas. By concentrating on the primary drivers, we strategically allocate our efforts and resources to maximize our impact. Engagement with our stakeholders throughout the materiality assessment process ensures that our ESG strategy aligns with their interests and expectations. These key drivers will continue to guide our ESG strategy and reporting. To ensure ongoing relevance and responsiveness, we will conduct annual reviews of our material topics.

### 3.3 SUSTAINABILITY MANAGEMENT AND GOVERNANCE

The structure whereby the ESG director is the driving force and guardian of the ESG projects, has proven successful and therefore was maintained in 2023. >>

Continuous **development of ESG Strategy. Central coordination** and tracking of all ESG initiatives across BUs. Continuous **ESG data collection, analysis, and reporting.** Writing of **Sustainability Report, etc.** Direct report to CEO.



To embed all ESG initiatives, and keep the engagement and motivation of all BOAL employees to achieve ESG targets as promised, clear internal and external commitments were made: >>

INTERNAL	EXTERNAL
Maintain what has been built up concerning ESG governance mechanisms & reports to continuously track implementation progress & ESG performance.	Embed external communication on ESG targets and progress on an ongoing basis (e.g., Sustainability report / UN Communication on Progress).
Continue to communicate internally on decisions regarding targets, initiatives, and mandates of Topic Leads to all staff.	Enlarge ESG initiatives towards customers & business partners (e.g., via offering "Circular Products", certificates).
Further anchor the ESG incentive system of the management via ESG KPIs and reward structure.	Keep the excellent ESG risk rating.

Furthermore, to keep the progress on ESG going and allowing it to run flawlessly, the reporting structure has been kept in place and was where necessary adapted to the needs of the organization: >>

MEETINGS / REPORT	PARTICIPANTS / AUDIENCE	CADENCE
Update ESG KPI's in Group MIP	Shareholders BOAL Group Board	Monthly
Progress on ESG agenda	Board ESG Director Topic owners (if needed)	6-weeks
Project Jour Fixe	CEO ESG Director	Bi-weekly
Working sessions	ESG Director Topic owners Project members	As needed

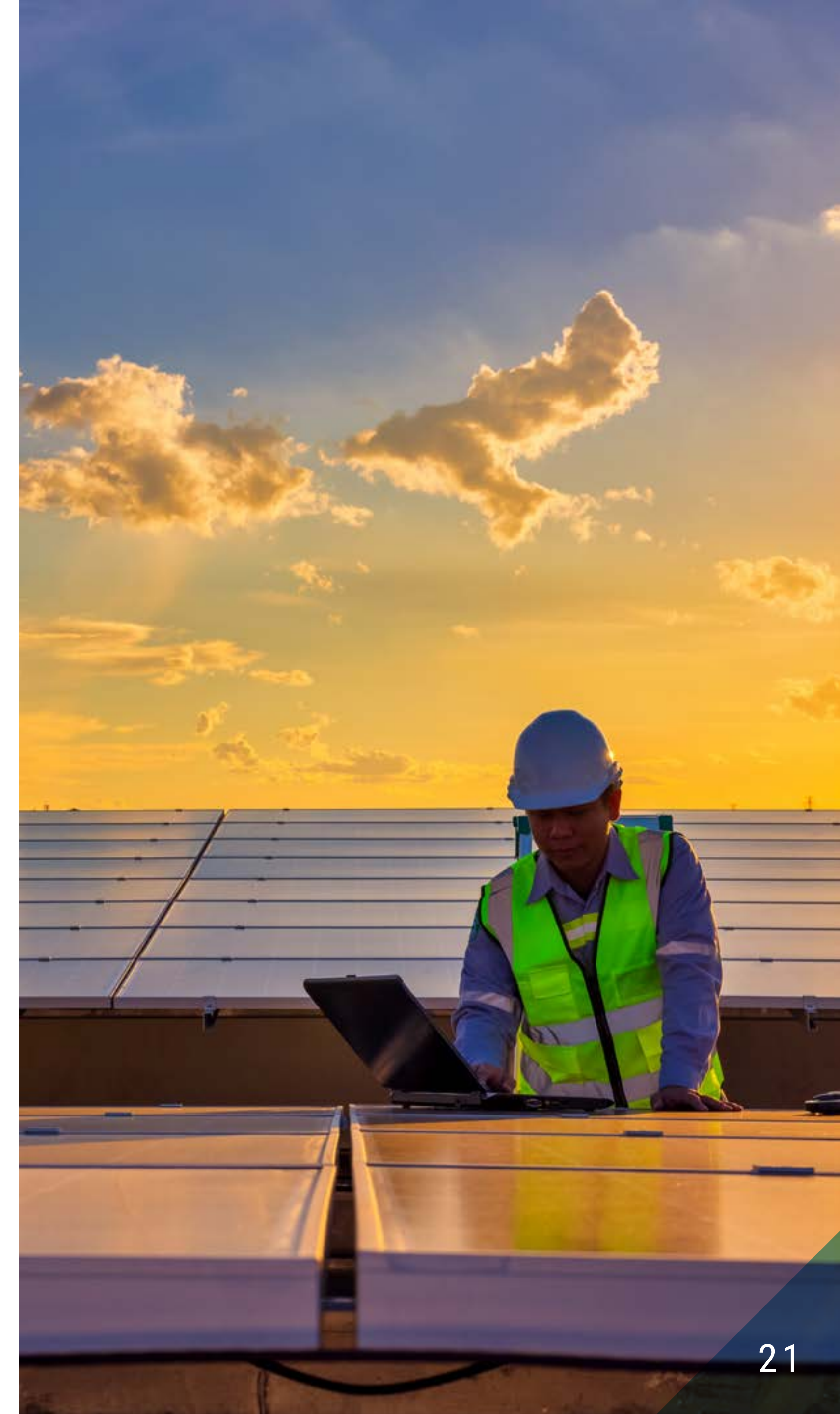
To progress on the ESG agenda included need to be amongst others:

- Monitor Product Environmental Impact of all BOAL Group products and services
- Track progress towards ESG ambitions, targets and deadlines
- Develop and set up ESG activities, programs & initiatives
- Consult and discuss stakeholder considerations
- Track overall ESG strategy development and adjust as needed
- Approve ESG budget including CAPEX requests

Results are communicated within our organization to all employees, and externally if applicable.

