



SUSTAINABILITY REPORT 2023

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Message from leadership

Message from our Chairman & Chief Scientific Officer

As we celebrate 50 years of history at Grobest in 2024, Grobest’s mission to improve the health and resilience of aquatic species by feeding them with advanced nutrition continues.

Our unrelentless focus on innovation continues to alleviate the economic pressures on farmers. Our products and solutions enable farmers to enhance animal survival rates that increase the likelihood of successful harvests. This support helps farmers achieve better returns, boost profitability, and sustain the growth of the aquaculture industry amidst dynamic market conditions.

The aquaculture industry in Asia continued to see challenges from disease and extreme weather events in 2023. Building on the progress we shared in 2022, we made several breakthroughs in 2023:

- Our EHP (*Enterocytozoon hepatopenaei*)-specific feed trials showed positive outcomes in shrimp health, supporting better disease resistance.
- We validated the effectiveness of functional feeds in improving shrimp recovery and health, setting a new benchmark for sustainable farming. For example, we successfully introduced the Mid-Tier Immune Functional Feed (MTFF), a cost-effective feed solution across Asia allowing more farmers to access our biotechnology, improving yield and profitability for farmers facing declining prices and chronic diseases.
- Our Project Horizon feed series which we first launched in 2022, to reduce negative environmental impacts while enhancing feed efficiency, showed improved shrimp growth, survival, and feed conversion rates in field trials across Indonesia and Vietnam.

We are excited by these developments and plan to do more in 2024, including:

- Focusing on improving disease prevention techniques and optimizing the balance between nutrition and immunity e.g., validating the use of functional feeds to combat diseases like EHP and White Faeces Disease, and improve post-infection recovery.
- Encouraging the adoption of sustainable farm models that reduce consumption of energy, water and generation of waste.
- Exploring alternative protein sources like insect meal and single-cell proteins to diversify and ensure the continued sustainability of our feed products, including a zero-fishmeal feed.
- Increasing the accessibility of our products to more farmers around the world; and
- Scaling the use of technology and data for farm, pond and microbiome management.

We are proud of our achievements in the last 50 years and are confident that our work will continue to benefit farmers everywhere and contribute to feeding the world sustainably for the next 50 years and beyond.



CHI-KANG KO

Message from our CEO

In 2023, shrimp farmers across Asia faced a dual threat: declining farm gate prices and a surge in chronic diseases. These challenges increased financial pressure on farmers due to market uncertainties and jeopardized the success of shrimp crops. The sharp decline in farm gate prices was attributable to inventory correction in the US and EU, while Ecuador achieved record high exports to these markets, in addition to China. These were exacerbated by high prices of fishmeal triggered by cancellation of the first Peruvian anchovy fishing season. Finally, extreme weather events including super typhoons and heavy rains resulted in serious losses for some of our customers.

In the face of these adverse challenges, we responded with stronger support to our customers.

- We continued to drive differentiation through product and technical services including the introduction of our Mid-Tier Immune Functional Feed (MTFF), a cost-effective solution for shrimp grow-out stage, a crucial part of a farmer's overall costs.
- Our Project Horizon feed series has been well received since its introduction in 2022, showing improved shrimp growth, survival, and feed conversion rates while reducing waste generation and pollution in ponds.
- Our agility in reducing our reliance on fishmeal in our products to using alternative proteins like single cell protein mitigated high raw material prices, without compromising the quality and efficacy of our products.
- We increased farmer adoption of our GROFARM™ model to more than 4,000 farms and expanded the enhanced sustainable shrimp farming model, GROFARM™ PRO, to 26 farms in Vietnam, boasting a 90% success rate in crops.
- We deployed an improved Technical Services app with AI tools for precise health assessments and growth monitoring, including trials for shrimp larvae count and water quality prediction technologies.

All these efforts allowed us to engage with our farmer customers on a deeper level, increasing the number of demo farms, technical seminars and farm tours. Of course, all of this will not be possible without the dedication and hard work of our skilled technicians who constantly update and enhance their technical skills through training.

We do all of this without compromising our commitment to the safety of our people, embedding Grobest's 6 Life Saving Rules in all that we do, whether at our manufacturing facilities or when out on the field with our customers.

We remain committed to a robust quality assurance system that ensures the high quality of our products our customers have come to trust and expect from us. In 2023, 100% of our manufacturing facilities remained certified to either ISO 22000 or HACCP (Hazard Analysis Critical Control Points) standards.

To manage our impacts on the environment, we made further progress in 2023 to mitigate the impacts from our operations and supply chains. We reduced our energy consumption, water withdrawals and waste generation. We continued to upgrade our equipment to improve efficiency and yields.

I am proud of our team's achievements in 2023 and am optimistic that they set us up for greater success in 2024, as we continue our strategy of prioritising animal health through our products and technical solutions, for the long-term success of our farmers.



HUA DU

Message from our Chief Legal, Compliance and ESG Officer

In addition to helping farmers respond effectively to dynamic market conditions and climate change with our innovative products and solutions, we made progress in other areas of our business. We refreshed our materiality assessment to ensure our sustainability approach remains relevant and responsive to the latest industry best practices and global reporting standards. We validated the findings from the assessment with internal and external stakeholders, which reaffirmed the significance of previously identified topics. The stability and relevance of these issues reflect both the maturation of our sustainability efforts and our ongoing commitment to addressing the most pressing challenges.

To build on our understanding of supply chain risks, we continued deployment of the modern slavery risk assessment online tool (diginexLUMEN) to conduct online assessments on more than 20 of our key fishmeal suppliers. We followed up by providing detailed feedback to reinforce the importance of upholding human and labour rights in their operations, highlighting essential policies, procedures, and trainings.

We evaluated our recruitment practices relating to migrant workers at our Malaysia, Taiwan, and Thailand operations. As part of the evaluation, we piloted worker voice surveys via a mobile-based platform (diginexAPPRISE) to better engage with and hear from these migrant workers.

We participated actively in Seafood Task Force (STF) subgroups to drive industry-wide change alongside industry peers.

We conducted the first carbon footprint assessment of emissions in the supply chain (Scope 3), providing a more comprehensive perspective on our total carbon footprint. On this foundation, we will look for ways to thoughtfully reduce our impacts on the environment through our products, technical solutions, operations and supply chains.

After a hiatus largely due to COVID restrictions, we were delighted to be able to resume some normalcy in business travel. This allowed us to conduct onsite safety audits at our manufacturing facilities, enabling us to verify some of the progress we have made on our safety journey. We continue to work on improving safety leadership embedding Grobest's 6 Life Saving Rules.

We conducted a group wide compliance review and resumed onsite internal audits to bolster our Ethics and Compliance program. Our employees achieved a 97% completion rate on the mandatory annual compliance refresher training for non-production staff, totalling 5,307 hours, representing a 3% increase from last year.

We continued to work on our risk culture through regular and targeted discussions with business leaders, sharpening our focus on safety, compliance, controls, and operational excellence.

We extend our gratitude and appreciation to our ESG Committee chaired by **Kjell Bjordal** and Audit Committee chaired by **Tore Valderhaug**, whose members bring valuable industry knowledge, experience and best practices that guide our thinking and planning.

There is a lot more that we are working on to advance our sustainability performance but for now, we are taking a moment to celebrate our progress and achievements by sharing this sustainability report with you. I hope you enjoy reading it as much as we did putting it together.



EDENA LOW

About this report

This report provides a summary of the Group’s Environmental, Social and Governance (“ESG”) performance and key sustainability milestones in 2023. In addition, we share details of our five-pillar sustainability strategy, which outlines our approach to material ESG issues and continuous improvement across our operations.

Our approach to ESG reporting

Grobest is committed to transparency, which includes reporting on how we make a difference in our communities, address sustainability challenges and make a lasting and meaningful impact within our markets. Our key stakeholders include our customers, employees, governments & regulators, investors and the communities we operate in.

This report has been developed with reference to the Global Reporting Initiative (GRI).

Report content and scope

The information provided in this report covers our activities in the calendar year 2023, both at the Group level and across our operations. Where possible, we have included historical data to help illustrate our performance over time.

To provide a comprehensive review of our impact and performance, this report sets organizational boundaries based on the consolidated reporting principle, covering Grobest’s 13 feed mills, 3 Premix Plants and offices in Hong Kong, India, Indonesia, Mainland China, Malaysia, Philippines, Taiwan, Thailand and Vietnam.

A materiality threshold is applied for fines and penalties below USD30,000 and are therefore not included in this report.

Report quality management process

To ensure that the report meets the desired quality standards in terms of accuracy, relevance, completeness, and readability, we follow a quality management process.

The information in the report is provided by various units of Grobest, which are responsible for confirming the completeness and correctness of the information.

The Group Legal, Compliance & ESG Department then coordinates and compiles the 2023 sustainability achievements and progress toward related goals.

This report is verified by the responsible person and supervisor of each unit and is then submitted to the ESG Committee and Board of Directors for review, finalization and publication.

The 2023 Sustainability Report is not subject to external assurance.



Contact

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Who we are

At Grobest, we are committed to feeding the world through the development of innovative products that support safe and sustainable aquaculture.

Confronted by soaring demands for food due to rapid growth of the world’s population and uneven distribution of natural resources, we persist with the ideal of “respecting nature for healthy aquaculture” and continue to improve the health and growth of aquatic species by feeding them with advanced nutrition. As a company, we live our responsibility daily to pioneer innovation in Research & Development (“R&D”) and supply advanced aquatic functional feed to the world.

Since our founding in Taiwan in 1974, Grobest has maintained a leading position in the R&D of natural, antibiotic-free feed products for environmentally friendly and sustainable aquaculture. Our continual success has seen us grow into a company of more than 3,000 employees, with offices and operations in Hong Kong, India, Indonesia, Mainland China, Malaysia, the Philippines, Taiwan, Thailand and Vietnam. In 2018, global investment firm Permira invested in Grobest to accelerate the company’s growth. Grobest, with its solid foundation in Asia, is ready to bring our innovative products to the world.



Our Mission, Vision and Values

Mission

To feed the world sustainably by improving the health and growth of aquatic species through advanced nutrition.

Vision

To be the leading global feed producer for shrimp and warm water species.

Values

Grobest's four Core Values come under the motto One Grobest, One Team:



Innovation.

We apply creativity in problem solving and status quo challenges



Integrity.

We firmly adhere to our Code of Conduct and ethical principles



Sustainability.

We decide and act persistently to achieve economic, environmental and societal benefits for the long term



Collaboration.

We cooperate and treat others with dignity and respect to accomplish common goals

Our business

At Grobest, we aspire to be the recognised leader of sustainable, biotech-led Functional Performance Feeds for Shrimp and warm water fish species. We differentiate ourselves as a solution provider to address farmers' pain points, through our high-quality functional performance feeds and comprehensive technical services. We provide a wide range of products and services that prioritise animal health and survivability, to help farmers achieve bountiful harvests.

High-quality Functional Performance Feed

We provide advanced, effective and sustainable aquatic feed and nutrition solutions. The shrimp and fish fed on Grobest diets survive at higher rates, grow faster and healthier, produce larger harvests, and give better returns on investment to farmers.

Our strong R&D capabilities allow us to provide relevant biological protection to aquatic animals. When we develop product formulae, we pay attention to the health of aquatic animals beyond nutrition. This includes ensuring the animals enjoy drug-free and sustainable farming environments.

Helping farmers become more productive and more profitable across different farming models is the essence of the **Grobest Difference**. At the heart of this is our unique and proprietary functional performance additives, vitamins and organic minerals.

For decades, Grobest has been dedicated to developing natural feed additives to improve the immune systems of aquatic animals, helping them fight against external changes and challenges from all kinds of diseases and pathogens.

Through advanced techniques in microbiology and manufacturing, Grobest creates unique substances that promote health and growth in aquatic animals. These include natural growth enhancers, antiseptics to prevent disease, and other beneficial biological factors. These substances are exclusively developed and produced by Grobest, ensuring that they are unique to our products. We combine these special additives with the highest quality proteins, fats, and carbohydrates to create our 360° Nutrition™ solution.

This comprehensive nutritional approach ensures that aquatic animals not only grow faster and healthier but have stronger immune systems to thrive in various farming environments.

Our diets cover the full farming cycle from nursery to finishing and are rigorously tested, tailored and optimised for local market environments and farming conditions. We produce feeds tailored to the specific nutritional needs of over 40 aquatic species. Our offerings encompass feed for crustaceans, such as White Shrimp, Black Tiger Shrimp, Kuruma Prawn and Freshwater Prawn, as well as for various fish species including Eel, Golden Pomfret, Grouper, Large Mouth Bass, Barramundi, Tilapia and Catfish, among others. Our expertise extends to aquafeed for molluscs like Bivalves and specialised species such as Bullfrog and Softshell Turtles.

Comprehensive Technical Services

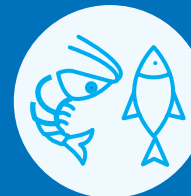
Grobest’s Technical Services teams provide unrivalled aquaculture technical support to farmers to maximise opportunities for a successful harvest.

Modern aquaculture advancements and environmental changes have increased the complexity of farming techniques. Instead of seeking technical support only when problems arise, farmers are now adopting a proactive approach. Our Technical Services experts offer guidance on leveraging our products and technical solutions to increase survivability and health of the animals, while reducing waste and water pollution, thereby reducing farming costs. Our teams also provide onsite consulting on post larvae, feed, and sustainable farm operations. The data collected by our teams in turn informs how we approach and improve our research, development and formulation to continuously improve our product quality and composition.



Mobile Laboratory

By-the pond mobile lab services, including: shrimp health and water inspections; Vibrio species inspections with coated disks; PCR tests.



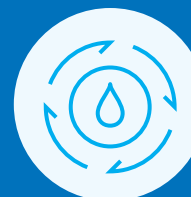
Aquaculture & Product Cons

Professional aquaculture and product consultation services. Aside from explaining and demonstrating how to use our high-quality feed products, we also share professional knowledge on farm management with farmers.



Seminars

Professional staff based in our headquarters as well as local offices. Each year, we organise seminars in various markets to facilitate meetings with our farmers and share professional farming techniques.



Water Quality Inspection

Grobest-branded water test kits can provide accurate water test measurements and our technicians give farmers the best recommendation on farming protocols including pH, Salinity, Alkalinity, Ammonia, Nitrite, Hardness, Calcium, Magnesium, bacteria in water.

Sustainability at Grobest

Vision and Strategic Approach

At the heart of our mission to feed the world, our quest to do so sustainably drives our endeavours to develop ground-breaking products and solutions, advancing safe and sustainable aquaculture practices. This mission unites our workforce under a shared vision and actionable strategies, aimed at generating enduring value for all stakeholders.

Our sustainability strategy, revised in early 2022, is structured around five core pillars: Governance, Ethics and Compliance; Innovation; People & Culture, Responsible Sourcing; and Sustainable Operations.

These pillars represent the core aspects that influence our operations, guiding us to mitigate risks and forge a bold path toward achieving our goal of leading the Asian market in sustainable biotech functional feeds for shrimp and fish.

Our purpose is to empower more farmers with cutting-edge solutions in animal health and technical support, helping them and their communities to thrive.

Materiality Assessment Process

A materiality assessment is the cornerstone of a robust sustainability strategy as it helps assess an organisation's impact on the economy, the environment and society. Through this lens we are better positioned to consider the significance of various ESG factors to Grobest's stakeholders, as well as their importance to our business.

We undertook our first materiality assessment in 2021, engaging in extensive consultations with a wide range of stakeholders including employees, suppliers, investors, and customers to align our business operations with sustainable development goals.

Through these discussions and an analysis of industry expectations and international trends, we identified the impacts most critical to Grobest and our stakeholders.

In 2022, we advanced our assessment with the support of Diginex, a global leader in ESG software and advisory services. This collaboration enabled us to reassess and update our priorities in light of evolving industry dynamics and stakeholder expectations, leading to the identification of 16 key focus areas detailed in our 2022 report.

In 2023, we refreshed our materiality assessment to ensure our strategy remains relevant and responsive to the latest industry best practices and global reporting standards. This process, which included validating findings with both internal and external stakeholders, reaffirmed the significance of previously identified topics. The stability and relevance of these issues reflect both the maturation of our sustainability efforts and our ongoing commitment to addressing the most pressing challenges.

Looking ahead, Grobest is committed to continuous engagement with our stakeholders and adapting our strategies to meet emerging sustainability risks and opportunities. We are dedicated to enhancing our operational practices and extending our impact beyond immediate business needs to foster broader community well-being and environmental stewardship.

The key pillars of our strategy

Our sustainability strategy, anchored around five foundational pillars, defines our ambition to drive positive impact across the areas that are most important to our business and stakeholders.

