

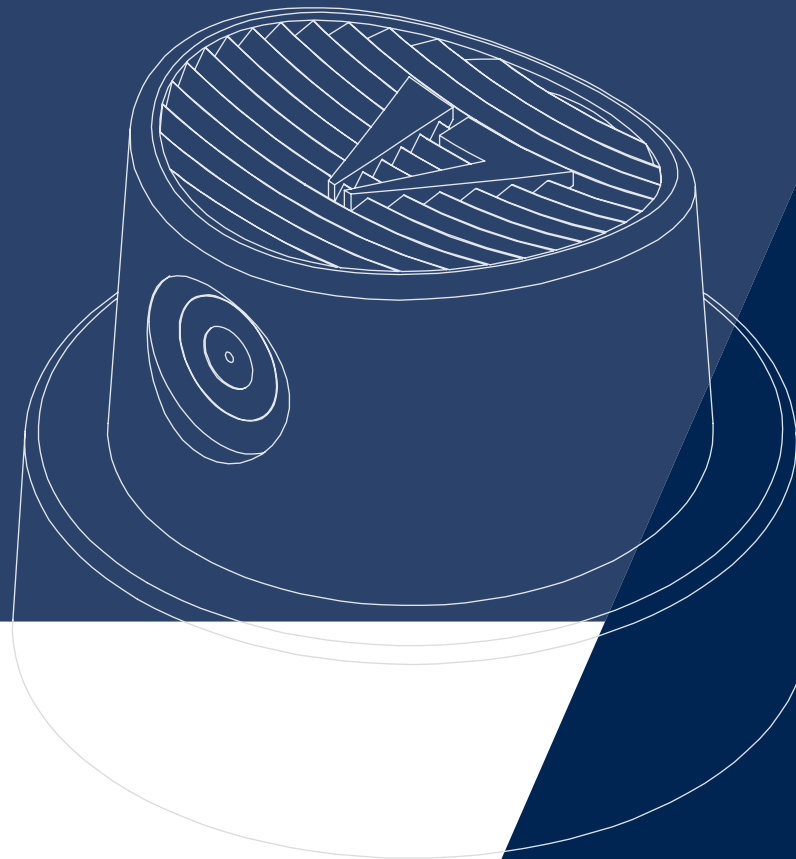
# SUSTAINABILITY REPORT 2023

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# INTRODUCTION

300 series Actuator – Designed for male and female valves and can be used for most aerosol applications





## A message from CEO François-Xavier Gilbert

I am happy to share with you LINDAL's 2023 Corporate Sustainability Report.

As a global organisation committed to shaping a sustainable future, the LINDAL Group acknowledges the profound challenges confronting our world. The important role we have in securing this future demands unwavering dedication. While we have already started our sustainability journey, this is our new report, which outlines LINDAL's core vision, mission and values and highlights the new partnerships, recent initiatives and the protocols we have adopted to realise our aims of furthering our commitment to sustainability.

Concluding a year of improvement, in 2023, we implemented a series of new KPIs and processes to further advance our sustainability goals and progress towards the targets set in our Sustainability Roadmap 2025. We took fundamental steps to build on our strategy across our operations and new product development processes, reshaping our global functions and consolidating our approach to compliance and sustainability.

It has been rewarding to see strategic relationships develop, and a succession of environmental and social initiatives progress across our global facilities. The LINDAL Executive Management Team remains committed to a more sustainable and equitable future for everyone within the company, our esteemed customers and our trusted business partners, and we look forward to exceeding our ambitions together as we continue our sustainability journey.

Recognising that our actions resonate beyond our organization, we commit to transparency, continuous improvement and collaboration with our stakeholders.

In the spirit of collective responsibility, we invite you to explore this report and join us on our journey towards a more sustainable future.

A stylized, white line-art signature of François-Xavier Gilbert on a dark blue background.

**François-Xavier Gilbert**  
Chief Executive Officer (CEO)



# COMPANY OVERVIEW & STRUCTURE

Blade Actuator – Designed for Shaving  
Gel and Foams



## Company Overview



**Family  
business**



**Headquarters  
in Germany**



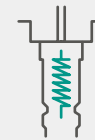
**1357  
employees**



**11  
manufacturing  
sites**



**2.8 billion  
actuators  
per year**



**3.6 billion  
valves  
per year**

# 2023

LINDAL Group was founded in 1959 and is today a global leader in aerosol packaging technology. We offer a broad range of standard and custom aerosol dispensing solutions and have become a partner of choice for many of the world's most prestigious, innovative and trusted brands.

Our comprehensive product portfolio offers quality packaging solutions for personal care, homecare, food, healthcare and technical market segments. Our decades of experience and expertise in aerosol dispensing technology, along with our in-depth understanding of the global

market, allow us to consistently deliver innovative solutions for increasingly complex projects and collaborations.

The LINDAL Group continues to invest and grow its manufacturing footprint and sales office network so we can offer customers exceptional service delivery. Originating in Germany, the Group has expanded its presence across Europe and in the Middle East with manufacturing sites and sales offices in France, the UK, Italy, Belgium, Spain, Switzerland, Ireland and Turkey.

In the Americas, our presence covers all key markets via our facilities in Argentina, North America, Mexico and our state-of-the-art facility in Brazil.

The advancement of our products and our geographical expansion reflect our solid and consistent sales growth, with personal care remaining our strongest market segment and Europe our largest sales region.

## Economic and financial performance

In recent years, LINDAL Group has demonstrated a robust financial trajectory, underpinning its commitment to sustainable growth. The company has maintained a steady increase in revenue, reflecting its strong market position and operational excellence. Having increased sales by 6.5% since 2011, 2023 represents another year of consistent financial growth with global sales reaching €386 million. Over the year, our 11 international manufacturing locations sold a total of 2.8 billion actuators and 3.6 billion valves. Geographically, Europe remains our largest area

with 55% of sales attributed to the region in 2023 signalling a 5% increase from the previous year. Latin America continues to be responsible for almost one third of global revenue, with the remainder assigned to our Asia Pacific and North America regions.

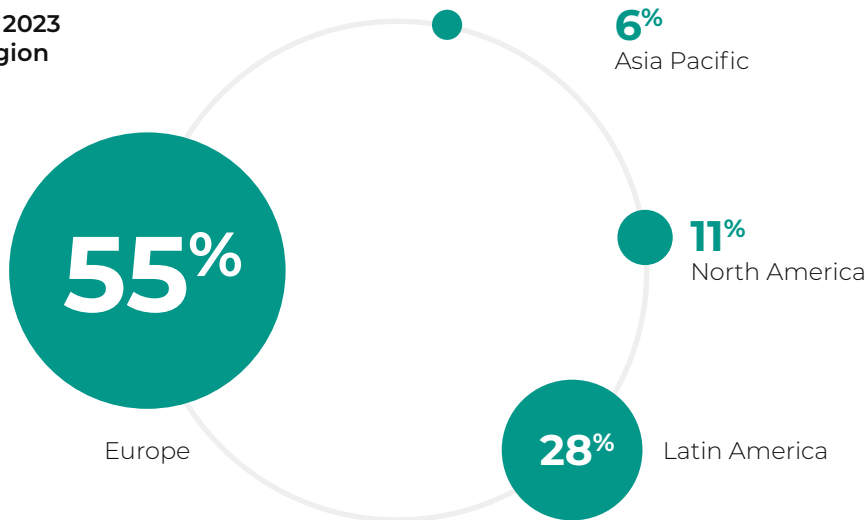
In terms of market segment, personal care again proved our strongest sector accounting for over half of global sales. Food, homecare and health care made up a collective 13%, while sales to the industrial and technical sector

↗ **+6,5%** Sales growth  
**€386 mio. in 2023**

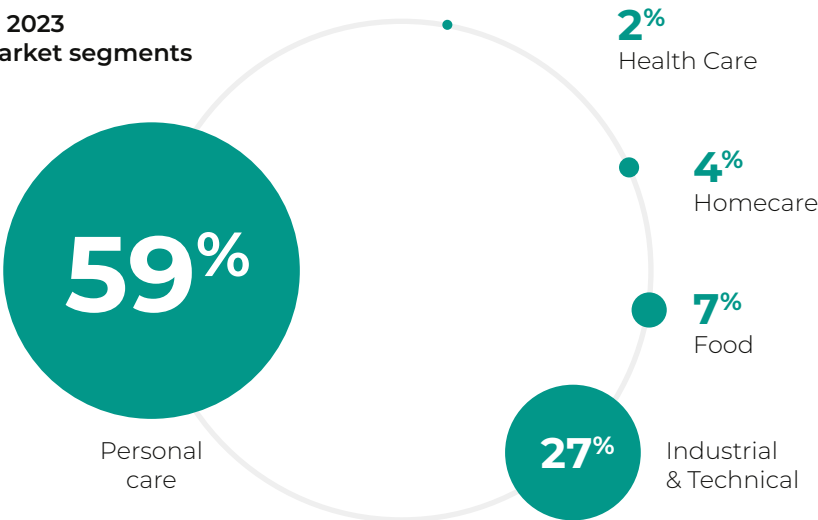
**€181 mio. in 2011**

accounted for close to one third. Despite the context of ongoing geopolitical, economic and supply chain uncertainty, our investments in strategic partnerships, production capabilities, administrative processes and product development helped secure solid financial results.

Sales 2023  
by region



Sales 2023  
by market segments



## Our Vision



Our vision is the guiding star we follow to continue to achieve sustainable growth. It inspires our organisation and gives direction in everything we do.

## Our Values

Our Corporate Values are the basis for all interactions with our stakeholders. They guide our decisions and actions, and reflect our beliefs and culture.



### Innovation

We foster a culture of innovation in pursuit of a sustainable competitive advantage.



### Trust

Our relationships with all our stakeholders are built on openness, mutual respect, trust and reliability.



### Courage

We act with agility, determination and an entrepreneurial mindset.



### Family

As an independent family-driven company, we take a long-term view reflected by our continued investment in the business.



## Our Missions

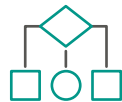
Our missions convey both the purpose our company pursues and the value proposition we offer to our stakeholders. They are:



To be a **Nurturing Employer** by creating a diverse, open and safe learning environment for our people with equal opportunities.



To be a **Sustainable Business** by creating long-term value for all our stakeholders through the foundations of sustainable business practices and principles.



To **Diversify our Business Portfolio** by expanding our offer of dispensing solutions, both organically and through targeted mergers and acquisitions.



To adopt **IT systems and practices** that support and enable efficient business development.



To excel in **Service Leadership** by delighting our customers with best-in-class quality and supply to establish our cost leadership position.



## Company Structure

The LINDAL Group comprises operational entities across the world, all forming part of a family-owned holding registered in Germany as the LINDAL Group Holding GmbH. It is represented by two Managing Directors:

- / François Xavier-Gilbert, as CEO and Harald Jessen, as CFO
- / The LINDAL Executive Management Team is composed of 7 members: the CEO, CFO, the Group Human Resources, Group Sales & Marketing, Group Information Technology, Group Supply Chain & Regional Operations and Group Technology Directors, in charge to execute and deliver the strategy set out by the Shareholders.
- / LINDAL's Executive Management Team meets every two months to review and discuss various matters and to make strategic decisions.
- / In 2023, two new Group positions were created to support our Sustainability & Compliance agenda: a Group Sustainability Manager, reporting directly to the CEO and a Group Compliance Officer, reporting directly to the CFO.

