2022

Annual Review 2022

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seeing it through®

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Strategy execution proceeding

Glaston's revised strategy with key objectives for 2021–2025 was launched in August 2021. The key objectives are clearly improved organic growth and profitability, based on Glaston's own strategic initiatives and the expected market growth.

In 2022, the strategy implementation proceeded according to plans. In line with Glaston's strategic focus to grow its business in China and improve operational efficiency, the plan to establish production for Automotive standard pre-processing equipment in Tianjin was disclosed in June. Demonstrating the viability of the strategic initiative, the first orders for the new Automotive pre-processing CHAMP EVO lines were received in October.

Glaston entered the market of tempering technologies for solar panel production and introduced the new flat tempering line CHF Solar for solar panel tempering. A total of five solar lines will be delivered from the factory in Tianjin in the first half of 2023.

Strategic targets 2021–2025: performance in 2022

Financial targets		2022	2021
Annual average net sales clearly exceeding the addressable equipment market growth	→	+17%	+7%
EBITA 10%	→	6.4%	6.1%
ROCE 16%	→	10.5%	6.1%

Non-financial targets		2022	2021
Net Promoter Score >40	→	53	–
Lost Time Accidents zero, LTIFR	→	3.9	3.3
Employee engagement rate >75 (out of 100)	→	70	–
CO_2* emissions in relation to net sales -50%	TARGET ACHIEVED	-57%	-13%

*scope 1 and 2

Cross-selling strongly supported the order intake development in 2022. A prime example was the biggest-ever order for Insulating Glass technologies that was received in August for multiple insulating glass lines.

In 2022, progress was made with the new offering development, and research and product development expenditure increased to 4.3% (3.8%) of net sales.

President & CEO's Review

A successful year focusing on strategy execution

Year 2022 was a year of strategy execution. Both our financial and non-financial targets are showing good progress and work continues to reach our ambition set for 2025.

Glaston succeeded in executing the strategy despite the challenging geopolitical and macroeconomic situation. Demand for our products and services was strong with customer activity at a high level. During the year we received a historically big order and continued expanding our portfolio with customers by closing many cross-selling opportunities, as well as introduced new products to the market.

With growing numbers in all segments, full-year new orders were up 17% from the previous year, totaling EUR 253.0 million. For the full year, net sales growth of 17% was recorded with all segments contributing to the out-

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Demand for our products and services was strong with customer activity at a high level.”

come. The sales growth had a positive impact on the Group's profitability, while we learned how to manage the challenging supply chain situation. Full-year comparable EBITA increased by 23% compared to the previous year.

Strategy in action during 2022

When meeting the Glaston teams, I have noticed many holding our strategic targets visible. That brings me confidence that we're living our strategy in our daily work supported by common leadership principles. To validate the employee engagement, measurement of this strategic target started in the latter part of the year and the engagement rate was 70.

We are committed to reducing CO_2 emissions in our own operations. In 2022, our greenhouse gas emissions in relation to net sales decreased by 57% compared to the baseline and we already met our strategic target. The work continues, and we are already working on setting a new emissions target covering our upstream and downstream value chain.

Focusing on succeeding together with our customers is an ongoing effort. We started the measurement of the strategic group-wide customer satisfaction target, Net Promoter Score (NPS), which was at 53 and exceeded our target of 40. We have every reason to be proud of this good benchmark result. In 2023, measurement and scope will be further developed.

Safety was high on our agenda throughout the year and our Group-wide safety target is zero accidents by 2025. Safety awareness and behaviour has increased, even though our lost-time accidents increased by one to a total of six and LTIFR was 3.9. In 2023, our systematic work to further develop the safety culture will continue.

Energy efficiency paving the way for sustainability

The energy crisis of 2022 raised the concrete need to seek ways to become more energy efficient. While all our Heat Treatment and Insulating Glass products are built for efficient use of electricity they are also key enablers in producing modern double- or triple-glazed insulating glass units and coated, low-emissivity safety glass. Those are a necessity in increasing the energy efficiency and safety of buildings and contributing to reaching carbon neutrality in societies.

Glaston's purpose is to build a better tomorrow through safer, smarter, and more energy-efficient glass solutions. I welcome the glass industry to meet at Glass Performance Days in June 2023 in Tampere, Finland to discuss and share ways to take the entire industry toward a sustainable future, together.

I thank the Glaston team for their contribution throughout 2022. I'm confident that we will be able to make the right actions most efficiently and smartly as we continue focusing on growing our business' profitably as a team.

I would also like to thank our customers and other stakeholders for your continuous trust and support.

Anders Dahlblom
CEO & President

Sustainability

The frontrunner in glass processing

Glaston's purpose is to build a better tomorrow through safer and more energy-efficient glass solutions.

Glaston is the frontrunner in glass processing industry technologies and services. Glass processed using Glaston's machines is used in the architectural glass, automotive glass, solar energy and display industries. Most of the glass produced with the company's technology is supplied to the construction industry.

In line with its vision, Glaston seeks to lead the global glass processing industry forward with innovative technologies and lifecycle solutions.

Demand for more energy-efficient and environmentally sustainable glass solutions is continually growing. Energy-efficient double- or triple-glazed insulating glass units and coated, low-emissivity glass processed with Glaston's technology meet the energy-saving needs of buildings.

Greater attention is being paid to the safety of buildings, and for glazing solutions this means increasing use of tempered and laminated glass. Tempering, laminating and insulating glass processes are Glaston's core expertise, and in these the company offers the most advanced technology.

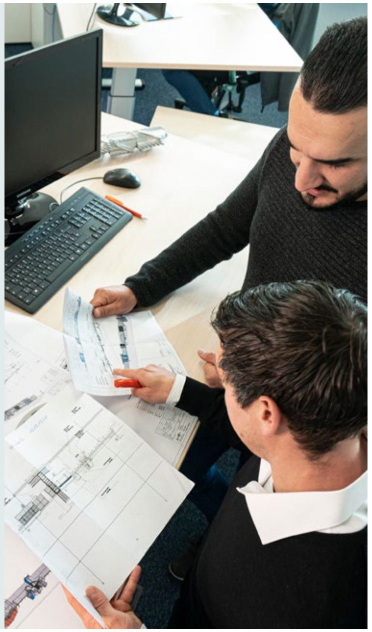
The fight against climate change is also strongly impacting glass processing and this has led to rapid development in thin glass and glass used in solar energy solutions. As the industry's innovative technology leader, Glaston is strongly involved in this development, and is continually launching more advanced technology to meet stricter market requirements.

Glaston's segments focus on different sectors

Glaston Insulating Glass segment provides high technology machines for the manufacture of insulating glass, maintenance, upgrade and modernization services, and spare parts. The Insulating Glass segment comprises the Insulating Glass Technologies product area and maintenance services for insulating glass machines. Most of the segment's personnel are located in Germany.

Glaston Heat Treatment segment encompasses a wide and technologically advanced range of heat treatment machines, maintenance, upgrade and modernization services, and spare parts for glass flat tempering, bending, bending tempering and laminating. The Heat Treatment segment comprises the Heat Treatment Technologies product area and maintenance services for heat treatment machines. Most of the segment's personnel are located in Finland.

Glaston Automotive & Display segment provides both standardized and customized solutions for pre-processing automotive and display industry glass, as well as related maintenance, upgrade and modernization services, and spare parts. The Automotive & Display segment comprises the Automotive & Display Technologies product area and related services. Most of the segment's personnel are located in Switzerland.



Glaston as a company

In 2019, the scope of Glaston's operations grew significantly when the company acquired the German-Swiss company Bystronic glass. The acquisition expanded Glaston's offering to insulating glass technologies in the architectural market and to pre-processing in the automotive and display markets.

Glaston has production in Germany, Finland, China and Switzerland. Glaston's factories in Finland, Switzerland and China assemble machines, while in Germany machines are manufactured. In addition, the company has sales and service points in nine countries. From these locations, Glaston serves its customers, who operate in over 100 countries. The company is domiciled in Helsinki, Finland.

Glaston's group structure comprises three segments:

- Glaston Insulating Glass
- Glaston Heat Treatment and
- Glaston Automotive & Display

Glaston also offers digital services, such as glass processing machine remote monitoring and fault analysis services, and consulting and engineering services. Personnel also work in sales of machinery and services and in Group functions.

The majority of the company's business is targeted at the architectural segment, in which Glaston's products provide key technologies to improve the energy efficiency and safety of buildings.

Glaston's strategic focus is to grow business in China, and the company will start production of standard automotive glass pre-processing equipment at the factory in Tianjin, from which the first orders will be delivered in 2023. In autumn 2022, a strategic step was also taken into the market of solar panel glass technologies by launching a new flat tempering line suitable for processing solar panel glass.

Due to the Russia's invasion of Ukraine in February 2022, Glaston ended its business in Russia. All work contracts, six in total, were terminated and two upgrade projects were halted and removed from the order book. In 2021, Russia accounted for less than one percent of Glaston's net sales.

Glaston Corporation's share (GLA1V) is listed on the main list of Nasdaq Helsinki Ltd. At the end of 2022, Glaston had 7,593 shareholders. At the end of the year, the company's largest shareholders were Ahlstrom Capital B.V. (26.39%), Hymy Lahtinen Oy (12.22%), Varma Mutual Pension Insurance Company (7.50%), Ilmarinen Mutual Pension Insurance Company (7.31%) and OP-Finland Small Firms Mutual Fund (6.04%).

Cornerstones of strategy

The objective of Glaston's new strategy for 2021-2025 is clearly improving organic growth and profitability. Implementation of the strategy is supported by Group-wide cornerstone initiatives: innovate with customers, digitalization, empowering Glastonians, sustainable operations, and mastering sourcing and manufacturing.

Glaston's strategic cornerstone initiatives

Implementation of the strategy is supported by Group-wide cornerstone initiatives:

1. Innovate with customers to win: strengthening Glaston's technology leadership by seamless integration of customer understanding with faster innovation and development work.
2. Leading digital transformation: building the tools and infrastructure across all Glaston operations to lead the industry's digital transformation.
3. Empowering Glastonians to thrive: is essential in building the desired corporate culture. Leadership development and the leveraging of common leadership principles will play a key role in implementing the strategy and embedding it into everyday working life.
4. Elevate sustainability and continuous improvement: will enable long-term success by building a stronger culture of continuous improvement and systematically progressing the sustainability agenda.
5. Master global sourcing and manufacturing: will enable operational efficiency and growth through more harmonized sourcing and manufacturing processes.

The strategy is supported by non-financial strategic targets promoting sustainability:

- Customer satisfaction score (Net Promoter Score, NPS) over 40
- Group-wide safety target of zero lost time accidents (LTA, progress measured as accident frequency, LTIFR)
- Employee engagement rate above 75 (0–100)
- Glaston's CO_2 emissions (Scope 1+2) in relation to net sales down by 50% from the 2020 level

Summary of progress of cornerstone initiatives

Implementation of the five cornerstone initiatives continued according to plan in 2022.

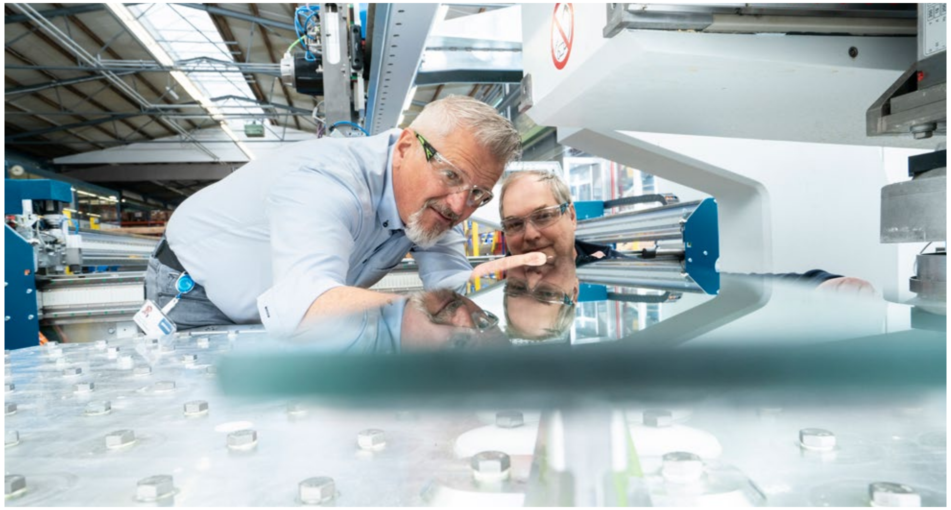
In the **"Innovate with customers to win"** initiative, steering groups for the offering development were formed and the strategic account management program progressed well. In this way, it was possible to seamless combine customer knowledge, product development and innovation functions, and product management.

In the **"Leading digital transformation"** initiative, development of Glaston's digital vision and construction of the related ICT platforms continued. The goal is to develop the tools and business architecture to promote the digital transformation of the industry.

In the **"Empowering Glastonians to thrive"** project, global competence mapping and the employer brand building project were completed. In addition, investments were made in leadership, employee engagement and employee retention, to enable the strategy to advance with full force.

In the **"Elevate sustainability and continuous improvement"** initiative, a roadmap for 2021-2025 was defined. In addition, measures were taken to reduce emissions, the amount of Scope 3 emissions (value chain emissions) was calculated and the development of sustainability reporting continued. Safety at work was one of the overarching themes of the whole year. Significant positive development was made in this area compared with the previous year.

In the **"Master global sourcing and manufacturing"** initiative, sourcing practices and quality indicators were harmonized, which contributes to the development of an efficient sourcing process that supports our growth strategy.



Continuous dialogue and development work

Glaston's goal is to be a reliable and responsible partner for its stakeholders. Stakeholders include current and potential customers and employees, shareholders and investors, suppliers and subcontractors, the media, public authorities and local communities as well as research institutes and higher education institutions. Glaston engages in continuous dialogue with its stakeholders on topics of current interest and to fulfill stakeholders' expectations.

One of Glaston's strategic cornerstone initiatives is Innovate with customers to win, which focuses on strengthening the company's technology leadership by seamless integration of customer understanding with faster innovation and development work.

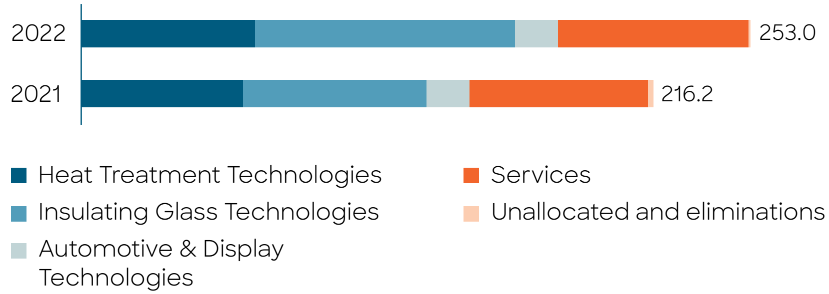
To remain at the forefront of the development of glass processing products and services, Glaston invests significantly in the continuous development of its technology portfolio and its research and development activities.

Scope of the report

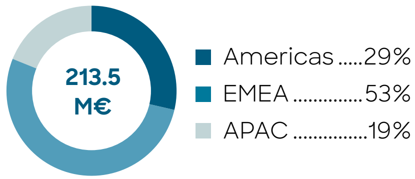
This sustainability report describes Glaston Group's operations in 2022. The content of the report and the themes covered are based on Glaston's strategy as well as a materiality assessment of sustainability. The report covers the entire Group.

Key Figures 2022

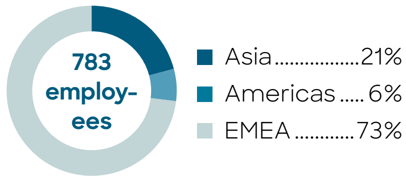
Orders received per product area, € million



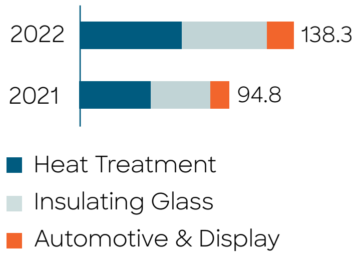
Net sales per region, %



Personnel per region at end of year, %



Order book, € million



Comparable EBITA, € million

Megatrends supporting Glaston's business

Glaston's business and product development are particularly affected by the megatrends of urbanization and growing environmental awareness. With the growing use of glass, expectations for its energy efficiency, safety and versatility have increased. The energy crisis has further underlined the importance of energy efficiency.

Urbanization and megacities

Urbanization is one of the world's most powerful forces of change. The UN has estimated that by 2050 nearly 70% of the world's population will live in cities and, particularly in developing countries, megacities of over 10 million inhabitants will arise. Through urbanization, the need for new construction will grow, and the existing building stock, too, will be developed, which will increase demand for glass. Glaston contributes to the construction of more energy-efficient societies by offering its customers a wide range of products and services that enable them to manufacture more energy-efficient glass products.