				
Governance, Ethics & Compliance	Innovation	People and Culture	Responsible Sourcing	Sustainable Operations
A culture of ethical behaviour, and social responsibility, adhering to legal and regulatory requirements while ensuring employees, suppliers, and customers experience a fair and sustainable work environment.	Constantly developing sustainable functional feeds for aquatic animals, enhancing their health and immunity, while providing farmers with solutions for climate resilience, reducing pollution and waste; as well as optimised harvests.	One Grobest, One Team prioritises employee well-being, human rights, and workplace safety by fostering an engaged and inclusive culture, adhering to international conventions, local laws, and industry best practices.	Sourcing locally and from certified sources, complying with laws and regulations, and forging long-term partnerships with suppliers, reducing operational risks to create shared value and enhance our positive environmental and social impact.	Upholding product safety & quality standards to ensure our feed products meet stringent regulations and customer expectations; Reducing our environmental impact through continuous improvements in resource consumption and processes, sustainable sourcing and the development of a climate response strategy.
Anti-Corruption Regulatory Compliance	Product Innovation Animal Health & Welfare	Human Rights Workplace Safety & Health Training & Education Engaged & Inclusive Workforce	Supplier Management Responsibly Sourced Ingredients Biodiversity	Product Safety & Quality Energy, Emissions & Climate Impact Climate Vulnerability & Adaptation Waste, Water & Effluents

Stakeholder engagement

The effectiveness of our sustainability strategy hinges on our engagement with stakeholders. It is through this dialogue that we grasp the significance of different material issues and acknowledge the interconnectedness of Grobest and its stakeholders. This understanding enables us to proactively identify, foresee, and address the key sustainability challenges and opportunities that arise.

THE FOLLOWING TABLE OUTLINES GROBEST’S KEY STAKEHOLDER GROUPS AND HOW WE ENGAGE THEM.

Customers

Listening to our customers is crucial as they provide critical feedback on our products and service offerings.

General customer feedback and customer surveys

Welcome calls

Focus groups

Seminars

Demo ponds

Employees

Employee wellbeing is fundamental to our performance and sustainable growth. We routinely solicit feedback from our employees and contractors to ensure we are cultivating an inclusive and fair place to work.

Employee engagement survey

Townhalls

Internal employee discussion forums

Feedback generated from internal systems and social media

Conferences, trainings, and other talent development programs

Governments & Regulators

We work closely with government agencies and regulators in the markets where we operate, to elevate sustainable business practices and to drive change through advocacy and partnerships.

Regulatory and other reporting

Panel discussions and roundtables

Memberships on advisory boards of industry associations and groups

Consultations and engagement on ESG issues

Investors

We focus on strengthening investor trust and regularly engage with them to communicate our sustainability strategy and progress.

Regular shareholder board and board committee meetings

Investor meetings and calls

Communities

Given the breadth and impact of our businesses across Asia, we regularly seek interactions with society and the public at large in our collective pursuit to enact positive change.

Social media interactions

Corporate website

In-person interactions at corporate locations, hosted events

Industry body conferences, training, and other forums

Our approach to ESG Governance

Good corporate governance is the foundation of how we operate as a company. The Grobest Executive Committee and its Senior Leadership Team’s professional experience and strong industry knowledge are key to accelerating the company’s sustainable growth. Comprised of experts from the world of animal nutrition, aquaculture, biotechnology and other professional backgrounds, this combined expertise of the team enables Grobest’s global reach.

Grobest’s corporate executives’ proven track record of management excellence, as well as respective industry expertise – combined with the strong advisory support of our Board of Directors – is a major factor in the company’s success.

We continue to strengthen our governance processes and reporting to oversee and manage key aspects of our sustainability strategy, enabling progress in the roll out of key initiatives, monitoring implementation and informing decision-making.

Our Board of Directors retains ultimate responsibility for oversight of the Group’s risk management activities and monitor material Group-wide risks, including ESG-related risks, supported by the ESG and Audit Committees, lead by the Group’s ESG function reporting into the Chief Legal, Compliance & ESG Officer.

ESG Committee

Since 2019, Grobest’s Environmental, Social and Governance (“ESG”) Committee manages and oversees Group-wide sustainability policy and performance to ensure sustainable business practices. This includes reviewing and agreeing on strategies, policies, action plans, initiatives, targets, and performance in material ESG areas, such as product-related matters, supply chain sustainability, environmental compliance, health and safety, workplace policies, ethical business practices, and industry collaboration.

The Committee reviews ESG-related policies annually and meets a minimum of four times per year to set, monitor and report on ESG objectives and key performance indicators with guidance and supervision from the Board. The Committee is currently chaired by Kjell Bjordal, a member of the Board, who is supported by our Chief Legal, Compliance & ESG Officer, reporting directly to the CEO.



Message from Kjell Bjordal, Chair of our ESG Committee



Grobest’s Pan-Asian footprint, cutting-edge expertise in animal health and nutrition, as well as sustainable farming models enable it to play an important role in driving sustainable food production. Aligned with the UN’s Food and Agriculture Organization’s (FAO) vision, Grobest’s innovation is actively reshaping the aquaculture industry to be a cornerstone of a sustainable food system that will feed the growing global population healthily and responsibly. Our approach to sustainability is embedded in every aspect of our operations – from our constant development of alternative proteins, optimizing feed conversion rates while championing animal welfare to reducing environmental pollution. By doing so, we are creating a positive social impact, each and every day.

Our milestones and achievements



1. Best Aquaculture Practices

Governance, Ethics and Compliance

GOVERNANCE, ETHICS AND COMPLIANCE

At Grobest, robust corporate governance underpins every aspect of our operations, guided by the ESG Committee, which plays a crucial role in shaping and overseeing our policy framework. In response to the dynamic nature of the aquaculture industry, we continually refine our Environmental, Social, and Governance (ESG) objectives to ensure they not only resonate with our strategic ambitions but also bolster our organizational resilience.

Our dedicated team is vigilant in managing risks, ensuring compliance, and maintaining robust internal controls. They monitor regulatory changes and adapt our policies and procedures accordingly to uphold our high standards. Through feedback from different departments, we integrate risk management strategies within our broader business and ESG objectives, ensuring a unified approach to corporate governance.

Adherence to our Employee Code of Conduct is mandatory, emphasizing compliance with legal standards, regulations, and industry benchmarks such as the Best Aquaculture Practices (BAP). We actively encourage our staff to voice any concerns, ensuring these are addressed promptly and effectively.

Grobest is deeply committed to cultivating an ethical, socially responsible work environment that not only instils a sense of pride among our employees, suppliers, and business partners but also assures our customers and farmers of the integrity and quality of our products. Our comprehensive compliance management system is designed to ensure legal and regulatory compliance, promote ethical behaviour, and uphold social responsibility, crucial for the sustainability and integrity of our operations.

2023 PERFORMANCE HIGHLIGHTS

Ethical business conduct

- Introduced the **Group Personal Data Protection Policy**, aligning our data handling practices with global data protection standards.
- Achieved a 97% completion rate on the mandatory annual compliance refresher training for all non-production staff, totalling 5,307 hours and representing 3% increase from last year.

Regulatory compliance

- Implemented a group-wide compliance review.
- Introduced systematic regulatory monitoring to proactively identify operational risks, disseminate relevant updates, and implementation.

Risk management

- Resumed on-site internal audits.
- Launched the **Group Business Continuity Plan** to ensure effective response to unforeseen issues, and minimise business disruption.
- Intensified ESG risk management through targeted discussions with business leaders, sharpening our focus on safety, compliance, controls, and operational excellence.

Ethical business conduct

Integrity stands at the forefront of Grobest Group’s Four Core Values, underpinning our business conduct, policy formation, and decision-making processes. At Grobest, we champion the principle of “Doing the Right Thing” by providing a robust, values-driven foundation for decision-making within clear ethical guidelines. This ethos fosters a culture of transparency and honesty, significantly reducing risks and encouraging responsible practices throughout our operations, notably in curbing corruption.

We have instituted comprehensive policies, including our Code of Conduct, Supplier Code of Conduct, Conflict of Interest Policy, Whistle-blower Policy, Anti-Bribery & Corruption Policy, and our commitment to Human Rights. Informed by international standards such as the UN Global Compact, the US Foreign Corrupt Practices Act, and the UK Bribery Act, these policies undergo regular scrutiny and endorsement by our Ethics Committee, the ESG Committee and the Board of Directors.

Our Ethics Committee, an integral entity comprising experts from Human Resources, Legal, Compliance, and ESG departments, is dedicated to maintaining the highest ethical standards. It offers guidance on ethical concerns, ensures adherence to our Code of Conduct and relevant policies, and addresses ethical issues flagged by employees or other stakeholders. Meeting monthly, the committee reviews compliance and whistle-blower reports, ensuring swift and appropriate action in line with Grobest’s values.

In 2023, we identified several cases of non-compliance with our Code of Conduct in Thailand, Malaysia, Philippines, and India. Following thorough investigations, two employees were terminated, while others received warnings.

Furthermore, our ethics and compliance framework successfully mitigated corruption risks. Through targeted internal audits in China, India, Malaysia and Thailand, focusing on key control areas, we reinforced our zero-tolerance stance on corruption. The Ethics Committee, vigilant in investigating whistle-blower reports, found no substantiated corruption allegations.

In 2023, we also introduced the **Group Personal Data Protection Policy**, aligning our data handling practices with global data protection standards and updated the **Group Procurement Manual** to enhance transparency and efficiency in procurement processes. These initiatives reflect our ongoing commitment to ethical governance and operational excellence.



Our **Code of Conduct Policy** is the bedrock of our ethics, governance, and compliance efforts, outlining our business conduct expectations for all Grobest employees and partners.



Our **Conflict of Interests Policy** delineates the process for identifying, disclosing, and managing potential conflicts between personal interests and professional duties, ensuring our operations’ transparency and integrity.



Our **Anti-Bribery & Corruption Policy** prohibits employees and other Grobest representatives from any involvement in bribery or corruption with government officials, customers or employees. This policy mandates anti-corruption training for all employees and is subject to regular compliance monitoring.

Communications, training and employee engagement

Grobest actively promotes Ethical Business Conduct through a strategic blend of communication, training, and employee engagement. Our approach to embedding ethical principles across all locations includes:



Deploying interactive digital e-learning modules to equip employees with the knowledge to uphold our standards.



Making our ethical policies easily accessible on our website, ensuring transparency and awareness.



Sharing inspiring stories of ethical practices on our Microsoft Yammer platform to encourage a culture of integrity.



Discussing policy adherence in management meetings to reinforce ethical leadership.



Communicating key policy details and updates through internal emails to keep ethics in the forefront of our operations.



Providing comprehensive orientation and onboarding programs that emphasize the importance of adhering to our ethical standards from the start.

Annual Compliance Declaration and E-Learning

After the Board of Directors ratified our new Conflict of Interests Policy in 2021, Grobest initiated an eLearning platform designed to bolster company-wide compliance. This platform offers a suite of training modules on critical subjects, including Cyber Security, Anti-Bribery and Corruption (with a focus on government interactions), Business Ethics, Anti-Discrimination and Harassment, Data Privacy, and Anti-Trust Laws.

Throughout 2023, this e-learning platform facilitated:

97%
completion rate



The mandatory annual compliance refresher training for non-production staff, achieving a 97% completion rate, totalling 5,307 hours, and representing 3% increase compared to last year.

The Annual Compliance Declaration through which employees affirm their commitment to our Code of Conduct, adhere to Non-disclosure and Confidentiality Agreements, and disclose any potential conflicts of interest as needed.

Moreover, in 2023, we enhanced and broadened our training initiatives to deepen employees' understanding of our key policies. Beyond the annual e-learning refresher, we introduced targeted in-person training sessions on the Code of Conduct, anti-bribery, and conflict of interest specifically for the management teams in India and China, emphasizing our core values.

As we move forward, our goal is to maintain the integrity of our Code of Conduct by ensuring that 100% of our employees annually commit to and complete the mandatory online compliance training.



Whistle-blower protection

Grobest is committed to maintaining the highest standards of conduct and integrity across all aspects of our operations. To this end, we empower every stakeholder—employees, distributors, customers, and suppliers—to voice any concerns regarding potential breaches of our Code of Conduct or deviations from our expected ethical standards.

Our whistle-blower policy is anchored by the [Ethics Hotline](#) (Speak Up), operational since 2019 at every Grobest facility. This hotline enables stakeholders to report ethical concerns confidentially and in their native languages. The Ethics Committee, comprising representatives from Human Resources, Legal, Compliance, and ESG departments, rigorously investigates all reports received through the hotline or other monitoring mechanisms.

In 2023, there were 22 reported cases across four countries, down from 33 in the previous year. Of these, 18 were submitted anonymously, while the remaining four included current and former employees and customers. We prioritise timely follow-up and resolution of all cases, incorporating corrective actions into our Compliance and Internal Controls Reports for ongoing monitoring.

We transparently communicate details of whistle-blower cases, including the number, nature, significant investigations, and identified risks, to our Executive, Audit, and ESG Committees, reinforcing our commitment to ethical excellence and continuous improvement.



Regulatory compliance

Grobest's dedication to regulatory compliance is pivotal in upholding stakeholder trust and minimizing operational risks. We ensure strict adherence to relevant laws, regulations, and policies through comprehensive internal controls, aligning all our group companies with these standards.

Key to our compliance strategy is the Health, Safety, Environment, and Quality (HSEQ) Policy, aimed at safeguarding employee well-being and ensuring the excellence of our feed products. Oversight of HSEQ and Product Regulatory Affairs is a collaborative effort led by the Group Operations Director, reporting directly to the CEO.

Supplementing this leadership, our Legal, Compliance, and ESG teams play a vital role in overseeing compliance with:

- External regulations, including applicable laws in Grobest's operating regions.
- Internal policies.
- Voluntary adherence to industry standards and certification schemes.

To uphold these standards, we engage in regular compliance reviews, swiftly adapting to any changes in legal and regulatory requirements. Our commitment to voluntary standards is monitored through monthly reports and external audits, while internal assessments help identify and address any compliance gaps.

Integral to keeping our workforce informed and compliant, we offer regular legal and compliance training in collaboration with Human Resources, ensuring everyone is updated on the latest policies and practices.

In 2023, we continued to build upon the regulatory compliance initiatives implemented in 2022, maintaining a strong commitment to transparency and timeliness in our reporting processes. The Group Compliance Report, introduced in January 2022, remains a key component of our regulatory compliance framework. We observed notable improvements in reporting timeliness and transparency across countries. These enhancements reflect our ongoing dedication to refining and optimizing our processes, fostering a culture of openness, and ensuring that compliance matters are addressed promptly and comprehensively.

In 2023, there were no significant regulatory violations, as a result of our proactive approach to regulatory risk management, including regular reviews of the regulatory landscape to identify changes affecting our operations, and the dissemination of regulatory updates to keep stakeholders informed.

In the second half of 2023, we commenced a group-wide comprehensive compliance review. The review includes an assessment of the organization's governance, policies, licences to operate, and other matters for compliance with applicable laws, regulations and industry standards. This review once complete, will help us ensure that our group-wide compliance programs remain adequate in the context of a dynamic business environment, giving us confidence and clarity to stay on top of evolving compliance requirements.

By taking action to resolve issues, we reinforce our commitment to operate with integrity, a critical tenet of our core values.

In 2023, we also developed a **Group Business Continuity Plan** to manage incidents that may cause disruption to operations or business. This includes forming response teams, setting up communication protocols, and conducting drills based on various scenarios to ensure a prompt and efficient response to unforeseen compliance or regulatory issues, thereby minimising business disruption.

These efforts improve transparency and accountability and empower our employees to uphold good governance and comply with applicable laws and regulations. Looking ahead, we will continue to look for ways to strengthen our compliance processes and employee training programs to achieve our goal of zero regulatory penalties.

Risk management

Risk management is crucial to Grobest’s success, bolstering business performance and equipping the company to navigate both current and future challenges effectively.

At Grobest, risk management is integral to our operations, enabling us to proactively identify and mitigate a broad spectrum of risks, including those related to environmental, social, and governance (ESG) factors. Our risk universe spans political, regulatory, market, competitive, supply chain, human resources, cost management, environmental, social, fraud, corruption, and bribery risks.

We employ an Enterprise Risk Management framework to systematically identify, assess, and address risks. This strategic approach enhances our decision-making, prioritizes initiatives, and uncovers opportunities by blending top-down and bottom-up insights.

Our mitigation efforts are supported by robust policies, procedures, controls, and ongoing training and communications. Verification through continuous monitoring and validation are key to our proactive risk management strategy.

The Board of Directors has ultimate oversight of our risk management efforts, closely monitoring significant risks, including ESG factors.

In 2023, we placed a strong emphasis on fostering a risk management culture, engaging with country leadership in focused discussions on safety, environmental concerns, operations, products, legal compliance and controls. This engagement promotes a proactive approach to ESG risk management, in addition to enhancing leadership skills, sustaining good practices and improving our management systems.

Our integrated Risk, Controls, and Compliance teams have further streamlined our approach, fostering effective risk mitigation strategies through a unified risk management framework. We have implemented a rigorous risk-based approach to evaluate the controls environment across our Group entities, encompassing critical processes such as order-to-cash, purchase-to-pay, and inventory management.