### Managing Directors

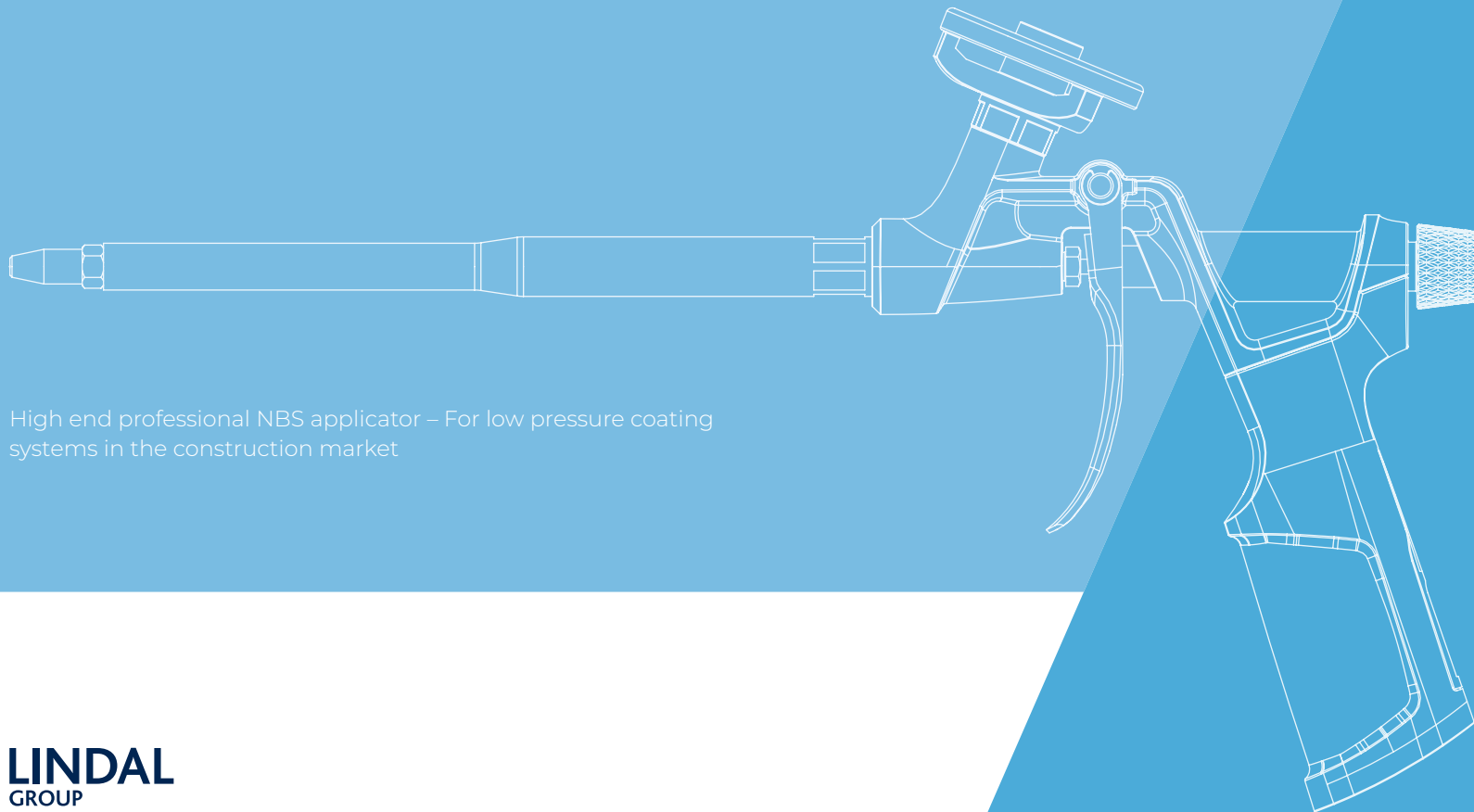


### Group Directors



**A woman-owned company** LINDAL is proud to be a woman-owned company. We are registered within WEConnect International, a global network linking women-owned businesses with international buyers, and with a vision to create a world where women have the same opportunities as men to design and implement business solutions.

# COMPLIANCE & CYBER RISK MANAGEMENT



High end professional NBS applicator – For low pressure coating systems in the construction market

## Business Compliance

LINDAL's compliance processes ensure conformity to all applicable laws, regulations, standards and guidelines set out by authorities and other governing bodies.

Compliance with the law, regulations and internal rules is a top priority for LINDAL and covers numerous areas, including business, finance, healthcare and government.

LINDAL's compliance procedures have been established to ensure our management teams, employees, as well as our business partners and suppliers act with integrity and with respect for the law at all times.

Non-compliance with relevant rules and regulations leads to legal consequences, fines, reputational damage and may even result in criminal charges. Therefore, LINDAL invests in compliance programs that include the implementation of policies, procedures, and training to ensure all employees and stakeholders are aware of, and follow all relevant rules and regulations. Compliance is a continual process with laws and regulations often changing. It's therefore important that we adapt to any new requirements to remain in good standing with authorities and regulatory bodies and to maintain trust with our customers and the wider public.

The key areas of compliance at LINDAL include:



### Regulatory Compliance

LINDAL's businesses adhere to the laws and regulations established by government authorities and regulatory bodies.



### Data Privacy Compliance

**/ GDPR (General Data Protection Regulation):** LINDAL complies with GDPR to protect an individual's personal data.

**/ CCPA (California Consumer Privacy Act):** Similar to GDPR, LINDAL complies with CCPA, a state statute that governs data privacy for California residents.



### Environmental Compliance

LINDAL follows all environmental laws and standards relating to pollution control, waste management, and sustainability.



### Employee Compliance

LINDAL adheres to labour laws, workplace safety regulations, and follows fair employment practices.



### Ethical Compliance

LINDAL has published its own Code of Conduct and ethical standards that all employees must follow to promote fair and responsible behaviour.

## Human Rights, non-discrimination, and zero tolerance on child or forced labour

Respecting human rights plays a crucial role in our Corporate Social Responsibility model.

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LINDAL does not tolerate threats or other forms of violence towards employees in the workplace. Child or forced labour, as any form of modern slavery or any work facilitated by human trafficking is not tolerated under any circumstances. This applies as much to our own companies as it does to our contractual partners and supply chains.

At LINDAL, we treat everyone with respect, and expect our employees to treat all colleagues, customers, suppliers, partners and other individuals with whom we work, with the same fairness, recognition and politeness. By doing so, we all protect the positive reputation of the company.



We firmly believe that a respectful environment leads to an encouraging and productive workplace culture. Any employee in our organisation who feels discriminated against can access a dedicated support hotline. This allows those affected to gain access to comprehensive support and resources, including sounding boards and expert advice.

## Association and Collective Bargaining

The LINDAL Group guarantees the right of its employees to be represented by Trade Unions or other representatives, and to enter into Collective Bargaining agreements in accordance with local regulations, without interference, discrimination or harassment. We also welcome constructive dialogue with any corresponding representatives.





## Whistleblowing

At LINDAL, it is our aim to promote legally compliant and ethical behaviour, and to prevent any violations contrary to laws or our Code of Conduct. In doing so, we provide an accessible and confidential Whistleblowing Procedure for employees to raise their concerns.

Our Whistleblowing Procedure provides guidance on the nature of what can be reported, including concerns on anti-competitive practices, environmental and ethical issues, discrimination and harassment, corruption and bribery and child or forced labour and human trafficking.

LINDAL provides confidential and anonymous reporting channels for those raising a complaint, including a dedicated Hotline and a dedicated Mailbox. Following submission, all reports are processed by an independent external reporting office in compliance with legal regulations and confidentiality. We also offer the option for those raising a concern to arrange a personal meeting with the reporting office.

All details within the Whistleblowing report are considered and processed by an independent external party, with status updates communicated via email, or through a dedicated login area where further dialogue on the concern can take place anonymously.

Throughout the process, LINDAL ensures confidentiality and anonymity of those raising a concern before, during, and after investigations, and guarantees their protection against any form of retaliation.

## Cybersecurity Risk Management

Cybersecurity is an integral part of LINDAL and sets the foundation for strong and secure business operations. Numerous initiatives to increase resilience within our IT and manufacturing environments to ensure stable operations, the reliable delivery of services and goods to our customers and data security have been implemented. These initiatives form four domains, including:



**We recognise its ongoing importance. We have placed a significant focus on the continued development of our cybersecurity posture with a broad set of improvement measures.”**

**Markus Huessmann**  
Group IT Director



Organisation



Protection



Detection



Response

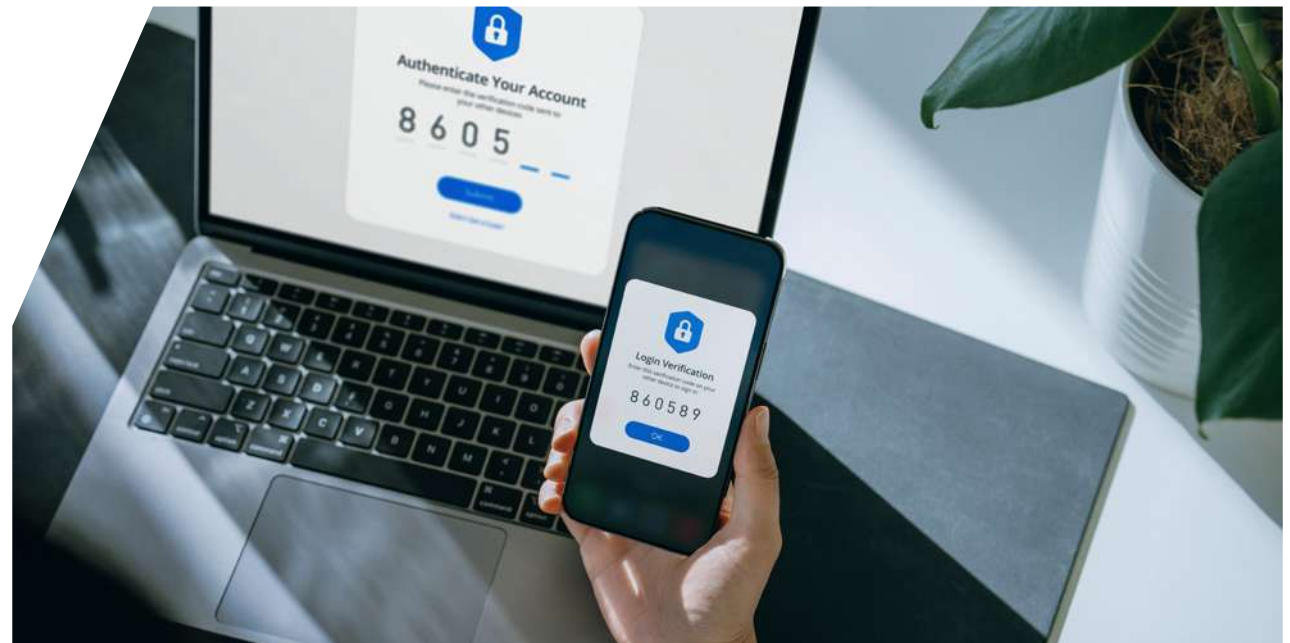
## Organisation

LINDAL has established a business-focused security organisation to provide an overall framework for implemented and planned cybersecurity initiatives.

To further increase readiness for a cyberattack, a Cyber Incident Coordination Team (CICT) drives the remediation of identified cybersecurity incidents, allowing for fast mitigation and remediation times, in alignment with global regularity and compliance requirements.

## Protection

LINDAL has deployed a strong protective layer to reduce the likelihood of cyberattacks occurring within the IT and manufacturing environment. This is built around the LINDAL-Cyber-Defence-Essentials (LCDE), a framework that forms a minimum baseline of security measures required on a global and local level. The framework allows LINDAL to establish a harmonised security defence layer across all organisational units while maintaining flexibility on adopted tools and technologies.



Awareness training for all members of the organisation has been implemented and is complemented with phishing simulations to monitor its effectiveness and sensitise end-users and administrators regarding this widely used attack vector.

In terms of technology, Multi-Factor-Authentication (MFA), enhanced Identity and Access Management (IAM), and End User Computing (EUC) security measures have also

been implemented. In addition, an advanced Endpoint Detection and Response (EDR) solution to proactively prevent threats on all monitored endpoints and servers has been deployed. This technology also supports efficient and threat-targeted monitoring within the Detect domain.