Climate change and energy efficiency

The use of glass in buildings has increased significantly; well-designed glass usage can reduce the energy consumption of buildings, improve their sound insulation and at the same time increase interior brightness. People's preferences are also increasing the use of glass as a building material. This development will drive growing demand for energy-saving glass, insulating glass and solar energy solutions.

As environmental awareness increases and construction laws and regulations become stricter, the energy-saving requirements for buildings will tighten. Insulating and energy-efficient glass will be increasingly used to achieve these goals. Utilization of solar energy in buildings is also on the increase, resulting in growing demand for the glass needed in solar cells.

The current energy crisis, the sharp rise in energy prices and availability concerns are strongly impacting the European glass industry, which is an energy-intensive industrial sector and traditionally dependent on natural gas. On the other hand, energy-related risks could drive demand for energy-saving and renewable energy production solutions.

Safety and healthiness

Greater attention is being paid to the safety of buildings. Due to tightening safety regulations, more and more safety glass is being used, which has meant a growing demand for tempered and laminated glass, which help protect people from injury as they are significantly stronger than regular glass and do not pose a risk in the event of breakage. In addition, the abundant natural light made possible by large glass surfaces has been shown to be an important factor in improving the well-being of residents and employees.

The importance of a safe and healthy life and working environment has grown in recent years, and for Glaston safety is also a strong priority internally.

Social responsibility

For a company to succeed in attracting skilled and motivated employees, it must also assume its social responsibility and set itself ambitious goals for sustainable development. Diversity and equality are important themes in the societal debate and in ensuring the well-being of employees. In its own operations, Glaston is committed to providing a safe and good workplace for its personnel.

Transparency of operations and traceability of supply chains are also increasingly important not only in terms of risk management, but also in the assessments of financiers and investors.

> Glaston contributes to the construction of more energy-efficient societies

Glaston's sustainability and its management

Glaston is committed to providing a safe and good workplace for its employees, being a responsible partner to its customers, utilizing resources efficiently, and reducing the environmental impacts of its production processes. Glaston's most significant environmental impacts arise from the electricity used by its products during their lifetime, and the company's product range meets the growing demand for more energy-efficient glass technologies.

At the end of 2021, Glaston updated the material topics of sustainability to reflect the new strategy and changes in the operating environment. The assessment also took into account the views of external stakeholders and the company's own personnel.

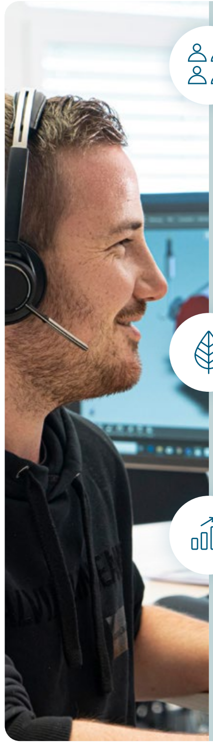
Glaston's material sustainability topics are:

- responsible own activities (human resources, environment, responsible business)
- responsible sourcing,
- responsible partner and
- responsible member of society.

In connection with the materiality assessment, the most significant climate and biodiversity risks related to and arising from Glaston's operations were also identified. Climate risks were mainly assessed as being medium or low. Glaston's climate risk management is reported in more detail in the financial statements, in connection with the Report of the Board of Directors.

Material sustainability topics

Responsible own activities



Human resources

- Health & safety and risk prevention
- Competencies and skills, development and training
- Diversity and inclusion
  - Equality, anti-discrimination, anti-harassment
- Good leadership

Environment

- Climate impact oversight and scenarios
- Risks and opportunities related to tightening emissions regulation

Responsible business

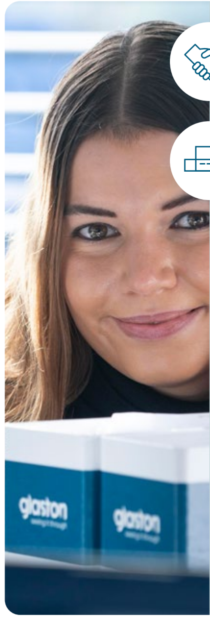
- Financial responsibility ensuring competitiveness and profitability
- Anti-corruption and fair competition practices
- Responsible sales

Responsible sourcing

Suppliers

- Supplier requirements, assessments and audits
- Human rights and workplace safety in the supply chain
- Anti-corruption in the supply chain and sourcing
- Environmental matters in the supply chain

Responsible partner



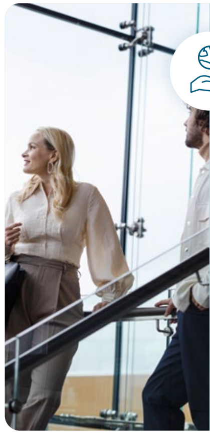
Customer

- User experience and customer satisfaction

Products & Services

- Machine quality, reliability and longevity, life-cycle management
  - Safe operation of machines and user training for customers
  - Digitalization and automation
  - Information security
  - Energy and material efficiency targeting circular economy
- End product quality, safety and recyclability

Responsible member of society



Sustainable tomorrow

- Indirect impacts on energy-efficient cities and societies
  - Indirect energy and emission reductions
  - Indirect material reductions
- Sustainable end-product applications
- Development of the industry, research co-operation
- Contributing to the decarbonization of societies

Managing sustainability

One of the focus areas of Glaston's strategy is sustainability. Glaston's Sustainability Working Group, which includes experts from various functions, is responsible for the systematic development, monitoring and reporting of the sustainability agenda. The working group will also develop sustainability to identify business opportunities and to meet growing regulatory requirements and stakeholder expectations. The group reports to the Executive Management Group and the Board of Directors.

During 2022, a roadmap towards the sustainability goals of Glaston's strategy period was prepared and indicators were specified. A plan and a timetable of measures were approved by the Executive Management Group and the Board of Directors. The members of the working group are responsible for the implementation of the measures according to the plan, within their own areas of responsibility and in collaboration with the functions in question.

Management of sustainability is explained in more detail in the Report of the Board of Directors, in connection with the reporting of non-financial information.

Sustainability targets

In connection with strategy work, new Group-wide non-financial strategic targets promoting sustainability were set for 2025:

- Safety at work: zero lost time accidents (LTA, measured as accident frequency, LTIFR)
- Employee engagement rate over 75 (0–100)
- Glaston's CO_2 emissions (Scope 1+2) in relation to net sales down by 50% from the 2020 level
- Customer satisfaction score (Net Promoter Score, NPS) over 40

In addition to these key targets, Glaston's other sustainability targets were promoted and revised. To achieve the targets, a roadmap with measures has been prepared, which are explained in more detail for each topic in this report. The key indicators used in measuring the targets were also specified during the year.

As part of the company's corporate responsibility work, Glaston's new financing agreement has been linked to the sustainability targets. The loan margin of the new financing agreement takes into account the reduction of the company's CO_2 emissions and success in reaching safety at work targets annually.

Key sustainability objectives

Topic	Indicator	Target	2022	2021	Timetable
Responsible business	Training of personnel in the Code of Conduct	Training coverage 100%	93%	97%	Continuous
Safe workplace	Accident frequency (LTIFR), number of accidents per million hours worked	Accident frequency zero	3.9%	3.3%	Continuous
	Reports of workplace harassment	No reports	One case reported	No cases reported	Continuous
	Employee engagement rate	Employee engagement rate over 75 (0–100)	70	–	2025
Impacts on the environment	CO_2 emissions in own operations	CO_2 emissions (Scope 1+2) in relation to net sales down by 50% from the 2020 level	-57%	-13%	2025
	Emissions in value chain	Calculation of Scope 3 emissions	Calculated	-	2022
Responsible sourcing	Suppliers' commitment to Glaston's Supplier Code of Conduct (new and current suppliers)	Commitment coverage 100%	75% of main suppliers	–	2022
Responsible partner	Industry's best customer experience	Customer satisfaction score (NPS) over 40	53	–	2025
	Technically advanced and material- and energy-efficient products	R&D, % of net sales	4.3%	3.8%	Continuous

Code of Conduct guides daily choices

Sustainability targets:
- Coverage of Code of Conduct training (personnel) 100%

Key priorities for the strategy period:
- Ensuring compliance with Code of Conduct
- Anti-corruption policy training
- Fair business and competition training
- Creating audit model for agents
- Audit of agents

Glaston's day-to-day activities are guided by the Code of Conduct, which is approved by the Board of Directors. The Code of Conduct provides all Glaston personnel with guidelines on acting in an ethically sustainable way in the workplace, in interaction with various partners, customers and suppliers, and also as a responsible actor in society. The Code of Conduct includes, among other things, a commitment to respect human rights, and strictly prohibits any form of harassment.

The Code of Conduct is published in Finnish, English, German and Chinese so that as many Glastonians as possible can read it in their own language. Training in the Code of Conduct is arranged for all personnel, and every Glaston employee must attend such training every two years. Training is also an integral part of the induction of new employees. At the end of 2022, 93% of the personnel had completed the training. The objective of the training is not only to familiarize Glaston's personnel with the Code of Conduct, but also to support and strengthen Glaston's common ethical approach and to identify and address any problem areas.

Glaston has also published a separate code of conduct for its suppliers (Glaston Supplier Code of Conduct), to which it requires suppliers to commit. The Glaston Supplier Code of Conduct is published in Finnish, English, German and Chinese.

The Code of Conduct is complemented by other Group-level policies approved by the Board of Directors, such as the anti-bribery and anti-corruption policy, and the disclosure, information security and risk man-

agement policies. In 2022, Glaston's Board of Directors approved a policy on taxation.

Glaston takes competition rules very seriously and every employee must act in accordance with them. Glaston regularly arranges training for its personnel on fair business and competition issues. The training material is always available on the company's intranet. In addition, policy briefings are regularly held for personnel working at the customer interface.

Glaston has a whistleblowing channel through which personnel can anonymously report possible violations of the Code of Conduct or other policies. Glaston investigates all reported incidents promptly and confidentially and takes appropriate action based on the findings of the investigation.

Combating bribery and corruption throughout the value chain

Glaston has its own operating locations in nine countries, and from these Glaston serves its customers in over 100 countries. In addition, the company's own operations are complemented by a global agent network. Glaston recognizes that there is a possible risk of corruption and fraud in the company's operating regions and countries.

In its everyday activities, Glaston is committed to combating bribery and corruption. In order to focus particular attention on risks related to bribery and corruption, Glaston's Board of Directors approved the anti-bribery and anti-corruption policy in 2020.

Glaston's anti-bribery and anti-corruption policy clearly outlines the company's practices and increases Glaston employees' awareness of the risk of corrupt payments, unequivocally prohibits the payment and receipt of bribes, and ensures that the company conducts business honestly, in compliance with anti-corruption laws, rules and regulations.

No direct or indirect payments can be made, nor can the company's funds be conveyed directly or indirectly to any party to gain an improper advantage. In addition, the company's personnel are instructed to avoid conflicts of interest and to refuse all improper payments and benefits.

New anti-bribery and anti-corruption training will be introduced in early 2023. Training is organized particularly for the company's management and sales organization as well as for other individuals whose working duties involve an increased risk of corruption.

As a preventive measure to minimize anti-bribery and anti-corruption risks, all agent agreements related to Glaston's sales are concluded centrally. Particular attention is paid to commissions paid, which should be at a reasonable level. During 2023, a new audit model will be developed to assess sales agents.

UN Sustainable Development Goals

Glaston supports the United Nations Sustainable Development Goals (SDGs), which will guide the sustainable development actions of member states, companies and other organizations up to 2030. We have identified seven goals that also emerge from our own strategy and are most material to us. These provide a broader frame of reference for our work and support the achievement of these goals in our own activities.

Glaston's responsibility theme	UN Sustainable Development Goals	Implementation in Glaston
Responsible operations	**Goal 3:** Ensure healthy lives and promote well-being for all at all ages **Goal 4:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	· systematic development of occupational health and safety · minimizing health risks: e.g. in Finland, enhanced health checks for over 50-year-olds · hobby sessions and exercise benefits · eSkills online learning system for all personnel · summer work, diploma work and trainee positions for young people · Ahlström Collective Impact cooperation with UNICEF Finland
Responsible member of society	**Goal 7:** Ensure access to affordable, reliable, sustainable and modern energy for all **Goal 11:** Make cities and human settlements inclusive, safe, resilient and sustainable	· reducing the harmful environmental impact of cities with new glass technologies · providing engineering and consulting services for the production of energy glass windows as well as for solar energy applications · enabling the introduction of resource-efficient and clean technologies and production processes · participating in the development of society by paying taxes, wages and dividends
Responsible partner	**Goal 9:** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation **Goal 12:** Ensure sustainable consumption and production patterns **Goal 17:** Revitalize the Global Partnership for Sustainable Development	· efficient use of energy and materials and minimizing materials and other waste · glass processing machine energy-efficiency at heart of product development, long life cycle, high utilization rate and real-time quality control iLooK · proactive and regular maintenance by utilizing cloud services and opportunities offered by IoT · Ahlström Collective Impact cooperation with UNICEF Finland

Responsible own activities

Human resources

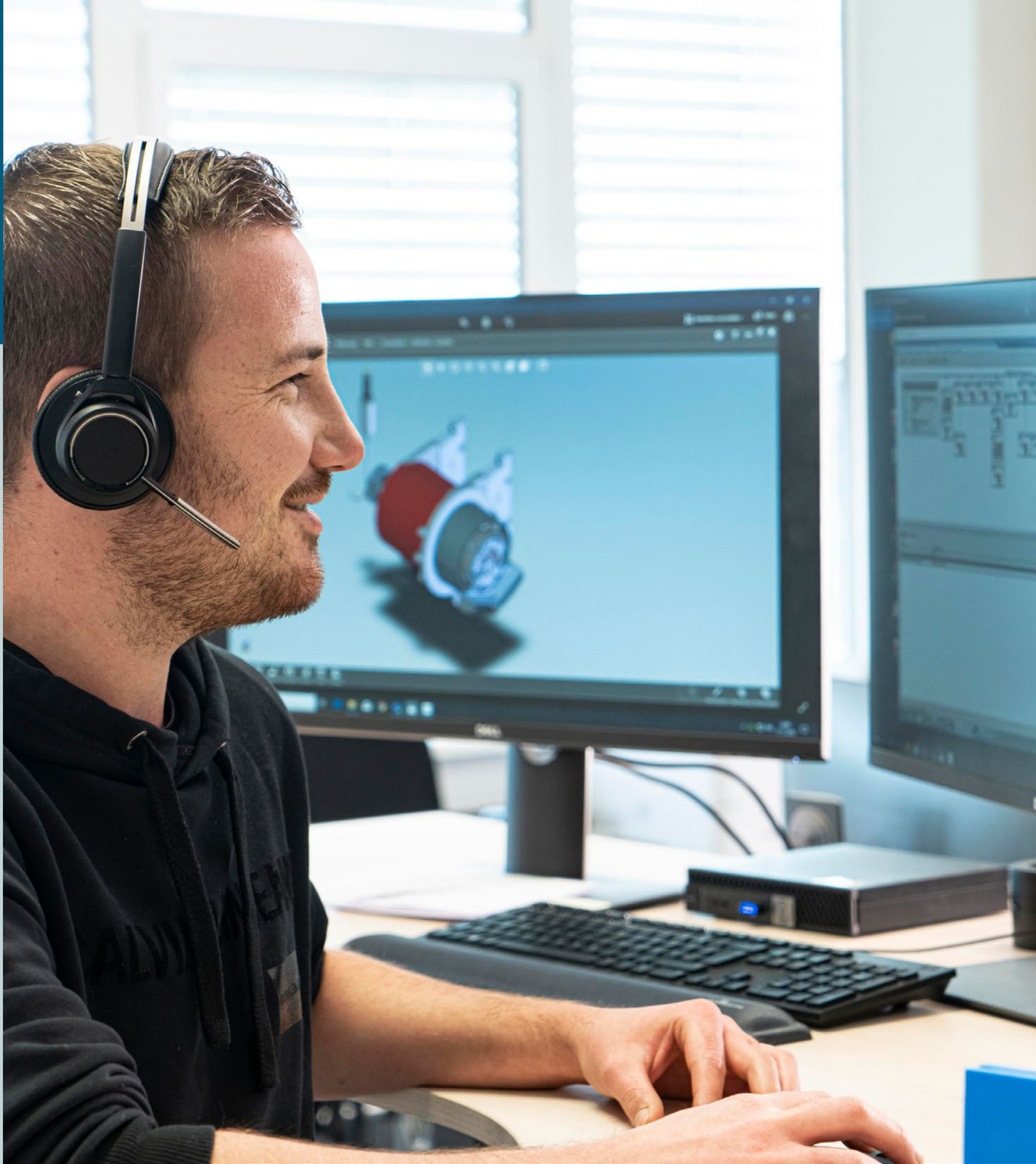
- Health & safety and risk prevention
- Competencies and skills, development and training
- Diversity and inclusion
- Equality, anti-discrimination, anti-harassment
- Good leadership

Environment

- Climate impact oversight and scenarios
- Risks and opportunities related to tightening emissions regulation

Responsible business

- Financial responsibility ensuring competitiveness and profitability
- Anti-corruption and fair competition practices
- Responsible sales



We empower our employees to thrive

Professional, healthy and committed personnel are the foundation of Glaston's success. We ensure the continuous development of the skills of personnel by providing an inspiring work environment in which each Glastonian with their abilities and needs is known. We succeed together with our personnel.