By embracing an integrated approach on sustainability, we ensure that our operations are environmentally sound, socially just, and economically sustainable over the long haul.

This doesn't just benefit our company and stakeholders; it also contributes to the overall health of the communities and ecosystems in which we operate. Through robust governance mechanisms and transparent reporting, we uphold ourselves to the highest standards of accountability for our sustainability efforts and continually strive for improvement. In essence, effective sustainability management and governance are fundamental to the enduring success and resilience of the BOAL Group.



### 3.4 SUSTAINABILITY STRATEGY AND VISION (TARGETS, INITIATIVES, STATUS)

In 2023 our vision for sustainability remained to be a leader in our industry, continuously improving our performance with the focus on the topics mentioned in the table, that can be seen as essential components for our company: >>

BOAL strives to create long-term value for our stakeholders and to contribute to the well-being of the communities and ecosystems in which we operate.

### 3.5 SUPPORT OF THE UN GLOBAL COMPACTS PRINCIPLES

At BOAL, we are steadfast in our commitment to being a responsible corporate citizen and contributing to a sustainable future. The United Nations Global Compact provides a great framework for aligning corporate strategies and operations with universal principles on human

MATERIAL TOPIC	STRATEGY & TARGETS
SCOPE 1 & 2 EMISSION ENERGY EFFICIENCY	In 2030: up to 50% reduction of GHG emission intensity from a 2020 baseline.
SCOPE 3 EMISSION	When choosing our business partners, we will make sustainability and especially CO2-emissions one of the key decision parameters. Whereby the aim is to have a 25% to 50% reduction of emissions by 2030.
EMPLOYEE HEALTH & SAFETY	To achieve the industry average for #Near misses, #Accidents. To lead in 2030: Top quartile for #Near misses, #Accidents.
TRANSPARENCY & REPORTING	Uphold a strong and active Governance Policy. UN Global compact - CSRD-compliant for 2025 - Sustainability Report.
EMPLOYEE DEVELOPMENT	2024 Operate a full-fledged group wide HR platform & system.
CUSTOMER SATISFACTION	Differentiate versus competition via sustainable products.
CIRCULAR ECONOMY / PRODUCT ENVIRONMENTAL IMPACT	Stand out from the competition via sustainable products. Launch various "circular" products with high share of recycled input as parallel options to existing products.

rights, labor, the environment, and anti-corruption, fostering a more ethical and equitable world. The BOAL Group has wholeheartedly integrated the [Ten Principles](#) of the UN Global Compact into our overarching strategy, policies, and procedures.

Furthermore, recognizing the interconnectedness of global challenges, the United Nations has underscored the importance of addressing poverty,

improving health and education, reducing inequality, fostering economic growth, combating climate change, and preserving natural resources like our oceans and forests. To achieve this, the [17 Sustainable Development Goals](#) (SDGs) were formulated, representing a shared blueprint for a better and more sustainable future. BOAL fully embraces these goals, aligning our efforts with those that resonate most strongly with our

strategic focus and the nature of our products, particularly in controlled environment agriculture and solar energy. Through our dedicated focus on selected SDGs, we aim to maximize our positive impact and contribute meaningfully to global sustainability efforts.



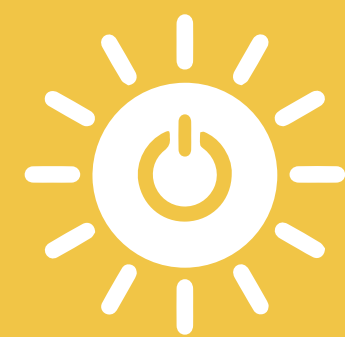
## 2. ZERO HUNGER

End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.



## 6. CLEAN WATER AND SANITATION

Ensure availability and sustainable management of water and sanitation for all.



## 7. AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable, and modern energy for all.



## 11. SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient, and sustainable.



## 15. LIFE ON LAND

Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

04.

# ENVIRONMENTAL AND CLIMATE PROTECTION



## 4.1 CO2 EMISSION REDUCTION AND ENERGY EFFICIENCY

Aluminum remains an important metal for multiple technologies which are critical for the energy transition. The resulting large amount of CO2 emissions from aluminum production has certainly not gone unnoticed by the aluminum industry. Within the BOAL Group the aluminum extrusion branch is also the major consumer of energy. Along the entire supply chain, initiatives are taken to reduce CO2 emissions.

At BOAL, we are also working hard to reduce our CO2 footprint through energy-saving measures and (generating our own) green electricity via solar panels, but the focus on procurement has the greatest impact. To achieve our targets on emissions, BOAL has - based on a thorough analysis - developed a gradual path towards its targets in 2030.