## Detection

LINDAL has implemented comprehensive and real-time monitoring for its overall infrastructure. To support the internal team, an external service provider has been onboarded to facilitate round-the-clock global monitoring in a follow-the-sun approach. To further strengthen detection capabilities, a comprehensive cyber-attack surface management has been established to detect potential vulnerabilities and to assess in-depth, specific critical infrastructure for IT and manufacturing.

## Response

To prepare for a potential cyberattack, we have executed various initiatives in preparation for potential response scenarios. In 2023, LINDAL's CICT conducted two table-top cyberattack crisis simulations, including attack vectors within IT and manufacturing, the loss of critical data, and the handling of internal and external stakeholder communication. To support the CICT in the handling of cybersecurity crises, especially with highly specialised forensic capabilities, we have onboarded an external partner as an incident and forensics retainer. This partner will support us in handling potential cyberattacks to limit the overall impact on the organisation.

## Training

As part of our commitment to strengthening the company cybersecurity posture, we have implemented comprehensive employee training programs to enhance awareness and response to evolving cyber threats. Leveraging the a robust training platform, all employees are trained on demand, staying informed about the latest cyberattacks, including Phishing, Ransomware, and Malware. This platform equips them with the knowledge to detect and respond to these types of attacks effectively. To further reinforce learning, we regularly conduct phishing simulations to test employees' ability to recognize and respond to real-life cyber threats.

Additionally, the Group CISO delivers interactive training sessions to engage employees and address specific security concerns. This year, our IT administrators received specialised training on critical cybersecurity topics. In addition, they participated in industry conferences and pursued professional certifications to stay ahead of emerging trends and sophisticated attack vectors. Our goal is to ensure that all employees are vigilant and equipped with the necessary tools to protect our organization from cyber threats.

# IMPACT & FINANCIAL MATERIALITY

ST580 Actuator – Light weight design  
for foam applications (f.e. hair mousse)

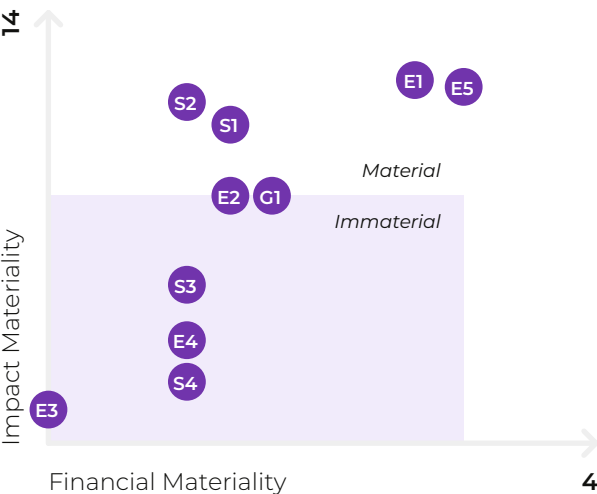




# Double Materiality Assessment

In preparation of the Corporate Sustainability Reporting Directive, LINDAL conducted its first Double Materiality Assessment (DMA) in partnership with a third-party consultancy. The outcomes of the DMA are not confined to reporting alone, they are a valuable framework we used to assess, examine and prioritise our sustainability matters of utmost significance to both the organisation and its stakeholders and help shaping the organisation's strategy, focusing resources on areas of highest relevance, and fostering informed decision-making.

Preliminary Double Materiality Matrix



Our assessment enabled us to identify the most significant sustainability matters within LINDAL through the lens of each of our diverse stakeholders. Through these different perspectives, we were able to understand how the business is affected by sustainability issues (financial materiality) and how our activities impact society and the environment (impact materiality), revealing the topics that matter most and how we can increasingly integrate them into our strategic decisions, goal setting and company culture. In line with the CSRD, following topics were assessed:

- E1 Climate Change
- E2 Pollution
- E3 Water and marine resources
- E4 Biodiversity and ecosystems
- E5 Circular economy
- S1 Own workforce
- S2 Workers in the value chain
- S3 Affected communities
- S4 Consumers and end-users
- G1 Business conduct

The results of our preliminary DMA is shown in the graph.

# Our approach

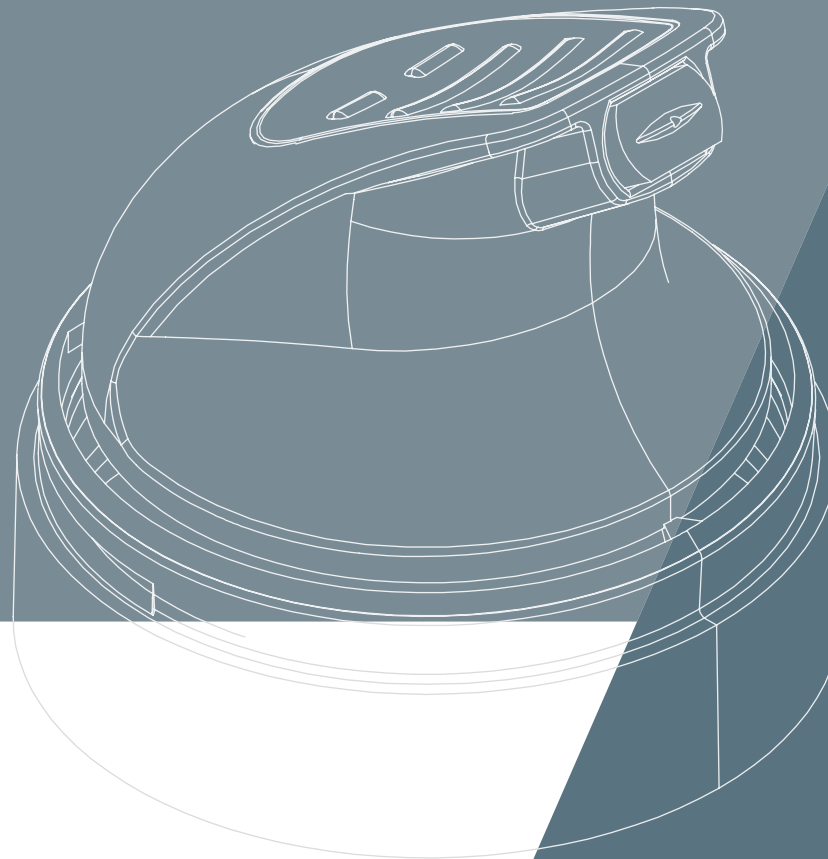
To identify our impact, risk and opportunities from an impact and financial perspective, we conducted three of multidisciplinary workshops on each individual sustainability topic with the Executive Management Team and department experts to gain internal alignment and to identify our key material topics. The significance of material matters was determined by assessing the severity, scope, remedy and likelihood of impacts and the magnitude and likelihood of the financial impacts.

To additionally integrate and understand external stakeholders' perspectives and representatives most relevant to our core business, we are going to conduct one-to-one interviews and surveys. This will allow us to engage directly, fully examine responses and conduct a comprehensive assessment on our key material topics with our clients, suppliers and finance institutions.

Following our first preliminary assessment, we will further refine our DMA process and methodology based on the regulatory requirements as well as available implementation guidance.

# OUR COMMITMENT

Olive Actuator – new generation  
actuator designed for edible oil  
application with soft touch membran



## Our Commitment

At LINDAL, we firmly believe that sustainability is a cornerstone of our business success and a vital responsibility we owe to our planet. Our commitment to sustainability is reflected in every aspect of our operations, from the design and manufacture of our products to their delivery and lifecycle management. We are dedicated to acting ethically and transparently in all our business dealings. This means being open about our sustainability efforts and progress, and continuously striving to improve our practices. We are committed to reducing our environmental footprint through the implementation of best practices in environmental management.

Our Sustainability roadmap outlines specific goals to be achieved by 2025:

- / A 25% reduction in CO<sub>2</sub> emissions for Scope 1 and 2 at LINDAL facilities.
- / Incorporating 25% PCR resin in our actuators.
- / Establishing and continuously developing a robust Sustainability Management System.

This includes:



### Reducing Waste

Minimising waste generation and promoting recycling and reuse.



### Conserving Water

Implementing measures to reduce water consumption across our facilities.



### Energy Efficiency

Enhancing energy efficiency and reducing energy use.



### Lowering CO<sub>2</sub> Emissions

Targeting significant reductions in CO<sub>2</sub> emissions and increasing the use of renewable energy sources.



### Product Responsibility

Our products are designed, manufactured, and delivered with a focus on safety, reliability, durability, and efficiency. We aim to create products that not only meet the needs of our customers but also contribute to a more sustainable future.

Besides working on achieving these goals, we are currently updating our sustainability targets and strategy for the upcoming years. Through these initiatives, LINDAL is committed to making a positive impact on the environment and fostering a culture of sustainability within our organisation. We believe that by taking these steps today, we can help build a more sustainable and prosperous future for generations to come.

## Sustainable Development Goals

The Sustainable Development Goals (SDGs), adopted by all United Nations Member States in 2015, represent a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030. These 17 interconnected goals are designed to be a “blueprint to achieve a better and more sustainable future for all.”

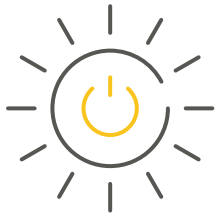
The LINDAL Group has identified the key SDGs that primarily reflect our material topics, commitment and the areas where we can make a meaningful contribution to sustainable growth. Our Sustainability Strategy sets objectives and targets to help mitigate the impact we have on the environment and people, join forces with our sustainability partners, and advance our positive contribution to the planet in line with the five specific SDGs we have identified:



### Good health and well-being

Ensure healthy lives and promote well-being for all, at all ages

3



### Affordable and clean energy

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

7

Sustainable Development Goals

9



Industry,  
innovation,  
and  
infrastructure

Build resilient infrastructure,  
promote sustainable  
industrialisation and foster  
innovation

12



Sustainable  
consumption  
and  
production

Ensure sustainable consumption  
and production patterns.  
Sustainable consumption and  
production is about promoting  
resource and energy