Sustainability targets:

- Employee engagement rate over 75 (0–100)
- No workplace harassment
- Accident frequency zero

Key priorities for the strategy period:

- We are an equal employer that values diversity
- Our management culture strengthens success together
- We encourage skills development
- We enable career advancement
- We attend to well-being and safety at work

Glaston's personnel

During 2022, the number of Glaston personnel developed moderately and in accordance with the strategy, and there were 783 (750) Glaston employees at the end of the year. At the end of 2022, Glaston had operations in nine countries, of which the three largest, by employee numbers, were Germany, Finland and China. Employee turnover in 2022 was 6.0% in Germany, 7.8% in Finland and 7.7% in Switzerland. Most employment relationships are permanent. The average age of personnel is 44.5 years.

Of Glaston's personnel, 85% are men and 15% are women. At the end of 2022, there were five men and two women on Glaston's Board of Directors, and three of the nine members of the company's Executive Management Group were women.

Together, towards success

Empowering Glaston people to thrive is one of the cornerstone initiatives of our strategy. Important factors in achieving success are leadership development, a work culture that values equality and diversity, encouraging Glaston employees to further develop their competence, supporting various career paths, remunera-

We listen, and we know each other

Empowering Glaston people to thrive is one of the cornerstone initiatives of Glaston's strategy. What does this mean in practice, **SVP People & Culture Hannele Anonen**?

We are constantly developing Glaston's organizational culture. It is important to us that every Glastonian is in a role where they can harness and develop their expertise. At the same time, we make every effort to ensure that we have sufficient competence for current and, moreover, future tasks in our organization.

At the beginning of 2022, we asked our personnel how they perceived Glaston as an employer. The answers enable us to better understand our strengths and where we can improve. We really want to listen, not just ask. The experiences shared by Glaston's employees therefore serve as an important starting point in developing a common organizational culture, and we have already taken action with regard to identified development targets.

We have begun to systematically map the future factors that we need to secure our success. At the same time, we are positively challenging ourselves to identify younger talent who we can help grow into strategic roles.

We also want to hear and better understand the individual needs of Glaston employees so that we can offer properly targeted measures to support the success of our personnel and customers. Our goal is to enable a culture where every Glastonian can shine.

"As part of building a common culture, I consider it extremely important that we listen carefully and get to know each other even better."

tion that is incentivizing, and attending to well-being and safety at work.

The common leadership principles are the basic pillars of Glaston's management, which spell out what good leadership at Glaston looks like and what is expected from supervisors. We have put these leadership principles, launched in 2021, into practice by organizing training for supervisors in which competence has been deepened and leadership experiences have been shared.

With the aid of the leadership principles, we are building common ways of working and even stronger internal processes. We also want to know ourselves and each other better, and we have implemented team and personal assessments that help us to better recognize our differences and utilize our strengths. By identifying the models and strengths of their own and their team's work personality, our supervisors are also able to more effectively empower their teams to succeed.

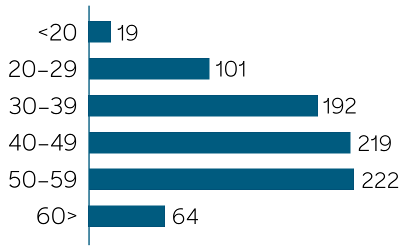
Employer worthy of employee engagement

Engaged employees play an important role in achieving strategic goals. One of the Group-wide non-financial targets is to raise the employee engagement rate to over 75 (on a scale of 0–100) by 2025. In early 2022, an employer image survey was launched to start measuring the current level of employee engagement. The purpose of the survey was to ensure that present and future employer communication is based on the internal voice of Glaston employees. Supported by the survey findings, we ascertained our employees views of Glaston as an employer and identified factors that can be used to develop issues meaningful to Glaston employees.

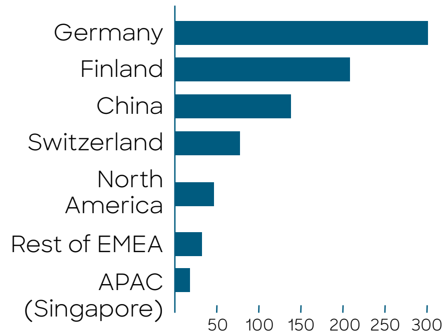
At the end of 2022, we conducted a revised One Glaston survey, with which we measured Glastonians' engagement with the company. Some 71% of our personnel responded to the survey, which was a comprehensive sample and an excellent improvement on the previous year. The results showed an engagement rate of 70 (on a scale of 0–100), which is a good starting point. Personnel stated they were particularly satisfied with the meaningfulness of their work and our inclusive culture as well as cooperation with colleagues. There is still room for development in mutual communication and the giving of feedback.

The One Glaston survey functions as part of the development of a culture of continuous discussion and feedback. With the aid of a survey, we monitor

Employee age distribution (FTE)



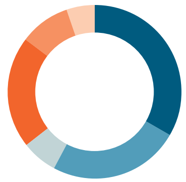
Employees by country or region (FTE)



Employees by type of employment

- White-collar 71%
- Blue-collar 29%

Personnel per function

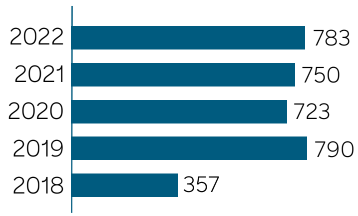


- Insulating Glass Technologies 33%
- Heat Treatment Technologies 25%
- Automotive & Display Technologies 6%
- Services 21%
- Administration, group functions 9%
- Sales 5%

Gender distribution

- Male 85%
- Female 15%

Employees at end of year



our success in matters important to Glaston employees, as well as coping at work and job satisfaction. The annual survey also enables us to monitor the development of issues raised in employee feedback.

Deep dive into employees' potential

The average age of Glaston employees, around 45 years, reveals that our organization has a lot of valuable expertise accumulated through experience. Recognition of Glastonians' competencies and skills plays an important role in achieving our strategic goals. We have therefore turned our attention to identifying younger and less experienced employees who we can support and encourage to grow into various strategic roles.

During 2022, we launched the People Deep Dive discussion processes, in which business managers and local HR business partners participated, in addition to Glaston's CEO and SVP, People & Culture. The goal of the People Deep Dive processes is to better identify both the organization's capabilities and the kind of resources the implementation of Glaston's strategy requires. Based on them, plans will be created on how to increase, develop and engage the necessary expertise.

With the aid of the Deep Dive discussions, we also wish to identify rising talents and future experts in key roles and to ensure the continuity of our business. Based on the identified competence needs, we have initiated local development measures, training and recruitment.

Skills development and growing in roles

Expert personnel are the foundation of Glaston's success, and through the new strategy we have begun to identify more systematically the competencies and skills as well as the skills development needs of each Glastonian. In addition, we have discussed in more detail which areas of expertise are important in the various job roles, in order to be able to provide even better targeted training to our personnel in the future. We have also introduced an internal tool that enables our personnel's expertise and knowledge to be accessed more efficiently.

We organize personnel training in accordance with local needs, and we offer training opportunities and continuous skills development through work assignments. Our industry is demanding, and through years of work many Glastonians have grown into top experts in their field.

Thanks to Glaston's internal eSkills

online learning platform, training is flexibly available online. The eSkills platform provides training related to products, processes and operating practices. Code of Conduct training is also provided through the platform.

We are developing the eSkills platform, and the goal is to offer during 2023 many more training opportunities and content on different themes. We will also develop the online learning experience based on feedback provided by our colleagues.

Each year, a performance appraisal is conducted with all employees in which they discuss with their supervisor current issues as well as their goals and development needs. Based on the appraisal, personal goals and a development plan are drawn up for each employee. Our common leadership principles are an integral part of the personal development plans of all Glaston supervisors.

Diverse and inclusive work community

The diversity and equality of personnel is important for Glaston's success. Glaston is a global company and its

The diversity and inclusion of personnel is important for Glaston's success.

personnel have diverse backgrounds and cultures, which we view as our strength. Glaston operates in the technical field, where the gender distribution has traditionally been strongly male-dominated. We seek to actively enrich the diversity of our work community, both in terms of the gender of personnel and other individual background factors.

Our diversity plan, prepared for 2023–2025, states as an objective the creation of a diverse and inclusive work environment for employees of different background and gender, to enable Glaston and Glastonians to succeed.

Inclusion, i.e. participation in the work community, being seen and heard, and the fact that everyone can feel safe and express their own thoughts, is an important component in ensuring the well-being of Glaston employees. We are developing our operating practices and processes to better take into account possible unconscious biases associated with them. For us, participation also means that we know each other as well as the skills and strengths of employees well. This way we can better involve people in different projects and roles in which they can succeed.

Discrimination or harassment of any kind is not permitted in Glaston; all reported incidents are investigated and, if deemed to be well-founded, the necessary action taken. In 2022, one suspected incident of workplace harassment was reported, which, based on an investigation, led to the dismissal of the employee in question.

Workplace in which to thrive and feel good

We work hard to ensure that we are an attractive employer where personnel can thrive, feel good and develop. The attractiveness of the glass industry and Glaston can also be promoted amongst women by increasing awareness of interesting work roles and opportunities for influence and career development.

We have developed our communication as well as our recruitment channel, with the aim of presenting both our personnel and interesting job vacancies more widely. Through internal recruitment communication, we are also seeking to develop our personnel's mobility and career paths from one position to another.

We have celebrated the long careers of many Glastonians, which demonstrates to us the engagement of our personnel and the deep expertise accumulated over the years. Employment relationships at Glaston are long, averaging 14.5 years in 2022.

With the shift to teleworking and hybrid working, we have sought to ensure our employees' coping in work and physical condition. For example, in Finland, Glaston offers its personnel the opportunity to develop mental well-being, joint hobby sessions and exercise benefits as well as the option of using a company bicycle.

All of Glaston's personnel is covered by a performance bonus scheme based on the company's financial performance. In addition, we reward good work performance that supports the achievement of the strategic goals through the Glaston Way awards.

Continuous development of safety culture

Occupational safety is high on our agenda and we have set a Group-wide occupational safety target of zero lost time accidents. In order to develop a safety culture, safety standards as well as the reporting of accidents and near misses have been developed and harmonized throughout the Group. Through improved reporting, we are also able to react better than before to the resourcing of personnel during absences.

Alongside reporting and standards, a safety culture is also built on common safety awareness, anticipation, and the identification of near-miss situations. Listening and learning from others are therefore vital in developing a safe work culture. In 2022, there were six accidents, after which an open discussion took place on what happened and on the various measures that may help prevent similar accidents in the future.

The development and management of safety at Glaston is the responsibility of a steering group consisting of representatives of different functions and locations that closely monitors the development of indicators that measure occupational safety. The day-to-day management and development of occupational safety is the responsibility of the company's various units, and occupational safety issues are discussed in local occupational safety committees. Occupational safety reviews are conducted every three months and, based on them, necessary development measures are agreed upon.

At all of Glaston's assembly and production units, fire and evacuation exercises and occupational safety training are organized regularly, and attention is also paid to the ergonomics of work.

Glaston's employees also work on customers' premises in product installation, maintenance and familiarization tasks. Particularly when working on premises other than Glaston's own, it is important to be able to build a safe work environment even before starting work, in order to minimize possible risks and avoid accidents.

Our target is zero accidents at work. We did not achieve this target; in 2022, there was a total of six lost-time accidents at work or on a business trip, and the accident frequency was 3.9 (3.3 in 2021). The most typical accidents are hand injuries, such as cuts and various sprains.

Lessons and experiences from Safety Week

Glaston's first global Safety Week was held in May. The week was opened by our CEO, **Anders Dahlblom**, who emphasized the importance of a safe work environment both on our own premises and when working at customers' locations.

During the Safety Week, we got the opportunity to hear and learn about the safety and health work of our colleagues around the world. We watched fire and evacuation exercise videos, learned about ergonomic office work, and our Chinese colleagues shared a report on their first aid training. We also discussed an accident that had happened previously as well as measures that could prevent similar accidents in the future.

Various presentations reminded participants of, among other things, the importance of checking work equipment and materials, the use of safety devices and safety instructions, and a checklist to review before starting work. We also learned about the improved safety features of our own products.

SVP People & Culture **Hannele Anonen** reminded us that a safe work culture also means a sense of mental safety – that everyone considers themselves to be heard and seen as part of the work community. In addition, she emphasized the importance of a good balance between work and family life.

The first Safety Week was highly educational and thought-provoking. In the words of Anders, our CEO, safety is about caring, awareness and thinking before acting.

Energy efficiency as an opportunity

Sustainability targets:

- Glaston's CO_2 emissions (Scope 1+2) in relation to net sales down by 50% from the 2020 level

Key priorities for the strategy period:

- Drive down Scope 1 & 2 CO_2 emissions
- Calculate Scope 3 emissions and set new targets
- Build roadmap for reducing Scope 3 emissions
- Evaluate the Science Based Targets initiative

Glaston views the promotion of sustainable development as a business opportunity, and the company is involved in creating industry standards and practices in relation to sustainability, such as for energy efficiency and safety.

In glass industry sustainability issues, there is an emphasis on the energy efficiency of glass manufacturing and further processing, as glass production processes consume a lot of energy. The energy crisis, the sharp rise in energy prices and availability concerns have strongly impacted the European glass industry, which is an energy-intensive industrial sector and traditionally dependent on natural gas. On the other hand, energy-related risks could drive demand for energy-saving and renewable energy production solutions.

Glaston's largest customer segment is the architectural and construction industry. In parallel with the energy crisis, programs promoting carbon neutrality, as well as stricter legislation and new standards, are supporting the use and development of more energy-efficient solutions. Safety and quality regulations in construction are also becoming stricter in many of Glaston's market areas.

Glass will play a key role in achieving the energy efficiency targets for buildings in both new and renovation construction. For example, 75% of the EU's building stock is energy inefficient*, and heating and cooling of buildings account for half of final energy consumption in the EU.

Energy saving with insulating glass

The architectural and construction industry is Glaston's largest customer segment. The positive climate impact of the glass installed in buildings is therefore highly important from Glaston's perspective.

Loss through windows accounts for 25–30% of the energy used for heating and cooling buildings. The energy-saving potential is enormous, because in the EU area, for example, most of the glazing of buildings is less energy-efficient.

If, for example, the glazing of buildings in Europe were replaced by energy-efficient alternatives, the energy consumption and carbon dioxide emissions of buildings would be approximately 30% lower by 2030*.

The goal of the Renovation Wave Strategy, published by the European Commission in 2020, is to at least double the number of renovations by 2030 and to ensure that they lead to better energy and resource efficiency. The goal applies to around 35 million buildings.

The project will be a significant driver of growth for Glaston's business, as coated double and triple insulating energy-saving glass produced with Glaston's technologies are key solutions in energy saving for windows and glass façades.

* Source: Glass for Europe/ Potential impact of high-performance glazing on energy and CO_2 savings in Europe, TNO, 2019

* Directive of the European Parliament and of the Council on energy efficiency, 2021

Improving the insulation of buildings is therefore of great importance. The technologies developed by Glaston enable the production of more energy-efficient glass structures.

Energy-efficient technology

The most significant environmental impacts of Glaston's operations are mainly associated with the use of the machines sold, particularly the electricity consumption of heat treatment machines. Through automation and continuous technological development, it is now possible to efficiently optimize the electricity consumption of machines in both heating and cooling. The new technology is also available as upgrade products for old production lines.

The development of energy- and material-efficiency is ongoing work, and Glaston's product development has long focused on improving the energy efficiency of its machines. The company has managed to reduce significantly the energy consumption of its most significant products. For example, in the tempering process of coated energy-saving glass, energy consumption has been reduced by around 30% over the last decade. Particularly in heat treatment technologies, the savings in heating brought by circulating air convection in tempering and the enhanced control of blowers used in cooling have played a significant role in improving energy efficiency per square metre of tempered glass. The electricity consumption of glass pre-processing machines as well as machines used in manufacturing insulating glass units can be impacted, for example, by various product options that improve the energy efficiency of production lines.

In product development, Glaston harnesses new technology and the opportunities created by digitalization through, among other things, utilizing data received from machines. With the aid of automation, cloud services and the industrial internet, the company helps its customers to use their machines as efficiently as possible. A real-time quality measurement system detects deviations in the quality of processed glass immediately, thereby minimizing material waste.