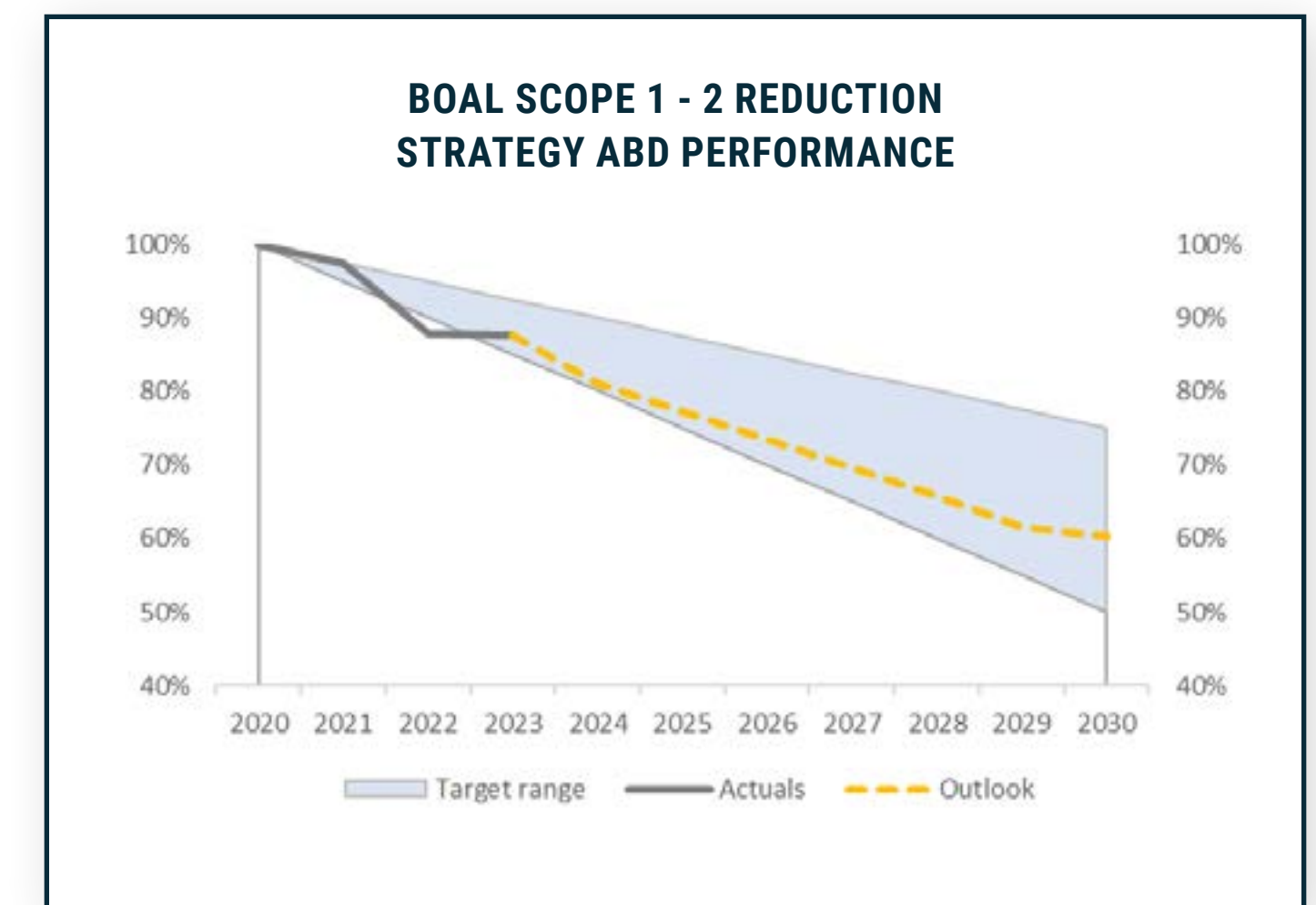
### Scope 1 and 2 / Energy efficiency

Halving the Scope 1 and 2 CO2 emissions per tonne of produced aluminum in 2030 can be carried out based on a strategy that has the following three pillars:

- Switching to green electricity;
- More efficient gas ovens / Switch to electric ovens powered with green electricity.
- Increasing energy efficiency

We have accelerated our strategy on the first point, and we have also installed a new billet oven in our extrusion factory in Shepshed that uses 40% less gas than the previous one. In addition, in the field of electric ovens, a suitable supplier has been found that has a high degree of knowledge in the area of electric ageing ovens. Possible future replacements of ovens can therefore be CO2-free, provided the electricity grid has sufficient capacity and the economic business case is also positive.

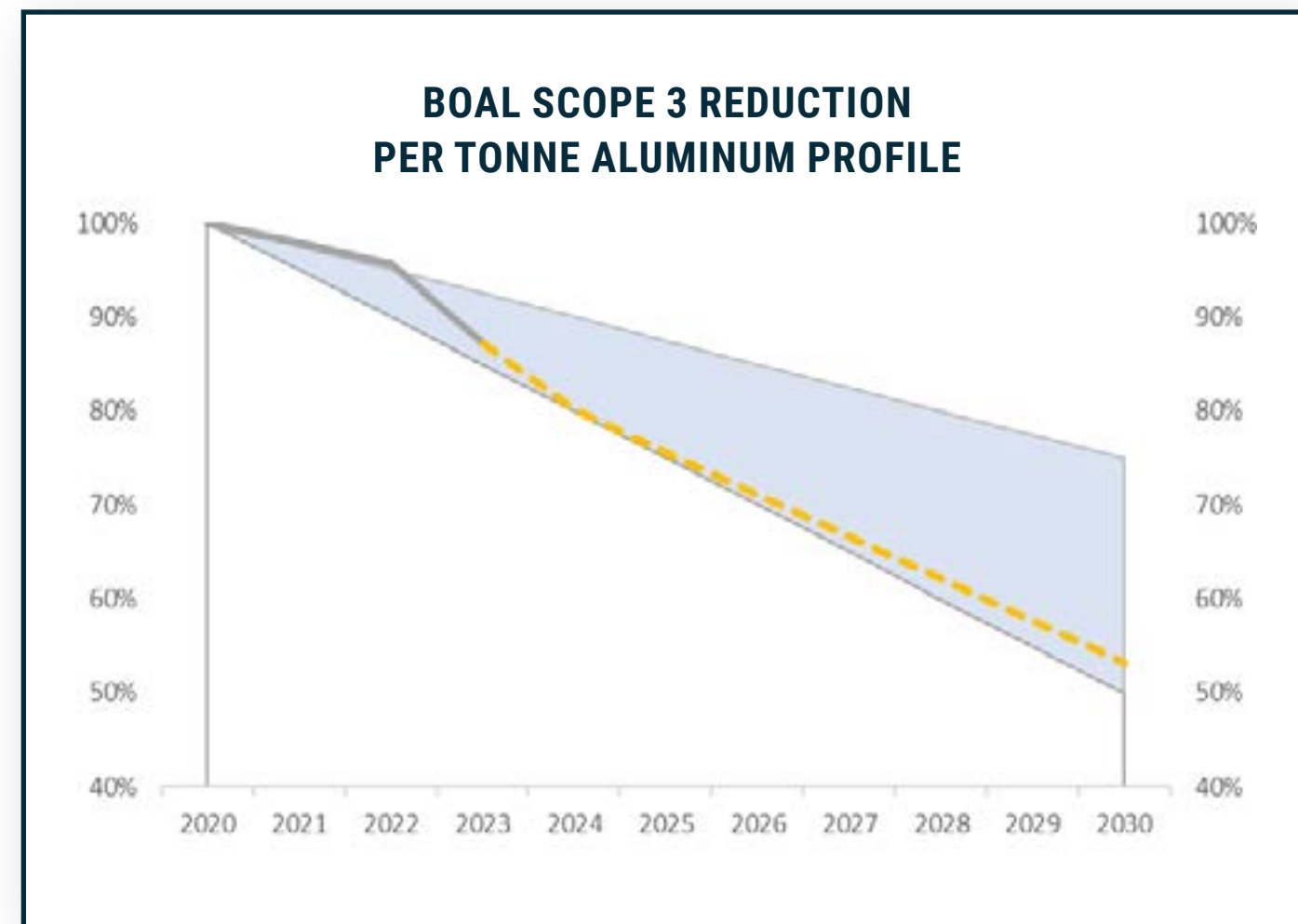
Unfortunately, due to the slower economic situation, we have not been able to capitalize on higher energy efficiency as production volumes in Extrusion stayed behind.