This year’s enhancements in our risk, compliance, and controls practices have bolstered our governance framework, reinforced our risk culture and instilled best practices among our teams.

Looking ahead to 2024, we are committed to fostering an environment where country leaders are empowered to own and manage their controls effectiveness through regular self-assessments, identifying and addressing control gaps.

Our regular dialogues with group and subsidiary leaders about key risks and performance metrics enhance our integrated assurance approach by inculcating risk-conscious habits among our employees, leading to increased business resilience.

Over time, we believe this approach will instill a strong sense of accountability, and leadership among our employees.

RISK, COMPLIANCE, AND CONTROL PROGRAM 2023



ENGAGEMENT AND CAPABILITY BUILDING

BUILDING A CULTURE OF TRANSPARENCY

BUILDING A RISK CULTURE

Innovation

INNOVATION

In the last two decades, disease outbreaks, especially the surge in highly virulent pathogens, have posed significant threats to the aquaculture industry. These outbreaks have drastically affected survival rates, yields, and operational costs, presenting formidable hurdles for sustainable aquaculture. These issues are especially acute in Asia, where fluctuating farming performances and increasing costs for feed ingredients compound these challenges.

Driven by the necessity to overcome these hurdles, our commitment to research, development, and innovation remains steadfast. We are dedicated to crafting solutions that bolster the health and immunity of aquatic species and enhance the profitability of farmers while minimizing the negative impacts on the environment and communities.

Our investment in R&D focuses on pioneering advanced functional feed additives that boost disease resistance and the overall health of aquatic animals. Through collaboration with industry leaders and harnessing our deep expertise, we strive to deliver impactful solutions that not only improve farm performance and lower operational costs for farmers, but also contribute to the broader sustainability goals of the aquaculture sector.

Our innovation efforts are geared toward alleviating the economic pressures on farmers. We are constantly seeking ways to optimise raw material use, reduce feed costs, and improve feed efficiency. By developing cost-effective and high-performance feed formulations, we enable farmers to enhance animal survival rates and increase the likelihood of successful harvests. This support helps farmers achieve better returns, boost profitability, and sustain the growth of the aquaculture industry amidst dynamic market conditions.

2023 PERFORMANCE HIGHLIGHTS

Animal health and welfare

- Conducted EHP (*Enterocytozoon hepatopenaei*)-specific feed trials with positive outcomes in shrimp health, supporting better disease resistance and increasing farmer profitability.
- Validated the effectiveness of functional feeds in improving shrimp recovery and health, setting new benchmark for sustainable farming.

Product innovation

- Successfully introduced the Mid-Tier Immune Functional Feed (MTFF), a cost-effective feed solution which improves shrimp health, survival rates, and higher average harvest weights, directly enhancing yield and profitability for farmers facing declining prices and chronic diseases.
- Our Project Horizon feed series, aimed at reducing environmental impacts while enhancing feed efficiency, proved its efficacy in field trials across Indonesia and Vietnam, showing improved shrimp growth, survival, and feed conversion rates, which led to increased returns for farmers.

- GROFARM™ model success rates improved from 66% to 85% since launch.
- Three-fold increase in GROFARM™ monitored farms
- Expanded the enhanced sustainable shrimp farming model, GROFARM™ PRO, to 26 farms in Vietnam, with a 90% success rate in crops.
- Deployed an improved Technical Services app with AI tools for precise health assessments and growth monitoring, including trials for shrimp larvae count and water quality prediction technologies.

Animal health and welfare

At Grobest, ensuring the health and welfare of aquatic species is a cornerstone of our business. As a leader in aquafeed, we do our best to ensure aquatic animals enjoy humane treatment and optimal living conditions. This is reflected in our products and solutions that prioritise animal health and welfare.

With global aquaculture production on the rise, farmers increasingly face challenges, including new and aggressive disease strains. Our R&D teams are at the forefront of addressing these challenges, developing natural feed additives and other technologies to bolster the immunity of aquatic animals against environmental stressors and diseases.

We champion the principle of natural harmony, recognizing that healthy aquatic animals are better equipped to withstand diseases and environmental pressures, thereby reducing reliance on antibiotics and other interventions that pose potentially adverse environmental effects.

We focus on gut health, a critical factor for disease resistance and overall well-being in aquatic species. Our feeds not only deliver nutritional excellence but are also fortified with functional additives designed to enhance immune defences.

One of the critical challenges we addressed in 2023 was EHP (*Enterocytozoon hepatopenaei*), which hampers shrimp growth and increases operational costs for farmers. To combat this, Grobest undertook extensive customer trials in regions prone to EHP.

These trials tested an EHP-specific functional feed designed to prevent HPM (hepatopancreatic microsporidiosis) and support the recovery of the hepatopancreatic and intestinal structure in infected shrimp. The results were significant, showcasing improved health, better gut and hepatopancreatic structure, and enhanced disease resistance in treated shrimp. This not only marks a leap forward in shrimp health management but also translates into increased profitability and success for farmers.

The positive outcomes from the EHP-specific feed trials in mitigating disease impacts and improving recovery rates have set new benchmarks for sustainable farming practices.

Looking ahead, Grobest is poised to extend this success through controlled disease challenge trials against EHP and White Faeces Disease. Additionally, we plan further customer trials under field conditions to explore the full potential of our functional feeds in supporting tissue repair and growth recovery post-EHP infection. Our journey continues, with a clear focus on the well-being of aquatic life, leaning on innovation that places sustainability at the forefront, reinforcing Grobest's position as a catalyst for positive change in the aquaculture industry.



Product innovation

At Grobest, our mission is to lead the way in aquafeed innovation, crafting solutions that not only promote animal health and yield optimization but minimise negative impacts on the environment and the communities we serve, paving the path for sustainable aquaculture practices.

Our research and development efforts are dedicated to overcoming the challenges faced by aquaculture today. We recognise that the growth of farmed animals is intricately linked to their ability to effectively absorb nutrients from their feed. Optimal feed intake, which may be disrupted by each or a combination of factors such as infections, poor water quality, subpar feed quality, improper feeding schedules, and environmental changes, is crucial for consistent growth throughout the farming cycle.

In 2022, we introduced Grobest 360° Nutrition™, a pioneering technology platform that merges cutting-edge functional additives with superior nutrition strategies to secure both animal health and performance.

In 2023, using the principles behind Grobest 360° Nutrition™ to balance functionality, nutrition and affordability, we introduced the Mid-Tier Immune Functional Feed (MTFF), a cost-effective alternative designed to emulate the effectiveness of premium feeds. This innovation has enabled more farmers to gain access to the benefits of functional feeds, improving their profitability and crop success amidst tough market conditions.

Building on the foundation of Grobest 360° Nutrition™, Project Horizon emerged as a testament to our unwavering focus on delivering nutritionally effective solutions. This initiative not only supports farmers in securing bountiful harvests but places a strong emphasis on environmental stewardship, aimed at preventing nutrient runoff into aquatic ecosystems. In 2023, our Project Horizon feed series proved its efficacy in field trials across Indonesia and Vietnam, showing improved shrimp growth, survival, and feed conversion rates, which led to increased returns for farmers.

The adoption of GROFARM™, our pioneering solution designed to maximise the profitability and sustainability of intensive shrimp farming, grew to over 4,360 farms. In 2023, we introduced GROFARM™ PRO, an advanced iteration of the model, incorporating cutting-edge technology for water treatment and growth monitoring, alongside practices that underscore responsible farming.

Our Grobest Technical Services teams advanced digital innovation in shrimp farming, notably enhancing the Grobest TS app with AI tools for precise health assessments and growth tracking.

The app, central to managing over 900 farms and 12,000 ponds, now includes new technologies for counting shrimp larvae and predicting water quality, marking significant strides in leveraging technology to boost farm productivity and sustainability.

As we move into 2024, our dedication to innovation in aquaculture continues. We will continue to work on alternative protein sources like insect meal and single-cell proteins to diversify and sustain our feed formulae, offering robust solutions to the industry's evolving demands.

Our ambition is to enable more farmers to access our technology in functional feeds. We plan to expand our product ranges to include cost-effective nutrition solutions that do not compromise performance. Additionally, we are primed to validate our innovative Functional Pond concept, which synergistically combines Animal Health Products (AHP) with functional feeds to promote more sustainable farming practices.

Through workshops, training sessions, and farm-customised support, we will continue our partnership with farmers globally. Our commitment is to foster more resilient and sustainable aquaculture practices that not only improve farm yields but also enhance the long-term sustainability of the aquaculture industry.

Mid-Tier Immune Functional Feed

In 2023, shrimp farmers across Asia faced a dual threat: declining farm gate prices and a surge in chronic diseases. These challenges increased financial pressure on farmers due to market uncertainties and jeopardized the success of shrimp crops. To address these issues, Grobest developed the Mid-Tier Immune Functional Feed (MTFF), a cost-effective solution that reduces costs during the shrimp grow-out stage, which constitutes a significant proportion of total farming costs.

MTFF uses the principles behind Grobest 360° Nutrition™ to balance functionality, nutrition, and affordability. This innovative nutritional approach enhances the health of the hepatopancreas and intestines, boosts immunity, and increases disease resistance. The tangible benefits include improved survival rates and higher average harvest weights, both of which directly enhance yield and profitability for farmers.

MTFF has proven instrumental in preventing and mitigating disease while improving crop management, offering a lifeline to farmers grappling with low prices and disease-related productivity losses. Successfully launched in Vietnam, Thailand, Indonesia, India, Taiwan, and Malaysia, MTFF has helped farmers navigate these challenges successfully.

The efficacy of MTFF was initially demonstrated in an 8-week laboratory trial in Thailand. Shrimp fed with MTFF exhibited weight gains comparable to those fed premium functional feeds, and significantly better than those on standard grow-out feeds.

Additionally, MTFF-fed shrimp showed enhanced immune responses, registering 15-21% higher in the short term and maintaining a 2-16% advantage over the longer term compared to those fed with grow-out feeds.

Further validation came through customer farm trials and demonstrations across several countries. In Thailand, Vietnam, Indonesia, and India, MTFF-fed shrimp displayed higher survival rates, growth, and feed conversion rates (FCR). These results translated into better production parameters, increased profitability, and higher returns on investment (ROI). Moreover, MTFF-fed shrimp demonstrated superior tissue health, evidenced by more abundant oil droplets in hepatopancreas tubules and reduced intestinal inflammation. A farm trial revealed that shrimp fed with MTFF also had 15% higher hemocyte counts than those fed regular grow-out feeds, underscoring enhanced health and disease resistance.

Overall, MTFF represents a strategic innovation from Grobest, enabling more farmers to attain high performance under economic constraints and contributing significantly to the sustainability of the shrimp farming industry.

Project Horizon

Project Horizon represents a significant leap forward in Grobest’s commitment to sustainability and efficiency in aquaculture feeding practices. Designed to maximize protein retention and minimize environmental footprint, the Horizon feed series strikes an optimal balance between protein levels and functional additives.

This innovative formulation enhances feed performance by boosting nutrient utilization, significantly reducing water pollution from the discharge of nitrogen into aquaculture ponds. The result? A substantial decrease in disease risks and water treatment expenses.

In 2023, our field trials across Indonesia and Vietnam provided compelling evidence of Horizon feed effectiveness. Shrimp raised on these specially formulated feeds not only demonstrated superior growth and survival rates but also showed improved feed conversion rates, culminating in a notably higher return on investment for farmers.

Further trials have corroborated these findings. Outdoor cage trials assessing the impact of Horizon feeds on nitrogenous waste reduction underscored their environmental benefits.

Shrimp fed with Horizon feeds matched the growth of those on standard diets while exhibiting better protein retention and lower nitrogen losses. Even when feed rations were reduced by 10% to 20%, shrimps maintained growth rates comparable to full-ration controls, with enhanced protein retention and reduced nitrogen output.

This aligns with broader research indicating that reducing dietary protein and feed quantities can positively impact waste management and animal growth. As we move forward, Grobest plans to expand this research, exploring the broader implications of dietary protein reduction on waste generation, continuing to pave the way for more sustainable and responsible aquaculture practices.

Fishmeal

As the global shrimp industry remains a significant consumer of fishmeal, the drive towards identifying and integrating alternative protein sources has never been more critical.

Recent studies have shown promising avenues for reducing reliance on fishmeal without compromising the health or growth of shrimp, paving the way for a more strategic use of fishmeal alongside innovative protein sources.

In 2023, we made substantial strides in our quest for sustainable alternatives to fishmeal. Our research has demonstrated that insect meal can serve as a complete substitute for fishmeal in shrimp diets, maintaining growth rates and health benchmarks. Additionally, we explored other novel proteins, such as single cell protein derived from *Clostridium* and proteins from fermented corn, with promising results. *Clostridium* single cell protein, for instance, successfully replaced up to 60% of fishmeal in diets without any adverse effects on growth or immunity. Similarly, fermented corn proteins can replace between 50-75% of fishmeal, without hindering growth nor immune health and disease resistance.

Our commitment to sustainable shrimp farming practices has led us to evaluate diets devoid of fishmeal (zero fishmeal, ZFM). These trials involved shrimp being fed two sets of diets formulated based on commercial grower feeds, with one set incorporating traditional fishmeal levels and the other testing ZFM diets composed of alternative animal and plant proteins.

The findings revealed that, particularly in diets with lower overall protein and fishmeal content, shrimp fed ZFM diets achieved comparable or superior performance to those on control diets. This breakthrough indicates that complete fishmeal replacement is more feasible in diets optimised for lower crude protein content, marking a significant step forward in the development of sustainable, fishmeal-free shrimp feeds.

These developments in 2023 underscore our commitment to reducing the shrimp industry's dependency on fishmeal, aligning with Grobest's approach to sustainable and responsible aquaculture practices. Moving forward, we will continue to refine our research on alternative protein sources, to create feeds that support the industry's growth while preserving ocean biodiversity.



CASE STUDY:

Alternatives to Shrimp Flake in Shrimp Farming

In the early stages of shrimp farming, particularly during the hatchery and nursery phases, many farmers traditionally use shrimp flake to culture shrimp larvae. This practice is based on the belief that shrimp flake, with its high animal protein content, offers superior nutritional benefits compared to manufactured feeds.

However, our field observations have highlighted risks like the introduction of disease to the pond or the environmental burdens associated with this approach. This may adversely affect the growth performance of shrimp larvae.

In response, Grobest China has developed XRB, a premium shrimp fry feed designed specifically to replace shrimp flake. XRB leverages advanced production technologies to minimise water pollution and provide balanced nutrition tailored to the needs of young shrimp. This feed not only enhances biosecurity by reducing the risk of disease transmission but also promotes environmental sustainability in shrimp nurseries.

The formulation of XRB is based on Grobest’s proprietary 360° Nutrition™ technology, ensuring a holistic approach to nutrition that supports optimal health and growth. Field trials have demonstrated that using XRB can increase the survival rate in shrimp nurseries by 20% compared to traditional methods such as feeding with shrimp flakes. This improvement boosts the health and immunity of shrimp from an early age and offers economic benefits by reducing losses due to shrimp mortality. Our customers have provided overwhelmingly positive feedback on XRB’s performance, noting particular improvements in intestinal health and overall vitality of shrimp, setting a strong foundation for their growth phases.



SHRIMPS UNDER THE MICROSCOPE.

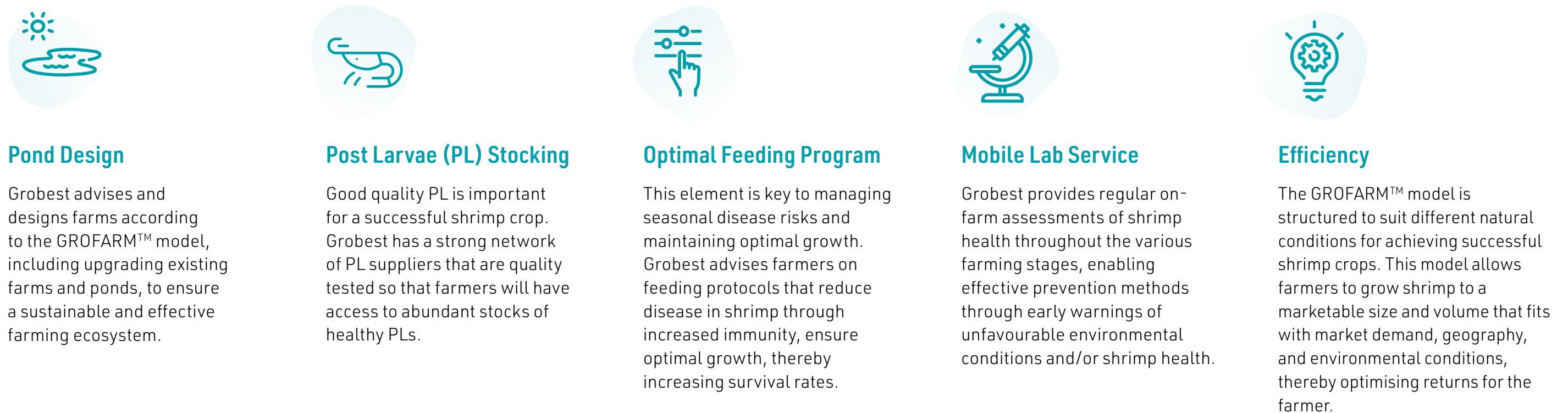
Top picture shows a shrimp fed on traditional feeds. Bottom picture shows a shrimp fed on XRB.