Glaston's impacts on the environment

In its own activities, Glaston's most significant environmental impacts arise from energy consumption and related emissions as well as from waste and transportation. In the use of machines, the main environmental aspect is the energy consumption of the machines, which we are actively reducing through product development, innovation and customer guidance and advice.

At Glaston's assembly and production units, the company operates in accordance with the ISO 9001 quality management system. In Finland, Glaston manages and controls environmental issues linked to production in accordance with a certified ISO 14001 environmental management system.

On its premises, Glaston conducts regular energy audits, and is constantly improving the energy-efficiency of its properties. For example in Tampere, Finland, oil consumption and resultant emissions were significantly reduced when heat pumps were installed, replacing oil as a heating source.

Transport of machines to customers is handled by forwarding companies using the shortest routes by land or sea. Transport of smaller and urgent spare parts is also handled by air freight.

Reducing emissions from own operations

Emissions from Glaston's own operations totaled 1,491 tCO_2 in 2022 (2,608 tCO_2 in 2021), of which fuels and natural gas (Scope 1) account for around 41% and electricity and district heat (Scope 2) for around 59%.

Scope 2 emissions, from purchased energy, declined significantly when, from the beginning of 2022, the Tampere, Finland and Neuhausen, Germany factories switched to using electricity produced from renewable energy. In the Swiss production unit in Bützberg, where renewable energy has been the main source of electricity for a long time, it was also decided to renew the heating distribution system. This significantly reduces consumption of natural gas. In addition, a solar power system was installed in Bützberg. In Neuhausen, charging points for electric cars were installed in the parking area of the premises. In Germany and Finland, hybrid and electric vehicles are offered as company cars.

One of the Glaston Group's four non-financial targets is to halve the intensity of CO_2 emissions from the company's own operations by 2025. A brisk start was made along the path towards the target, particularly through the switch to electricity produced from renewable energy. Relative to net sales, Glaston's Scope 1 and 2 emissions (7.0 tCO_2 /EUR million) have decreased by 57% compared to the baseline in 2020 (16.3 tCO_2/EUR million).

The goal of emission reductions will be refined during 2023.

Solar power in Bützberg

In Bützberg, Switzerland, we invested in our own solar power system. Nearly 400 solar panels, with a total capacity of more than 150 kWp, were installed on the roof of the factory in autumn 2022.

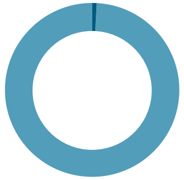
The solar panels have produced energy for the production plant's own use since November, and from the beginning of December electricity has also been fed into the grid.

Scope 3 emissions calculated for the first time

Scope 3 emissions arising from Glaston's value chain were calculated for the first time during 2022. The calculation, based on 2021 data, showed that the majority, around 99%, of all emissions associated with Glaston's activities arise in the company's value chain. The most significant sources of emissions are the electricity consumption of machines manufactured by Glaston and the procurement of materials and components required for their manufacture.

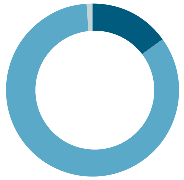
The results obtained form the basis for future work, and they can be used to identify the measures by which emission reductions will best be achieved. The aim is also to constantly improve the accuracy and validity of emission calculations.

Estimated breakdown of Glaston's greenhouse gas emissions 2021



- Sope 1 + 2 ..... 1%
- Scope 3 ..... 99%

Scope 3 emissions by category 2021



- Purchased goods and services .. 15%
- Use of sold products 84%
- Other categories 1%

Energy consumption (MWh)	2022	2021	2020
Fuel oil, diesel and natural gas	2,852	3,349	3,179
Purchased electricity and heat	6,523	6,746	7,949
Total	**9,375**	**10,095**	**11,128**

Greenhouse gas emissions (tCO_2e)	2022	2021	2020
Scope 1 (Fuel oil, diesel and natural gas)[1]	605	708	678
Scope 2 (Purchased electricity, heat and cooling)[1,2]	886	1,900	2,099
Scope 1 & 2 total	**1,491**	**2,608**	**2,777**
Scope 3 (value chain)	tba	287,348	-

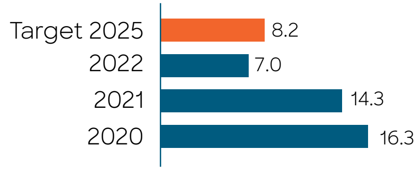
[1] tCO_2

[2] Calculation mainly based on actual energy consumption; consumption of individual premises is based on an estimate

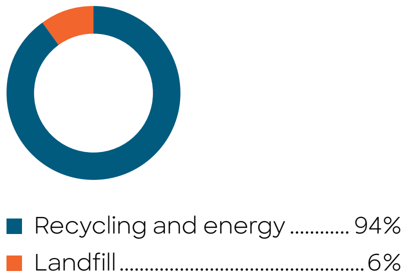
Recycling of packaging materials and waste

The primary aim is to prevent the generation of waste. The goal is to minimize the amount of waste, and particularly the amount that ends up other than in final disposal. Glaston's operations give rise to a lot of packaging materials, and they are sorted and either recycled or used as energy waste. In 2022, the total amount of waste decreased by around 10%.

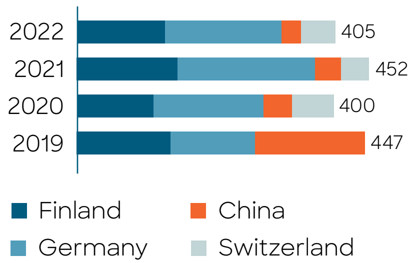
Greenhouse gas emissions to net sales (tCO_2)/EUR million)

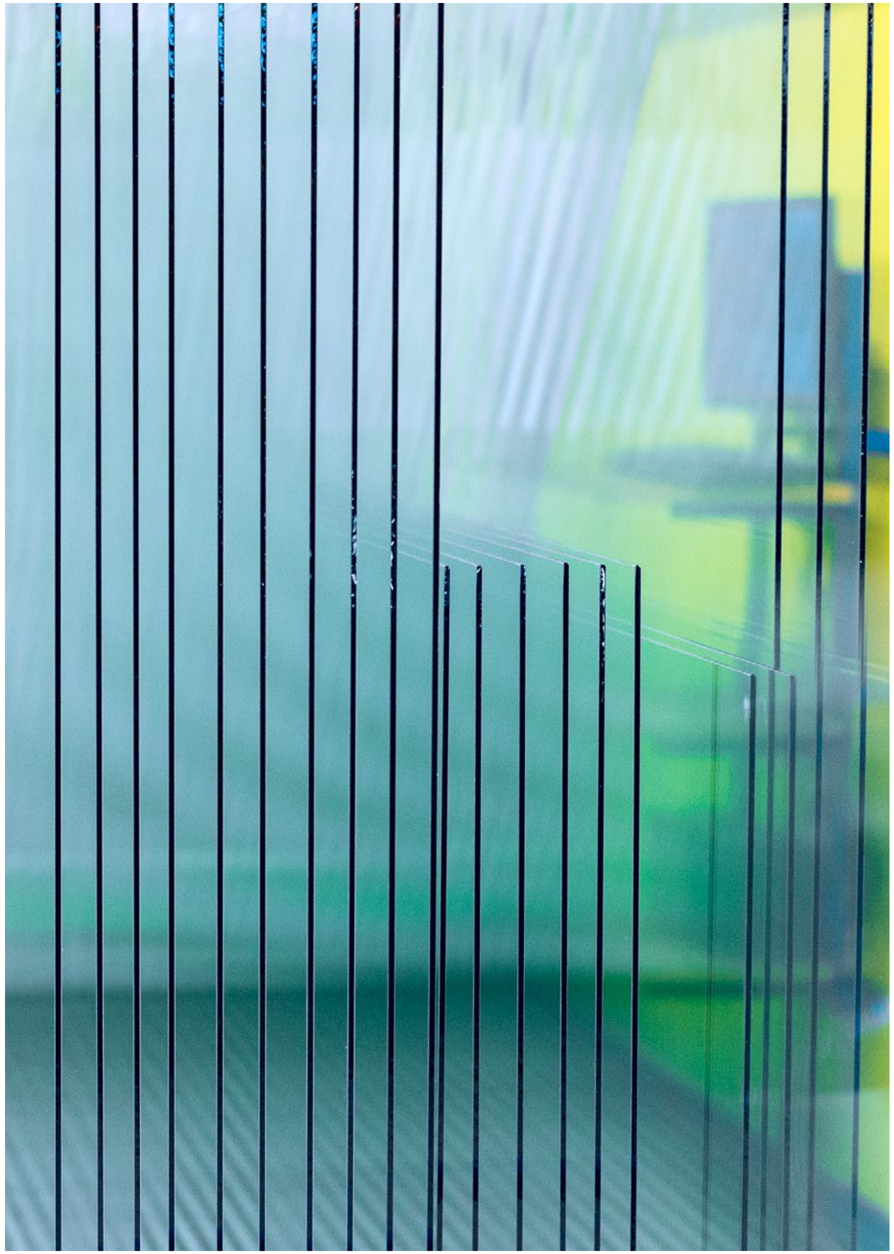


Waste disposal 2022



Waste by country, tonnes





Responsible business

Generating economic value added

Sustainable value creation requires motivated and healthy employees, competitive products and solutions, and satisfied customers. Sustainable operations facilitate Glaston's ability to fulfill its financial obligations towards its key stakeholders.

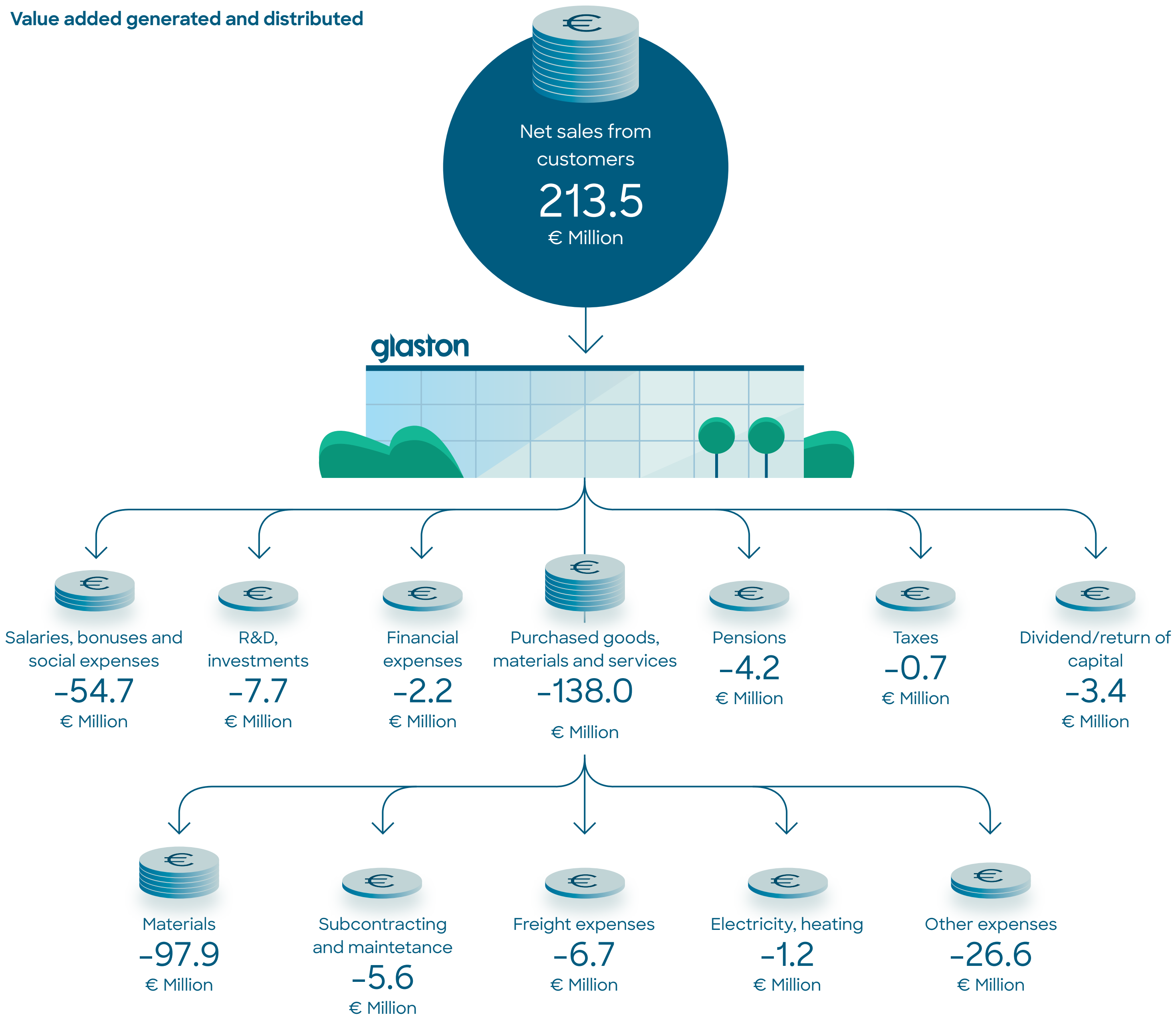
Personnel salaries, payments to goods and service providers, social taxes, and potential dividends and returns of capital to shareholders are Glaston's most important obligations, as are the means to create economic value added.

In 2022, Glaston Group's net sales totaled EUR 213.5 million, of which service operations accounted for 36%. Glaston acquired materials, products and services totaling EUR 138.0 million. Glaston had an average of 775 employees in 2022. Salaries and bonuses paid to personnel totaled EUR 54.7 million and pension expenses EUR 4.2 million The company's investments in tangible and intangible assets totaled EUR 7.7 million.

Value added generated and distributed (EUR million)

		2022	2021	2020
Value added generated				
Customers	Net sales	213.5	182.7	170.1
	Other operating income	3.6	4.3	2.3
Value added distributed				
Suppliers	Purchased goods, materials and services	138.0	116.1	94.8
Employees	Salaries, bonuses and social expenses	54.7	48.6	44.9
Employees	Pensions paid	4.2	3.6	3.2
Financiers	Financial expenses	2.2	1.7	2.3
Owners	Dividend/return of capital	3.4	2.5	1.7
Public sector	Taxes	0.7	1	0.9
Business development	R&D, investments	7.7	6.5	5.8

Value added generated and distributed



New tax policy

In December 2022, Glaston's Board of Directors approved the company's new tax policy, which sets out the company's tax strategy and forms the general framework for Glaston's tax administration, internal responsibilities and risk management as well as key measures and audits. The principles of the tax policy also apply to Glaston's external service providers.

Glaston does not engage in aggressive tax planning nor artificial transactions or structures whose purpose is to produce a tax advantage. Glaston Group companies are located solely for business reasons. Responsible tax planning and the utilization of legal tax advantages and incentives are, however, acceptable when related to commercial activities.

Responsible sourcing

Suppliers

- Supplier requirements, assess-ments and audits
- Human rights and workplace safety in the supply chain
- Anti-corruption in the supply chain and sourcing
- Environmental issues in the supply chain

Fair and honest business

Sustainability targets:

- Main suppliers' commitment to Glaston's Code of Conduct 100%

Key priorities for the strategy period:

- Define supplier audit model and start audits
- Supplier Code of Conduct implementation
- Scope 3 reduction actions towards suppliers

Developing sustainable sourcing

In its Code of Conduct, Glaston undertakes to promote fair competition, act fairly towards its suppliers, service providers and subcontractors, and respect human rights in all of its activities.

Suppliers of goods and services play an important role in Glaston's value chain. Most of Glaston's approximately 2,000 active subcontractors operate in Europe, where the company's largest assembly and production units are located. Glaston's factories in Finland, Switzerland and China assemble machines, while its factory in Germany manufactures machines.

Most, around 90%, of Glaston's purchases come from the EMEA area, with the remainder coming from, among other places, Asia and the USA. The most significant materials purchased for machine manufacturing include steel structures, electrical and automation components, power centers and process blowers.

Supply chain disruptions related to the prices and availability of raw materials and components, as well as the availability and costs of logistics, adversely impacted Glaston's business during 2022.

One of Glaston's strategic cornerstone initiatives is Master global sourcing and manufacturing, the objective of which is to improve operational efficiency through more harmonized sourcing and manufacturing processes. In this work, an important element is responsible sourcing, which includes, among other things, supplier requirements and audits as well as safeguarding human rights and work-

place safety. In addition, anti-corruption in the supply chain and sourcing is systematically developed.

In 2020, Glaston published a separate code of conduct for its suppliers (Glaston Supplier Code of Conduct), to which the company requires its suppliers to commit. The Glaston Supplier Code of Conduct is published in Finnish, English, German and Chinese and is available on the company's website. The Supplier Code of Conduct was implemented in 2022, and during the year approximately 75% of main suppliers committed to it. The Code of Conduct has been incorporated into purchase agreements, so in the future all Glaston suppliers will be required to commit to it.