For Scope 1 and 2 all of this resulted in CO2 emissions per tonne of aluminum remaining the same as in 2022, but we assume that the decline will continue in 2024 due to the further implementation of our actions.

### Scope 3

In 2023, the aluminum industry made significant strides in its commitment to reducing CO2 emissions, marking a pivotal moment in the global transition towards a low-carbon future. Through efforts on increasing post-consumer scrap, key players within the industry can deliver aluminum with notable reductions in greenhouse gas emissions, catalyzing positive change across the value chain.



Leveraging advancements in technology and process optimization, aluminum producers embraced renewable energy sources, implemented energy-efficient practices, and optimized production processes to minimize their carbon footprint.

BOAL's focus on reducing its scope 3 footprint is in line with the industry. By purchasing certified lower carbon billets, taking into account the production location of the supplier and the joint focus with our suppliers on reducing the CO2 footprint, BOAL has been able to achieve a significant reduction in Scope 3 CO2 emissions per ton of aluminum.

### 4.2 CIRCULAR ECONOMY

While our focus on recyclable metals like aluminum and steel has been longstanding, we have expanded our perspective to embrace circularity across all product lines. Our focus

to develop a climate screen incorporating a substantial portion of recycled materials is not yet in the use phase yet, we still see opportunities to introduce this successfully. Furthermore, our commitment to sustainability extends to scrutinizing the use of materials such as PVC, exploring alternatives that are more environmentally friendly or biodegradable. Moreover, our dedication to ESG principles permeates every facet of our operations, guiding procurement decisions and investment strategies. By employing an 'ESG filter', ensuring that all business endeavors align with our overarching sustainability goals, we are reinforcing our commitment to responsible stewardship of the planet and its resources.

### 4.3 ENVIRONMENTAL MANAGEMENT (WASTE, WATER, LOGISTICS)

Through strategic partnerships with a renowned provider of recycling and resource recovery

solutions, we have implemented an innovative baling solution and enhanced waste segregation processes. Reducing waste flows is not only good for the environment but also saves money. This combination is beneficial both economically and in terms of sustainability and is therefore a permanent point of attention within BOAL's operations.

Considering the latest developments, BOAL remains vigilant in our approach to water management, even as our operations in the United Kingdom and the Netherlands continue to benefit from relatively low to medium-low water stress levels. Despite our favorable positioning compared to industry benchmarks, where BOAL's water usage stands at a mere 15% of the median within the building products sector, we recognize the imperative of proactive stewardship. As part of our ongoing commitment to sustainability, we remain steadfast in our efforts to optimize

water management practices, aiming to generate positive impacts on the communities and environments where we operate.

BOAL relies on third parties to transport its goods. We are aware that the transport of goods has a significant impact on our carbon footprint, which is why we are actively striving to reduce emissions as much as possible. We do this for example via our dedicated hauler at Extrusion in De Lier whereby modern vehicles restrain pollutants such as nitrogen oxide (NO<sub>x</sub>), carbon monoxide (CO), hydrocarbons (THC and NMHC) and particulate matter (PM). Lowering the levels of these pollutants can also improve fuel economy and reduce carbon dioxide emissions. In combination with biodiesel, it has notable sustainability advantages over conventional diesel fuel like a 90% reduction of CO<sub>2</sub> emissions, virtually no sulphur particles and aromatics, does not contain FAME biodiesel components and is well

biodegradable compared to regular diesel.

Another example is the container transport where we have found a reliable partner which has implemented several ESG initiatives such as: a "Reduce-Reuse-Recycle" policy on a global scale to manage the company's consumption of energy, water, and waste material. This logistics partner is certified to ISO 14001 Environmental Management system requirements.

Through our endeavors in environmental management, BOAL shows its acknowledgment of the significance of harmonizing economic, social, and environmental factors and fosters lasting value for all our stakeholders and contribute to the well-being of society and the planet.