Notice the thicker, fuller gut with XRB, showcasing superior results compared to traditional feeds.

GROFARM™ Model

In 2020, Grobest launched the GROFARM™ model in Vietnam, pioneering a comprehensive solution designed to maximise profitability in intensive shrimp farming, even within challenging environments. The GROFARM™ approach unites essential players – from farmers and hatcheries to equipment suppliers – aimed at optimising the culture process.

The GROFARM™ model is structured around five pivotal elements, ensuring a comprehensive approach to shrimp farming.



Since 2021, GROFARM™ adoption has surged from 200 to 4,360 farms. Of these, about 1,000 farms are directly monitored by our TS team. Success rates at these farms have improved from 66% to 85%.

The implementation of the GROFARM™ model has led to tangible benefits, including enhanced success rates, reduced chemical use, and lowered carbon footprint per kilogram of shrimp produced. By minimizing the need for antibiotics and chemicals, we lessen pollution to water bodies relied upon by local communities.



4,360
farms in 2023



~1,000
monitored by
TS team



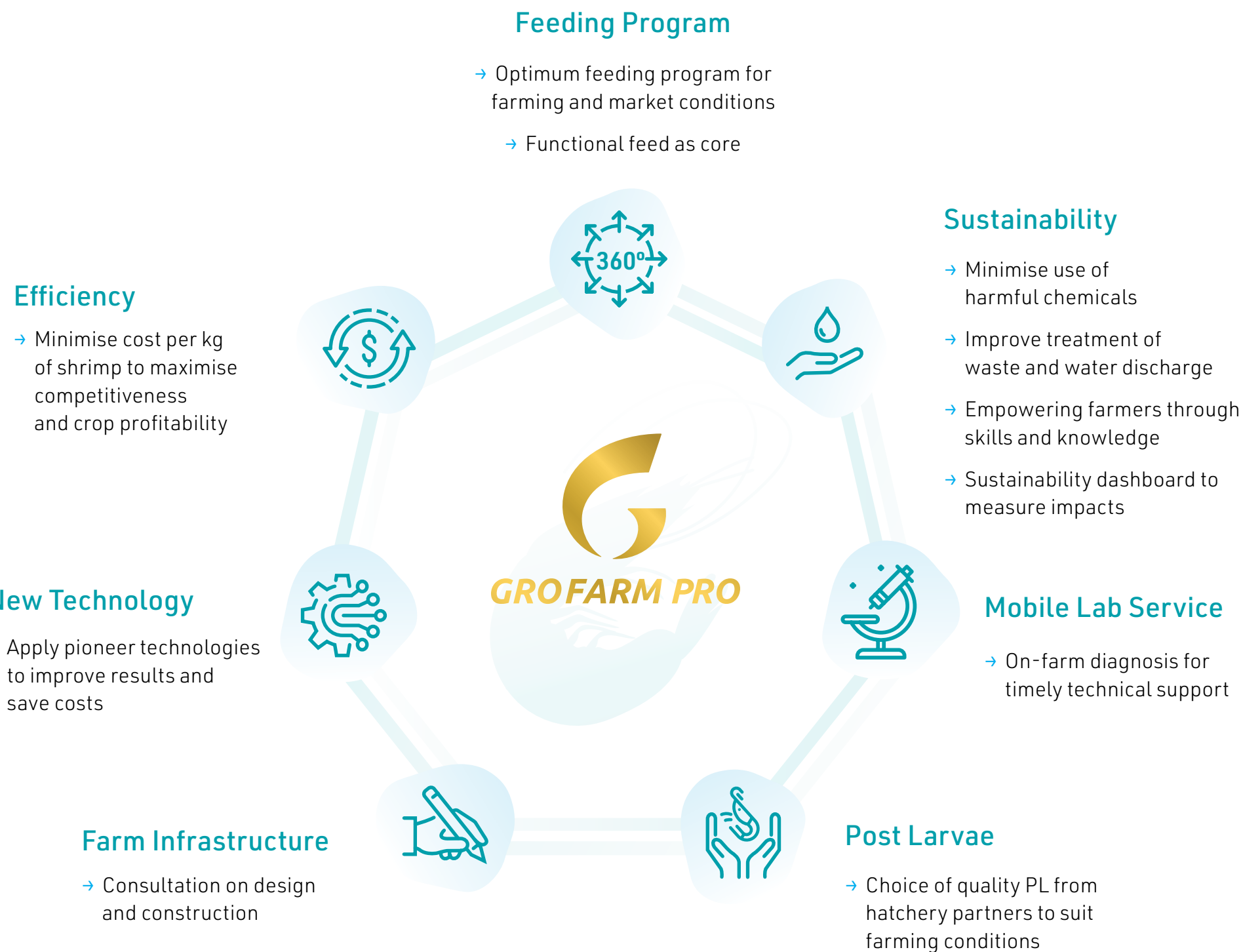
85%
success rate

In 2023, we introduced GROFARM™ PRO, an advanced iteration of the model, incorporating cutting-edge technology for water treatment and growth monitoring, alongside practices that underscore responsible farming. GROFARM™ PRO has since been adopted by 26 farms across Vietnam with a 90% success rate as well as significant profitability gains, with more than half of those crops achieving a ROI greater than 50%.

A significant part of the GROFARM™ success story is our focus on empowering farmers. In 2023, Grobest organised extensive workshops and farm tours aimed at equipping shrimp farmers with the necessary skills, knowledge, and best practices. These educational initiatives have been instrumental in fostering a deeper understanding of sustainable farming methods and the practical application of the GROFARM™ model.

In addition to hands-on support for farmers, we launched the GROFARM™ Sustainability Dashboard in 2023. This tool aims to meticulously document and monitor the impacts of the GROFARM™ model, emphasizing efficiencies and reduced environmental impacts. Set for publication in 2024, the dashboard will provide a comprehensive overview of key sustainability metrics, including growth performance, cost-benefit analysis, resource utilization, waste management, and greenhouse gas emissions reductions. This initiative is a testament to Grobest’s commitment to transparency and continuous improvement in sustainable shrimp farming practices.

As we look to the future, Grobest is committed to expanding the reach of the GROFARM™ and GROFARM™ PRO models, tailoring them to meet the diverse needs of farmers in Vietnam and beyond. Through these efforts, and the innovative GROFARM™ Sustainability Dashboard, we aim to set new standards for efficiency, sustainability, and profitability in the aquaculture industry.



Advancing Shrimp Farming with Digital Innovation

In the fast-evolving world of shrimp farming, digital innovations are making waves, promising to usher in a new era of efficiency and productivity. Grobest Technical Services are leading this digital revolution, applying technology to deliver unparalleled insights and solutions to farmers.

Our journey into digital transformation is anchored by a mobile application (app), the Grobest TS app. This powerful tool simplifies how we gather and manage data direct from the farm, from shrimp health to the intricacies of their living conditions. Since its introduction in 2021, this app has become vital in our operations, enabling us to offer bespoke advice and timely interventions that significantly boost farm performance.

What makes the Grobest TS app stand out is its ability to provide farmers with instant reports on crucial aspects of shrimp farming, like water quality and shrimp growth. This insight allows for swift actions to enhance shrimp well-being and farm yields, reducing mortality risks and setting the stage for successful harvests.

To date, the app monitors a network of over 900 farms and 12,000 ponds, tracking more than 15,600 production cycles. However, it is not just about numbers; it is about making a real difference in the lives of farmers and the sustainability of shrimp farming.

In 2023, we took the app to the next level by incorporating AI tools for precise health assessments and growth tracking. We also explored innovative technologies including a third-party app for counting shrimp larvae in Thailand and satellite-based technology for predicting water quality in India. While it is early days for these projects, they signal our commitment to pushing the boundaries of what is possible in aquaculture technology.

As we look to the future, we are excited about introducing even more tools to enhance our services. Our aim is clear: to equip farmers with the knowledge and technology they need to achieve bountiful harvests in a way that is environmentally friendly.

Message from Txomin Azpeitia Badiola, Group Technical Manager



The effectiveness of our technical services comes from understanding market dynamics and challenges from the ground up and in real time. To this end, we are accelerating our digital transformation to shape the future of our technical offerings. Digitalisation empowers us to make data-driven decisions that enhance feed performance and deliver exceptional service to our customers. The data that our field teams collect is quickly translated via AI-driven tools into online analyses and reports, enabling timely interventions through situation-specific advice. This increases efficiency and productivity at farms, ultimately contributing to our customers' success.



People and Culture

PEOPLE AND CULTURE

Our motto at Grobest—‘One Grobest, One Team’—is brought to life by our people. They are the driving force behind our success, from meticulous research and development to the delivery of premium products and technical solutions to farmers across the globe. Our team’s commitment to excellence, fuelled by our core values and ethical practices, shapes the culture of innovation and responsibility that defines our company.

We maintain a steadfast dedication to upholding these values, starting with our Code of Conduct and policies, and constant reinforcement through comprehensive training and development. Our global operations are underpinned by a deep respect for human rights, and we foster a culture that prioritises a respectful and safe working environment for all.

We are committed to the continual enhancement of our workplace, ensuring a safe, healthy, and inclusive space for every member of our team.

By implementing robust health and safety protocols and fostering open communication and equitable recognition across all levels of the organization, we solidify the foundation for our collective achievements and reinforce the resilience of our workforce.

As Grobest evolves, so too does our approach to People & Culture, adapting and innovating to meet the dynamic needs of our industry and the diverse individuals who make up our world-class team.

2023 PERFORMANCE HIGHLIGHTS

Human Rights

- Conducted an evaluation into recruitment practices at our Malaysia, Taiwan, and Thailand operations.
- Piloted worker voice surveys via a mobile-based platform (diginexAPPRISE) to engage with migrant workers.

Workplace Safety & Health

- Incorporated Grobest’s 6 Life Saving Rules into our Safety Observations and Communications (SOC) processes to enhance safety vigilance.
- Executed a comprehensive HSE Audit at 12 feed mill plants, to assess compliance with our Health, Safety, and Environment standards.

Engaged and Inclusive Workforce

- Achieved a 20% increase from 2022 in employee training hours that underscores our commitment to fostering an environment of continuous learning.
- Enhanced our Sales Incentive Plan (SIP) to recognise and reward performance equitably across our sales teams.

Human rights

Grobest is steadfast in our commitment to cultivating a workplace where respect and equity are paramount. Our commitment to human rights is informed by global standards, including the International Labour Organization (ILO), the United Nations Guiding Principles on Business and Human Rights, the UK Modern Slavery Act, alongside compliance with local labour regulations.

In 2019, our Board of Directors endorsed a Code of Conduct emphasizing our stand on human rights protection for employees, temporary staff, and suppliers. This commitment was further strengthened in April 2022 with the Grobest Human Rights Commitment, echoing the values of the International Bill of Human Rights and the principles of the ILO's Declaration on Fundamental Principles and Rights at Work.

Oversight of our human rights framework is a collaborative venture, with our Legal, Compliance, and ESG function leading the charge, supported by Human Resources and HSEQ (Health, Safety, Environment and Quality) departments for implementation, and Procurement for supplier conformance to our standards.

Our employees are acquainted with our [Human Rights Policy](#) from the moment they join Grobest and throughout their tenure, supported by regular training, visible reminders, and discussions at company-wide forums.

Our grievance policy ensures that concerns are addressed promptly and justly, safeguarding against retaliation.

In 2023, we continued to make progress in human rights. We recognize the potential for debt-bonded labour among migrant workers. As such, we undertook an evaluation of our recruitment practices in Malaysia, Taiwan, and Thailand.

This review unveiled certain gaps, prompting us to adopt a phased approach to ameliorate these, prioritizing the rights and well-being of our workers.

A novel step in 2023 was the pilot of diginexAPPRISE, a mobile-based platform, to directly hear from foreign migrant workers in Thailand. This multilingual, audio-based survey provided invaluable insights into the workers' sentiments and well-being, guiding us to refine our employment practices and enhance workplace conditions.

As noted in the "Supplier Management" section of the report, we conducted an online assessment of our suppliers' management frameworks, policies, and practices against key human rights concerns. Our efforts extended beyond internal practices to include a deeper analysis of social risks in our supply chain. We intensified our use of digital technology for more proactive monitoring and engagement in identifying and mitigating potential risks, to ensure an ethical supply chain.

As we move forward, Grobest's commitment to human rights remains unwavering. We will continue to strengthen our monitoring mechanisms, embrace innovative technologies for social risk assessments, and respond effectively to these challenges, underscoring our ongoing commitment to human rights protection and ethical business conduct.

Workplace safety & health

At Grobest, we believe the well-being of our employees is foundational to our operational excellence and sustainable growth. Creating a safe and healthy workplace is paramount to nurturing a motivated and high-performing team that goes beyond compliance.

Embedded in our operations is a robust Health, Safety, Environment, and Quality (HSEQ) policy, endorsed by our ESG committee since 2020. This policy, alongside our Health, Safety, and Environment (HSE) Commitment Statement, guides our efforts in hazards identification, risk management, and fostering responsible workplace behaviours.

Since 2021, we have refined our approach to safety through standardised risk management processes and procedures. With the introduction of our Group HSE Audit Program and HSE Manual, we have laid a foundation for consistent safety practices across all of our plants.

In 2022, we took a significant step forward by implementing our 6 Life Saving Rules, derived from an analysis of our most severe incidents. This program targets six critical areas: electrical safety, working at height, alcohol and drug prevention, fire and dust prevention, driving safety, and energy isolation, to protect our employees from high-risk situations and embed safety into every aspect of our business.

Building on the groundwork laid in previous years, 2023 marked another year of significant progress in our safety journey. We introduced HSE Key Performance Indicators (KPIs) and scorecards for each subsidiary, enhancing our ability to track compliance and monitor progress in our safety projects.

The 6 Life Saving Rules continued to be a cornerstone of our HSE efforts, with each plant integrating these rules into their Safety Observations and Communications (SOC) processes. The closure status of improvement actions identified through the SOC process is rigorously analysed and tracked, ensuring continuous enhancement of our work environments.



HSE Committees at each site, comprising senior management, plant managers, department leaders, and worker representatives, play a critical role in managing hazards and risks, supported by quarterly meetings to ensure ongoing vigilance. With 247 committee members and 108 worker representatives at the end of 2023, our collective efforts towards safety performance is evident in our proactive engagement and comprehensive incident reporting procedures. Incidents are investigated for root causes, with findings and preventive measures shared across our network for group-wide learning.

To heighten safety awareness by our employees, we promoted various types of safety education and training throughout this past year, with each employee receiving an average of 4.49 hours of safety training. To identify and eliminate hazards and minimise risks, we also assess the health status of employees before and during employment, which includes periodic and specialised health examinations, to manage risks from noise, dust, and chemicals.

Despite our efforts, we recorded 12 work-related injuries among employees and 8 among contractors in 2023. The increase in contractor-related cases has prompted us to delve deeper into understanding the root causes and strengthening our safety measures.

In 2023, Grobest conducted a thorough Group HSE Audit across 12 of our feed mill plants, rigorously evaluating our adherence to established Health, Safety, and Environment (HSE) procedures. This audit helped us to verify the effectiveness of our safety protocols when implemented on the ground. It covered safety management systems and technical topics like electrical and machinery safety, hazardous operations, and compliance with Grobest’s Life Saving Rules.

The audits highlighted technical safety areas as a continued focal point for 2024, pinpointing maintenance and team awareness as areas for improvement. Critical audit findings have prompted not only corrective but preventive actions, with senior leadership closely monitoring progress.

For plants scoring below 75% in our 2023 audits, we have planned re-audits in 2024, to ensure continuous improvement in our health and safety performance. This approach underlines our commitment to maintaining stringent safety protocols and enhancing our safety culture.

Since the implementation of the 6 Life Saving Rules in 2022, more than 56% of our facilities achieved Zero Lost Time cases in 2023 and the number of severe cases has significantly decreased. The year also saw improved transparency in incident reporting, particularly of incidents involving contractors.

In 2024, our aim is to foster stronger safety leadership throughout Grobest, starting with increased leadership presence at physical sites to reinforce our expectations of the safety culture we desire. Grobest is committed to providing an injury-free workplace for all employees, third-party contractors, and other visitors to our sites. We will continue to improve our safety protocols, enhance safety awareness through regular trainings, and implement proactive measures to identify and mitigate potential hazards.