Major suppliers are regularly audited by Glaston's quality and purchasing organizations, and all new suppliers undergo an audit process prior to being approved. Glaston's supplier audit model was developed during 2022. As a new element in audits, the responsibility of suppliers and due diligence assessment related to human rights are also taken into account, in addition to quality, price and security of supply.

The revised audit model will be introduced in 2023, and the effectiveness of the model will be monitored and, if necessary, further developed. The aim of the revision is not only to take responsibility better into account, but also to harmonize the supplier audit method used in all Glaston's operating countries as well as the documentation of data.

Glaston selects its suppliers carefully, and seeks long-term, good relationships with its most important suppliers. In this way, the company ensures that its partners understand and comply with its requirements, in relation to both processes and products. Glaston accepts as its suppliers only companies that are not subject to sanctions of any kind and have not committed any regulatory offences.

Fair business starts with own activities

In its everyday activities, Glaston is committed to combating bribery and corruption, which can occur in both sourcing and sales. Glaston's anti-bribery and anti-corruption policy clearly sets out the company's approach and increases our employees' awareness of the risk of corrupt payments, unequivocally prohibits the payment and receipt of bribes, and ensures that the company conducts business in accordance with fair ground rules.

Glaston takes competition rules very seriously and every employee must act in accordance with them. Glaston complies internationally with EU competition legislation, while also taking into account all stricter local rules.

Glaston regularly arranges training for its personnel on fair business and competition issues. In addition, the training materials are always available on the company's intranet. In 2023, separate anti-bribery and anti-corruption training will be launched, and targeted at employees whose working tasks are closely associated with the topic.

Any violations or suspicions of improper activity or payments can be reported anonymously via Glaston's whistleblowing channel.

Responsible partner

Customer

- User experience and customer satisfaction

Products & Services

- Machine quality, reliability and longevity, life-cycle management
  - Safe operation of machines and user training for customers
  - Digitalization and automation
  - Information security
  - Energy and material efficiency targeting circular economy
- End product quality, safety and recyclability

Market's best customer experience

Sustainability targets:

- Industry's best customer experience, NPS over 40

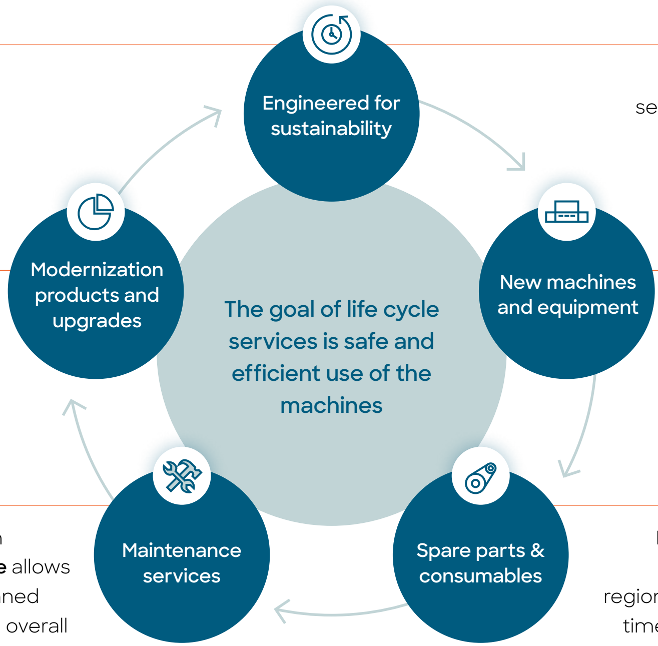
Key priorities for the strategy period:

- Business strategy: product offering development & customer experience, digitalization & automation
- Sustainability integrated into offering development
- Machine energy- and material -efficiency targeting circular economy
- LCA and circularity assessment of selected products

Customer support throughout the life cycle

Glaston invests in the development of digital services. Connecting machines to the **Glaston Insight** cloud service facilitates for the customer real-time support in the event of disruptions with no delays

We **engineer** our products and services for sustainable use through high quality materials and leading process designs



Modernizing a machine with new technology extends its life cycle and reduces energy consumption in glass processing. We offer digital services to improve productivity

We provide **training** to our customers securing improved glass quality and production efficiency with minimized waste

Our **remote monitoring and support** with **predictive and preventative maintenance** allows shutdown planning and reduces unplanned repairs for high end product quality and overall equipment efficiencies

In **spare parts**, we focus on quality, durability and availability through regional delivery centers, reducing lead times and the adverse environmental impact of transports

At the heart of Glaston's strategy and values is success with its customers. We are constantly developing our operating practices, which increase the value received by customers and improve the customer experience.

One of Glaston's strategic cornerstone initiatives is Innovate with customers to win, which focuses on understanding customers' needs and its seamless integration with our innovation and development work.

As the operating environment changes, customers' requirements and expectations of Glaston increase. Higher quality and more versatile features are continually required from customers' end products. Glaston's processing machines must be able to produce larger, more uniform and thinner glass surfaces. Production must also be able to adapt flexibly to making different types of glass. Glaston develops technologies and solutions that meet these changing customer needs, and product development is often done in partnership with customers.

One of Glaston's non-financial targets is related to customer satisfaction. The target is that customers' recommendation rate (Net Promoter Score, NPS) is above 40 by 2025. NPS was measured for the first time company-wide during 2022. Glaston's customer satisfaction survey is sent for delivered machine projects and it asks the customer to evaluate the success of the project and the customer's willingness to recommend Glaston. The customer recommendation rate (NPS) in 2022 was 53.

Safe use and customer support throughout the life cycle

Glass processing machines are long-term investments for their owners as, depending on the machine, they can have decades-long operating lives. Glaston's machines are designed to withstand constant use at high utilization rates, and the company interacts closely with customers, as the machines are regularly serviced to achieve consistent performance.

Glaston's production and assembly processes and installation methods are designed to promote product reliability as well as the safety of installers

Product development and services for energy saving

How can we reduce energy consumption? This is what almost all glass processors were asking in 2022. At Glaston, we help our customers save energy in numerous ways.

Glass tempering is one of the most important processes in a glass processing factory; it helps increase end-product safety, strength and durability. The tempering process, in which the glass is heated to +600°C and then cooled back down to room temperature, consumes a lot of electricity. The most significant energy-saving potential in a glass processing plant is therefore often to be found in the tempering line. For example, automatically adjusting flat tempering convection technology reduces waste energy. Particularly with thinner glass, new blower technology significantly reduces electricity consumption.

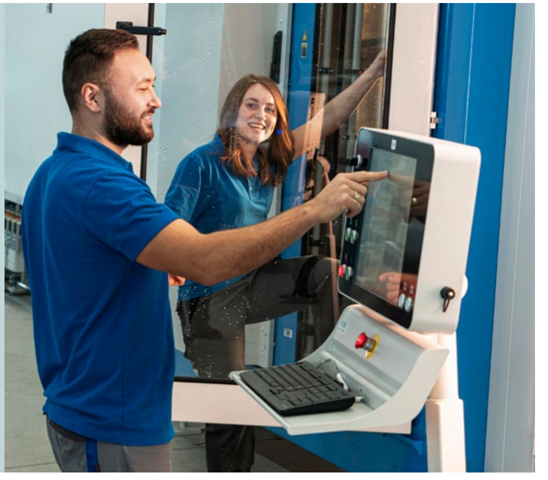
Modernizing older tempering lines with new technology is an effective way to reduce electricity consumption.

In laminating, Glaston's new convection-based technology delivers the most energy-efficient glass processing on the market. Many traditional technologies allow heat to escape from the furnace, which wastes energy.

Energy efficiency can also be improved with the aid of digital reporting and real-time production monitoring, allowing glass processors to see more precisely where electricity is being consumed and how they can optimize the operation of the machines.

Modernizing furnaces is also an effective way to reduce electricity consumption. Any laminating line can be modernized, regardless of the original manufacturer.

Glaston's position is particularly strong as a developer of technologically demanding products



and customers. All Glaston machines manufactured in Europe comply with the EU Machinery Directive. The Directive requires manufacturers to carry out, among other things, a risk analysis of the machine, describing possible risks to personnel during the various stages of use of the machine.

Glaston has a total of approximately 4,000 installed and operating machine lines. In accordance with its life cycle model, Glaston has been actively developing its maintenance services, as regular service intervals increase product life and safety. Glaston has over 100 different upgrade products for different machine models. Modernizing a machine with new technology extends its operating life, improves end product quality and production process efficiency, and reduces energy consumption in glass processing.

Remote monitoring and support based on proactive and preventive maintenance enable outage planning and reduce unplanned repairs. We also offer our customers training and support as well as digital services to improve productivity and glass quality. Connecting machines to the Glaston Insight cloud service enables the customer to monitor and report on production in real time, and provides rapid customer support in the event of disruptions.

Developer of demanding products

Glaston is the frontrunner in the glass industry, and is known for its high quality. The company's position is particularly strong as a developer of the most technologically demanding products. The company carries out product development in close cooperation with its customers and partners, such as research institutes, universities and other higher education institutions.

At the forefront of Glaston's product development are projects and innovations related to automation, ease of use and self-learning that facilitate the transition towards fully automated glass processing.

One of our latest innovations is the tempering process Autopilot, which is based on the same solutions that are used in autonomous passenger cars. Autopilot presages a huge change for the entire glass processing industry, as it minimizes the need for machine operator input and offers process control without parameters.

Through automation, we help our customers to produce higher quality glass continuously at a higher utilization rate. New solutions include Glaston's automated stress calculation solution in the glass tempering process as well as a scanner that uses artificial intelligence to automatically detect white haze on processed glass. In addition to efficiency and reliability, optimization also improves energy and material consumption and reduces wastage.

Importance of information security and protection is growing

As a result of the increased role of various cloud services and IoT, the importance of information security and protection has grown significantly for companies. The impact on business of potential data breaches has been recognized and Glaston pays particular attention to managing information security risks with regard to data connections between the company and its customers.

Information security practices and responsibilities are guided by Glaston's information security policy. Information security is regularly monitored and audited, and Glaston's Executive Management Group and the Board of Directors' Audit Committee regularly review information security issues as well as plans and measures to manage risks.

The company has a SOC (Security Operations Center) service, which enables continuous network monitoring. In 2022, no significant information security incidents were reported. Glaston's partners and subcontractors are also required to adhere to the company's information security guidelines.

Responsible member of society

Sustainable tomorrow

- Indirect impacts on energy-efficient cities and societies
  - Indirect energy and emission reductions
  - Indirect material reductions
- Sustainable end-product applications
- Development of the industry, research cooperation
- Contributing to the decarboniza-tion of societies

Technology leader, developing the glass industry

Key priorities for the strategy period:

- Glass Performance Days to promote the theme of energy-efficient cities and societies and enhance industry dialogue
- Contributing to improving GHG data accuracy in glass processing
- Building thought leadership in glass related emissions
- Stakeholder analysis on their alignment with Glaston's targets
- Start-up and research co-operation

Technology leader, developing the glass industry

Glaston is actively and diversely involved in developing its industry. We promote the development of both the industry and its technologies in our operations and with our partners. One of Glaston's five strategic cornerstone initiatives is Lead digital transformation, which includes building digital tools and infrastructure across all Glaston operations to lead the industry's digital transformation.

Glaston participates in the activities of the following international glass industry organizations:

- International Commission of Glass (ICG)
- NGA/GANA in the USA
- China Glass Association in China
- Verband Deutscher Maschinen- und Anlagenbau glass technology forum in Germany
- Flat glass associations in Germany and Finland, and other local flat glass associations

In addition, Glaston is an active member, authorized by the Finnish national working group, in glass industry committees of CEN (European Committee for Standardization) and in ISO's (International Organization for Standardization) working groups preparing safety glass (tempered and laminated glass) standards. Via these, we are able influence the creation of industry standards and communicate through practical experience the needs and requirements that the standards should cover.

Glaston works closely with various research institutes and higher education institutions. Key partners include VTT Technical Research Center of Finland, the University of Tampere, Business Finland, the Fraunhofer Institutes in Germany, and universities in Switzerland. The company also actively offers summer, graduate thesis and trainee job positions to talent of the future. In Germany, the company has its own apprenticeship program. In addition, Glaston's conducts development and engineering projects in new glass technologies.

The Glass Performance Days (GDP) conferences, organized by Glaston, are among the sector's most prestigious events and bring together the entire glass industry, from researchers, architects and designers to glass producers, processors, equipment suppliers and end users.

The conferences aim to disseminate the latest information among industry actors and to promote the development of new areas of application and technological features. The GPD conferences have been organized at two-year intervals since 1992, except for 2021 when, due to the COVID-19 pandemic, the conference was not held. Over the years, the GDPs have attracted more than 16,000 glass industry professionals.

In spring 2022, Theme Park by GDP gathered the GPD audience around once a month for webinars on current glass industry topics, discussion and networking.

An important part of the GPD conferences organized in Finland is the Step Change program, which is a meeting place for startup companies and the glass industry. The goal of the Step Change program, to be organized for the third time in summer 2023, is to introduce and bring together new technologies, research teams and startups to develop the entire glass industry. The program aims to promote the commercialization and utilization of new innovations throughout the glass value chain.

AHLSTRÖM COLLECTIVE IMPACT

One million euros for children's future

Glaston is participating in the Ahlström Collective Impact (ACI) responsibility initiative, which supports the realization of selected UN sustainable development goals. ACI involves collaboration between Ahlström network companies and UNICEF Finland, with the aim of improving the lives of children worldwide.

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In 2022, ACI invested EUR 770,000 in UNICEF's Global Education Program, which supports millions of children to succeed in life. This year, we also sought to support UNICEF's invaluable work in Ukraine. The companies, employees, foundations and shareholders of Ahlström Collective Impact collected nearly EUR 300,000 for the children of Ukraine.

ACI cooperation is strongly aligned with Glaston's value Together we build the future. Providing access to education and equal opportunities is an ongoing effort that we also want to support in the future. By joining forces with the Ahlström Network companies, we can contribute to a better future for children.

In 2022, in addition to Glaston, the ACI network consisted of Antti Ahlström Perilliset, Ahlström Capital, Ahlström Invest, Ahlstrom, Destia, Detection Technology, Enics, Suominen, Avain Yhtiöt, M&J Recycling, Eva Ahlström Foundation and Walter Ahlström Foundation.

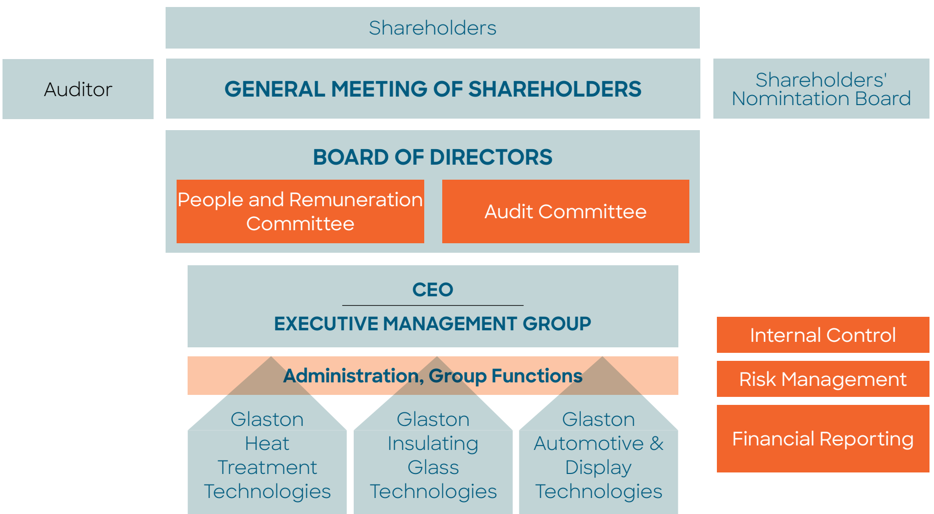
Governance

Corporate Governance Statement 2022

Glaston Corporation's administration and management are based on the Company's Articles of Association, the Finnish Companies Act and Securities Markets Act, and the rules and guidelines of Nasdaq Helsinki Ltd. In addition, Glaston complies with the Finnish Corporate Governance Code 2020 (also the "Corporate Governance Code"), which is publicly available at: www.cgfinland.fi.

This statement has been approved by the Company's Board of Directors (also the "Board"). The Corporate Governance Statement is issued as a separate report and is published together with the financial statements, the Report of the Board of Directors and the Remuneration Report on the Company's website at: https://glaston.net/governance/. The information is also included in the Annual Review 2022.

Governance Model 31 December 2022



Duties and Responsibilities of Governing Bodies

The General Meeting of Shareholders, the Board of Directors and the President & CEO, whose duties are determined mainly in accordance with the Finnish Companies Act, are responsible for the management of Glaston Group. The General Meeting of Shareholders elects the Board of Directors and the Auditors. The Board of Directors appoints the President & CEO, who is responsible for the Company's daily operational management. The President & CEO is supported by the Executive Management Group.