# NEW GREENHOUSES BUILT WITH BOAL ROOF SYSTEMS & SOLAR MOUNTING SYSTEMS PRODUCED IN THE LAST 10 YEAR



3,000 HECTARES IN TOTAL



1,000,000,000 KG  
TOMATOES PRODUCED  
ANNUALLY



200,000,000,000 L  
WATER SAVED ANNUALLY



16,400,000 INSTALLED SOLAR  
PANELS FACILITATED

05.

# SUSTAINABLE PRODUCTS



## 5.1 PRODUCT ENVIRONMENTAL IMPACT AND SUSTAINABILITY OF BOAL PRODUCTS

As a leading supplier of aluminum profiles for amongst others greenhouse roofs and solar energy ports, and a supplier of other products in horticulture, the BOAL Group recognizes the profound importance of assessing and mitigating the environmental impact of our products. Our commitment to ESG principles extends to every facet of our operations, including the design, manufacture methods, and distribution of our products.

### **Environmental Impact Assessment:**

We understand that aluminum production and usage can have significant environmental implications, ranging from energy consumption to greenhouse gas emissions. As such, we have started to conduct a comprehensive assessment to quantify and understand the environmental

footprint of our products. Our analysis encompasses all stages of the product lifecycle, from raw material extraction to end-of-life disposal.

### **Recyclability and End-of-Life Management:**

Moreover, our commitment to sustainability extends to the end-of-life management of our products. Aluminum is infinitely recyclable, and we actively promote the recycling of our greenhouse roofs at the end of their service life. By facilitating the recycling process and collaborating with recycling partners, we strive to close the loop and minimize waste generation.

### **Lifecycle Analysis and Continuous Improvement:**

Continual improvement is central to our approach to sustainability. Through lifecycle analyses and stakeholder engagement, we identify opportunities to further reduce environmental impacts and enhance the sustainability creden-

tials of our products. This includes exploring alternative materials, optimizing product designs for resource efficiency, and implementing circular economy principles.

### **Transparency and Reporting:**

Transparency is fundamental to our commitment to ESG excellence. We are dedicated to transparently reporting on the environmental impact of our aluminum greenhouse roofs, including key metrics such as carbon emissions, energy consumption, and recyclability rates. By providing stakeholders with comprehensive and accurate information, we uphold our accountability and foster trust.

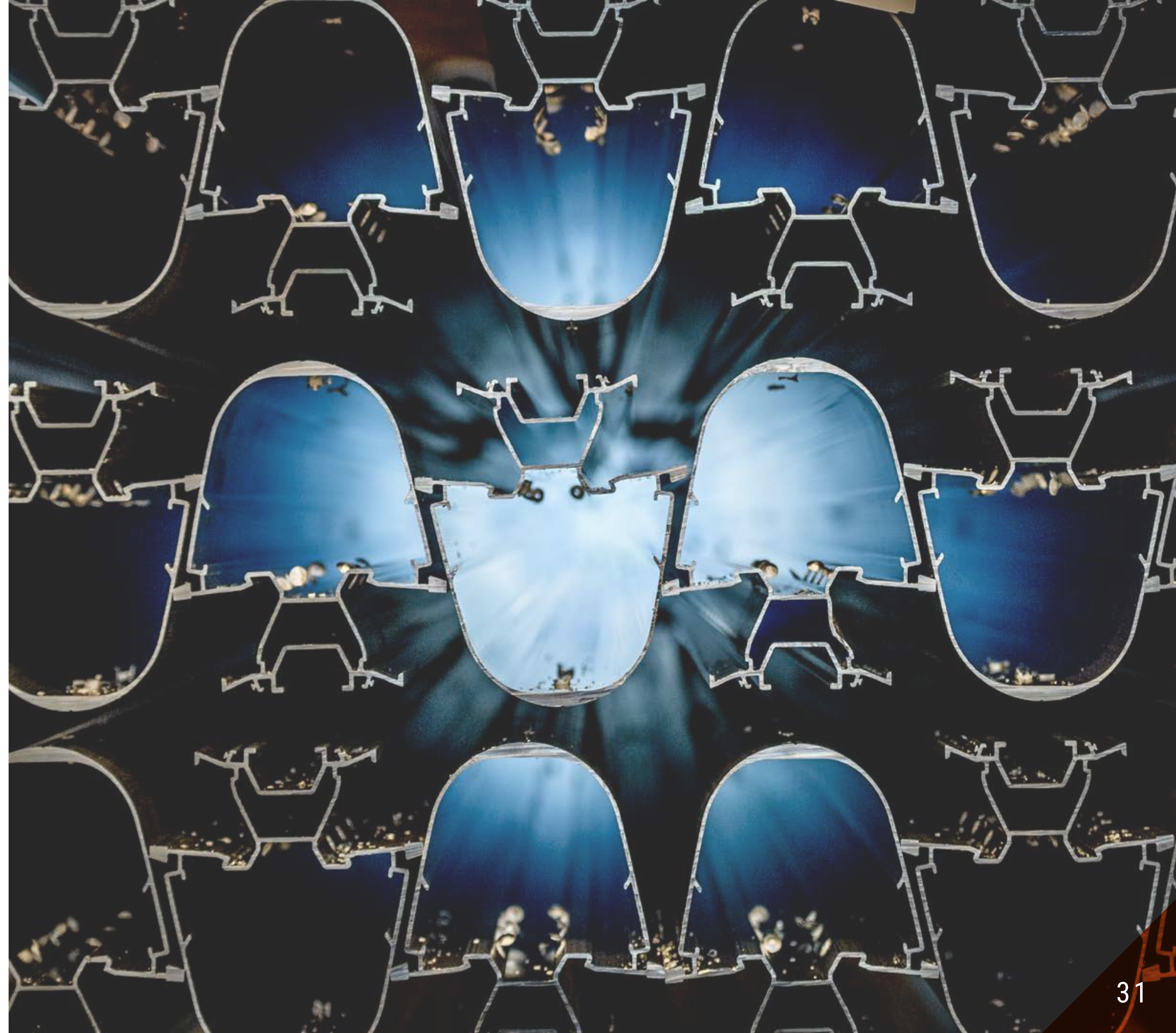
In conclusion, our commitment to assessing and mitigating the environmental impact of our products is an integral part of our broader sustainability strategy. By prioritizing energy ef-

efficiency, recyclability, and continuous improvement, we aim to minimize our environmental footprint and contribute to a more sustainable future for all.