13



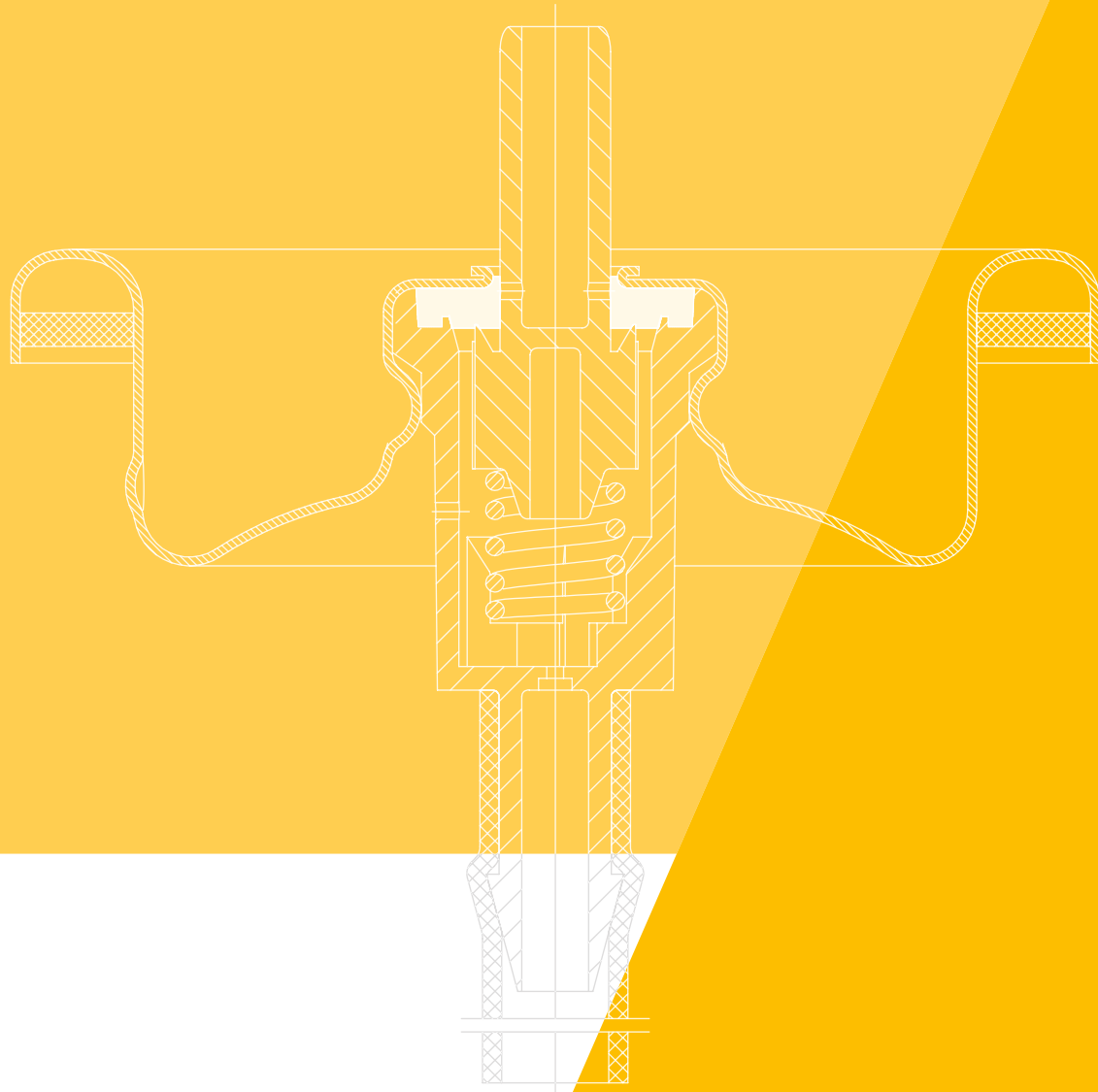
Climate  
action

Take urgent action to combat  
climate change and its impacts



# PEOPLE

LI Valve – Standard one-inch valve  
suitable for all aerosol market  
applications



## Employee-Centred People Management

The more we face a candidate-driven market, our view on what a Nurturing Employer is has changed significantly, along with the importance of Human Resources as the main driver of people-related changes.

Social trends such as a shortage of skilled labour due to a change in demographics or insufficient education, as well as the war for talent have contributed to a greater demand to invest in value-added Human Resources initiatives, reflecting our people value proposition.

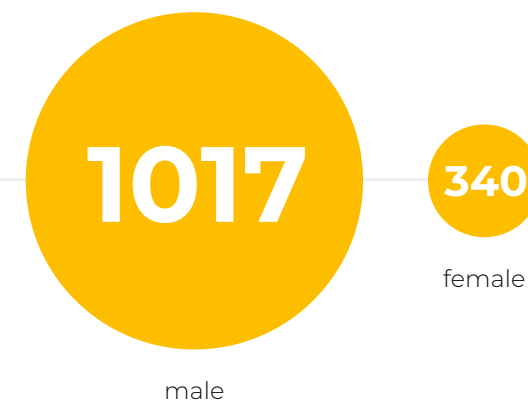
Following a newly implemented HR Business Partner organisation in 2022, in 2023, we are further developing a 'One LINDAL Mindset' in all our sites by defining global minimum standards

in core areas of people management such as: Annual 180° Feedback Meetings, On- and Off-Boarding Processes and HR Policies among others, to be fully implemented in 2024.

In order to set the right priorities, we have also designed an Employee Engagement Survey that covers all key areas of the LINDAL employee lifecycle. As of 2024, our workforce across hierarchies, departments and regions is asked how they perceive LINDAL as an employer. This is not only an opportunity to better understand our colleagues' needs but also to let them actively participate in changes that greatly impact their LINDAL lifetime.



**1,357**  
**EMPLOYEES**



## HR Digitalisation

The key elements of the LINDAL HR Digitalisation Strategy are to increase process harmonisation, efficiency and data protection.

In 2023, we implemented an HR Management System (Personio) in all LINDAL sites and in all LINDAL languages and completely digitalised the personnel files all of our 1357 employees. This not only removes the majority of manual and paper-based labour in HR, it also enables us to work with actual employee master data with the same standards and processes in recruitment, onboarding and HR Management.

First and foremost, this sets the highest possible data privacy standards when working with the sensitive personal data of our employees. The HR Management system will also provide a new path forward for us to monitor all our global HR programs, including organisational design and people development, employer branding and talent acquisition - all of which allow us to set measurable targets and KPIs for the future.



## Acquisition & Employer Branding



Another equally important strategic initiative is to position LINDAL as an attractive global employer through the promotion of our company and brand image.

Our new Center of Expertise for Talent Acquisition and Employer Branding has researched and analysed what is driving global talent to better understand the various markets we are operating in and to set up a talent strategy that meets our prospects' expectations.

Beginning in 2023, our applicants are offered tailored information on LINDAL as an employer via our 'Life at LINDAL' website, as well as the option to apply for jobs connected to our HR Management system. This provides us with a full overview of the global recruitment activities,

the lead time and the topics our applicants are interested in, as well as access to data that allows us to set clear targets and KPIs for further improvements.

Within the first 12 months, we were able to significantly decrease recruitment time (first contact to contract signature) and to manage the LINDAL talent pipeline globally. The online portal also means our employees have full visibility of all our open positions and the potential to take on development opportunities beyond legal entities. In addition, we have increased our people related social media presence across all channels such as LinkedIn, Glassdoor and Indeed to give all possible stakeholders more opportunities to learn about the social side of LINDAL and how we realise our mission to be a Nurturing Employer.

**Through our strategic efforts in Talent Acquisition and Employer Branding, we continuously improve our ability to attract global talent, keeping their experience with LINDAL at the center of everything we do.”**

**Tim Jessen**

Global Talent Acquisition & Employer Branding Manager

## Occupational Health & Safety

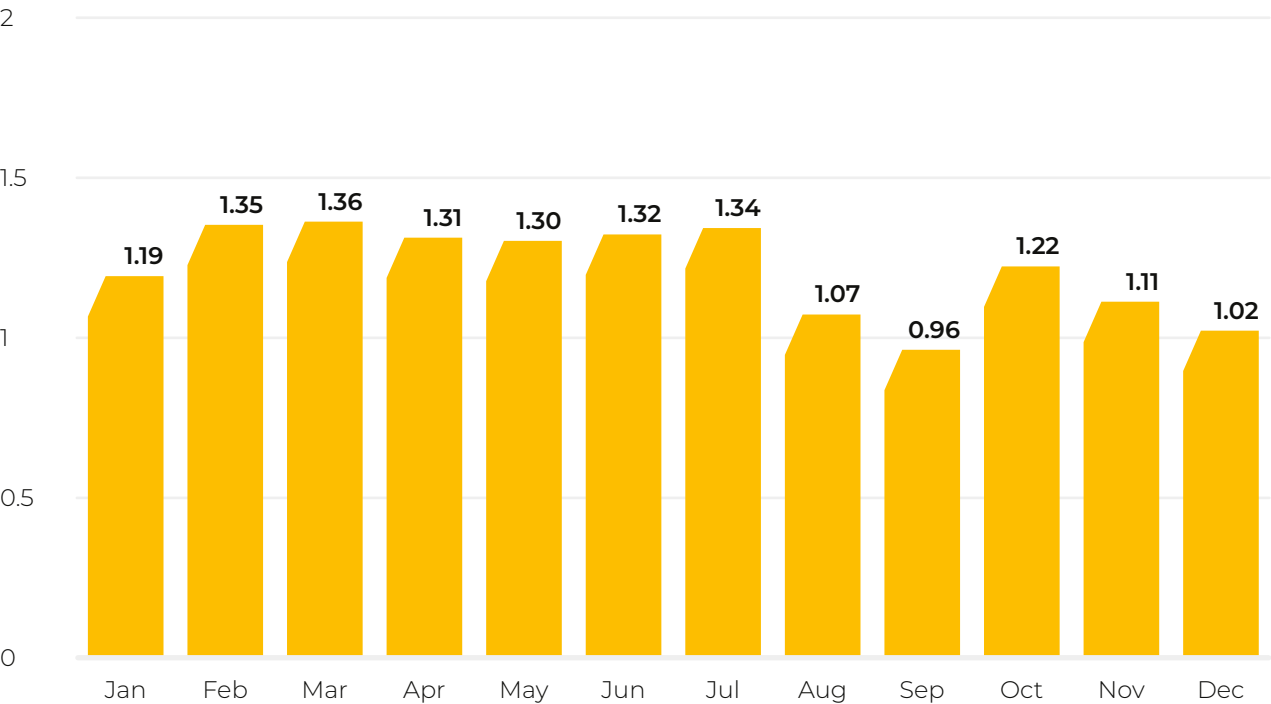
At LINDAL, we continually strive to create a strong health and safety culture and workplace for all our employees, contractors, and visitors. We are working towards zero-injuries by setting ambitious targets for continuous improvement and developing consistent safety practices and competencies at all levels. Our target by 2025 is to achieve a Total Recordable Incidents Rate (TRIR) of less than 0.5.

Several initiatives, like our Group Safety Day, Safety Incident Reporting, and our Safety Induction Program, have been implemented to ensure full participation from each of our employees. Today 70% of our sites are ISO 45001 Safety Management System certified and a global network of EHS professionals regularly monitor our Safety KPIs for each region, systematically reducing risks to build a healthy and safe workplace.

To monitor our safety progress, the company uses two key metrics:

- / Total Recordable Incidents Rate (TRIR)
- / Reported Safety risks and corrected actions

TRIR Group Score 2023



TRIR is the sum of all LTI (Lost Time Incidents) for LINDAL employees. It is calculated by total number of LTI multiplied by 200,000/total hours worked. Resulting in a number representative of per 100 employees.



## Our social commitment

LINDAL is committed to not only supporting a diversity of social initiatives and charitable causes, but to also supporting the health and well-being of our employees. This is demonstrated through activities such as the Altafit! Program at our Belgian facility, our bike leasing scheme in Germany and our Employee Assistance Program in the UK. In addition, we believe, that collaborating with universities and young people creates synergies and knowledge transfer opportunities that are key in developing and attracting a new generation of talent. As an example of this, our Brazil facility, in partnership with National Training Service, SENA, offers scholarships to students studying in technical fields.



### Altafit

The Altafit! program promotes and reinforces a healthier lifestyle for employees. With the support of external training company, Springbok Coaching, participants in the scheme are coached on aspects such as healthy eating and health

and safety. They also take part in mental health workshops and can have regular physical health checks. The partnership with Springbok means the entire team has access to long-term support to achieve their individual health goals.

## The Kom op tegen Kanker campaign

In 2024, two teams from LINDAL's Altachem facility in Belgium took part in the 1000 km Kom op tegen Kanker charity cycling race to raise funds for cancer research. One member of the team took on the extra challenge of cycling the full 1000 km distance unaccompanied, while another competed alongside fellow team mates. Both participants dedicated months of training and preparation work before competing, and received support from their fellow colleagues and a number of sponsors. This race proved a record edition, raising an overall total of €6.925.500 to help fund a variety of important scientific cancer research initiatives.



## LINDAL Global Hardship Fund

With the establishment of a Hardship Fund, LINDAL provides special support for employees who find themselves in an exceptional emergency/crisis. Exceptional hardship is deemed to exist if special social, personal or family reasons prevent an employee from temporarily carrying out their work at LINDAL and/or if the individual is experiencing an especially challenging hardship.

The fund is dedicated to employees who have become a victim of e.g.:

- / Serious illness/accident of their own or of a close relative they live in one household with
- / Domestic abuse
- / Destruction of their apartment/house due to a natural disaster
- / Extraordinary financial crisis.