Board of Directors

The Board of Directors is responsible for the appropriate arrangement of the Company's administration and operations. The Board of Directors consists of minimum of five and a maximum of nine members elected by a General Meeting of Shareholders. The term of office of Members of the Board of Directors expires at the end of the next Annual General Meeting that follows their election.

Under Recommendation 10 of the Corporate Governance Code, a majority of Members of the Board of Directors shall be independent of the Company, and at least two Members who are independent of the Company shall also be independent of the Company's significant shareholders. The Nomination Board prepares proposals on the nomination and remuneration of Members of the Board of Directors to be dealt with by a General Meeting of Shareholders. In the selection of members, attention shall be paid to the diversity of the Board of Directors, which means, among other things, that the members' experience and competence in the Company's field of business and development stage are mutually complementary. In addition, education, age and gender shall be taken into account. Both genders must be represented on Glaston's Board of Directors.

The notice to attend an Annual General Meeting shall include a proposal on the composition of the Board of Directors. The personal information of the candidates shall be published on Glaston's website in connection with the notice to attend an Annual General Meeting.

The Board of Directors shall elect from among its members a Chair and a Deputy Chair to serve for one year at a time. The Board of Directors has a quorum if more than half of its members are present at the meeting.

The Board of Directors' tasks and responsibilities are determined by the Company's Articles of Association, the Finnish Companies Act and other legislation and regulations. It is the responsibility of the Board of Directors to further the interests of the Company and all of its shareholders.

The main duties and operating principles of the Board of Directors are defined in the board charter approved by the Board. It is the Board's duty to prepare the matters to be dealt with by a General Meeting and to ensure that the decisions made by a General Meeting are appropriately implemented. It is also the Board's task to ensure the appropriate arrangement of the control of the Company's accounts and finances. In addition, the Board directs and supervises the Company's executive management, appoints and dismisses the President & CEO and decides on the President & CEO's employment and other benefits. In addition, the Chair of the Board approves the salary and other benefits of the Executive Management Group. The Board approves the Executive Management Group's charter.

The Board of Directors also decides on far-reaching and fundamentally important issues affecting the Group. Such issues are the Group's strategy, approving the Group's action plans and monitoring their implementation, monitoring the Group's financial development, acquisitions and the Group's operating structure, significant capital expenditures, internal control systems and risk management, key organizational issues and incentive schemes.

The Board of Directors is also responsible for monitoring the reporting process of the financial statements, the financial reporting process and the efficiency of the Company's internal control, internal auditing, if applicable, and risk management systems pertaining to the financial reporting process, monitoring the statutory audit of the financial statements and consolidated financial statements, evaluating the independence of the statutory auditor or audit firm, particularly with respect to the provision of services unrelated to the audit, and preparing a proposal for resolution on the election of the auditor. The Board of Directors also regularly evaluates its own actions and working practices.

Meetings of the Board of Directors are held as a rule in Helsinki. The Board of Directors also endeavors each year to visit the Group's other operating locations and hold meetings there. The Board of Directors may also, if necessary, hold video and telephone conferences. The Board of Directors meets according to a timetable agreed in advance, generally 7–10 times per year and additionally, if necessary. The Company's President & CEO and Chief Financial Officer generally attend the meetings of the Board. The Company's General Counsel acts as Secretary to the Board. If necessary, such as in connection with the handling of strategy or the annual plan, other Members of the Executive Management Group may also attend meetings of the Board. The Auditor attends all Audit Committee meetings and at least one Board meeting per year.

Board of Directors in 2022

At the Annual General Meeting, held on 12 April 2022, the Members of the Board of Directors Veli-Matti Reinikkala, Sebastian Bondestam, Antti Kaunonen, Sarlotta Narjus, Arja Talma, Tero Telaranta and Michael Willome were re-elected as members of the Board of Directors. The Board of Directors was elected for a term of office ending at the closing of the next Annual General Meeting.

In 2022, Veli-Matti Reinikkala has served as Chair of the Board, and Sebastian Bondestam as Deputy Chair.

In 2022, the Board evaluated its performance and procedures through a self-evaluation questionnaire. In the self-evaluation, the members considered, among other things diversity of the Board, the quality of the Board and committee work and information sharing between the Board and the management. The results of the evaluation were discussed and analyzed by the Board and improvement proposals were agreed based on these discussions.

In 2022, key themes on the Board's agenda were the implementation of the company's revised strategy for 2021-2025 as well as planning and follow-up of the strategic initiatives. In addition, mitigating the impacts of the supply chain disruptions continued to be on the agenda.

Independence of Members of the Board

According to an independence assessment performed by the Company's Board of Directors, all of the Members of the Board are independent of the Company. Member of the Board Tero Telaranta is dependent on a significant shareholder of the Company, Ahlstrom Capital B.V., whose ownership was 26.39% on 31 December 2022. As of 25 November 2022, member of the Board Sebastian Bondestam is dependent on a significant shareholder of the Company, Ahlstrom Capital B.V. The Members of the Board have no conflicts of interest between the duties they have in the Company and their private interests.

General Counsel Taina Tirkkonen served as the secretary to the Board of Directors.

The CV details of the members of the Board are available on the company website. The remuneration of the Board is described in the Remuneration Report 2022.

Members of the Board of Directors 31 December 2022

Member of the Board	Member since	Independence	Year of birth	Share ownership on 31 December 2022	Education	Main occupation
Veli-Matti Reinikkala	2020, Chair of the Board	Independent of the company and significant shareholders	1957	720,558 shares	eMBA, Non-executive Director	Board Professional
Sebastian Bondestam	2018, Deputy Chair of the Board	Independent of the company, dependent on a significant shareholder	1962	51,255 shares	M.Sc.(Eng.)	Uponor Infra Oy, President; Uponor Corporation, Deputy to the CEO
Antti Kaunonen	2018	Independent of the company and significant shareholders	1959	148,718 shares	D.SC. (Tech.), MBA	Cargotec Corporation, President Kalmar Automation Solutions, retired on 30 June
Sarlotta Narjus	2016	Independent of the Company and of significant shareholders	1966	no shares	M.Sc. Architecture SAFA	SARC Architects Ltd, CEO
Arja Talma	2021	Independent of the Company and of significant shareholders	1962	22,713 shares	M.Sc. (Econ.), eMBA	Board Professional
Tero Telaranta	2017	Independent of the company, dependent on a significant shareholder	1971	23,089 shares	M.Sc.(Eng.), M.Sc. (Econ.)	Ahlström Capital, Director, Industrial Investments
Michael Willome	2020	Independent of the Company and of significant shareholders	1966	no shares	lic. oec HSG, M.A.	Synthomer Plc, Group Chief Executive Officer

Meeting attendance of Members of the Board 2022

	Board meetings	Audit Committee	People and Remuneration Committee
Veli-Matti Reinikkala	9/9	5/5	
Sebastian Bondestam	9/9		4/4
Antti Kaunonen	9/9		4/4
Sarlotta Narjus	9/9		4/4
Arja Talma	8/9	5/5	
Tero Telaranta	9/9	5/5	
Michael Willome	9/9		3/4

Meeting attendance of Members of the Board 2022

In 2022, Glaston's Board of Directors convened nine times. The meeting attendance is reported in the table above.

Committees of the Board of Directors

Glaston's Board of Directors has two committees: the Audit Committee and the People and Remuneration Committee. The Board of Directors appoints the members and chairs of the committees, taking into account the expertise and experience required for the duties of the committees. The members of the committees are appointed for the term of office of the Board of Directors. The committees are preparatory bodies of the Board of Directors and do not have their own decision-making power.

Audit Committee

The Audit Committee assists the Board of Directors by preparing matters within the competence of the Board of Directors. The Committee reports to the Board of Directors on matters discussed and measures taken at least four times a year and makes proposals to the Board for decision-making, if necessary.

The Board of Directors specifies the duties of the Audit Committee in a charter confirmed by the Board of Directors. The Audit Committee oversees the financial reporting process and monitors the effectiveness of internal control, internal audit and risk management systems. In addition, the Committee reviews the description of the main features of the internal control and risk management systems associated with the financial reporting process, monitors the statutory audit of the financial statements and the consolidated financial statements, evaluates the independence of the statutory audit firm and prepares a proposal for the election and remuneration of the auditor. Other duties include evaluating compliance with laws, regulations and corporate practices, overseeing significant litigation concerning Group companies, and performing any other duties assigned to the Committee by the Board of Directors.

The Audit Committee carries out self-evaluation of its work annually, and the Chair of the Committee reports the results to the Board of Directors.

Audit Committee in 2022

Until the Annual General Meeting on 12 April 2022, Arja Talma served as Chair, and Veli-Matti Reinikkala and Tero Telaranta as members of the Audit Committee. The members of the Audit Committee were independent of the Company. Tero Telaranta is dependent on a significant shareholder of the Company. As of 12 April 2022, the composition of the Audit Committee remained unchanged, and Arja Talma served as Chair, and Veli-Matti Reinikkala and Tero Telaranta as members of the Audit Committee.

In 2022, the Audit Committee met five times. The meeting attendance is reported in the table to the left.

In 2022, the committee reviewed plans to simplify the Group's legal structure and finance Chinese operations besides its regular reviews of financial reporting, audit and risk management. The follow-up of the Group's plans to mitigate cyber security risks became more frequent than earlier.

On 15 December 2022, the Board of Directors decided on changes in the composition of the Board of Directors' Audit Committee. As of January 1, 2023, the composition of the Audit Committee is as follows: Arja Talma (Chair), Sarlotta Narjus and Tero Telaranta.

People and Remuneration Committee

The People and Remuneration Committee assists the Board of Directors by preparing matters within the competence of the Board of Directors. The Board of Directors is responsible for the duties it assigns to the Committee.

The Board of Directors specifies the duties of the People and Remuneration Committee in a charter confirmed by the Board of Directors. Key duties of the Committee include preparing the remuneration policy and remuneration report for the Board and the Annual General Meeting, preparing salaries and other benefits of Glaston's CEO and other members of the Executive Management Group, preparing the nomination of the CEO and other members of the Executive Management Group and their successors, and preparing proposals for Glaston's short- and long-term incentive schemes as well as monitoring the company's key personnel's successor and development plan. In addition, the Committee's duties include carrying out all other duties assigned to the Committee by the Board of Directors.

The People and Remuneration Committee convenes at the invitation of the Chair, as necessary and at least twice a year. The Members of the Board of Directors and the CEO have the right to attend the meetings of the Committee.

The People and Remuneration Committee regularly carries out self-evaluation of its work, and the Chair of the Committee reports the results to the Board of Directors.

People and Remuneration Committee in 2022

Until the Annual General Meeting on 12 April 2022, Sebastian Bondestam served as Chair, and Sarlotta Narjus, Antti Kaunonen and Michael Willome as members of the People and Remuneration Committee. After the Annual General Meeting, Sebastian Bondestam continued as Chair, with Antti Kaunonen, Sarlotta Narjus, and Michael Willome as members of the committee. The members of the People and Remuneration Committee were independent of the Company. Sebastian Bondestam is dependent on a significant shareholder of the Company.

In 2022, the People and Remuneration Committee met four times. The meeting attendance is reported in the table on the previous page. On the committee's agenda were the incentive program for top management and the outcome of the same, top management review and remuneration as well as a talent review follow-up. In addition, the committee prepared the remuneration report for the governing bodies.

On 15 December 2022, the Board of Directors decided on changes in the composition of the Board of Directors' People and Remuneration Committee. As of January 1, 2023, the composition of the People and Remuneration Committee is as follows: Veli-Matti Reinikkala (Chair), Sebastian Bondestam, Antti Kaunonen and Michael Willome.

Shareholders' Nomination Board

The Nomination Board's task is to prepare and present annually for the Annual General Meeting and, if necessary, for an Extraordinary General Meeting, a proposal concerning the number of Members of the Board of Directors, a proposal on the identities of the Members of the Board, and a proposal on the remuneration of the Members of the Board. An additional task of the Nomination Board is to seek candidates as potential Members of the Board of Directors.

In its activities, the Nomination Board complies with current legislation, stock exchange rules applicable to the Company, and the Corporate Governance Code.

The Nomination Board consists of four (4) members, all of whom are appointed by the Company's four largest shareholders, who appoint one member each. The Chair of the Company's Board of Directors serves as an advisory member of the Nomination Board.

The Company's largest shareholders entitled to appoint members to the Nomination Board are determined annually on the basis of the registered holdings in the company's shareholder register held by Euroclear Finland Ltd on the first working day in September of the year in question. The Nomination Board elects a Chair from among its members.

The Nomination Board is established to serve until a General Meeting of Shareholders decides otherwise. The members of the Nomination Board are appointed annually and the term of office of the members expires when new members are appointed to the Board.

The members of the Nomination Board shall be independent of the company, and no person belonging to the Company's executive management shall be a member of the Nomination Board.

The Nomination Board shall submit its proposals to the Company's Board of Directors annually by the end of January preceding the Annual General Meeting. Proposals for an Extraordinary General Meeting shall be submitted to the Company's Board of Directors so that they can be included in the notice to attend the meeting.

A decision of the Nomination Board shall be the opinion of a majority of the members of Nomination Board. If the votes are tied, then the Chair's vote shall be decisive. If the votes are tied in the election of the Chair, the member candidate for Chair nominated by the shareholder who had the largest number of shares when the Nomination Board was established shall be elected as Chair.

A report on the activities of the Nomination Board shall be presented at the Annual General Meeting and published on the Company's website.

Shareholders' Nomination Board 2022

Until 31 August 2022, the Shareholders' Nomination Board comprised of Lasse Heinonen (Chair), as the representative nominated by Ahlstrom Capital B.V., Jaakko Kurikka, as the representative nominated by Hymy Lahtinen Oy, Pekka Pajamo, as the representative nominated by Varma Mutual Pension Insurance Company, and Esko Torsti, as the representative nominated by Ilmarinen Mutual Pension Insurance Company.

In accordance with its charter, the Nomination Board prepared its proposal concerning the Board composition and remuneration to the AGM 2022. The Nomination Board proposed that the number of members of the Board of Directors would be seven and that Sebastian Bondestam, Antti Kaunonen, Sarlotta Narjus, Veli-Matti Reinikkala, Arja Talma, Tero Telaranta and Michael Willome be re-elected as Members of the Board of Directors. The Nomination Board proposed that the annual remuneration of the Members of the Board of Directors would be increased and to be as follows: Chair EUR 70,000 (60,000), Vice Chair 43,000 (40,000) and Members EUR 33,000 (30,000).

Based on ownership on 1 September 2022, the Shareholders' Nomination Board remained unchanged and comprised of Lasse Heinonen, as the representative nominated by Ahlstrom Capital B.V., Jaakko Kurikka, as the representative nominated by Hymy Lahtinen Oy, Pekka Pajamo, as the representative nominated by Varma Mutual Pension Insurance Company, and Esko Torsti, as the representative nominated by Ilmarinen Mutual Pension Insurance Company. Veli-Matti Reinikkala, Chair of the Glaston Corporation's Board of Directors, served as an advisory member of the Nomination Board.

In its organizing meeting on 9 September 2022, the Nomination Board elected Lasse Heinonen amongst its members as the Chair. The Board met three times during 2022 and the average attendance of members was 100%. No fees were paid to the members of the Nomination Board.

In accordance with its charter, the Nomination Board prepared its proposal concerning the Board composition and remuneration also to the AGM 2023. The proposal was disclosed on 14 December 2022 and according to the proposal, the Nomination Board proposed that the number of members of the Board of Directors would be seven and that Sebastian Bondestam, Antti Kaunonen, Sarlotta Narjus, Veli-Matti Reinikkala, Arja Talma, Tero Telaranta and Michael Willome be re-elected as Members of the Board of Directors. The Nomination Board proposed that the remuneration of the members of the Board of Directors remain unchanged and that accordingly, the annual remuneration be as follows: Chair EUR 70 000, Vice Chair 43 000 and Members EUR 33 000.

President & CEO

The President & CEO handles the operational management of the Company in accordance with instructions issued by the Board of Directors. He is responsible to the Board of Directors for fulfilling the targets, plans and goals that the Board sets. The President & CEO is responsible for ensuring that the Company's accounting is in compliance with the law and that financial management has been arranged in a reliable manner. The President & CEO is supported by the Executive Management Group.

Anders Dahlblom has served as President & CEO as of 1 January 2021.

Deputy to the CEO

Sasu Koivumäki, CSO (Chief Sales Officer), has served as Deputy to the CEO since 1 January 2015. The Deputy to the CEO carries out the duties of the CEO after the termination of his/her service or when he/she is temporarily prevented from performing his/her duties.

Executive Management Group

The Chair of the Company's Board of Directors appoints, on the proposal of the President & CEO, the Members of the Executive Management Group and confirms their remuneration and other contractual terms. The Company's President & CEO acts as the Chair of the Executive Management Group. The Executive Management Group handles the Group's and business areas' strategy issues, capital expenditure, financial development, product policy, Group structure and control systems, and supervises the Company's operations.