## **5.2 ENVIRONMENTAL IMPACT AS A KEY FACTOR IN CUSTOMER SATISFACTION**

In today's increasingly environmentally conscious world, customers are placing greater emphasis on sustainability when making purchasing decisions. By proactively addressing the environmental impact of our products, we not only meet the evolving expectations of our customers but also enhance their overall satisfaction and loyalty.

One of the key ways in which Product Environmental Impact contributes to long-term customer satisfaction is through the quality and durability of our offerings. By designing and manufacturing durable products we realize a lower environmental footprint, we ensure that they are built to last and



ensure reducing the need for frequent replacements and minimizing waste. This reliability and longevity translate into enhanced satisfaction for our customers, who can trust that they are investing in products that will stand the test of time.

Environmental certifications are becoming more and more important. In many ways it is the difference to not only speak of environmental sustainability but also show this is really reflected in the product. In 2023 we have started our journey to certify our low carbon aluminum profile conform ISO 14067, next to that we foresee to have LCA's and EPD's based on ISO14040/44 for our two aluminum product lines. This means that in mid 2024 we can provide our customers with assurance that our products meet stringent environmental criteria. This not only instills confidence in the environmental performance of our offerings,

it also enhances their appeal to sustainability-minded consumers.

We believe transparency is key to building trust with our customers. We are committed to transparently communicating the environmental impact of our products, including key metrics such as carbon footprint, energy efficiency, and input of recycled content. By providing customers with clear and accurate information, we empower them to make informed decisions and align their purchasing choices with their values.

We also recognize that achieving long-term customer satisfaction requires ongoing efforts to innovate and improve. We are committed to continually evaluating and enhancing the environmental performance of our products through research, development, and collaboration. By staying at the forefront of sustainability trends

and technologies, we ensure that our offerings remain competitive and relevant in a rapidly evolving market.

In conclusion, our focus on product environmental impact is not only integral to our commitment to sustainability, but also a key driver of long-term customer satisfaction. By prioritizing quality, transparency, and continuous improvement, we aim to deliver products that not only meet the needs of our customers but also contribute to a more sustainable future for all.



06.

# SOCIAL RESPONSIBILITY



## 6.1 HEALTH AND SAFETY

Also in 2023, BOAL reaffirmed its steadfast dedication to prioritizing the health and safety of every individual within our workforce. Central to our ethos is the constant belief that every employee, temporary staff member, and contractor working within our facilities or installing our products deserves to operate in a safe and secure environment.

In the preceding year, we launched a comprehensive groupwide program, aimed at bolstering and aligning our health and safety management practices across all our subsidiaries. Key components of this program included the further expansion of our safety culture, characterized by proactive incident reporting, and regular risk assessments. By fostering an environment where safety is paramount, we empower our workforce to identify and mitigate potential hazards, thereby minimizing risks to their well-being.

Reflecting on the past year, we acknowledge the challenges posed by the identification of 772 near misses, 19 incidents without significant work stoppages, and 29 lost-time accidents (LTAs) within the BOAL Group. However, each incident served as a catalyst for introspection and improvement, as we conducted comprehensive risk analyses to inform our ongoing efforts to enhance our safety protocols.

Looking ahead to 2024, we have set further ambitious targets to enhance our health and safety performance. Specifically, we aim to improve reporting on near misses, with the ultimate goal of reducing the number of LTAs and enhancing our overall safety record. We firmly believe that investing in health and safety not only safeguards the well-being of our employees and stakeholders, it also fosters a more sustainable business environment.

To further engage our staff, we have held various meetings and events to keep our employees informed and to foster a sense of community. We also strive to integrate our employees between different companies under our corporate umbrella by working on groupwide projects and initiatives. We are committed to continuously monitoring and improving our employee satisfaction, to ensure that we provide a positive work environment for all.

## 6.2 EMPLOYEE SATISFACTION AND EMPLOYMENT CREATION

At BOAL, we recognize that cultivating a positive work environment is crucial for enhancing employee satisfaction and reducing turnover. This is vital not only in a competitive labor market but also for maintaining the quality, reliability, and continuity essential to our long-term business performance. Our employees' happiness and pride

are directly linked to their productivity and loyalty to our company.

To address our staffing needs, we have implemented an integrated recruitment system designed to attract and retain top talent effectively. Additionally, our comprehensive onboarding program ensures that new hires are seamlessly integrated and feel valued within our company culture from day one.

We actively foster a sense of community among our staff through regular meetings and events, which keep everyone informed and engaged. Efforts to enhance collaboration across different companies within our corporate group include participating in groupwide projects and initiatives. We are committed to continually monitoring and improving our work environment to ensure it remains positive, as this is instrumental in fulfilling

our commitment to employee satisfaction and overall organizational success.

### **6.3 EMPLOYEE DEVELOPMENT AND EDUCATION**

Investing in the development and training of our employees either on the job or in other ways is key to our overall performance. During our ESG journey, we have explained the purpose and vital importance of this topic through tailored company sessions. As a leading company on controlled environment agriculture and aluminum extrusion, BOAL understands that providing growth and learning opportunities in this field to our employees not only benefits them, but also contributes to a more sustainable business environment.

To support this commitment, we encourage our employees to seek out educational and career advancement opportunities, providing the necessary resources to aid their success. We

continuously evaluate and update our training programs to ensure they effectively meet the evolving needs of our employees and align with our strategic objectives.