It will also apply to any kind of crisis which hits a country where LINDAL operates. This could be an earthquake, flood, fire, storm. In these cases, local HR and the local Management Team will draft a proposal on how LINDAL can support the victims and send this to the chairperson of the Hardship Fund Committee for review.



## LdB Student Program Brazil

Starting in September 2023, LINDAL has been offering three annual scholarships to students in technical fields through a partnership with SENAI, the largest private network in Latin America dedicated to industry-focused technical and vocational education, technological support, and innovation. This 2-year program is designed to attract local young talent to various industry sectors. Throughout the program, students gain practical experience by working at a LINDAL plant. This initiative helps us strengthen our talent pipeline in a competitive labor market.



In this cycle of our apprenticeship program, we introduced a special integration. Alongside a comprehensive onboarding for our apprentices, we invited their families to join the first day of the company's presentation. This initiative aims to build stronger bonds and allow family members to learn more about the work environment and the opportunities we offer.

This program not only enhances our talent pipeline but also significantly boosts community engagement. By involving families and providing local students with valuable opportunities, we foster a stronger connection with the community, demonstrating our commitment to their growth and development.

**One LINDAL · Many Colours**



**We embrace diversity!**



## Anti-Racism initiative

LINDAL believes in the power of unity through diversity. Our Anti-Racism campaign, “One LINDAL: Many Colours,” is an initiative that celebrates and embraces the different cultures, backgrounds, and perspectives that make up our community. Through this campaign, we aim to promote inclusivity by ensuring every individual feels valued and respected, regardless

of their race or background. We also strive to raise awareness by educating our employees about the importance of diversity and the detrimental effects of racism. Additionally, we seek to foster unity by encouraging collaboration and understanding among all members of our community.

## LINDAL Academy

As part of our ongoing commitment to sustainability and continuous improvement, we are proud to introduce the LINDAL Academy. This innovative training platform is designed to enhance the skills and knowledge of our workforce. The LINDAL Academy will be initially

launched at our Brazilian factory, setting the stage for a broader rollout across our global operations. At the heart of the LINDAL Academy is our commitment to employee development and our belief, that investing in our employees’ growth is essential for achieving our sustainability goals.



# PLANET

Tony Actuator – Designed with  
bi-material components for homecare  
and personal care applications



## Environment

LINDAL is deeply committed to environmental sustainability and the responsible stewardship of our planet's resources. Our approach is rooted in the belief that sustainable practices are not only essential for the health of our environment, but also for the long-term success and resilience of our business.

Our environmental sustainability initiatives focus on reducing our carbon footprint, enhancing energy efficiency, and promoting the use of renewable energy sources. We aim to minimise our environmental impact while maximising our positive contributions to the communities we serve.



## Energy Consumption

Monitoring and managing our energy consumption is part of our commitment to sustainability. Our approach to energy management is comprehensive, focusing on both reducing overall consumption and optimising the efficiency of our energy use.

Total Energy Consumption

**54.920 MWh**

**2023**



# Energy Consumption

Over the past year, several initiatives have been undertaken to reduce our energy footprint.

These initiatives have not only contributed to our energy efficiency but have also enhanced our operational efficiency and reduced costs. We are proud of the progress we have made and are committed to continuing our efforts to reduce our energy consumption in the future.

Key measures include:



### Upgrading Equipment

Investing in state-of-the-art, energy-efficient electrical moulding machinery reduced our energy usage while maintaining high production standards.



### Process Optimisation

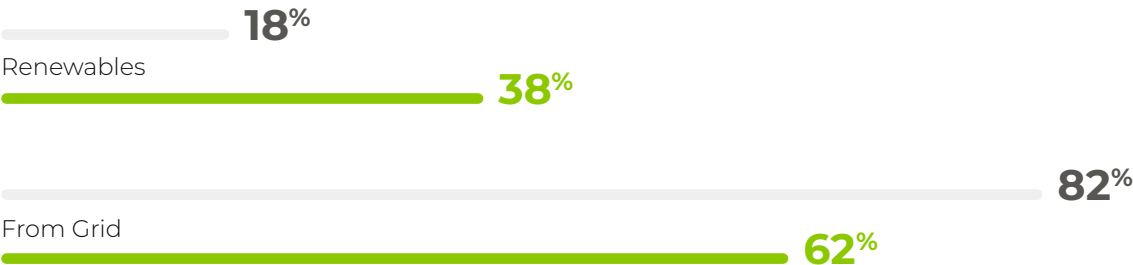
By adopting smarter automation technologies to streamline our assembly lines, energy waste was minimised and overall efficiency improved.



### Renewable Energy

We are increasingly incorporating renewable energy sources into our operations, further reducing our reliance on non-renewable energy, through a combination of on-site production, such as solar panels at LINDAL Fischer, and the direct purchase of biogas or green power from the grid. In 2023, renewable energy sources accounted for 38% of our total energy consumption. This marks a significant improvement from the previous year's usage of 18% renewable energy of total energy consumption.

## Total Energy Consumption



● 2022   ● 2023

# Carbon emissions

By adopting the Greenhouse Gas Protocol standards for carbon accounting, we identify, capture, report and manage our carbon emissions. All our manufacturing sites and offices are included in our carbon accounting, except our joint venture RxPack S.r.l., due to the lack of influence.

/ Scope 1 Emissions

These are direct emissions from sources that are owned or controlled by LINDAL. In 2023, our Scope 1 emissions amounted to **1937 tons CO<sub>2</sub>e**. This includes emissions from our manufacturing processes, company vehicles, and other on-site activities.

/ Scope 2 Emissions

These are indirect emissions from the generation of purchased energy. These emissions are reported using two different methods:

/ **Market-Based Method:** This method considers the specific energy contracts and sources we purchase. Our market-based Scope 2 emissions for 2023 were **10185 tons CO<sub>2</sub>e**.

/ **Location-Based Method:** This method reflects the average emissions intensity of the grids where our energy consumption occurs. Our location-based Scope 2 emissions for 2023 were **15872 tons CO<sub>2</sub>e**.

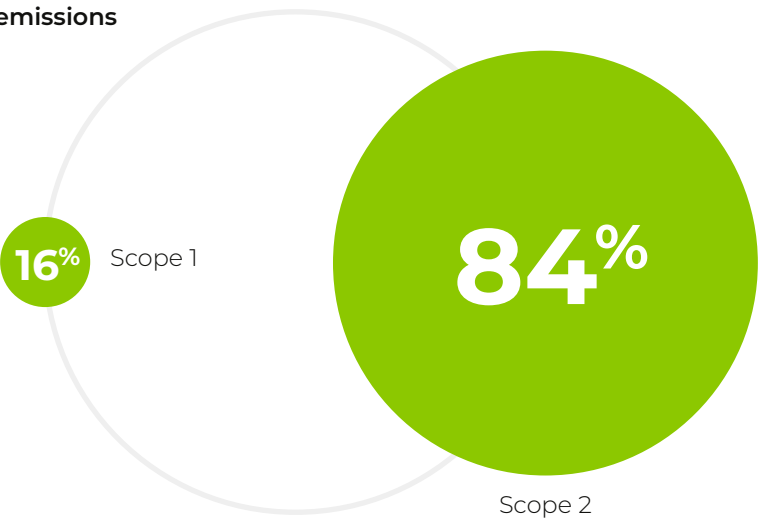
/ Scope 3 Emissions

These are all other indirect emissions that occur in our value chain. This includes emissions from activities such as business travel, waste disposal, and the production of purchased goods and services. At the time of publishing this report, we are in the process of calculating our Scope 3 emissions for the first time. This initial calculation is a significant step in our sustainability journey as it will provide us with a comprehensive understanding of the indirect emissions across our entire value chain.

By establishing a baseline, we aim to identify key areas for improvement and develop effective strategies to reduce our overall environmental impact.

Total Carbon emissions 2023 (tons CO <sub>2</sub> e)		
Scope 1	Scope 2 market-based	Scope 2 location-based
1937	10185	15872

Total Carbon emissions  
(tons of CO<sub>2</sub>e)



## Water Consumption

Water is not essential for LINDAL's core manufacturing processes. It is primarily used for cooling injection moulding machines, circulating in a closed-loop system, and for domestic purposes across our facilities. Each facility's water disposal systems comply with all local legal requirements, avoiding the use of chemicals and hazardous substances during the disposal process and sourcing water from public suppliers.

Nevertheless, water is a critical resource to the environment and local communities. Therefore, we are committed to responsible water management practices and aim to minimise our water usage as much as possible. We monitor the entire group's water consumption annually to raise awareness among our employees, encouraging conscious use to further save water.



2023

Total Water Consumption

22.165 m<sup>3</sup>



## Waste Management

LINDAL is committed to sustainable waste management practices that minimise the environmental impact of our operations and by aligning and complying with all relevant local and international regulations, such as the EU Directive 94-62 on packaging waste, we strive to further

reduce waste and enhance our recycling efforts. To ensure continuous improvement, our waste management performance is monitored annually. This helps us track progress, identify areas for improvement, and set new targets for waste reduction.

7441 tons



Total Group Waste 2023

6413 tons



Recycling

796 tons



Hazardous Waste

259 tons



Landfill





## LINDAL's Litec Plant Joins the All-Ireland Pollinator Plan

The All-Ireland Pollinator Plan is a collaborative framework that unites various sectors across Ireland to create an environment where pollinators can thrive. Coordinated by the National Biodiversity Data Centre, this initiative aims to address the alarming decline in pollinator populations, particularly wild bees, by increasing the availability of food and safe nesting sites.

One-third of Ireland's wild bee species are currently threatened with extinction. This decline is primarily due to the significant reduction in food sources and safe nesting habitats. The

All-Ireland Pollinator Plan is a collective action plan designed to reverse this trend and restore pollinator populations to healthy levels.

By joining the All-Ireland Pollinator Plan, LINDAL's Litec plant in Ireland is taking a proactive step towards environmental sustainability. This commitment not only supports the conservation of vital pollinator species but also enhances biodiversity and promotes a healthier ecosystem. Through this initiative, Litec is contributing to a shared vision of a sustainable future where pollinators can flourish.

## Installation of solar panels at LINDAL Fischer

The solar panel installation at LINDAL Fischer in 2023 demonstrates our commitment to sustainability and renewable energy. The plant utilization rate stands at 87,1%, showcasing the high efficiency of the solar panels. In terms of energy generation, part of the energy is consumed on-site and the remaining energy is fed back into the grid, contributing to the broader energy supply. From an environmental perspective, our solar panels significantly reduce

carbon emissions, avoiding 121,33 kg of CO<sub>2</sub> per year. Additionally, the system achieves a degree of self-sufficiency of 47,4%, highlighting its role in reducing reliance on external energy sources. Overall, LINDAL Fischer's solar panel system not only enhances energy efficiency but also contributes positively to environmental sustainability by reducing carbon emissions and promoting renewable energy use.

## LINDAL México Reforestation Campaign

In September 2023, LINDAL México facilitated a reforestation initiative to support the regeneration of tree cover. The facility invited employees and their family and friends to get involved in the project where 60 tree seedlings, donated by the Government of the State of Mexico, were planted in Lerma. Following the reforestation activities, volunteers gathered to share food and fun activities together. In acknowledgement of their participation in the environmental campaign, LINDAL México received recognition from the government.



## Setting sustainability standards at our Brazil facility

Following its opening in 2022, our Brazil facility became the first industrial building in the country to receive EDGE certification from the Green Business Certification Inc. The certification acknowledges excellence in green business performance and practice on a global level, and recognises the facility's resource-efficient build and continuous carbon neutral-efforts.

During the facility's construction, energy, materials and water usage were minimised, and ongoing sustainability measures have been implemented since. These include the adoption of a rainwater harvesting system to capture rainfall from the building's surfaces and use to maintain the site's garden areas. Solar panels to heat water for locker room showers, plus prismatic polycarbonate skylights to maxi-

mise light in production and warehouse spaces were also installed to reduce long-term energy consumption. In addition, the facility generates zero-waste-landfill, and all food waste produced at the plant is transformed into fertiliser and used to sustain outdoor spaces.