WORKPLACE SAFETY & HEALTH KEY FIGURES



56%

of our facilities achieved Zero Lost Time cases in 2023



12

Work-related injuries among employees in 2023 (compared to 13 in 2022)



3.4

Rate of lost days among employees in 2023 (compared to 5.7 in 2022)



4.49

hours of safety training per employee



247

committee members and 108 worker representatives



12

Group HSE Audit across 12 of our feed mill plants

Engaged and inclusive workforce

At Grobest, we know that a diverse, engaged, and inclusive workforce is vital to our success. Each employee’s unique perspectives, skills, and experiences are critical to our ability to innovate and deliver the high-quality products and services our customers have come to expect.

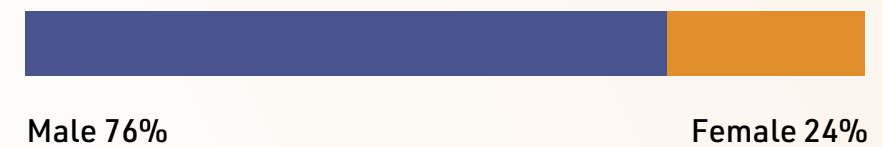
Our workforce strategy is simple: offer equitable remuneration and welfare, provide personal development opportunities including training, and ensure a diverse and inclusive culture. We prioritise practical skills that encourage innovation and drive operational efficiencies. Our inclusivity initiatives aim to create a workplace reflective of the global marketplace we operate in, and our compensation structures are designed to acknowledge the performance of our employees against our strategic objectives.



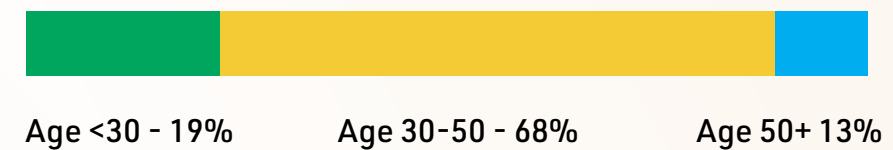
Our workforce at a glance

Grobest is a diverse company with over 3,000 employees² from more than 15 different nationalities. We strive to provide equal opportunities for employment, promotion, pay, and professional development, while ensuring a workplace environment free from harassment or discrimination.

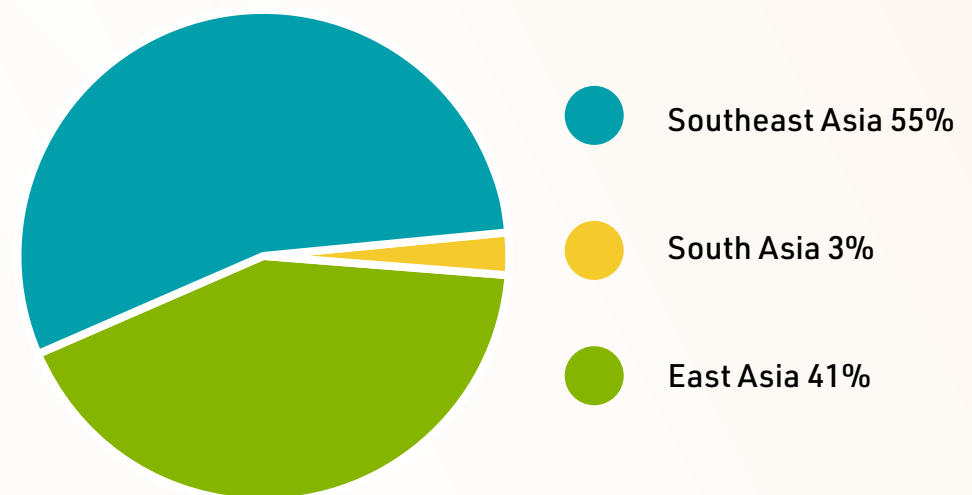
OVERVIEW OF OUR EMPLOYEE DEMOGRAPHICS BY GENDER (%)



OVERVIEW OF OUR EMPLOYEE DEMOGRAPHICS BY AGE GROUP (%)



TOTAL EMPLOYEES ACROSS OUR MARKETS²



Notes:

- East Asia includes Hong Kong, Mainland China and Taiwan. Southeast Asia includes Indonesia, Malaysia, Philippines, Thailand, and Vietnam. South Asia includes India.
- As of 31 December 2023, absolute employee headcount was 3,075. Figures compiled using an FTE (full-time equivalent) approach. Includes permanent and temporary employees.

Training & talent development

At Grobest, the continuous growth and skills advancement of our team is a fundamental part of our strategy. We prioritise recruiting skilled talent and nurturing their abilities within our core business areas, keeping pace with the evolving demands of our dynamic industry. Central to this is equipping our staff with the knowledge and judgment necessary to uphold our various policies and codes of conduct.

In 2023, we tailored internal training programs designed to span all organizational levels. These programs include initial onboarding to leadership development, covering technical skills, safety protocols, and competency certifications. On average, each Grobest employee invested 13 hours in training, totalling over 41,000 hours collectively. This represents an almost 20% increase from 2022 and underscores our commitment to fostering an environment of continuous learning.

Recognizing the importance of individual professional growth, we continued to offer subsidies for external, accredited courses, supporting our employees' ambitions to broaden their proficiencies outside the company. This not only bolsters their personal career paths but also brings new skills and perspectives back into our business.

Adapting to the digital shift, 2023 saw us integrating our Human Resources Information System (HRIS) platform with various digital channels to streamline communication and simplify processes. We backed this technological integration with thorough training for our staff, ensuring they were well-equipped to leverage these new tools effectively.

Investing in our employees' career trajectories is integral to propelling Grobest's collective success forward. Leaders and Managers continued to provide regular performance and career development reviews. These sessions are invaluable, offering a stage for talent to be recognised, constructive feedback to be exchanged, and professional growth pathways to be mapped out.

Recruitment

Asia's dynamic market landscape presents both challenges and opportunities in talent acquisition and retention. In response, we actively monitor our turnover levels against the industry, gaining insights into employee engagement and tailoring our programs accordingly.

In 2023, we welcomed 383 new members into our Grobest family, and our employee turnover rate was 21%, consistent with previous years. 69% of our turnover was voluntary, with employees leaving for reasons such as career development, job satisfaction, personal or family related matters.

The remaining 31% was involuntary, due to factors like contract expiry, redundancy, performance or misconduct. This rate reflects our understanding of market dynamics and our commitment to responding with targeted initiatives that not only attract but retain talent within our organization.



41,000

total hours of training



13

hours of training per employee



20%

increase from 2022

Engaging our people

At Grobest, nurturing a collaborative and inclusive workplace is essential. We understand that a thriving company culture is dependent on the active engagement of every team member.

In 2023, we introduced SMART (Specific, Measurable, Achievable, Relevant and Timebound) goal setting and provided our team with clear objectives that align with our broader business goals, aimed at boosting both motivation and productivity.

Communication is the lifeblood of engagement. We stepped up our efforts to keep the lines open and active. An open-door policy reflected through town hall meetings, online engagement platforms and regular newsletters have become our staple channels for sharing updates, celebrating milestones, and discussing any concerns. These collective platforms build a foundation of mutual trust and cooperation.

We enhanced the equity and transparency of our Sales Incentive Plan (SIP) in 2023. Designed not just to reward success but to encourage a culture of support and shared growth within our sales teams, the SIP aims to recognise both individual performance and team effort, upholding our values of fairness and to acknowledge the impact from our sales force.

Our actions in 2023 have been geared towards fostering positive change and deepening employee engagement. By prioritizing clear goal-setting and open communication, we have cultivated an atmosphere where teamwork thrives, and a shared sense of purpose drives us forward.

Beyond rewarding our employees for their efforts, we celebrate them for it. Through effective recognition programs and celebration of the myriad of cultural events throughout the year, we not only honour their dedication but also embrace the rich diversity that each team member brings to Grobest. This enhances our collective tolerance and understanding of each other, bringing about sustainable success.

Welfare & remuneration

At Grobest, we are committed to fairness in every facet of our operations, including welfare and remuneration. We have structured our compensation system to be as dynamic as our workforce, geared towards attracting, engaging, and nurturing talent.

Remuneration at Grobest is performance-based, reflecting each individual's role, efforts, and contributions, backed by regular market analyses to keep our packages competitive.

For us, the well-being of our employees goes beyond the basics. It is about ensuring the holistic health and safety of our team members and their families. That is why our benefits program is comprehensive, encompassing everything from health and medical benefits to initiatives focused on driving safety awareness and providing varied training for professional growth.

More than just meeting regulatory standards, we are constantly benchmarking our offerings against market trends, and using feedback from our employee engagement surveys to make real-time enhancements.

Ultimately, our goal is clear: to cultivate a sense of belonging to 'One Grobest, One Team'. We want every employee to experience a profound sense of pride and to be a vital part in Grobest's long-term mission of feeding the world through safe and sustainable aquaculture.

Diversity & equal opportunity

At Grobest, we are committed to fostering an environment where diverse opinions are heard and valued, and where everyone has the freedom to express themselves without hesitation. It is a commitment that drives innovation, sharpens decision-making, and strengthens our adaptability and problem-solving skills.

Expectations around these key values are set from day one, with new hires receiving training on our Code of Conduct, which emphasises our stand against discrimination. Our suite of e-learning modules reinforces workplace expectations and professionalism, providing clear avenues for employees to report any instances of harassment.

Our Anti-Harassment & Anti-Discrimination Policy, implemented in 2022, underscores our zero-tolerance stance towards any form of discrimination or harassment. Our position is clear: every individual deserves to be treated with respect and dignity, without exception.

Throughout 2023, we continued to uphold principles of non-discrimination and inclusion across all facets of our operations—from hiring new talent to nurturing our existing team.

While our overall diversity ratio remains at 3:1 (male to female), a reflection of the wider industry’s demographics, we are making strides at the executive level, where our leadership team boasts a female majority.

However, we acknowledge that our Board of Directors comprises only male representation, underscoring a need for diversity within our highest governance body as we continue to push for broader inclusivity across all levels of our organization.

We are not complacent where pay equity is concerned. Recognizing the need for transparency, we are enhancing our data analysis to accurately address and rectify any disparities. This effort is ongoing, and we aim to provide more detailed reporting in the future.

Looking ahead, gender diversity remains a key focus. We are determined to not only maintain but improve representation across all levels of our company. By committing to equality and embracing diversity in all its forms, we aim to cultivate an inclusive culture that yields collective benefits—for our people and for Grobest.

Grobest's gender ratio

BOARD



EXECUTIVE COMMITTEE



DIRECTOR / HEAD OF DEPT / GENERAL OR COUNTRY MANAGER



Responsible Sourcing

RESPONSIBLE SOURCING

At Grobest, responsible sourcing underpins our commitment to sustainability, addressing the environmental, social, and governance risks inherent in our supply chain. Our aquafeed products, which heavily rely on marine and plant-based proteins, present various challenges that we address through rigorous supplier oversight and compliance standards. Our structured approach ensures that our sourcing practices align with our high standards for ethical and sustainable operations, supported by comprehensive oversight and accountability mechanisms.

We adhere to established best practices and certifications that guarantee our ingredients are sourced sustainably. This includes ensuring the traceability of our inputs and demanding that our suppliers comply with stringent environmental and social standards. We prioritise sourcing methods that prevent environmental degradation and promote social welfare, ensuring our operations contribute positively to global sustainable development goals.

As we continue to evolve and adapt our sourcing strategies, Grobest remains dedicated to enhancing transparency, strengthening supplier relationships, and increasing our commitment to sustainable practices.

By continuously refining our approach, we aim to uphold the integrity of our supply chain and contribute to the resilience and sustainability of the ecosystems and communities we impact. This strategic focus not only supports our sustainability goals but also reinforces our leadership in the aquaculture industry.

2023 PERFORMANCE HIGHLIGHTS

Responsibly sourced ingredients

- 50% of our marine ingredients came from certified fisheries or from fisheries that were part of MarinTrust Fishery Improvement Projects (FIP).
- 50% of our soy products came from recognised certified sources; we invested in Round Table on Responsible Soy Association (RTRS) credits equivalent to 20,260 MT, directly supporting responsible soy production.
- 100% of our palm oil came from Roundtable on Sustainable Palm Oil (RSPO) certified suppliers.
- 80% of our raw materials were purchased and/or processed locally.

Supplier management

- Conducted online assessments on more than 20 of our key fishmeal suppliers and provided detailed feedback and guidance to reinforce the importance of upholding human and labour rights, highlighting essential policies, procedures, and trainings.
- Active participation in Seafood Task Force (STF) subgroups to drive industry-wide change alongside industry peers.

Responsibly sourced ingredients

At Grobest, we are keenly aware of the environmental and community impacts of our sourcing practices. Recognizing the delicate balance between operational needs and sustainable sourcing, we are committed to responsibly managing the environmental footprint of our raw materials.

The challenge of sourcing ingredients like soybeans and fishmeal underscores the complexity of our supply chain. These realities drive our effort to manage environmental and operational risks effectively, ensuring resilience and sustainability in our operations.

From late 2021, responsibility for executing compliance with our Responsible Sourcing commitments rests with the Procurement function, with a dedicated Group Procurement Director in charge of all procurement personnel within each country where Grobest operates, while oversight rests with the Group Legal, Compliance and ESG function.

Our strategy focuses on increasing the use of sustainable, responsibly and locally sourced ingredients, that meet regulatory food safety standards. We demand thorough documentation or samples from suppliers before placing orders, ensuring compliance and traceability.

Marine sources of protein

In our quest to source marine proteins responsibly, we strictly adhere to the Best Aquaculture Practices (BAP) and equivalent standards. This commitment ensures our feed ingredients are sourced from fisheries that practise sustainable fishing, safeguarding against over exploitation and overfishing.

Transparency is key. We mandate our suppliers to provide detailed sourcing information, including the country of origin, fishing zones, and compliance with regulations against IUU (illegal, unreported, unregulated) fishing. This critical data enables us to trace our raw materials accurately and prioritize suppliers who meet the stringent standards set by certifications like MarinTrust.

MarinTrust certification is more than a label; it is our assurance that the marine ingredients we use are sourced from fisheries that prioritize ecosystem health, adhere to the FAO (Food & Agriculture Organization) Code of Conduct for Responsible Fisheries, and commit to high safety, quality, environmental, and community standards.

In 2023, the El Niño phenomenon significantly disrupted fishing activities in Peru, leading to a decline in our procurement from certified fisheries to 50%, including those under MarinTrust, the Marine Stewardship Council (MSC), and Friend of the Sea (FOS) certifications.

Despite these challenges, we expanded our use of sustainable by-products, resulting in a more responsible portfolio of ingredients.

Our commitment extends to our suppliers. This year, two of our strategic partners achieved the FOS certification and began their journey through the MarinTrust Improver Program, marking a step forward in our collective pursuit of sustainability.

Looking ahead, we are not deterred by the setbacks of 2023. Our goal remains steadfast: to bolster our share of sustainably sourced marine ingredients, ensuring our practices contribute positively to marine ecosystems and the communities dependent on them.



Our commitment to biodiversity in plant proteins

In sourcing plant proteins, we are uncompromising about sustainable agriculture, focused on avoiding deforestation and preserving biodiversity.

Our “Sustainable Sourcing Commitment to Soya Products” mandates our soymeal suppliers to have clear, traceable, and deforestation-free supply chains.

Where we can, we opt for plant-based proteins backed by certifications including the U.S. Soy Sustainability Assurance Protocol (SSAP), Round Table on Responsible Soy Association (RTRS), Roundtable on Sustainable Palm Oil (RSPO), and ProTerra.

2023 marked another year of progress. We saw our certified soy sourcing increase to 50% from 31% in the previous year. We invested in RTRS credits – 20,260 MT worth – directly supporting responsible soy production. We also sourced 100% RSPO certified palm oil.

We strive to increase the share of sustainably sourced, certified, and locally obtained ingredients. Our local purchases show our commitment to supporting local communities and the environment. From 2021 to 2023, we raised our local sourcing average from 77% to 80%, with plant proteins representing 91%.

Despite challenges in fluctuating supply lines and market demand, we stand firm in our efforts to source locally, backing the communities we operate in, reducing our carbon footprint, and ensuring the freshness of our products. The 3% uptick in local sourcing in 2023 over the previous year is a step towards our vision of a more sustainable future in 2024 and beyond.

LOCAL PURCHASES 2021 TO 2023

	2021	2022	2023
Animal protein	58%	57%	60%
Plant protein	86%	87%	91%
Average local purchase	77%	77%	80%



Supplier management

At Grobest, our supply chain is critical to our ability to deliver high quality, sustainable aquafeed solutions. Recognizing the pivotal role of our suppliers in this quest, we have established a rigorous Supplier Quality Management System (SQMS). This framework empowers us to assess and enhance the quality, reliability, and sustainability of our suppliers' offerings, ensuring they align with our high standards and commitment to ethical sourcing.