Through initiatives like the BOAL Academy, our dedicated platform for knowledge sharing, we strive to continuously improve skills and preserve expertise across our organization. Investing in our employees is integral to our business ethos, and we are dedicated to empowering them with the tools they need to thrive and contribute to our collective success.

### **6.4 DIVERSITY AND INCLUSION**

At BOAL, we prioritize diversity and inclusion across our organization, recognizing that a diverse workforce not only aligns with our ethical values, it also enhances decision-making, employee satisfaction, and innovation. Our hiring practices are carefully structured to draw a broad spectrum

## LET US INTRODUCE OUR CONFIDENTIAL COUNSELLORS



### CARIN VAN DER HOR

Carin is a social scientist with a diverse career. She began as a manager, progressed to become a trainer and coach, and is now a qualified and recognized confidential counsellor. Carin has extensive international experience and is fluent in both English and Dutch.

### ARE YOU STRUGGLING WITH SOMETHING? TALK ABOUT IT!

There is sometimes a perception that you can only approach a confidential counsellor with very serious issues or that it involves significant consequences. This is not the case! A confidential counsellor is always there to listen sympathetically, and nothing will happen without your consent. If you're unsure, just call or email. The sooner you talk about it, the quicker you can find a solution.

If you witness a unwanted behaviour or a conflict and don't know what to do, you can contact one of the confidential counsellors.



### JAN PIETER VAN DE KLASHORST

Jan Pieter brings 35 years of experience in coaching and advising and is a certified confidential advisor. Throughout his career as an organization and management consultant, he has witnessed the critical importance of a safe working environment. Jan Pieter is empathetic and calm, always listening carefully and discussing problems in a strictly confidential setting.

Everyone values a socially safe workplace, and at BOAL, we prioritize this as well. That's why we are pleased to offer you the opportunity to contact one of our confidential counsellors whenever necessary. Whether you have experienced bullying, discrimination, (sexual) harassment, aggression, or violence at work, our counsellors are here to help. If you're struggling with something and need to talk about it confidentially, don't hesitate to reach out.

### GET IN TOUCH!

CARIN VAN DER HOR & JAN PIETER VAN DE KLASHORST

TOGETHER WE CREATE A SOCIALLY SAFE WORK ENVIRONMENT

of capable candidates, with a particular focus on engaging individuals from traditionally under represented groups.

We place a strong emphasis on educating our team members about the value of diversity, ensuring they understand and respect the varied backgrounds and perspectives within our workforce.

By nurturing an environment of diversity and inclusion, we are not just creating a fairer workplace for everyone, but also laying the groundwork for greater corporate success. Our commitment extends to ongoing initiatives like Diversity & Inclusion programs and confidential counselling services, all of which support a secure and supportive work environment.

## 6.5 SUPPLY CHAIN RESPONSIBILITY ON WORKING CONDITIONS AND HUMAN RIGHTS

BOAL takes supply chain responsibility seriously and we are committed to ensuring that our suppliers and partners operate ethically and in compliance with all relevant laws and regulations.

BOAL is aware of the upcoming EU legislation in the field of supply chain responsibility (both Corporate Sustainability Reporting Directive (CSRD) and Corporate Sustainability Due Diligence Directive (CSDDD)) and is already at an advanced stage to comply with these.

We already have a Supplier Code of Conduct that details our expectations for working conditions, human rights, and environmental protection. If necessary, we will verify that our suppliers comply with this code. If improvements

at a supplier can be made, we will help them to improve their practices.

We also prioritize working with suppliers who are transparent about their working conditions and have robust policies to promote ethical behaviour. In addition, we encourage our suppliers to adopt sustainable business practices, such as reducing their carbon footprint and minimizing waste. By actively managing our supply chain in this way, we promote employee well-being and protect human rights, while also reducing our overall impact on the environment.

## **6.6. SUPPORTING OUR COMMUNITIES**

Supporting our communities is a fundamental aspect of our ESG strategy at BOAL. We believe that engaging with and contributing to our local communities and within our field of expertise not only strengthens societal bonds, it also enhances our corporate reputation and employee satis-

faction. This commitment is integral to our identity and values, fostering a positive impact that resonates beyond our immediate business operations.

A key component of our community support this year included sponsoring the local international youth soccer tournament. This initiative helped unite diverse community members and promote sportsmanship and wellness. Additionally, we supported a local lunchroom, which employs individuals with a distance to the labour market. This sponsorship not only helps integrate more people into the workforce, it also promotes inclusivity and diversity within our community.

Furthermore, we launched the BOAL Greenhouse University, an online educational initiative designed to share knowledge about the technical aspects of greenhouses and sustainability. This platform allows us to extend our expertise beyond

our immediate geographic location, helping to educate a global audience on sustainable practices and the technical advancements in greenhouse technology.

These actions reflect our dedication to supporting our communities both locally and globally. By aligning our community engagement activities with our core business values and expertise, we not only contribute to the development of sustainable communities but also ensure that our business remains a relevant and respected leader in our industry.

07.

# RESPONSIBLE CORPORATE GOVERNANCE

## 7.1 COMPLIANCE AND BUSINESS ETHICS

As we reflect on the recurring themes, that we have focused on in 2023, one aspect that stands out prominently is our unwavering commitment to compliance and business ethics. At BOAL, we understand that conducting business ethically is not only a legal obligation, it is also a moral imperative that underpins our entire operation.

Throughout the past year, we have remained dedicated in our adherence to all relevant laws and regulations, ensuring that every aspect of our business is conducted with integrity and transparency. Our strict code of conduct serves as a guiding light, governing competitive behavior and staunchly prohibiting any form of corruption.

Central to our approach are the comprehensive policies we provide to all employees on critical topics such as business ethics, anti-corruption, and diversity & inclusion. Actively highlighting

these topics empowers our workforce to make ethical decisions and fosters a culture of compliance from the ground up.