## Altachem Factory of the Future Award

In 2023, LINDAL's high delivery valve and gun manufacturing specialists, Altachem, was awarded Factory of the Future status. Organised by AGORIA and SIRRIIS, the award recognises factories that use advanced and future-focussed digital technologies to implement sustainable processes.

**The award recognises the innovative processes that have been implemented in our factory over the last few years. It also gives credit to the hard work that our team puts in everyday to provide our customers with the best service possible."**

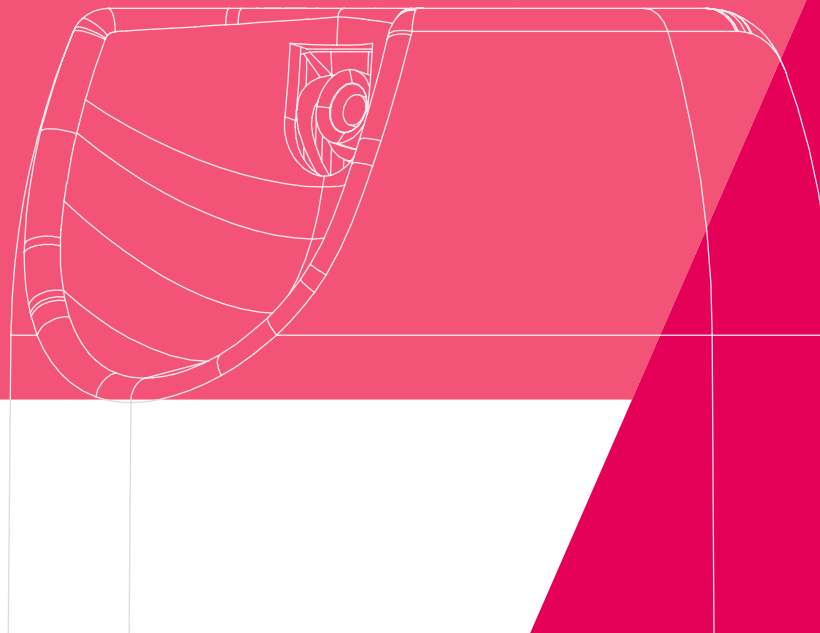
**Jean-Marie Poppe**  
Managing Director of Altachem

The specific areas acknowledged were the factory's:

- / Ongoing investment in high-tech assembly lines for reliable production
- / Long-term adoption of ERP systems to manage process efficiently
- / Introduction of robustised logistics, including AGVs (Automatic Guided Vehicles) to advance internal proficiencies
- / Operation of a paperless environment on the shopfloor
- / Maximising of machine efficiency to reduce scrap rates and improve Planned Preventative Maintenance (PPM)
- / Close work with universities to gain greater knowledge on sophisticated and complex technology
- / R&D work and the adoption of simulations to generate time and materials savings
- / In-depth reviews on material use in product design and packaging development stages
- / Approach on only developing new products if they can reduce the use of raw materials, improve performance and optimise cost for customers
- / Use of high-speed assembly lines to reduce lead times and inventory levels.

# PRODUCT

Shark Actuator – Modular actuator suitable for different can sizes for homecare and technical application



## Our Portfolio

### Actuators



### Valves



### Barrier packs



For over 60 years, LINDAL has been designing and producing a range of aerosol dispensing systems including valves, actuators, barrier packs, guns and accessories for our customers in personal care, homecare, technical & industrial and food market segments.

/ 54 types of actuators

/ 20 types of Valves

/ 16 different PU and caulking guns

/ 6 different barrier pack solutions, including Bag-on-Valve, Bag-and-Bag, Bag-on-Collar and LinRoc solutions

/ Dispensing accessories

/ Machine tools and equipment.

## Innovation

Innovation is one of our core values and a key driver behind our product innovations. Our ISO 9001 accredited R&D hub for new product development, Global Innovation Centre in France, plays an integral role in addressing product sustainability challenges and on our product innovation work as a whole.

From design, spray performance, lab testing and industrial solutions, the GIC team uses its comprehensive expertise to build and improve new and re-packaging solutions for increasingly complex projects. Together with our Germany-based in-house machine manufacturing technology company, Leonhard Fischer, customers are supported from ideation and concept creation stages of new product development and proof of principle, through to the innovation and development cycle and into rapid prototyping and high-volume manufacture and supply. Leonhard Fischer is involved in the early stages of the product development cycle to ensure valuable insights are integrated into the product design process.





## Innovation Capabilities

### Design expertise

Our R&D team not only looks at materials suitable for recycling but also the influence of design on sustainability. To enable more effective PET aerosol recycling, our research teams investigate the concept of a full plastic valve, eliminating the use of a metal component, and helping streamline aerosol recycling processes.

### Digital design

Our new products, whether valves or spray caps, are designed using as little material as possible, while retaining their aesthetic and technical characteristics. CAD software and digital simulation tools assess the sustainability value of a product and help create models that minimise material waste.

### Rapid prototyping

To determine and test product efficacy, durability and establish material requirements, our R&D teams utilise rapid prototyping technology, including Stereolithography 3D printing and high-precision component machining. Product functionality, formulation compatibility and long-term stability testing are performed at our in-house low cavity production tool workshop.

### Lab testing equipment

Our GIC laboratory has the capability to perform can filling using nitrogen, compressed air and CO<sub>2</sub> in the same conditions as industrial machines. Trials can then be performed to validate new valve design.

### Educating future generations

Our innovation team understands the importance of sharing its knowledge and the impact its expertise can have on the future of sustainability. Partnerships with the CNRS and INSA Strasbourg and universities from Nancy and Metz in France, shows our commitment to share knowledge and create synergies.

## LINDAL's 4-Pillar product strategy

Alongside our research and development work, we aim to meet our sustainability targets with innovative solutions that draw on the principles of replace, reduce, reuse, and recycle.



**Replace** – replace conventional materials and substances with sustainable alternatives

LINDAL is working towards the replacement of harmful substances inherent in aerosol packaging. Where feasible, alternatives like bio-sourced materials, PCR resin and compressed air can replace conventional materials used within our product portfolio that may have an adverse impact on the environment. We develop complete solutions using compressed gas, designed for dispensing low VOC water-based product mist, and to provide consumers with an enjoyable experience.



**Reduce** – develop light-weight, eco-designed dispensing solutions

LINDAL develops valve technology suitable for concentrated aerosols, with reduced LPG and solvent volume. We are also working continuously on lightweight actuators and valve solutions to decrease the use of raw materials and reduce plastic waste. By using finite element analysis during product engineering, the performance of the final product can be achieved with minimal material use. In compliance with the EU Packaging and Packaging Waste Directive, we are also developing lockable capless actuators.



**Reuse** – investigate alternative refillable solutions

Reusable aerosol dispensing solutions are being developed with exploration into alternative refillable solutions, including the concept of a refillable BOV aerosol package that can be reused multiple times. We are working on the development of a new refillable spray technology based on alternative pressurising devices instead of using a gas as a propellant to deliver an aerosol-like spray performance. This new solution can also be made with PCR material, reducing the environmental impact of virgin plastic.



**Recycle** – develop dispensing systems to improve the recyclability of the aerosol package

The majority of aerosol cans are currently produced from recycled tinplate or aluminium. To further address the challenge of plastic recycling, we are working on the development of a fully plastic aerosol valve. This single material valve would enable plastic aerosols to be recycled within the existing plastic recycling streams, where plastic water bottles are also recycled. As part of LINDAL's Design for Recycling strategy, we are also developing mono-material actuators with inserts.



## Sustainable product development

### Preparing for PCR demand

By offering a product portfolio made of recycled plastic materials, or Post-Consumer Recycled (PCR) material, LINDAL is anticipating higher demand.

Launched in 2018, LINDAL's Mini Engine Platform enables a PCR material usage up to 95%, without any contact between the recycled material and the formulation. The technology separates a standard one-piece actuator into two parts; an outer body made from 100% post-consumer resin and an internal 'Mini Engine' designed for optimum spray performance. In order to integrate the Mini Engine platform, machine equipment is reduced and existing assembly lines customised, resulting in lower energy consumption.

From a regulatory perspective, our dedicated post-consumer recycled (PCR) project team is committed to meeting future regulatory requirements. Our compliance strategy regarding per- and polyfluoroalkyls (PFAS) is a top priority to ensure products comply with future applicable legislation.

To reach our target of having at least 25% PCR resins in our actuators by 2025, we continually validate new PCR resin sources in our production facilities with the aim of reducing virgin material use, making a positive environmental impact and meeting future regulatory requirements. We are therefore not only focusing on PCR resin, but also exploring and testing other recycled plastic types material. In Europe, two grades are already qualified and in use, while in Latin America, we have Post-Industrial-Recycled (PIR) resin qualified and in use. The biggest challenge in introducing PCR/PIR material is the material availability worldwide and the technical properties, which differ to virgin material. Despite this, we continue to work towards offering our customers PCR products by 2025.



## Sustainable product development

### Supporting the future of compressed gas solutions

It is anticipated that concentrated aerosols and compressed air aerosols will become increasingly popular with consumers. LINDAL has developed and continues to develop new solutions to help improve the spray performance for those aerosol technologies.

LINDAL has already developed several successful compressed air solutions with the aim of replacing LPG. In replacing, when and where possible, potentially harmful substances with more environmentally-friendly ones, we have various solutions that are compatible with compressed gas-based aerosols.

### LINDAL's compressed air solutions

Our Enhanced Mist Technology (EMT), is an insert platform designed to provide optimum spray performance when used with compressed gas for water spray applications. EMT is operational with compressed air, as well as dip tube valves or Bag-on-valve systems. It also achieves a better spray performance with water-based products, reducing Volatile Organic Compounds (VOCs) and improving indoor air quality.

Based on the technology, work is underway on the development of new inserts that comprise of orifices with a small diameter in order to reduce flow rates and particle size. Within the new design, there is potential to replace Polyoxymethylene (POM) with Polypropylene (PP) and maintain, or even increase the retention of the actuator compared to the current design.

LINDAL's Turbo Valve is designed to produce a precise combination of compressed air and formulation to achieve optimum spray qualities. It comprises a two-way valve and insert which together allow for the mixing of compressed air contained in the can with liquid formulation. The two-way valve has been designed with a special feature to allow a precise compressed gas supply, while ensuring a correct restitution rate.

### Advancing Bag-on-Valve technology

Bag-On-Valve technology is a successful and established aerosol technology at LINDAL. As a more environmentally sustainable alternative to hydrocarbon-based dispensing systems, BOV can be used with liquids of varying viscosity. An active ingredient is filled into a sealed bag inside an aerosol can, while the propellant is on the outside of the bag. When the actuator is activated, the compressed air forces the product out of the pack evenly and with a 96-98% evaluation rate. This means that products can be used in their purest form as they are separate from the propellant. The technology addresses the issue of VOCs because it uses compressed air or nitrogen which does not produce VOCs, unlike LPG which contributes towards indoor and outdoor air pollution. Not only this, but the evacuation rate also helps reduce wasted product for the consumer.



*Bag-on-Valve Technology*

## Sustainable product development

### LINDAL's Bag-on-Bag (BAB) technology

A further enhancement of LINDAL's BOV technology is Bag-and-Bag (BAB) technology.

Incorporating traditional BOV features, BAB allows two separate formulations of varying viscosity to be dispensed from the same pack. Both products are separated from the propellant or compressed gas within the can, and can be mixed during dispensing with precise custom ratios. Packaging two products into one solution reduces the need for materials such as cardboard, plastic and aluminium.

Like BOV, BAB uses a pressurised packaging system with not one, but two sealed bags inside the can, allowing it to dispense two incompatible formulations simultaneously and from the same pack.