Our SQMS facilitates the careful selection, qualification, and ongoing evaluation of our suppliers, ensuring a supply chain that is not only resilient and transparent but directly contributes to product excellence and customer satisfaction. We prioritise sustainable and ethical supplier relationships, understanding that our procurement decisions should benefit our business, the environment, and society alike.

Since 2019, we have elevated our sourcing standards through the Grobest Supplier Code of Conduct & Policy on Human Rights (SCOC) and the Grobest Group Procurement Manual, demanding all suppliers embrace these directives. These documents emphasise the importance of human rights, safety, and sustainable business practices, forming the cornerstone of our risk-based supplier assessment approach detailed in our Group Supplier Quality Management Manual.

Our thorough assessment process includes pre-qualification screenings for new suppliers, regular evaluations for existing partners, and comprehensive reviews of suppliers' Quality, Cost, Delivery, and Safety metrics. This systematic approach ensures continuous improvement and adherence to our Responsible Sourcing objectives.

In our commitment to upholding human rights, we understand that it is not enough for our suppliers to simply agree to the principles set out in the SCOC. It is crucial that we actively evaluate and ensure their adherence to these standards, and to mitigate any negative social impacts within our operations and supply chains.

In December 2022 we started using DiginexLUMEN, an advanced digital platform for supply chain due diligence, to critically assess our suppliers' management frameworks, policies, and practices against key human rights concerns, with a focus on eliminating forced labour and protecting young workers. In 2023, we conducted thorough assessments of over 20 of our key fishmeal suppliers and provided detailed feedback and guidance to reinforce the importance of labour rights, highlighting essential policies, procedures, and trainings they should implement. Moving into 2024, we plan to broaden these evaluations to include a wider array of supplier categories, enhancing our engagement efforts to fortify the base of labour rights practices across our supply chain.

Our strategy extends beyond compliance to forging long-term, stable partnerships with our suppliers, characterised by mutual respect, shared values, and joint audits. This collaborative approach not only mitigates operational risks but also amplifies our collective impact on environmental and social welfare.

As a proactive Seafood Task Force (STF) member since 2016, we collaborate with industry peers to tackle labour and illegal fishing issues within seafood supply chains, ensuring social and environmental risks are addressed. Grobest Thailand's active involvement in STF initiatives, particularly the Shrimp Supply Chain Sub-Group, underscores our commitment to supply chain integrity, bolstering confidence among international retailers.

Our participation in STF's oversight program since 2019 has been instrumental in mapping, tracing, and verifying fishmeal supply chains, with a focus on vessel assessments to support remediation and capacity-building efforts. In 2023, we engaged in various STF subgroups, driving significant industry-wide change such as setting standards for the social and traceability assessments.

Looking ahead, we are committed to deepening our relationships with our suppliers, driving greater transparency, and expanding our sustainable sourcing practices across our supply chain. We hope this proactive approach to supplier management will play a vital role in achieving our sustainability goals and maintaining the high quality of our aquafeed solutions.

Sustainable Operations

SUSTAINABLE OPERATIONS

At Grobest, we seek to continuously improve our operations to stay ahead of regulatory requirements and industry standards, in addition to doing our part in environmental stewardship.

We adhere to the highest standards of product safety and quality, ensuring our feed products comply with stringent regulations and fulfil customer expectations. By rigorously maintaining quality controls and adhering to recognised certifications including ISO 22000, HACCP, and BAP, we guarantee the integrity and traceability of our products.

This commitment ensures our feed is safe and nutritious for aquatic species, supporting sustainable aquaculture practices.

The global push to reduce energy usage and carbon emissions highlights urgency in doing our part in environmental stewardship. As a sector leader, we are committed to minimizing our climate impact through efficient and sustainable practices in our operations, including upgrading our equipment and technology constantly. These efforts help to lower greenhouse gas emissions, conserve resources, and reduce waste across our operations.

Responding to the impacts of climate change is imperative for our industry, from ensuring operational resilience to supply chain stability.

At Grobest, we proactively enhance our strategies to manage climate-related risks and opportunities. Our focused efforts on climate vulnerability and adaptation ensure we not only protect our operations from the unpredictable nature of global climate patterns but also leverage the shift towards a low-carbon economy. This approach supports our mission to provide sustainable aquaculture solutions while safeguarding the environment and boosting our operational agility.

2023 PERFORMANCE HIGHLIGHTS

Product Quality & Safety

- 100% of our manufacturing facilities are certified to either ISO 22000 or HACCP (Hazard Analysis & Critical Control Points) standards.
- Zero regulatory penalties related to Grobest products.

Energy, Emissions & Climate Impact

- Conducted the first carbon footprint assessment of emissions in the supply chain (Scope 3), providing a more comprehensive perspective on our total carbon footprint.
- Reduced our absolute energy consumption by 15% year-over-year.

Climate vulnerability and Adaptation

- Diversified our supply chain to mitigate physical risks from extreme weather by evaluating alternative protein sources.
- Continued to develop alternative proteins to align with the shift towards sustainable consumption.

Water, wastewater and effluents

- Reduced our absolute water withdrawals by 7% year-over-year.
- Reduced our absolute waste generation by 6% and improved landfill intensity.

Product Quality & Safety

At Grobest, our business is producing top-tier aquaculture feed that champions reliability and performance for the farmer. Embracing “natural harmony,” we prioritise product safety and animal health in our development process, emphasizing a comprehensive quality assurance approach. Our formulae are designed to provide balanced nutrition while catering to the broader needs of aquatic animals, including health, immunity, digestion, water stability, and nutrient bioavailability.

For decades, our commitment to natural feed additives has been unwavering, aimed at bolstering the immune systems of aquatic animals, enabling them to withstand disease and pathogens. Our global Quality Assurance Department, a robust team of over 150 professionals, spearheads our product safety protocols, working in tandem with departments such as Production, Formulation, Procurement, Sales, and Technical Services. We have an established Customer Complaints Handling Procedure to guarantee high satisfaction levels, addressing any feedback unrelated to nutrition through our Sales team to ensure comprehensive resolution.

Monitoring our customer complaints rate per 1000 tons and the total number of cases helps us enhance our service quality and the effectiveness of our corrective actions, thereby elevating customer satisfaction.

In 2023, we strengthened our feed safety monitoring across all raw materials and finished products, aligning with the safety standards of regulatory authorities, customers, and certification bodies.

Consequently, we successfully mitigated feed safety risks in our products, achieving our goal of zero regulatory penalties and zero recalls of our products.

Product traceability is critical in our commitment to sustainability, quality, and customer satisfaction. Through detailed traceability measures, we ensure the integrity of our supply chain, from raw materials to final products, showcasing our dedication to transparency, responsible sourcing, and regulatory compliance. Our annual mock recall exercises across all feed mill plants are a testament to our commitment to full traceability, from ingredient sourcing to product distribution.

Since 2021, we have been implementing several Kaizen continuous improvement projects specifically to improve product quality and customer satisfaction. In 2023, we continued to use the same methodology focused on improving plant process effectiveness.



In 2023, Grobest retained certification to either ISO 22000 or HACCP standards at all of our manufacturing facilities, aligning our safety and quality with international benchmarks.

Annual third-party certification audits for ISO 22000/HACCP and self-assessments against our Food Safety & Quality (FS&Q) Manual are foundational to our compliance approach. In 2023, we focused on key areas such as systematic management of FS&Q, quality control of raw materials and supplier oversight, monitoring and control of manufacturing processes, and ensuring complete traceability of our products.

Securing these certifications is critical for several reasons. First, they corroborate our ongoing efforts to safeguard the safety and quality of our products—our primary responsibility to our customers.

Second, they reflect our commitment to adopting sustainable and responsible aquaculture practices. Third, these certifications act as a pledge to our stakeholders—from investors to regulatory bodies—that Grobest adheres to and often surpasses internationally recognised safety and quality standards.

Our pursuit of these standards is more than a compliance exercise; it is part of our continuous effort to enhance our operational excellence and affirm our standing in the aquafeed industry. As we move forward, our focus remains in upholding a stringent quality assurance system across all plants and improving the quality of our products to ensure we meet, if not exceed, customer satisfaction levels.

100%

of our manufacturing facilities are certified to either ISO 22000 or HACCP standards.



Energy, Emissions & Climate impact

The global call to reduce energy consumption and carbon emissions has placed a spotlight on the environmental footprint of the aquaculture industry.

As a leader in the sector, we recognise the vital role we play in mitigating our climate impacts through energy-efficient practices and proactive emissions-reduction strategies.

Our commitment to climate action is driven by our understanding of the interconnectedness between the aquaculture industry and the environment, as well as the need to ensure long-term resilience and sustainability for our business and stakeholders.

Our strategy focuses on reducing our greenhouse gas emissions through energy efficiency,

investment in renewable energy sources, and responsible sourcing of raw materials (which we discuss in a previous section). We are committed to monitoring and reporting our emissions, setting reduction targets, and continuously exploring solutions to minimise our carbon footprint.

Grobest's total carbon footprint

In 2023, we achieved a significant milestone in understanding our greenhouse gas (GHG) emissions by completing the first comprehensive calculation of our Scope 3 emissions. This expansion of our emissions inventory reflects our ongoing commitment to transparency in understanding our environmental impact. The inclusion of Scope 3 emissions provides a broader perspective on our total carbon footprint, which was quantified at 749,247 tonnes of CO₂e for the year.

Our analysis utilised a multifaceted approach: a spend-based method for purchased goods and services, a distance-based approach for transportation and distribution activities, a consumption-based method for our direct emissions (Scope 1) and a location-based method for indirect emissions from electricity consumption (Scope 2).

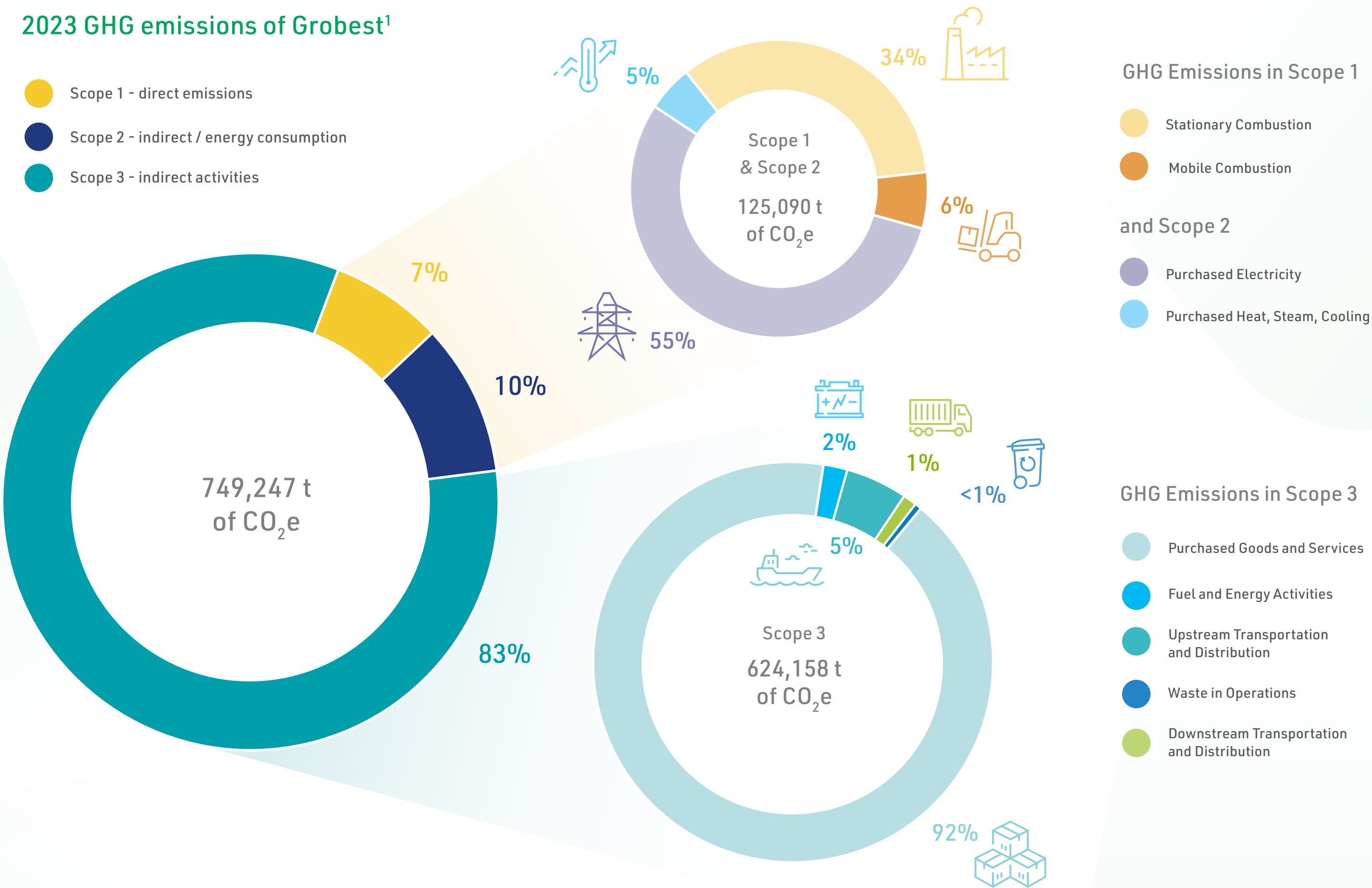
Collaboration with Diginex enhanced our methodology, using the latest conversion factors from the International Energy Agency (IEA) and the UK Department for Business, Energy and Industrial Strategy (BEIS), alongside detailed internal activity data covering gas, electricity, steam, water, and other fuels. Our adherence to BEIS guidance and the GHG Protocol ensured that our emissions reporting is both accurate and compliant with international standards.

A breakdown of our emissions reveals that 83% are attributed to indirect activities under Scope 3, primarily driven by our extensive supply chain interactions. The largest contributor to this category is fishmeal and animal protein meal, which alone accounts for 22% of our total emissions. Scope 2 emissions, largely from electricity, account for 10%, while direct emissions from fuel usage (Scope 1) make up 7% of our total footprint.

With approximately 76% of our emissions stemming from the procurement of raw materials, we acknowledge the critical role of supply chain management in our sustainability strategy. Our strategy to diversify our supply chain of raw materials (which we discuss in another section) will continue to play an important role in our emissions-reduction efforts. As we move forward, we will continue to refine our emissions tracking and reduction strategies, leveraging comprehensive data and collaboration to reduce our environmental impact and lead by example in the aquaculture industry.

2023 GHG emissions of Grobest¹

- Scope 1 - direct emissions
- Scope 2 - indirect / energy consumption
- Scope 3 - indirect activities



1. The scope of inventory in 2023 included data from the Grobest Group, including 13 Feed Plants and 3 Premix Plants.

Scope 1 & 2 emissions in our own operations

Despite challenges over the past year, Grobest kept its focus on energy efficiency and CO₂e reduction.

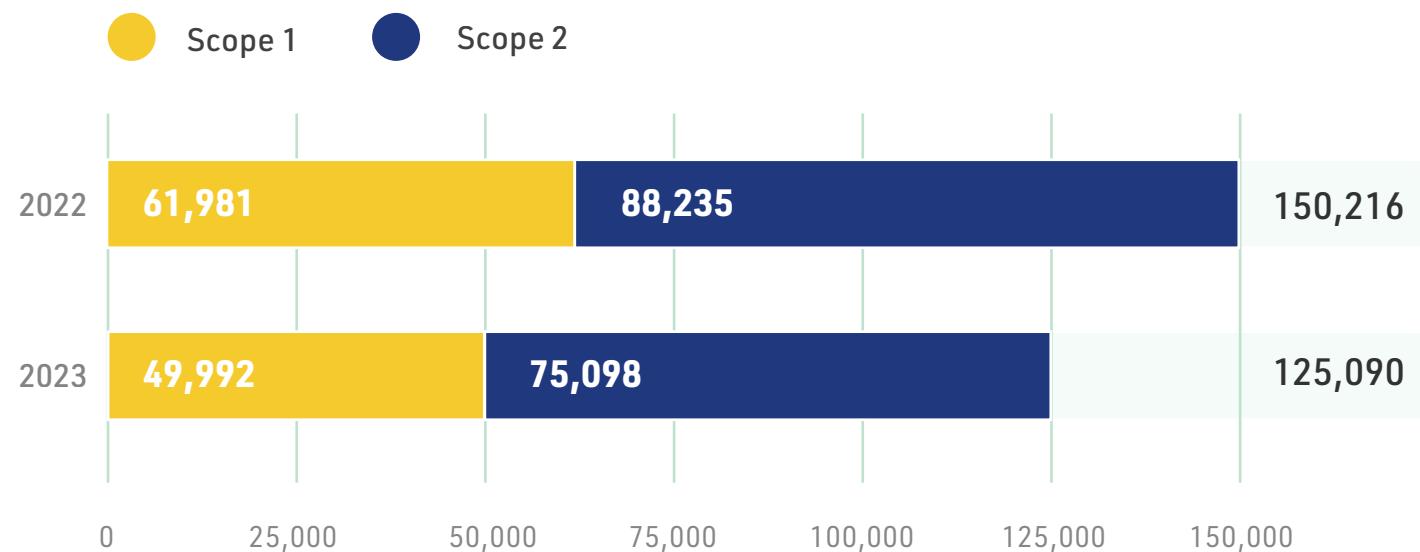
In 2023, our combined Scope 1 and 2 emissions totalled 125,090 tons of CO₂e, accounting for 17% of our total emissions and reflecting a 17% decrease from the 2021 baseline. This reduction highlights our successful energy management efforts, particularly in the drastic reduction of coal use (emissions down over 30% since the baseline year) as well as optimizing electricity use (kWh consumption is down almost 15% since our baseline year).