The Members of the Executive Management Group report to the President & CEO and assist him in implementing the Company's strategy, operational planning and management, and in reporting the development of business operations. The Executive Management Group meets under the direction of the President & CEO.

In 2022, the composition of the Executive Management Group was the following: President and CEO Anders Dahlblom, CSO and Deputy CEO Sasu Koivumäki, CFO Päivi Lindqvist, SVP Glaston Heat Treatment Technologies Miika Äppelqvist, SVP Glaston Insulating Glass Technologies Dietmar Walz, SVP Glaston Automotive and Display Technologies Robert Prange, SVP Services Artturi Mäki, SVP People & Culture Hannele Anonen and General Counsel Taina Tirkkonen.

The Executive Management Group convened 12 times in 2022.

Executive Management Group 31 December 2022

	Area of responsibility	Member since	Year of birth	Education	Share ownership on 31.12.2022 *)
Anders Dahlblom	President & CEO	Employed by the company since 2021	1974	M.Sc. (Econ.)	530,000 shares
Other members of the Executive Management Group					
Sasu Koivumäki	CSO Deputy to CEO since 2015	Employed by the Company since 2002, Member of the Executive Management Group since 2012	1974	M.Sc.(Econ.)	89,979 shares
Päivi Lindqvist	Chief Financial Officer	Employed by the company and Member of the Executive Management Group since 2016	1970	M.Sc.(Econ), MBA	38,680 shares
Miika Äppelqvist	SVP Glaston Heat Treatment Technologies	Employed by the company since 2013, Member of the Executive Management Group since 2020	1981	MSc, (Eng.)	6,815 shares
Dietmar Walz	SVP Insulating Glass Technologies	Employed by the company and Member of the Executive Management Group since 2019	1960	M.Sc.(B.Admin)	No shares
Robert Prange	SVP, Automotive and Display Technologies	Employed by the company since 2019. Member of the Executive Management Group since 2020	1970	Dr. Ing.	40,000 shares
Taina Tirkkonen	General Counsel	Employed by the company since 2011, Member of the Executive Management Group since 2013	1975	LL.M, M.Sc. (Admin), MBA	27,500 shares
Artturi Mäki	SVP Services	Employed by the company and Member of the Executive Management Group since 2016	1969	M.Sc.(Eng.)	4,731 shares
Hannele Anonen	SVP People & Culture	Employed by the company and Member of the Executive Management Group since 2021	1971	eMBA	No shares

*) Share ownership includes also the ownership of Glaston Corporation shares by the entities controlled by the person in question

Remuneration of the CEO & President and the Executive Management Group is described in the Remuneration Report 2022 and on the company's website.

At the end of 2022, the Steering Executive Management Group comprised, in addition to the above-mentioned members of the Executive Management Group, of Kimmo Kuusela (VP Strategic Accounts & Innovation, Architectural Business), Marcus Schrod (VP Operations, Neuhausen), Pekka Nieminen (General Manager and VP, Sales and Operations, China), Marco Stehr (SVP Sales and service, EMEA), Pia Posio (VP Marketing, Communications and IR), Jens Mayr (SVP China strategy), Joe Butler (SVP Sales & Service, Americas), José Yepes, (VP, Strategic accounts & Innovation, Automotive and Display Business) and Janne Puhakka (Director, ICT). The Executive Steering Management Group met four times in 2022.

Main Features of Internal Control and Risk Management Pertaining to the Financial Reporting Process

Internal control is an essential part of the Company's administration and management. Its aim is to ensure that the Group's operations are efficient, productive and reliable and that legislation and other regulations are complied with. The Group has specified Group-wide principles for the main areas of its operations that form the basis for internal control.

The Group's internal control systems serve to provide reasonable assurance that the financial reports published by the Group give reasonably correct information about the Group's financial position. The Board of Directors and the President & CEO are responsible for arranging internal control. A report covering the Group's financial situation is supplied monthly to the Board of Directors. The Group's internal control is decentralized to different Group functions, which supervise compliance with instructions approved by the Board of Directors within their areas of responsibility. The Group's financial management and operational control are supported and coordinated by the Group's financial management and controller network.

The Group's financial reporting process complies with the Group's operating guidelines and standards relating to financial reporting. The interpretation and application of financial reporting standards has been concentrated in the Group's Financial Management organization, which maintains operating guidelines and standards relating to financial reporting and is responsible for internal communication relating to them. The Group's Financial Management organization also supervises compliance with these guidelines and standards. The Company has no separate internal auditing organization. The Group's Financial Management organization regularly monitors the reporting of the Group's units and addresses deviations perceived in reporting and, if necessary, performs either its own separate internal control auditing or commissions the internal control auditing from external experts. Control of reporting and forecasting processes is based on the Group's reporting principles, which are determined and centrally maintained by the Group's Financial Management organization. The principles are applied consistently throughout the Group and a consistent Group reporting system is in place.

Risk Management

Risk management is an essential part of Glaston's management and control system. The purpose of risk management is to ensure the identification, management and monitoring of risks relating to business targets and operations. Risk management principles and operating practices have been specified in a risk management policy approved by the Company's Board of Directors.

The principle guiding Glaston's risk management is the continuous, systematic and appropriate development and implementation of the risk management process, with the objective being the comprehensive recognition and appropriate management of risks. Glaston's risk management focuses on the management of risks relating to business opportunities and of risks that threaten the achievement of Group objectives in a changing operating environment. From the perspective of risk management, the Company has divided risks into four different groups: strategic risks, operational risks, financial risks and hazard risks. Risks relating to property, business interruption as well as liability arising from the Group's operations have been covered by appropriate insurances. Management of financial risks is the responsibility of the Group Treasury in the Group's parent company.

Glaston's risk management policy includes guidelines relating to the Group's risk management. Risk management policy also specifies the risk management processes and responsibilities. Glaston's risk management consists of the following stages: risk recognition, risk assessment, risk treatment, risk reporting and communication, and control of risk management activities and processes. As part of the risk management process, the most significant risks and their possible impacts are reported to the Company's management and the Board of Directors regularly, based on which management and the Board are able to determine the level of risk that the Company's business functions are potentially ready to accept in each situation or at a certain time.

It is the duty of Glaston's Board of Directors to supervise the implementation of risk management and to assess the adequacy and appropriateness of the risk management process and of risk management activities. In practice, risk management consists of appropriately specified tasks, operating practices and tools, which have been adapted to Glaston's business functions and Group-level management systems. Risk management is the responsibility of the SVP of each segment and the head of Group-level function. Risk recognition is in practice the responsibility of every Glaston employee.

The Group Legal function is responsible for guidelines, support, control and monitoring of risk management measures. In addition, the function consolidates segment and Group-level risks. The Group Legal function reports on risk management issues to the President & CEO and the Executive Management Group and assesses in collaboration with them any changes in the probabilities or the impacts of identified risks and in the level of their management. The Group Legal function also reports the results of risk management processes to the Board of Directors.

Segment and Group-level risk management is included in the annual Group-wide risk management process. The process can also always be initiated when required if substantial strategic changes requiring the initiation of the risk management process take place in a certain segment.

The management group of each segment and function identifies and assesses its operational risks and specifies risk management measures by which an acceptable level of risk can be achieved.

Utilizing the risk management process, risks are systematically identified and assessed in each segment and at Group level. In addition, at each level actions are specified which, when implemented, will achieve an acceptable risk level. Risks are consolidated at Group level. Action plans are prepared at each level of operations to ensure risks remain at an acceptable level.

The Group's risks are covered in more detail in the Report of the Board of Directors on page 88. The management and organization of the Group's financial risks are presented in more detail in Note 5.4 of the consolidated financial statements on page 159.

Information and Communications

An effective internal control system requires sufficient, timely and reliable information to enable management to assess the achievement of the company's goals. There is a need for both financial and other information on the Company's internal and external events and activities. Employees have the opportunity to report, also through a whistleblowing channel, any questionable activity they observe. All external communications are handled in accordance with the Group's Disclosure policy.

Auditing

The Company has one Auditor, which must be an auditing firm authorized by the Finnish Patent and Registration Office. The Annual General Meeting elects the Auditor to audit the accounts for the financial year, and the Auditor's duties cease at the close of the subsequent Annual General Meeting. It is the Auditor's duty to audit the consolidated and parent company financial statements and accounting as well as the parent company's governance, and to give reasonable assurance that the financial statements as a whole are free from material misstatement. The Company's Auditor presents the audit report required by law to the Company's shareholders in connection with the annual financial statements and reports regularly to the Board of Directors. The Auditor, in addition to fulfilling general competency requirements, must also comply with certain legal independence requirements guaranteeing the execution of an independent and reliable audit.

Audit 2022

At the 2022 Annual General Meeting, the accounting firm KPMG Oy Ab was re-elected as the Company's Auditor.

The auditor with principal responsibility was Lotta Nurminen APA. Auditing units representing KPMG have served as the auditors of the Company's subsidiaries in most operating countries. In 2022, the Group's auditing costs totaled approximately EUR 376 thousand, of which KPMG received approximately EUR 302 thousand. In addition, auditing units belonging to KPMG have provided legal statements to a total value of EUR 15 thousand and other advice to Group companies to a total value of EUR 95 thousand.

Principles for Related Party Transactions

Glaston complies with legislation concerning related party transactions and, in accordance with legislation and the Corporate Governance Code, ensures that requirements related to monitoring, assessing, decision-making and disclosure of related party transactions are complied with. Glaston's Board of Directors monitors and assesses the transactions of the Company and its related parties.

Glaston has defined the parties that are related to the Company, and Glaston's Communications Department maintains a list of individuals and legal persons who are considered to be related parties. Glaston maintains up-to-date guidelines on related party regulation and the monitoring thereof. Requirements regarding related party transactions have also been taken into account in Glaston's Code of Conduct.

Glaston may enter into transactions with its related parties as long as the transactions are part of Glaston's ordinary business operations and made on ordinary commercial terms and conditions. In such situations, Glaston's internal guidelines and decision-making processes are complied with. Related party transactions that deviate from Glaston's normal business operations or are not made on ordinary commercial terms are decided on by Glaston's Board of Directors, respecting provisions on disqualification.

Related party transactions are regularly monitored in Glaston's finance unit. Management personnel belonging to Glaston's related parties are obliged to notify Glaston's Related Party Administration without undue delay about related party transactions or planned related party transactions that they become aware of. Potential conflicts of interest are monitored through internal audits. Results of the monitoring of related party transactions are reported regularly to the Audit Committee of the Board of Directors.

Glaston reports on related party transactions regularly in its financial statements. Related party transactions which are material to shareholders, and which deviate from normal business or are not made according to ordinary commercial terms and conditions are published in accordance with the Securities Market Act and the rules of Nasdaq Helsinki Ltd.

Insider Administration

In addition to the statutory insider regulations, Glaston complies with the insider guidelines of Nasdaq Helsinki Ltd as well as the internal guidelines adopted by Glaston at any given time.

In accordance with the EU's Market Abuse Regulation, Glaston prepares and maintains a list of persons discharging managerial responsibilities as well as persons and entities closely associated with them. In Glaston Corporation, the persons discharging managerial responsibilities are the Members of the Board of Directors, the President & CEO, the Deputy CEO, and the Chief Financial Officer. At least once a year, Glaston checks the information of persons discharging managerial responsibilities that have a duty to declare as well as persons and entities closely associated with them. Glaston reports the securities transactions of persons discharging managerial responsibilities and their related parties in accordance with the Market Abuse Regulation.

Glaston does not maintain an insider list relating to permanent insiders. During the preparation of significant projects and events, the Company maintains project- and event-specific lists of insiders. Insiders are given a written statement of their inclusion in an insider register as well as guidelines on insider obligations.

The Company's persons discharging managerial responsibilities, persons serving in certain key positions and persons participating in the preparation of financial reports must not trade in the Company's financial instruments during the 30-day period before the publication of interim reports and financial statement releases. With respect to project-specific insiders, trading in the Company's financial instruments is prohibited until the cancellation or publication of the project.

The Company's insider administration, its implementation and supervision are the responsibility of Group Legal function and the Communications Department. Glaston's General Counsel is responsible for the Company's insider issues. The Company's Communications Department is responsible for maintaining the list of insiders and for overseeing the restriction on trading and duty to declare.

Remuneration Report for Governing Bodies 2022

Introduction

This Remuneration Report for the financial year 2022 (the "Remuneration Report") describes the remuneration for Governing Bodies of Glaston Corporation ("Glaston" or the "Company") as required by the Finnish Securities Market Act (746/2012, as amended), the Finnish Companies Act (624/2006, as amended) and the Finnish Corporate Governance Code 2020 (the "CG Code") issued by the Securities Markets Association. In addition to aforementioned, Glaston complies with other legal provisions concerning listed companies, Glaston's Articles of Association and the rules and guidelines issued by Nasdaq Helsinki Ltd.

The Remuneration Report presents information on the remuneration of the Board of Directors, the President and CEO and the Deputy CEO for the financial year 2022 and has been approved by the Board of Directors (also the "Board") of Glaston.

The principles, decision-making processes, and practises for the remuneration of the Board of Directors, the President and CEO and the Deputy CEO are set forth in the Remuneration Policy of Glaston (the "Remuneration Policy"). The Remuneration Policy was approved at the Annual General Meeting on 28 May 2020 without any advisory votes. The Remuneration Policy shall be applied until the Annual General Meeting to be held in 2024 unless the Board determines that a revised policy should be presented for the general meeting at an earlier date.

The remuneration principles in Glaston are designed to attract and retain to the Company's management persons that possess relevant skills, industry knowledge and experience to oversee the Company's achievement of its performance and strategy goals with emphasis on long-term shareholder value creation. The structure of the total remuneration is to be aligned with the long-term value of Glaston, the business strategy, financial results as well as to the employee's contribution. Remuneration is based on predetermined and measurable performance and result criteria. The remuneration principles support the strategy of Glaston.

The remuneration of the Board, the President and CEO and the Deputy CEO follows the Remuneration Policy framework and principles. No temporarily deviations from the policy have taken place during the financial year 2022. Further, no clawbacks of the remuneration have taken place during the said financial year 2022.

Development of remuneration in relation to financial development of the Company

This section presents the trend of remuneration of the President and CEO, the Deputy CEO and the Board, the average employee remuneration and company performance for the financial years 2018-2022.

The Remuneration Policy and further information about remuneration is available at Glaston website: www.glaston.net/investors.

In accordance with the Remuneration Policy, part of the remuneration payable to the President and CEO and the Deputy CEO may consist of short-term and long-term incentives. Criteria of such incentive plans are linked to the Company's performance (pay-for performance) and thus incentive plans of Glaston ensure that the remuneration drives the best interest of the Company.

With respect to the remuneration development for the financial years 2018-2022, the following shall be noted.

Glaston is a global company and the remuneration levels vary significantly in markets where Glaston operates. Nevertheless, it is considered most transparent to compare the remuneration of the governing bodies with the remuneration of employees globally on group level. Thus, the figures on average employee remuneration below are based on data for all Glaston employees globally. Further, Glaston acquired Bystronic glass in 2019. Bystronic glass was consolidated to Glaston as of 1 April 2019 and as a result of such transaction the total number of Glaston's employees grew by 121% and totalled 790 on 31 December 2019 (31 December 2018: 357) while net sales in January–December 2019 totalled EUR 181.0 million (2018: EUR 101.1 million).

Further, as reported in the remuneration report for the financial year 2020, due to the COVID-19 pandemic, Glaston took several proactive actions in 2020. Actions affecting employee remuneration included temporarily reducing labour costs by initiating temporary layoffs and reducing working hours. The fixed salaries of the executive management group, of which the President and CEO and the Deputy CEO are members, were temporarily cut by 10 % during Q2/2020. Some of these actions continued to have effect also in 2021 but were cancelled in early 2021 as a result of the improved market situation. These actions did not concern the President and CEO and the Deputy CEO. No actions affecting the remuneration were taken in FY2022 due to the pandemic.

Due to the nature of the Board duties and responsibilities, the remuneration of the Board includes fixed remuneration only. The effect of Bystronic glass transaction on Glaston and its operations has also been reflected in the remuneration level of the Board of Directors.

Remuneration development

EUR	2018	2019	2020	2021	2022
Annual remuneration of the Board	237,425	283,550	331,300	353,700	345,900
Annual remuneration of the President and CEO	446,601	467,466	163,598[1]	330,622[2]	644,244
Annual remuneration of the Deputy CEO	198,958	305,777[3]	108,645[4]	337,574[5]	378,192[6]
Annual remuneration of the Acting President and CEO	-	-	254,558[7]	-	
Average salary development[8]	49,600	61,500	60,400	66,500	70,500

Key financial metrics

EUR 1,000	2018	2019[9]	2020	2021	2022
Net sales	101,139	181,018	170,067	182,662	213,520
Comparable operating result (EBIT)	5,663	5,941	3,225	6,569	9,917
Comparable EBITA	7,556	9,746	7,742	11,098	13,624

[1] Remuneration for Arto Metsänen from the period 1 January to 31 May 2020. (Former President and CEO since 1 June 2020.)