BAB has proven effective for hair colour or wound wash packaging solutions. LINDAL's patented BAB technology won the FEA Packaging Element Design award at the Global Aerosol Awards 2020. It was also utilised in foaming wound cleaner, HemaScrub™ which was recognised in the BAMA New Aerosol of the Year category in 2021.



*Bag-on-Bag Technology  
and twistMist™*

### Refillable solutions

Developed in collaboration with Alternative Packaging Solutions, twistMist™ is a refillable dispensing solution that uses non-harmful propellants and is powered using a simple twist motion. It functions at any angle and orientation, allowing consumers to spray hard-to-reach areas, and its spray head is designed for a minimum of six reuse cycles.

### Material reduction

Based on our Carla standard spray cap, a new capless, lightweight twist-lock actuator, LUNA made from mono material is also in development. The mono material helps promote simpler recycling and the small window at the rear of the diffuser which displays when the system is on or off, presents a new communication dynamic for users. The actuator is also compliant with new regulations.

## Regulatory Product Compliance

At LINDAL, we prioritise regulatory compliance for all our products. Our regulatory affairs department follows all product-related regulations meticulously. Collaborating with our PCR project team, we ensure our product range is both compliant and sustainable. Ensuring our products comply with future regulations on per- and polyfluoroalkyl substances (PFAS) is one of our highest priorities.

### A Strong Global Network

Each LINDAL location has a designated regulatory representative to support and address various regulatory and technical queries. Additionally, many of our employees stay informed on global product sustainability issues through their memberships in international trade associations.



These memberships cover the following regions:

- / United Kingdom (BAMA)
- / France (CFA)
- / Germany (IGA)
- / Belgium (DETIC)
- / Brazil (ABAS), Mexico (IMAAC)
- / Italy (AIA), Belgium (DETIC)
- / Spain (AEDA)
- / China (CPF)
- / Switzerland (ASA)
- / Argentina (CADEA)
- / Turkey (ASAD)
- / Europe (FEA)
- / United States (HCPA)

## Regulatory Product Compliance



### In-house training

Every LINDAL employee has access to comprehensive internal training programs on chemical, food contact, and product compliance. Our in-house regulatory consulting service is available to all departments, including R&D, customer service, sales, and technical departments, to maintain the highest degree of compliance and anticipate future regulations.

**Adhering to regulations is critical in ensuring product safety. All regulations are followed stringently at LINDAL and we remain committed to further extending our compliance capabilities.”**

**Manon Pascal**

Regulatory Affairs Manager, LINDAL

### Sharing Regulatory Compliance Information

- / Our internal SharePoint platform provides access to training, regulatory literature, newsletters, and company compliance documents.
- / An internal centralised database allows us to monitor LINDAL regulatory compliance data and updates.
- / Our global regulatory watch ensures we adhere to regulatory changes in real-time.
- / An internal monthly newsletter shares the latest regulatory updates.

### The Future of Regulatory Affairs

Our goal is to enhance our regulatory compliance capabilities by developing a software that stores regulatory data linked to our product portfolio and automatically generates compliance declarations. Our increased engagement and active participation with global aerosol associations and committees contribute positively to the aerosol industry.





## Alupro partnership

As a major supplier to the global aerosol supply chain, the importance of increasing aerosol recycling rates and the imperative to raise awareness to drive improvements is fundamental to create a more sustainable future.



**It's fantastic to have LINDAL Group as a partner in this important work. With their insights into aerosol technology, they are providing excellent insights for the project that are helping to push us forward."**

**Tom Giddings**  
Executive Director of Alupro

The LINDAL Group joined the UK Aerosol Recycling Initiative (Alupro) as a funding partner. Launched in 2022, the initiative aims to increase awareness and uptake of aerosol recycling across the UK and is working towards a recycling rate of 50% by 2030.

Alupro's vision is to create a world where empty aerosols are recycled responsibly by consumers via their kerbside system, with a goal to achieve high recycling rates of aerosols driven by initiatives with good ROI and pilot performance, along with a target to increase capture rates of kerbside collections by more than 75% by 2030. The project is working to increase recycling rates in two ways. Firstly, it will develop education and behaviour change campaigns to improve the proportion of empty aerosols being placed out for recycling by the public. Secondly, it explores how the recycling systems and infrastructure can be improved to better sort and recycle metal aerosols.

As a partner, LINDAL will help to accelerate the programme's feasibility studies, data collection activities, pilot programmes and consumer engagement campaigns.



## LINDAL's investment in B4Plastics

In December 2022, the LINDAL Group acquired an equity stake in biotechnology firm B4Plastics, a Belgium-based scale-up company that develops novel bio materials. B4Plastics is a Biopolymer Architecture company, catalysing the introduction of novel biomaterials, and growing them from niche to bulk applications. The company has an R&D centre for the fastest and most accurate screening and scaling of new biomaterials from gram to ton scale. Beyond that, its Production centre supplies biomaterials up to 1 Kiloton. Furthermore, its Tech Platforms are organised in a Licencing House for Tech Transfers to a company's own equipment and last, but not least, it started transforming its technologies into prototyped bioproducts that you can use and experience in your daily life; for example, tie wraps, drinking straws, (industrial) brushes and agricultural clips. As a lead investor, accompanied by the European Innovation Council (EIC), the LINDAL Group is funding the future growth of the company.

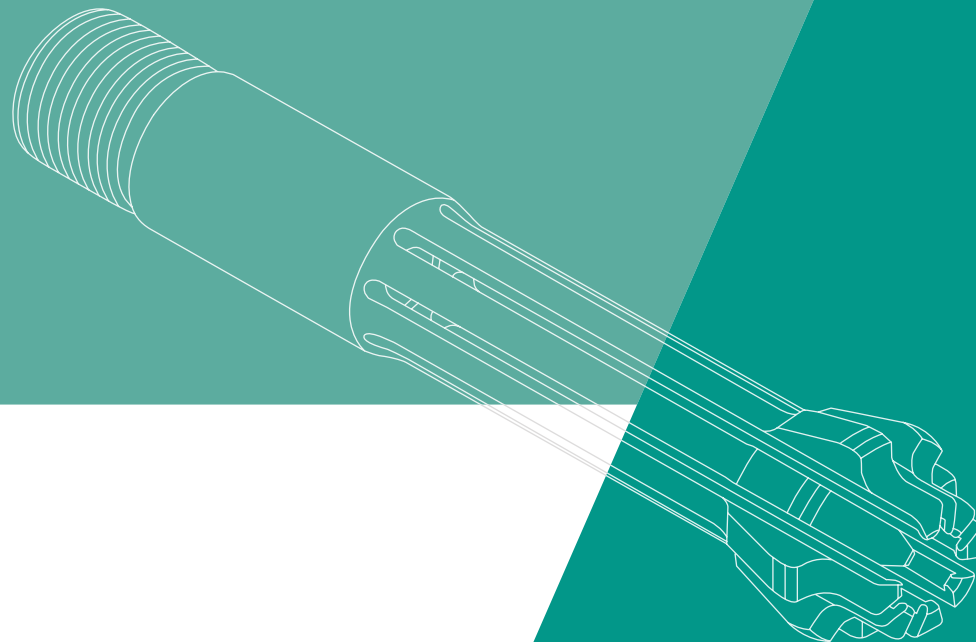


LINDAL is taking an active role in the partnership to reinforce its sustainability agenda and contribute more holistically to material waste and CO<sub>2</sub> reduction globally. LINDAL will benefit from B4Plastics's specialist knowledge and research into sustainable materials for its core products, whilst gaining access to wider knowledge networks that identify new opportunities for future R&D projects. Internationally recognised

and chosen by the European Investment Council as one of the few scale-up companies eligible to receive European capital, B4P aims to build a future with measurable biodegradability solutions that will make a sustainable impact. Our investment in B4P reflects our vision to prioritise sustainability, and with the potential to collaborate with other start-ups in the future, we aim to further develop product sustainability.

# CERTIFICATIONS

Crimping Device – Part of the Valve  
Assembly machine



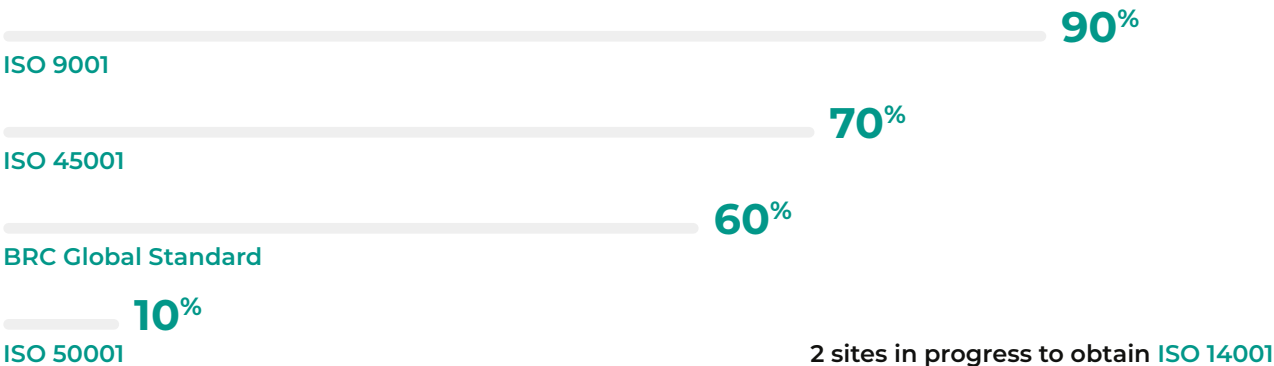
## Certifications

LINDAL is dedicated to maintaining the highest standards of quality, safety, and sustainability across all our operations. Our commitment is reflected in the various ISO certifications we have achieved, which underscore our adherence to international standards and our continuous improvement efforts.

**ISO 9001:2015** – Quality Management System: 90% of our sites are certified under ISO 9001. This certification demonstrates our ability to consistently provide products and services that meet customer and regulatory requirements, and our commitment to enhancing customer satisfaction through effective system implementation.

**ISO 45001:2018** – Occupational Health and Safety Management System: Ensuring the safety and well-being of our employees is paramount. 70% of our sites are certified under ISO 45001, reflecting our proactive approach to managing occupational health and safety risks and our dedication to creating a safe working environment. Our aim is having all sites certified by 2025.

**BRC Global Standard:** 60% of our sites are certified under the BRC standard, which highlights our commitment to maintaining high standards of hygiene, safety, and quality in our packaging processes. This certification is



crucial for ensuring the safety and quality of our products, particularly in the food and beverage sectors. By 2025, it is expected we will have two additional manufacturing facilities BRC certified.

**ISO 50001:2018** – Energy Management System: We are committed to improving our energy performance and reducing our environmental impact. Currently, 10% of our sites are certified under ISO 50001, demonstrating our efforts to implement energy-efficient practices and reduce our carbon footprint.

**ISO 14001:2015** – Environmental Management System: In our ongoing journey towards sustainability, two of our sites are in the process of obtaining ISO 14001 certification. This certification will further enhance our environmental

performance by providing a framework for managing our environmental responsibilities in a systematic manner.

These certifications are a testament to our unwavering commitment to quality, safety, and sustainability. In addition LINDAL has also been proactive in gaining Excellence in Design for Greater Efficiencies (EDGE) certification, for the construction work behind our 12.000sqm facility in São Paulo, Brazil. We will continue to strive for excellence in all areas of our operations, ensuring we meet the highest standards, contribute positively to our communities and the environment, and support our customers by continually improving our products, processes and support systems and by also acquiring further certifications as necessary.



## External reporting

LINDAL has been actively participating in the CDP (Carbon Disclosure Project) and EcoVadis, a leading provider of business sustainability ratings, to enhance its environmental transparency and performance.

### CDP

Our latest CDP score from 2023 was D for climate change and C for water security. These scores highlight the areas where we have made progress and where further improvements are needed. We are committed to transparently disclosing our sustainability information and holding ourselves accountable for our environmental impact. This commitment is a cornerstone of our sustainability strategy, ensuring that we remain open about our challenges and achievements. At the time of this report being published, our CDP questionnaire has been submitted and we eagerly anticipate the results, which will reflect the extensive efforts made since our last assessment in 2023.