Electricity remains the largest contributor to our operational carbon footprint, driven primarily by our major sites in China, Vietnam, and Thailand. These facilities are central to our production and our biggest environmental challenges.

While we are taking steps to reduce coal use, coal and steam both contribute significantly to our emissions profile in the meantime.

Despite achieving an emissions intensity of 0.20 TCO₂e in Scope 1 & 2 per unit of net saleable product, Grobest is committed to further improving our sustainability practices. We will continue to focus on enhancing energy efficiency and integrating more renewable energy sources to reduce our environmental footprint and support global sustainability goals.

GROBEST'S SCOPE 1 AND 2 CO₂ EMISSIONS, IN TCO₂E



1. Packaging makes up less than 1% of emissions

Scope 3 emissions across our supply chain

Grobest's commitment to sustainability includes a detailed understanding and management of our Scope 3 carbon footprint, which encompasses all indirect emissions outside of Scope 1 and 2.

In 2023, these emissions amounted to approximately 624,158 tonnes of CO₂e, representing 83% of our total emissions. This marks the first year we have calculated these indirect emissions from our supply chain, establishing a baseline for future improvements.

Our Scope 3 emissions are predominantly driven by purchased goods and services, with 92% resulting from raw material acquisitions. Fishmeal and animal protein meal are the largest contributors, accounting for 22% of total emissions. Wheat/ wheat flour and soy products are also significant at 18% and 13%, respectively, while other aquatic materials are at 10%. Other raw materials, such as additives and rice contribute another 11%, excluding packaging¹.

This profile underscores the significant carbon implications of our sourcing strategies and the importance of each component in our environmental footprint.

Moving forward, we plan to continue innovation efforts to reduce our reliance on less sustainable raw materials and to engage with key suppliers to reduce the carbon intensity of our supply chain. By improving transparency and encouraging sustainable practices among our partners, we aim to decrease our overall environmental impacts and advance our sustainability goals in the long term.

We aim to expand our scope 3 boundary to include other GHG Protocol categories in time to come.

Energy

At Grobest, managing our energy use effectively is a key part of our commitment to sustainability. Improving energy efficiency across our operations not only helps us meet regulatory requirements but also reduces our costs and supports global initiatives to combat climate change.

In 2023, Grobest’s total energy consumption amounted to 1,216,380 GJ. Our energy sources were diverse: 34% came from purchased electricity, which is integral for powering our facilities and operations across various regions. Coal accounted for 29% of our energy use, utilised primarily in energy-intensive production processes, while natural gas, a cleaner alternative, contributed 18%. Additionally, 11% of our energy was sourced from district heating, which supports our commitment to leveraging community-scale energy solutions. Heavy oil and diesel oil made up 6% and 1% of our energy mix, respectively, used in specific processes that require high-grade fuels.

Despite a marginal increase in energy intensity, this year’s figures represent a significant reduction of 15% in total energy consumption from the previous year, largely driven by strategic reductions in our use of electricity and coal as part of our broader energy optimization efforts.

Efforts to reduce energy consumption in 2023 were multi-faceted and targeted key areas of our operations. We improved equipment performance significantly, addressing leaks and wastage which are common sources of energy inefficiency. Additionally, we enhanced our production processes and modified equipment to boost efficiency, which energy and increased our overall throughput rate.

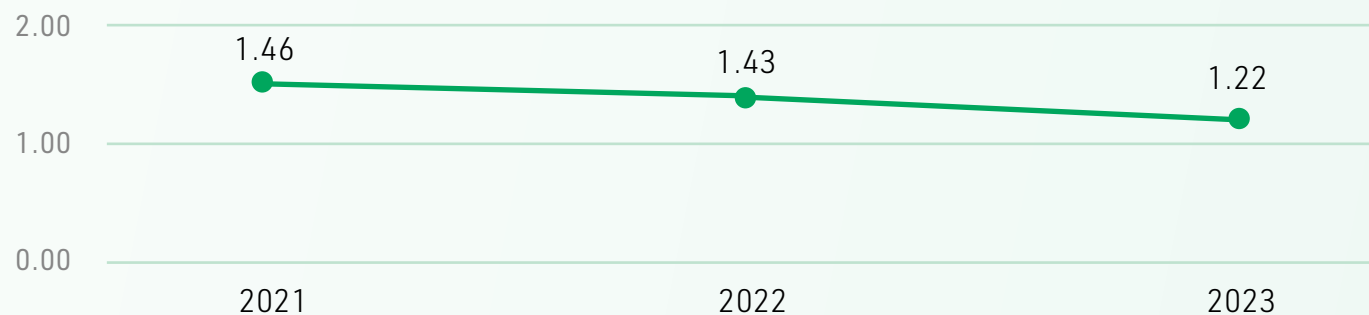
This included replacing older boilers with higher efficiency models that use less fuel and emit fewer greenhouse gases.

Our maintenance programs were also enhanced, ensuring that equipment and machinery are in optimal condition, further reducing unnecessary energy consumption. In Malaysia, we conducted a comprehensive energy efficiency assessment. The insights gained from this assessment have laid the groundwork for targeted interventions set to commence in 2024.

Moreover, we focused on improving our manufacturing yield by reducing the scrap rate and increasing the quality control pass rate. This not only conserves materials but also optimizes the energy used in production, ensuring that less is wasted on defective products. These initiatives collectively contributed to our substantial reduction in energy use, aligning with our sustainability objectives and helping to mitigate our environmental impact. For detailed energy consumption figures please refer to the relevant tables in Appendix 1.

We strive to continue reducing our energy and emissions intensity across our operations through improved data collection, implementation of new technologies, and increasing the sourcing of sustainable raw ingredients to reduce our overall impact.

GROBEST'S TOTAL ENERGY CONSUMPTION 2023 (MILLION GJ)



Climate vulnerability & adaptation

Climate change poses significant challenges for the aquaculture industry, impacting everything from operational resilience to supply chain stability. At Grobest, we are committed to enhancing our climate vulnerability and adaptation strategies to safeguard our operations against the increasing volatility of global climate patterns and to seize opportunities arising from the transition to a low-carbon economy.

Our approach focuses on identifying potential risks and implementing strategic measures to adapt and thrive in a changing environmental landscape. This commitment is integral to our sustainability strategy, ensuring we continue to meet the needs of our customers while protecting the environment and enhancing our operational resilience.

In 2022, we partnered with [ERM](#), a preeminent sustainability consultancy, for an evaluation of climate-related risks and opportunities. This assessment dissected the potential physical risks from climatic events and the broader transitional risks associated with a global shift to a low-carbon economy, employing a variety of climate projections and timelines to inform our strategy.

The insights gleaned from ERM's evaluation pinpointed specific areas where Grobest could face climate-related risks, offering us a clear view of where we need to shore up our defences. It also highlighted the potential to seize opportunities for proactive steps towards resilience and sustainability.

In the wake of this assessment, we are in the process of developing a comprehensive Group-wide policy focused on managing the impact of climate change. This policy is expected to act as a blueprint, aligning with our long-term ESG objectives and cementing our resolve to operate sustainably.

In 2023 we embarked on diversifying our supply chain to mitigate physical risks, such as those caused by extreme heat and coastal flooding. Our efforts included evaluating alternative protein supplies to offset the vulnerabilities in our fishmeal and plant protein sources. Moreover, we recognised the opportunities in the shift towards renewable energy, supporting our operations and contributing to financial savings in the medium term.

We have kept a keen eye on raw material costs, adjusting to fluctuations and policy shifts affecting fishmeal and fish oil procurement. In line with our ambitions to cater to a market that is gradually turning towards sustainable consumption, we continued to explore and develop alternative proteins that support a transition in food production and align with our customers' climate and environmental goals.

Grobest is committed to continuous improvement in environmental management. We are sharpening our focus on understanding and reducing the carbon footprint of our supply chains, including enhanced manufacturing efficiencies aimed at decreasing greenhouse gas emissions and energy usage.

Our product innovation is geared towards reducing our dependence on less sustainable raw materials, enabling farmers to run more eco-friendly operations by minimizing waste, effluents, and emissions. We will share updates on our ongoing efforts and achievements as we refine our methods and pursue new avenues for sustainability.

Our vision for the future is clear – to increase the proportion of responsibly sourced ingredients and to leverage our research and partnerships to establish a gold standard for climate-resilient aquaculture. Grobest is not just navigating the climate crisis; we are turning it into an impetus for growth and innovation.



Waste, water & effluents

Water is a critical resource for Grobest, not just in our production processes but also for the ecosystems we share. Recognizing the importance of water, we are committed to using it responsibly and managing our wastewater with care. Our goal is to minimise our water use and ensure that our effluents undergo proper treatment before being discharged.

This commitment is vital for the protection of local water resources, preserving water quality, and maintaining the health of the aquatic ecosystems that our industry depends upon.

In our operations, the use of natural resources, including water, and the generation of waste, particularly from our aquaculture feed production, have significant environmental implications. These include risks such as odour emission, microplastic release, land and water pollution. We understand these challenges and are committed to complying with the relevant laws and regulations in each jurisdiction where we operate, as well as actively reducing our waste and resource consumption. Our strategies include optimizing resource use and enhancing our recycling efforts.

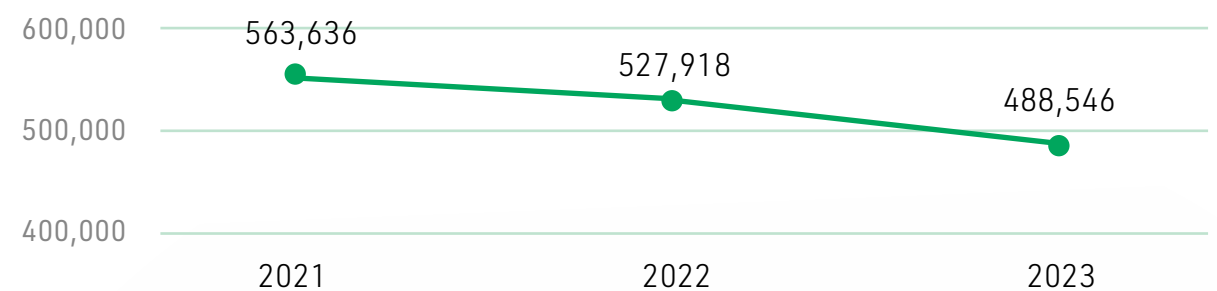
In 2023, we made notable progress in our environmental management efforts. We achieved a reduction in water withdrawals by 39,240 cubic meters compared to 2022. However, it is important to note that our water withdrawal intensity slightly increased from 0.69 to 0.76.

This change was influenced by adjustments in our product lines and the introduction of additional equipment, such as scrubber systems, which are essential for maintaining our product quality and environmental standards.

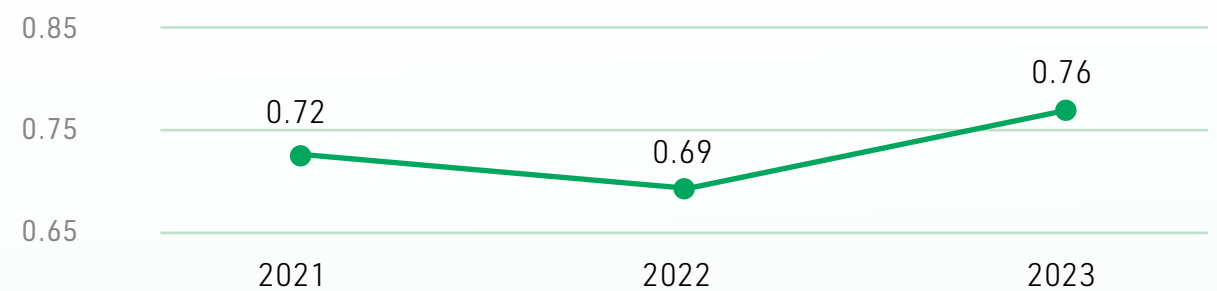
We have made strides in waste management, reducing our total waste generation by 343 tons from the previous year. We also saw an increase in the amount of waste diverted from disposal, and improved landfill intensity compared to the previous year, indicating our growing effectiveness in waste management practices.

These achievements in 2023 are steps towards our ongoing commitment to environmental stewardship and operational sustainability. By focusing on practical and impactful actions, we aim to continuously improve our environmental performance, contributing positively to our communities and the ecosystems we depend on.

GROBEST'S TOTAL WATER WITHDRAWAL 2023 (M³)



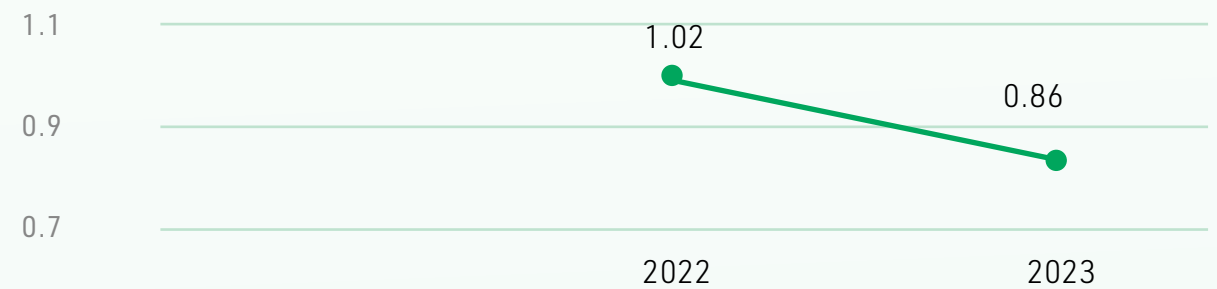
GROBEST'S WATER WITHDRAWAL INTENSITY 2023 (M³/T SALEABLE PRODUCT)



GROBEST'S TOTAL WASTE 2023 (T)



GROBEST'S LANDFILL WASTE INTENSITY (KG)



Appendix 1 - ESG data tables

People & Culture

WORKPLACE SAFETY & HEALTH PERFORMANCE 2022 AND 2023

	Employees ¹		Contractors ²	
	2022	2023	2022	2023
Total working hours	6,409,037	6,841,637	891,819	1,234,643
Number of work-related injuries ³	13	12	3	8
Number of high-consequence work-related injuries	0	0	0	0
Number of fatalities	0	0	0	0
Total Number of recordable work-related injuries	13	12	3	8
Number of lost days ⁴	182	116	31	172
Rate of fatalities from work-related injury ⁵	0	0	0	0
Rate of high-consequence work-related injuries ⁶	0	0	0	0
Rate of recordable work-related injuries ⁷	0.4	0.35	0.7	1.3
Rate of lost days ⁸	5.7	3.4	6.9	27.9

Notes:

- Inclusive of all employees in the subsidiaries (operations, commercial and Premix plants)
- Inclusive of all seasonal workers and temporary staff in the plants
- Work-related injuries include lost time (less than 180 lost workdays), restricted work and medical treatment beyond first-aid.
- Number of days of lost work over 180 days, excluding fatalities
- (N° of fatalities resulting from work-related injury / N° hours worked) x 200,000
- (N° of high consequence work-related injuries / N° hours worked) x 200,000
- (N° of recordable work-related injuries / N° hours worked) x 200,000
- (N° of lost workdays / N° working hours) x 200,000

HOURS OF TRAINING AND EDUCATION 2022-2023

	2022	2023
Courses related to leadership management and compliance	6,992	8,254
Courses related to workplace safety & health and environmental, production and operation	16,271	20,657
Courses related to competency-based, commercial and technical knowledge	13,691	11,113
Courses related to onboarding and others	1,012	1,505

EMPLOYEE TURNOVER BY GENDER AND AGE GROUP, 2022 & 2023

Year	Employee Turnover ¹ by Gender (%)		Employee Turnover by Age Group (%)
2022	Female: 25%	Male: 75%	Under 30: 42% 30-50: 55% Over 50: 3%
2023	Female: 25%	Male: 75%	Under 30: 30% 30-50: 59% Over 50: 11%

Notes:

- Turnover is calculated based on the number of employees that left during the reporting year

Sustainable Operations

STANDARDS AT OUR FACILITIES AS OF 2023

	Standards to which our factories are certified to					
	BAP	ISO 22000	HACCP	ISO 9001	GMP ¹	Others
Taiwan – Jiadong						
Taiwan – Xuejia						
Taiwan – Taoyuan (premix)						ISO 45001
Taiwan – Kaohsiung (premix)						ISO 45001
China – Changshu						
China – Fuzhou						ISO 14001
China – Fuzhou (premix)						ISO 14001, ISO 45001
China – Shunde						
Vietnam – Bien Hoa						GLOBALG.A.P.
Vietnam Landfound ⁴						
Thailand – Samut Songkram ⁵						
Thailand – Petchaburi ⁵						
Malaysia						FQC ²
Philippines						
Indonesia						
India						Halal, MPEDA ³

Notes:

- Good Manufacturing Practices (GMP) is a system of processes, procedures, and documentation to ensure products are consistently produced and controlled according to quality standards.
- Fish Quality Certification (FQC) Malaysia is specifically commissioned for aquaculture operators, vessel owners, fish feed and fish meal manufacturers, fish hatchery operators and exporters/importers along the value chain of fish supply and fish products for the purpose of export to the European Union.
- MPEDA stands for The Marine Products Export Development Authority, India.
- This plant did not continue certification with ISO 9001 in 2023 due to minimal production.
- Both plants have their BAP certification valid until June 2023.