Moreover, we maintain a zero-tolerance policy for corruption in any form, affirming our commitment to taking decisive disciplinary action against any violations. We firmly believe that operating in an ethical and compliant manner safeguards our reputation and contributes to a more sustainable business environment.

Our anchor points serve as guiding principles, reminding us of the core values that underpin our business conduct worldwide. Integrity, safety, fairness, and transparency are not merely words but cornerstones of our corporate culture. We remain vigilant in avoiding conflicts of interest, fostering a workplace free of harassment, and promoting ethical conduct at every level of our organization.

Our robust whistle-blower policy further underscores our commitment to integrity, empowering employees and stakeholders to report suspected misconduct without fear of retaliation.

As proud members of the United Nations Global Compact, we are deeply committed to upholding the values and standards enshrined within this esteemed organization. Being a responsible corporate citizen is not merely a moral obligation, but a strategic imperative that aligns with our vision for sustainable growth.

Looking ahead, we remain steadfast in our dedication to upholding the highest standards of compliance and business ethics. By embedding these principles into every facet of our operation, we reaffirm our commitment to building a better, more sustainable future for all.

## 7.2 DATA AND INFORMATION SECURITY

Worldwide the issue of cybercrime is on the rise, BOAL's commitment to data and information security is therefore imperative. Where trust is a paramount part of doing business, we recognize the critical role that safeguarding sensitive data plays in upholding the confidence of our employees, customers, and stakeholders alike.

To fortify our data and information security governance, we have implemented a robust framework of measures designed to oppose potential threats. At the heart of this lies our proactive approach to awareness and compliance. Regular tests and audits serve as essential tools in ensuring that our systems remain resilient against emerging risks.

We do this for example through simulated phishing emails, we test and refine our team's ability to identify and mitigate potential threats. By

replicating real-world scenarios, we empower our workforce to bolster their defenses against cyber-attacks, thereby fortifying our collective resilience.

Furthermore, in accordance with legislative requirements, we have demonstrated our transparency and accountability by promptly reporting any data breaches. Our swift response and resolution underscore our dedication to mitigating risks and upholding the trust placed in us by our stakeholders.

Looking ahead, we are committed to continuously adapting and evolving to address emerging threats. By fostering a culture of vigilance, innovation, and collaboration, we are well-prepared to meet the challenges of tomorrow, while safeguarding the trust and confidence of all who depend on us.





08.  
**OUTLOOK**



## 8.1 ADVANCEMENT OF CURRENT ESG INITIATIVES

BOAL has effectively integrated ESG principles across a diverse array of projects within various material topic workstreams. This approach has proven successful in advancing our sustainability agenda.

Looking ahead, BOAL has established robust ESG objectives for the forthcoming year, reinforcing our dedication to sustainable practices. Our strategic focus areas include enhancing circularity, minimizing the environmental impact of our products, and improving energy efficiency—each vital for fostering a sustainable future.

In our pursuit of circularity, we plan to broaden our product line to include more options featuring recycled materials. This shift will not only diminish our environmental footprint but also bolster our contribution to a more sustainable world.

Moreover, our strategy to reduce our carbon footprint involves introducing a Low Carbon aluminum option within our extrusion services as well as our horticulture and solar solutions. Additionally, we are committed to increasing our use of self-generated renewable energy through solar panels and continuing to invest in energy-efficient technologies, such as advanced lighting systems and strategies to cut transportation emissions.

BOAL's ESG ambitions underscore our pledge to meet customer needs sustainably while contributing to a more eco-friendly future. By implementing these key topics, we aim to deliver benefits not only to the environment, but also to our customers, shareholders, and other stakeholders.

### Upcoming ESG initiatives

Over the past year, the deployment of our ESG

strategy has evolved into a dynamic process characterized by mutual complementarity, cross-fertilization, and continual refinement. With a growing sustainability culture deeply ingrained in our employees' daily activities and behaviors, we anticipate an increase in the number of new ESG initiatives. We are exploring opportunities in several key areas:

### Carbon footprint reduction / Energy efficiency:

Building on our existing measures to reduce the carbon footprint in the building, aluminum, and horticulture sectors, we will implement Environmental Product Documents (EPD's) for our aluminum profiles in order to offer enhanced transparency to our stakeholders. Furthermore we are exploring the options of Lifecycle analysis (LCA) to better understand where we can improve and make an impact to diminish the depletion of the earth. Preparations will be continued for the

future implementation of Aluminum Stewardship Initiative (ASI) and the Science Based targets initiative (SBTi).

**Product environmental impact:**

Our commitment to minimizing environmental impact includes prioritizing the use of sustainable and eco-friendly aluminum and embracing circular business models. This approach involves strengthening collaboration throughout the aluminum supply chain, increasing the use of recycled materials, designing products for easy repair, and implementing closed-loop systems.

We continue to expand with Energy Ports, the groundbreaking initiative that combines sustainable mobility and renewable energy generation. Through our energy ports, drivers can park their vehicles while solar panels installed on the canopy provide clean electricity. Additionally, rainwater collected from the canopy is harvested

and reused, further reducing our environmental footprint and promoting resource efficiency.

**Biodiversity protection:**

Protecting and preserving biodiversity is becoming an increasingly important topic on the global sustainability agenda. Controlled Environmental Agriculture (CEA) is set to boost agricultural output while reducing the footprint on arable land, thereby benefiting biodiversity. Additionally, the innovations from Holland Netting represent future-oriented solutions for sustainable crop protection in horticulture. We plan to intensify our focus on biodiversity in the coming years.

**Community engagement / Social responsibility:**

We remain committed to engaging with local communities and stakeholders to promote sustainable practices across our horticulture,

extrusion, and solar operations. Furthermore, BOAL will continue to support our local community by sponsoring events and activities that foster societal cohesion through sustainable practices.