### EcoVadis

We are proud to announce a significant improvement in our EcoVadis score, reflecting our ongoing commitment to sustainability. Our overall score has increased from **38 to 56/100**, placing us in the **60<sup>th</sup> percentile** among evaluated companies. This remarkable progress is a testament to our dedicated efforts in enhancing our sustainability practices across various domains. In recognition of our substantial improvement, we have been awarded the **EcoVadis Commitment Badge**. This badge highlights our dedication to continuous improvement and our proactive approach to integrating sustainability into our core operations.



External reporting



In 2024, LINDAL enhanced its environmental practices, strenghtened Labour and Human Rights Policies and improved our ethical business conduct. Our Ecovadis score reflects our strengths and areas for further improvement. We are committed to leveraging these insights to drive further progress and reinforce our commitment to sustainability. This achievement not only demonstrates our dedication but also sets a strong foundation for future improvements.



# SUPPLY CHAIN & PROCUREMENT

Wave Actuator – Designed for shaving  
gel and foam applications



As a market leader in a broad range of aerosol packaging technology, and manufacturing sites spanning 11 countries, LINDAL is mindful of our environmental and social responsibilities. We implement various sustainability practices throughout our supply chain, from the raw materials we use to the suppliers we collaborate with, ensuring we make a positive impact.



## Supply Chain

LINDAL has established a robust and efficient supply chain that supports our commitment to sustainability and innovation. We recognise that promoting sustainable practices within a global supply base is both complex and essential. Therefore our sourcing and logistics management of products are pivotal in addressing the social and environmental impacts of our operations. From LINDAL's perspective, the supply chain

encompasses the comprehensive management of a customer order, both before and after production. It involves managing upstream and downstream relationships with suppliers and customers to deliver superior value at a reduced cost to the entire supply chain. Our manufacturing sites are positioned across Europe, the Americas, and Asia. This global presence ensures that we can meet the demands of

our diverse customer base while minimising transportation emissions and enhancing supply chain efficiency. We are committed to continuously improve our supply chain operations, this includes an overall assessment of our logistic processes and relocation of production to further strengthen our local businesses, to enhance efficiency and to optimise transportation.



## Raw materials

The raw materials we use in our production processes are plastic resin, aluminium and tinplate. In addition, we source rubber, plastic and steel parts to manufacture our components from external suppliers.

We adopt the use of recycled materials wherever viable and ensure they meet with required safety standards, relevant legislation, performance and functionality. To measure the integrity of the materials used in our components, our inspection teams undertake a series of thorough assessments to ensure a high-quality product, that meets the needs of our customers. This includes AQL (Acceptable Quality Limit) methods, product life cycle testing, sampling and technical criteria set out by our Quality Assurance teams. We continue to evaluate the efficacy of recycled materials such as post-consumer resins for use in our production processes.

## Our suppliers

We seek to engage with suppliers who adopt equal opportunity policies, safe working conditions, fair labour and anti-discrimination practices, and encourage them to decarbonise and mitigate the impact of climate change. Across our international facilities, we endeavour to partner with local suppliers, improving reliability and access to materials, while also ensuring a reduced carbon footprint.

We are currently advancing our supplier screening processes with the recent introduction of a Supplier Code of Conduct and dissemination of a CSR supplier questionnaire to collect key supplier data and ensure optimum sustainability practices.

## The LINDAL Supplier Code of Conduct

Setting out the terms of engagement, the code incorporates LINDAL's company Code of Conduct, and is in alignment with both our sustainability strategy, and recognised international standards and conventions. In compliance with the Code, all suppliers shall:

### Human rights and working conditions

- / Adhere to national laws and implement systems to stay updated
- / Respect human rights and reject forced labour or human trafficking
- / Reject the employment (directly or indirectly) of children
- / Ensure young workers are protected against conditions of work which are prejudicial to their health, safety, morals, and development
- / Recognise the right to Freedom of Association and Collective Bargaining
- / Provide a safe and healthy working environment
- / Comply with fair working conditions for everyone
- / Offer fair remuneration, employment and working hours to every possible extent
- / Not discriminate in hiring, compensation, access to training, promotion, termination, or retirement based on ethnicity, caste, national origin, religion, age, disability, gender, marital status, sexual orientation, union membership or political affiliation.

### Respect for the environment and local communities

- / Have responsible systems in place for waste and wastewater
- / Minimise or eliminate negative environmental impacts by practices such as modifying production, maintaining and facility processes, recycling, and material reutilization.
- / Use climate-friendly products and processes to reduce power consumption and greenhouse gas emissions
- / Implement a robust environmental management system to identify and reduce significant environmental impacts and collect relevant data
- / Be diligent in the sourcing of no-conflict materials such as tin, tantalum and gold.

### Ethical business behaviour

- / Uphold high levels of integrity, honesty and fairness
- / Reject involvement in any act of corruption, extortion, or embezzlement, bribery
- / Keep accurate records on activities, structure, and performance
- / Neither participate in falsifying such information, nor in any act of misrepresentation in the supply chain. Furthermore, they shall collect, use, and otherwise process personal information (including that from workers, suppliers, customers, and consumers in their sphere of influence) with reasonable care. The collection, use and other processing of personal information is to comply with privacy and information security laws and regulatory requirements.

## Reducing CO<sub>2</sub> with multimodal supply chains at Altachem

In November 2023, LINDAL's Altachem facility in Harelbeke restructured some of its supply chain routes, shifting from standard truck and land transport, to inland shipping and rail with the aim of significantly reducing CO<sub>2</sub> emissions. Producing high delivery valves, 1K-PU foam guns, accessories and caulking guns, the Belgium-based facility regularly imports some of its components from China and Italy. Positioned just 10 km from the Wielsbeke River Terminal on the river Lys, and 73 km from the Port of Zeebrugge, the team at Altachem was able to maximise its strategic location to improve the sustainability of its supply chain.



**65%**

**CO<sub>2</sub>**  
**REDUCTION**

### Transporting components from Italy

One of the facility's key components was previously shipped exclusively via truck from the Milan area in Italy.

After analysing the potential for alternatives, these components are now loaded onto containers just a few kilometres from the Milan Segrate Rail Terminal before being transported via a high frequency rail network to Zeebrugge. From here, they are taken via a short truck journey to the Harelbeke facility. Following its introduction, the multimodal transportation has resulted in the facility saving 38.000 km and producing a 65% CO<sub>2</sub> reduction.



## Shipping PU Foam and Caulking gun components from China

Altachem imports components for its caulking and 1K-PU foam guns from Ningbo, China via boat/vessel to Antwerp, Belgium. It previously transported shipments arriving in Antwerp via truck direct to Harelbeke.

Having examined the potential for different modes of transport, the goods are now shipped from the Antwerp River Terminal to an Inland Container Yard in Wielsbeke, ahead of a short truck journey to the facility in Harelbeke where the containers are unloaded.

As well as removing the distance travelled by land, because the empty containers can be taken back to the ICY in Wielsbeke after unloading, further road miles are reduced in the process.

Overall, the shift to alternative modes of transport has resulted in saving approximately 10.000 km via truck and a CO<sub>2</sub> reduction of 33%.

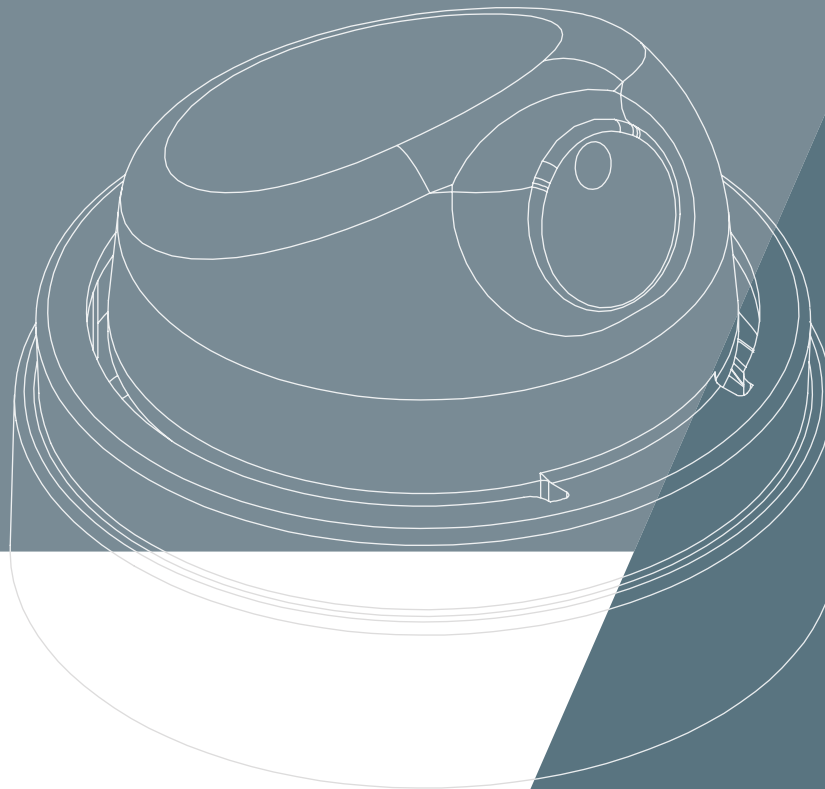


CO<sub>2</sub>  
REDUCTION

33%

# APPENDIX

Neo Actuator – Modular actuator for  
varies personal care applications



## Workforce

Country	Total	Male	Female
Argentina	91	82	9
Belgium	26	19	7
Brasil	147	119	28
France	226	147	79
Germany	336	264	72
Ireland	70	55	15
Italy	6	4	2
Mexico	131	79	52
Spain	8	5	3
Turkey	44	36	8
United Kingdom	168	135	33
USA	104	72	32
<b>Total</b>	<b>1357</b>	<b>1017</b>	<b>340</b>

## Carbon Emission Breakdown

	Country	Scope 1 (metric tons CO <sub>2</sub> )	Scope 2 (metric tons CO <sub>2</sub> ) market-based	Scope 2 (metric tons CO <sub>2</sub> ) location-based
Factories	Argentina	63,3	3157,0	3157,0
	Belgium	129,5	0	72,6
	Brasil	213,0	0	532,3
	France	642,0	393,4	461,8
	Germany	351,9	288,9	711,3
	Ireland	46,2	559,9	1864,1
	Italy	7,2	0,3	6,7
	Mexico	101,6	2580,8	3007,9
	Turkey	152,8	245,0	245,0
	UK	153,5	0	1475,7
	USA	11,4	1557,7	1557,7
Offices	Germany	39,5	7,09	8,7
	Switzerland	12,9	0,04	0,2
	Spain	10,8	0,75	0,7
	China	1,4	0,53	0,5
Total		1937	8791,4	13102,4

## Certification per Site 2023

LINDAL Site	Quality ISO 9001	Health & Safety ISO 45001	Food Safety BRC	Social Responsibility URSA/SMETA	Environmental ISO 14001	Energy ISO 50001
LINDAL do Brasil LTDA	✓	✓	✓	✓		
LINDAL North America, Inc.			✓			
LINDAL Valve Co. Ltd.	✓	✓	✓	✓		
LINDAL Turkey Paketleme Ltd. Sti.	✓	✓	✓	✓		
LINDAL de Mexiko S.A. de C.V.	✓		✓	✓		
LINDAL Argentina S.A.	✓	✓	✓			
LINDAL France S.A.S.	✓	✓				
LINDAL Dispenser GmbH	✓					✓
Litec Moulding Ltd.	✓	✓				
Altachem N.V.	✓	✓				
<b>Total</b>	<b>9</b>	<b>7</b>	<b>6</b>	<b>4</b>	<b>0</b>	<b>1</b>

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