CERTIFICATIONS AT OUR PLANTS

Certifications at our plants	2022 ¹	2023 ²
BAP certified	10	8
ISO22000 and/or HACCP certified	17	16

Notes:

- 2022 data includes 14 feed mill plants (one was closed in February 2022) and 3 premix plants
- 2023 data includes 13 feed mill plants and 3 premix plants

GHG EMISSIONS COMPARISON 2021-2023

GHG Emissions per Scope (TCO ₂ e) ¹	2021	2022	2023
Scope 1	64,501	61,981	49,992
Scope 2	86,145	88,235	75,098
Scope 3 ²	116	113	624,158
Total GHG emissions	150,762	150,329	749,247
Total GHG emissions intensity ³	0.19 TCO ₂ e/T	0.20 TCO ₂ e/T	1.17 TCO ₂ e/T

Notes:

- Bottom-up consumption/activity-based approach to calculating emissions based on IEA and BEIS Conversion Factor figures and activity data kept in-house on gas (kWh), electricity (kWh), steam, water and other fuels. Guidance to complete emissions calculations has been taken from BEIS guidance for company reporting as well as using fundamental principles of the GHG Protocol.
- 2021 and 2022 figures for Scope 3 have been revised, with marginal effect, compared to previous reports due to increased accuracy in the data and calculation. 2021 and 2022 Scope 3 only includes emissions generated from water supply and water treatment; 2023 Scope 3 calculation included more comprehensive indirect supply chain emissions.
- Intensity based on tons of net saleable production volume (786,209t in 2021 and 769,499t in 2022, 641,220t in 2023).

GROBEST'S ENERGY CONSUMPTION AND GENERATION 2021-2023

Category		Unit	2021 ³	2022	2023
Total energy consumption ¹		GJ	1,457,709	1,431,489	1,216,380
Total energy intensity ²		GJ/T	1.85	1.86	1.90
Non-renewable energy consumption	Liquefied petroleum gas (LPG) ⁴	Litre	391,296	829,866	95,193
	Natural gas + LNG	M3	6,107,667	5,089,339	5,531,327
	Heavy oil	Litre	1,826,532	1,680,464	1,867,491
	Gasoline	Litre	14,627	27,061	112,707
	Diesel oil	Litre	398,232	437,887	410,209
	Coal	Ton	18,562	18,177	13,076
	Electricity	KWh	131,938,218	133,005,885	113,401,804
	Steam	Ton	67,171	73,822	67,349
Renewable energy generation ⁵	Solar	KWh	1,502,145	2,679,322	2,631,242
	Wind	KWh	1,253,878	1,247,849	1,408,148

Notes:

- 2022 data inclusive of Grobest Group (14 Feed Plants + 3 Premix Plants). One of the feed plants in Taiwan closed in February 2022.
- Intensity based on tons of net saleable production volume (786,209t in 2021 and 769,499t in 2022, 641,220t in 2023)
- The large increase compared to 2021 is mainly due to a switch in availability between LPG and Natural Gas/LNG at one of our Premix Plants.
- This includes energy generated but not consumed.

WATER WITHDRAWALS AND DISCHARGE IN 2021 - 2023

	Type	2021	2022	2023
Water withdrawal (M ³) ¹	Total	563,636	527,918	488,678
	Surface	84,061	47,370	68,961
	Groundwater	136,440	123,411	107,009
	Third party water ²	343,135	357,137	312,708
Water discharge (M ³) ³		241,191	248,070	121,444
Water Withdrawal Intensity (M ³ /Ton production) ⁴		0.72	0.69	0.76

Notes:

- 2023 data inclusive of 13 Feed Plants + 3 Premix Plants). 2022 data inclusive of 14 Feed Plants + 3 Premix Plants (a feed plant in Taiwan closed in February 2022 and was converted to a warehouse).
- The water withdrawal from third-party water is calculated using water bills and the water withdrawals from surface water and groundwater are calculated by using data from water meters.
- We follow each plant's local discharge requirements to manage our water discharge. Wastewater discharge volume is based on water treatment bills. To be classified as wastewater, it must be classified as other water (>1,000 mg/L total dissolved solids) and not be used by any other organization.
- Intensity based on tons of net saleable production volume (2021: 786,209t; 2022: 769,499t; 2023: 641,220t)
- 2022 water withdrawal and intensity figures have been updated from last year's report due to better data.

WASTE GENERATION AND DISPOSAL 2022 - 2023

Waste in tons ¹		2022 ²	2023 ³
Waste generated (T)	Total	5,676	5,333
	Hazardous	644	436
	Non-hazardous	5,031	4,897
Waste diverted from disposal (T)	Total	3,720	4,085
	Hazardous	548	419
	Non-hazardous	3,171	3,666
Waste directed to disposal (T)	Total	1,956	1,248
	Hazardous	96	16
	Non-hazardous	1,860	1,231
Landfill intensity in Kg (landfill/production) ³		1.02	0.86

Notes:

- 2022 and 2023 data inclusive of Grobest Group (13 Feed Plants + 3 Premix Plants).
- Intensity is based on total waste directed to landfill over total net saleable production volume of 769,499t in 2022, 641,220t in 2023

GRI Content Index

Grobest has reported the information cited in this GRI content index for the period 01.01.2023 – 31.12.2023 with reference to the GRI Standards.

Topic	GRI standard	Disclosure	Location & notes
The organization and its reporting practices	GRI 2: General Disclosures 2021	Disclosure 2-1 Organizational details	P. 6
	GRI 2: General Disclosures 2021	Disclosure 2-2 Entities included in the organization’s sustainability reporting	P. 6
	GRI 2: General Disclosures 2021	Disclosure 2-3 Reporting period, frequency and contact point	P. 6
	GRI 2: General Disclosures 2021	Disclosure 2-4 Restatements of information	Updated data is marked and justified in each relevant section.
	GRI 2: General Disclosures 2021	Disclosure 2-5 External assurance	P. 6
Activities and workers	GRI 2: General Disclosures 2021	Disclosure 2-6 Activities, value chain and other business relationships	P. 9
	GRI 2: General Disclosures 2021	Disclosure 2-7 Employees	P. 33-38
	GRI 2: General Disclosures 2021	Disclosure 2-8 Workers who are not employees	We do not currently report this publicly but are considering this for the future.
Governance	GRI 2: General Disclosures 2021	Disclosure 2-9 Governance structure and composition	P. 14
	GRI 2: General Disclosures 2021	Disclosure 2-10 Nomination and selection of the highest governance body	P. 14
	GRI 2: General Disclosures 2021	Disclosure 2-11 Chair of the highest governance body	P. 14
	GRI 2: General Disclosures 2021	Disclosure 2-12 Role of the highest governance body in overseeing the management of impacts	P. 14
	GRI 2: General Disclosures 2021	Disclosure 2-13 Delegation of responsibility for managing impacts	P. 14
	GRI 2: General Disclosures 2021	Disclosure 2-14 Role of the highest governance body in sustainability reporting	P. 14
	GRI 2: General Disclosures 2021	Disclosure 2-15 Conflicts of interest	P. 18
	GRI 2: General Disclosures 2021	Disclosure 2-16 Communication of critical concerns	P. 19
	GRI 2: General Disclosures 2021	Disclosure 2-17 Collective knowledge of the highest governance body	PP. 17-20
	GRI 2: General Disclosures 2021	Disclosure 2-18 Evaluation of the performance of the highest governance body	
	GRI 2: General Disclosures 2021	Disclosure 2-19 Remuneration policies	We do not currently report this publicly but are considering this for the future.
	GRI 2: General Disclosures 2021	Disclosure 2-20 Process to determine remuneration	
	GRI 2: General Disclosures 2021	Disclosure 2-21 Annual total compensation ratio	

Topic	GRI standard	Disclosure	Location & notes
Strategy, policies and practices	GRI 2: General Disclosures 2021	Disclosure 2-22 Statement on sustainable development strategy	PP. 3-5
	GRI 2: General Disclosures 2021	Disclosure 2-23 Policy commitments	PP. 17-22, 35
	GRI 2: General Disclosures 2021	Disclosure 2-24 Embedding policy commitments	PP. 17-22, 35
	GRI 2: General Disclosures 2021	Disclosure 2-25 Processes to remediate negative impacts	PP. 17-20
	GRI 2: General Disclosures 2021	Disclosure 2-26 Mechanisms for seeking advice and raising concerns	PP. 17-20
	GRI 2: General Disclosures 2021	Disclosure 2-27 Compliance with laws and regulations	P. 21
	GRI 2: General Disclosures 2021	Disclosure 2-28 Membership associations	PP. 43-46
Stakeholder engagement	GRI 2: General Disclosures 2021	Disclosure 2-29 Approach to stakeholder engagement	P. 13
	GRI 2: General Disclosures 2021	Disclosure 2-30 Collective bargaining agreements	We do not currently report this publicly but are considering this for the future.
Materiality	GRI 3 Material Topics 2021	Disclosure 3-1 Process to determine material topics	P. 11
	GRI 3 Material Topics 2021	Disclosure 3-2 List of material topics	P. 12
Ethical Business Conduct	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	PP. 18-20
	GRI 205: Anti-corruption 2016	Disclosure 205-1 Operations assessed for risks related to corruption	PP. 18-20
	GRI 205: Anti-corruption 2016	Disclosure 205-2 Communication and training about anti-corruption policies and procedures	PP. 18-20
	GRI 205: Anti-corruption 2016	Disclosure 205-3 Confirmed incidents of corruption and actions taken	PP. 18-20
Regulatory compliance	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 21
Risk Management	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 22
Animal health & welfare	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 25
Product Innovation	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 26

Topic	GRI standard	Disclosure	Location & notes
Human Rights	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 35
	GRI 406: Non-discrimination 2016	Disclosure 406-1 Incidents of discrimination and corrective actions taken	P. 35
	GRI 408: Child Labor 2016	Disclosure 408-1 Operations and suppliers at significant risk for incidents of child labor	PP. 34-35
Workplace Safety & Health	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 36
	GRI 409: Forced or Compulsory Labor 2016	Disclosure 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	PP. 36,37
	GRI 403: Occupational Health and Safety 2018	Disclosure 403-1 Occupational health and safety management system	PP. 36,37
	GRI 403: Occupational Health and Safety 2018	Disclosure 403-2 Hazard identification, risk assessment, and incident investigation	PP. 36,37
	GRI 403: Occupational Health and Safety 2018	Disclosure 403-3 Occupational health services	PP. 36,37
	GRI 403: Occupational Health and Safety 2018	Disclosure 403-4 Worker participation, consultation, and communication on occupational health and safety	PP. 36,37
	GRI 403: Occupational Health and Safety 2018	Disclosure 403-5 Worker training on occupational health and safety	PP. 36,37
	GRI 403: Occupational Health and Safety 2018	Disclosure 403-6 Promotion of worker health	PP. 36,37
	GRI 403: Occupational Health and Safety 2018	Disclosure 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	PP. 36,37
	GRI 403: Occupational Health and Safety 2018	Disclosure 403-8 Workers covered by an occupational health and safety management system	PP. 36,37
	GRI 403: Occupational Health and Safety 2018	Disclosure 403-9 Work-related injuries	PP. 36,37, 57
	GRI 403: Occupational Health and Safety 2018	Disclosure 403-10 Work-related ill health	PP. 36,37, 57
Engaged & inclusive workforce	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 38
	GRI 405: Diversity and Equal Opportunity 2016	Disclosure 405-1 Diversity of governance bodies and employees	PP. 38-41
	GRI 405: Diversity and Equal Opportunity 2016	Disclosure 405-2 Ratio of basic salary and remuneration of women to men	PP. 38-41
	GRI 401: Employment 2016	Disclosure 401-1 New employee hires and employee turnover	PP. 38-41
	GRI 401: Employment 2016	Disclosure 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	PP. 38-41
	GRI 401: Employment 2016	Disclosure 401-3 Parental leave	PP. 38-41
	GRI 404: Training and Education 2016	Disclosure 404-1 Average hours of training per year per employee	PP. 39
	GRI 404: Training and Education 2016	Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs	PP. 39
	GRI 404: Training and Education 2016	Disclosure 404-3 Percentage of employees receiving regular performance and career development reviews	PP. 39

Topic	GRI standard	Disclosure	Location & notes
Responsibly Sourced Ingredients	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	PP. 43-44
	GRI 204: Procurement Practices 2016	Disclosure 204-1 Proportion of spending on local suppliers	PP. 43-44
Supplier Management	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 46
	GRI 308: Supplier Environmental Assessment 2016	Disclosure 308-1 New suppliers that were screened using environmental criteria	P. 46
	GRI 308: Supplier Environmental Assessment 2016	GRI 308: Supplier Environmental Assessment 2016Disclosure 308-2 Negative environmental impacts in the supply chain and actions taken	P. 46
	GRI 414: Supplier Social Assessment 2016	Disclosure 414-1 New suppliers that were screened using social criteria	P. 46
	GRI 414: Supplier Social Assessment 2016	Disclosure 414-2 Negative social impacts in the supply chain and actions taken	P. 46
Biodiversity	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 45
Product safety & quality	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 49
	GRI 416: Customer Health and Safety 2016	Disclosure 416-1 Assessment of the health and safety impacts of product and service categories	P. 49, 50
	GRI 416: Customer Health and Safety 2016	Disclosure 416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	P. 49, 50
Energy, Emissions & climate impact	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 51
	GRI 305: Emissions 2016	Disclosure 305-1 Direct (Scope 1) GHG emissions	PP. 51-53, 58
	GRI 305: Emissions 2016	Disclosure 305-2 Energy indirect (Scope 2) GHG emissions	PP. 51-53, 58
	GRI 305: Emissions 2016	Disclosure 305-3 Other indirect (Scope 3) GHG emissions	PP. 51-53, 58
	GRI 305: Emissions 2016	Disclosure 305-4 GHG emissions intensity	PP. 51-53, 58
	GRI 305: Emissions 2016	Disclosure 305-5 Reduction of GHG emissions	PP. 51-53, 58
	GRI 302: Energy 2016	Disclosure GRI 302-1 Energy consumption within the organization	PP. 54, 59
	GRI 302: Energy 2016	Disclosure 302-2 Energy consumption outside of the organization	PP. 54, 59
	GRI 302: Energy 2016	Disclosure 302-3 Energy intensity	PP. 54, 59
	GRI 302: Energy 2016	Disclosure 302-4 Reduction of energy consumption	PP. 54, 59
Climate vulnerability & adaptation	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 55
	GRI 201: Economic Performance 2016	GRI 201-2 Financial implications and other risks and opportunities due to climate change	P. 55

Topic	GRI standard	Disclosure	Location & notes
Waste, water & effluents	GRI 3 Material Topics 2021	Disclosure 3 Management of the topic	P. 56
	GRI 306: Waste 2020	Disclosure 306-1 Waste generation and significant waste-related impacts	PP. 56, 59
	GRI 306: Waste 2020	Disclosure 306-2 Management of significant waste-related impacts	PP. 56, 59
	GRI 306: Waste 2020	Disclosure 306-3 Waste generated	PP. 56, 59
	GRI 306: Waste 2020	Disclosure 306-4 Waste diverted from disposal	PP. 56, 59
	GRI 306: Waste 2020	Disclosure 306-5 Waste directed to disposal	PP. 56, 59
	GRI 303: Water and Effluents 2018	Disclosure 303-3 Water withdrawal	PP. 56, 59
	GRI 303: Water and Effluents 2018	Disclosure 303-4 Water discharge	PP. 56, 59
	GRI 303: Water and Effluents 2018	Disclosure 303-5 Water consumption	PP. 56, 59