[2] Remuneration for Anders Dahlblom.

[3] Excluding reimbursement of costs and expenses paid directly to third parties based on the expatriate agreement.

[4] Remuneration from the period 1 January to 31 May 2020, Deputy CEO appointed as an Acting President and CEO for the rest of the year 2020. Excluding reimbursement of costs and expenses paid directly to third parties based on the expatriate agreement.

[5] Excluding reimbursement of costs and expenses paid directly to third parties based on the expatriate agreement.

[6] Excluding reimbursement of costs and expenses paid directly to third parties based on the expatriate agreement and amounting to in total EUR 175,831. Total remuneration including also third party fees thus amounting to EUR 554,023.

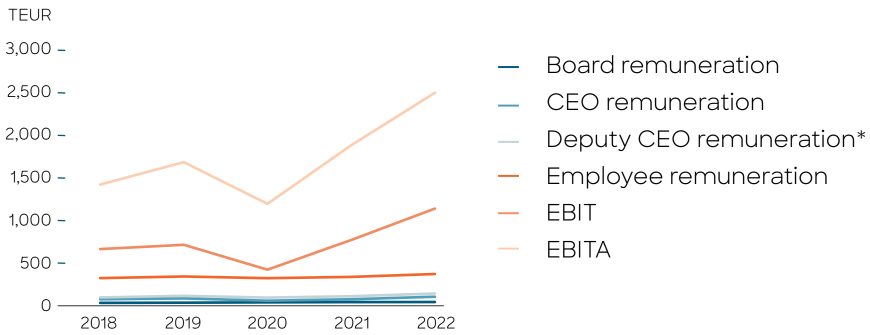
[7] Remuneration from period 1 June to 31 December 2020. Excluding reimbursement of costs and expenses paid directly to third parties based on the expatriate agreement.

[8] Average salary development at Glaston is calculated by dividing salaries and rewards by the average number of employees during the financial year. Employees of former Bystronic companies are included as of April 1, 2019 onwards. Amounts do not include employer's social security costs.

[9] Bystronic glass consolidated as of 1 April 2019.

The relation between remuneration development and the Company's performance has been further illustrated in the chart below:

Remuneration and financial development



* Deputy CEO remuneration for 2019 includes also remuneration paid to Sasu Koivumäki as Acting CEO and President.

Remuneration of the Board of Directors

The 2022 Annual General Meeting resolved that an annual fee of EUR 70 000 shall be paid to the Chair of the Board, EUR 43,000 to the Deputy Chair and EUR 33,000 to other Members of the Board.

Further, the 2022 Annual General Meeting resolved that a member of the Board may, at his/her discretion, choose to receive the annual fixed remuneration partly in company shares and partly in cash so that approximately 40% of the annual fixed remuneration is paid in Glaston Corporation's shares. The number of shares forming the above remuneration portion, which would be payable in shares, will be determined based on the share value in the stock exchange trading maintained by Nasdaq Helsinki Ltd, calculated as the trade volume weighted average quotation of the share during the one-month period immediately following the date on which the interim report of January-March 2022 of the Company is published.

A meeting fee of EUR 800 shall be paid to the Chair for meetings in Chair's home country and EUR 1,500 for meetings elsewhere, and EUR 500 shall be paid to the other Members of the Board for meetings held in their home country and EUR 1,000 for meetings held elsewhere. Half of the normal fee shall be paid for a board meeting held per capsulam. In addition, it was decided that Board members shall be paid travel and accommodation expenses and other direct expenses arising from board work pursuant to the Company's normal practice.

Furthermore, the members of the Audit and People and Remuneration Committees shall be paid a meeting fee of EUR 500 for each meeting that the members have attended. In addition to the meeting fee, the Chair of the Audit Committee shall be paid an annual fee of EUR 10,000 and the Chairman of the People and Remuneration Committee shall be paid an annual fee of EUR 7,500.

The members of the Board do not participate in any incentive plans.

All the payments to the members of the Board during the financial year 2022 were in compliance with the Remuneration Policy.

In the financial year 2022, the following fees were paid to the members of the Board, an annual fee and meeting fees including both Board and committee related remuneration (table on next page). As set out below, five members of the Board chose to receive the annual fixed remuneration partly in company shares.

Board	Audit Committee	People and Remuneration Committee	Annual fee (EUR)	Meeting fees (EUR)	Remuneration in total (EUR)
Veli-Matti Reinikkala, Chair of the Board	Member		67,500 Of which EUR 28,000 paid in Glaston shares	15,900	83,400
Sebastian Bondestam, Deputy Chair of the Board		Chair	49,750 Of which EUR 17,000 paid in Glaston shares	6,750	56,500
Antti Kaunonen		Member	32,250 Of which EUR 13,000 paid in Glaston shares	6,250	38,500
Sarlotta Narjus		Member	32,250	6,750	39,000
Arja Talma	Chair		42,250 Of which EUR 13,000 paid in Glaston shares	6,750	49,000
Tero Telaranta	Member		32,250 Of which EUR 13,000 paid in Glaston shares	7,250	39,500
Michael Willome		Member	32,250	7,750	40,000
Total			**288,500**	**57,400**	**345,900**

Remuneration of the President and CEO and the Deputy CEO

The remuneration of the President and CEO and the Deputy CEO comprises of a base salary, benefits and performance-based incentive plans.

Anders Dahlblom served as the President and CEO, and Chief Sales Officer Sasu Koivumäki as the Deputy CEO during the financial year 2022.

Sasu Koivumäki has worked as an expatriate in Singapore as of November 2021.

In 2022, the President and CEO Anders Dahlblom was paid the total remuneration of EUR 644,244. The relative proportion of the fixed pay was 51% and variable pay 49% (supplementary pension not included). The different components are described in more detail below.

In 2022, Deputy CEO Sasu Koivumäki was paid the total remuneration of EUR 378,192. The relative proportion of the fixed pay was 75% and variable pay 25% (supplementary pension not included). The different components are described in more detail below.

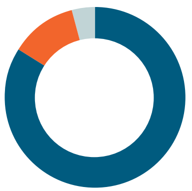
Further, total remuneration paid to Sasu Koivumäki in 2022 is excluding reimbursement of costs and expenses in the amount of EUR 175,831 paid directly to third parties based on the expatriate agreement.

Actualised remuneration of the President & CEO, and Deputy CEO for 2022

CEO & President Anders Dahlblom

■ Fixed pay 87%
■ Pension 13%

Deputy CEO Sasu Koivumäki



■ Fixed pay 84%
■ Pension 12%
■ Benefits 4%

Performance Actualisation 2022 (STI AND LTI)

President and CEO and Deputy CEO participated in the short-term incentive plan in 2022.

The **short-term incentive (STI)** opportunity of the President and CEO was in 2022 tied to the following metrics:

KPI	Weight	Achievement
Glaston EBITA	70%	Above target
Glaston Order Intake	30%	Above target (max)

The **short-term incentive (STI)** opportunity of the Deputy CEO was in 2022 tied to the following metrics:

KPI	Weight	Achievement
Glaston EBITA	40%	Above target
Glaston Order Intake	50%	Above target (max)
South East Asia (SEA) Order Intake	10%	Above min, below target

Remuneration paid or due to be paid under the STI is specified in more detail at the end of this section.

Glaston has long-term incentive (LTI) plans to i.a. retain the key personnel and to offer them with a competitive reward plan based on the earning and accumulating the Company's shares.

President and CEO and the Deputy CEO participate in the Performance Share Plan 2022–2026 which comprise of three (3) performance periods: calendar years 2022–2024, calendar years 2023-2025 and calendar years 2024-2026. The participants shall hold 50% of the net number of shares received under the plan until the number of the Company's shares held by the participant corresponds to the value of his gross annual base salary. Such number of shares shall be held during the term of the employment or service of the participant. As a rule, no reward will be paid in case the employment or service terminates before the reward payment is made.

For the first performance period under the Performance Share Plan 2022–2026 (LTI 2022–2024), objectives were set regarding the Group as follows:

KPI	Weight
Group Cumulative Comparable EBITA after LTI and STI	80%
Service Net Sales	20%
Total	**100%**

Additionally, the President and CEO and the Deputy CEO participate(d) in the Performance Share Plan 2019–2023 which comprised of three (3) performance periods: calendar years 2019–2021, calendar years 2020-2022 and calendar years 2021-2023. However, as the President and CEO Anders Dahlblom joined the Company first in 2021, he did not participate in the two first performance periods of the said plan. The participants shall hold 50% of the net number of shares received under the plan until the number of the Company's shares held by the participant corresponds to the value of his gross annual base salary. Such number of shares shall be held during the term of the employment or service of the participant. As a rule, no reward will be paid in case the employment or service terminates before the reward payment is made.

For the two first performance periods under the Performance Share Plan 2019–2023 (LTI 2019–2021 and LTI 2020–2022) objectives were set regarding Group Cumulative Comparable EBITA and Average Net Gearing as follows:

KPI	Weight
Group Cumulative Comparable EBITA	80%
Average Net Gearing	20%
Total	**100%**

The maximum opportunity for the two first performance periods was 40,000 shares for the Deputy CEO. The achievement (%) for the performance period LTI 2019–2021 is approximately 9.7% and for the performance period LTI 2020–2022 approximately 14%.

For the third performance period under the plan (LTI 2021–2023) objectives were set regarding Group as follows:

KPI	Weight
Group Cumulative Comparable EBITA	80%
Service Net Sales	20%
Total	**100%**

The maximum opportunity for the third performance period is 128,000 shares for the President and CEO, and 56,000 shares for the Deputy CEO.

Summary of remuneration to the President and CEO and Deputy CEO

Element	Remuneration Description	
	President and CEO	**Deputy CEO**
FIXED Base salary and benefits	EUR 331,120 Including taxable fringe benefits: mobile phone, company car, lunch benefit	EUR 282,536 Excluding utilities and fees paid directly to third parties amounting to in total of EUR 175,831 (EUR 458,367 such fees included)
VARIABLE Short-term incentive (STI)	Performance year 2021 (paid in 2022): EUR 233,280 Performance year 2022 (paid in 2023): EUR 175,608 The maximum amount of the President & CEO's annual bonus is 80% of the annual salary.	Performance year 2021 (paid in 2022): EUR 99,691 Performance year 2022 (paid in 2023): EUR 79,447 The maximum amount of the Deputy CEO's annual bonus is 40% of the annual salary.
VARIABLE Long-term incentive (LTI) 2019-2023 For additional information on long-term incentive plans, please see Glaston's website.	**Finalized plans:** N/A. President and CEO joined the Company on 1 January 2021 and thus did not participate in **LTI 2019–2021 or 2020–2022**. **Ongoing plans:** The maximum reward for the ongoing LTI 2021–2023 is 128,000 shares, including also the portion to be paid in cash.	**Finalized plans:** LTI 2019–2021 (paid in 2022): EUR 4,484 (The maximum reward was 40,000 shares, including also the portion to be paid in cash.) The maximum reward for the LTI 2020–2022 is 40,000 shares, including also the portion to be paid in cash. **Ongoing plans:** The maximum reward for the ongoing LTI 2021–2023 is 56,000 shares, including also the portion to be paid in cash.
VARIABLE Long-term incentive (LTI) 2022-2026 For additional information on long-term incentive plans, please see Glaston's website.	**Finalized plans:** N/A. **Ongoing plans:** The maximum reward for the ongoing LTI 2022–2024 is 128,000 shares, including also the portion to be paid in cash.	**Finalized plans:** N/A **Ongoing plans:** The maximum reward for the ongoing LTI 2022–2024 is 56,000 shares, including also the portion to be paid in cash.

Element	Remuneration Description	
	President and CEO	**Deputy CEO**
OTHER Pensions	The President and CEO participates in a non-statutory defined contribution supplementary pension scheme. The cost is 12% of annual fixed earnings amounting to EUR 37,303 in 2022. The President and CEO may retire in accordance with the stipulations of the applicable law.	The Deputy CEO participates in a non-statutory defined contribution supplementary pension scheme. The cost is 12% of annual earnings amounting to EUR 31,579 in 2022. The Deputy CEO may retire in accordance with the stipulations of the applicable law.
OTHER Bonus in Company shares (Signing bonus)	The President and CEO received 110,000 shares in the Company on 1 January 2022. The President and CEO shall hold the shares for the period of two years and shall return the shares should notice of termination be given during the said two years period. The Board may however resolve upon the President and CEO's right to keep the shares.	-

Financial Review

This pdf report has been published voluntarily and is not an xHTML document compliant with the ESEF (European Single Electronic Format) regulation. Non-official version.

The Board of Directors’ Review 2022

Financial year in brief

Despite rising global economic uncertainty, most of Glaston’s market areas developed positively during the year, and orders received increased by 17% when compared to 2021. Nevertheless, over the course of the year the deterioration of the global geopolitical situation and macroeconomic conditions impacted our customers’ decision-making to some extent.

Supply chain disturbances, including a decreased availability of components, increases in raw material prices, and disruptions in logistics impacted Glaston’s operations, and managing their effects became a central area of focus. During 2022, the company’s ability to manage the situation continued to improve.

Strategy implementation progressed according to plan. The plan to produce standard automotive glass pre-processing machines at the factory in China moved forward, and the deliveries of machines manufactured in China for the Chinese market are expected to begin over the first half of 2023. In the strategy, the solar energy industry has been recognized as a growing customer segment. In order to meet the demands of this segment, Glaston launched the new CHF Solar flat tempering line. The company’s broad product range proved its strategic importance, as over the course of the year several deals were made for products from two different product segments.

Due to the Russian invasion of Ukraine, Glaston made the decision to cease its operations in Russia and business with Russian customers during the second quarter. The cessation of Glaston's operations in Russia has not had a significant financial impact on the company.

Measures to promote sustainability in the company's operations progressed. During the year, a number of measures were taken to reduce Glaston’s carbon dioxide emissions. In addition to Scope 1 and 2 emissions, or direct and indirect emissions of own operations, Scope 3, or value chain emissions, were calculated as well. Constituting the starting point for future work, the results enable the company to better identify the measures that will support its efforts to strengthen a sustainable business.

Operating environment

Architectural glass

In 2022, the markets continued to develop well despite increasing supply chain problems and inflationary pressures. The majority of customers’ investments were in increased automation and the capability to increase production capacity and efficiency. Towards the end of the year, the stricter access to financing for new projects and the inflationary situation resulted in some investment hesitation, in Europe in particular.

Demand for Heat Treatment equipment was high. In addition to automation, the importance of energy-efficient solutions was highlighted. Flat tempering and flat laminating lines, in particular, were in strong demand. For Insulating Glass equipment, high demand for the Thermo Plastic Spacer (TPS®) line continued. The MULTI’ARRISSER edge arrissing machine was a door opener for new integrated insulating glass lines, thereby strengthening Glaston’s position in the market.

For the services business overall, the market was good as customers gradually were operational and ready for higher utilization rates. Demand for daily flow services and spare parts was high. In addition, field services grew as most countries gradually eased their COVID-19 travel restrictions. Supply chain disruptions adversely impacted spare parts sales and delivery times. The demand for upgrades declined during the second half of the year.

Operating environment in the regions

EMEA, with Europe as the core market, remained the strongest market for Insulating Glass equipment. The high demand for the Thermo Plastic Spacer (TPS®) technology continued, as well as for special lines, e.g. for fire-resistant glass and glass arrising. For Heat Treatment equipment, demand in the EMEA region was at a good level. In the final quarter, overall signs of increasing uncertainty in the architectural market could be seen. For Services markets, the business environment was mixed: demand for daily services was strong, whereas upgrade demand was weaker.

In the Americas, the good demand environment for Heat Treatment equipment continued throughout the year, driven by the architectural business. After a slow start to the year, demand for Insulating Glass equipment picked up in the final quarter. For Services, demand for daily services was strong throughout the year. For upgrades, the strong demand slowed down in the third quarter, however slightly picking up in the final quarter of the year.

In China, the coronavirus-related restrictions and lockdowns affected market activity. In the latter part of the year, a slowdown in the architectural market was noted. Given the challenging market environment, demand for high-end Insulating Glass machines continued, although somewhat slowing down. For Heat Treatment, the market continued to be soft. Elsewhere in the APAC area, demand was subdued. In services operations, activity improved in the second half of the year, as many countries opened up for travel.

Automotive glass

After an active first quarter of the year with good investment activity, the second quarter showed a slowdown. However, market activity steadily picked up in the third quarter and the positive development continued into the final quarter.

Automotive production still faced difficulties due to supply chain shortages and regional factors, such as Russia's invasion of Ukraine and the coronavirus-related restrictions in China. Increased caution over new investments was visible, causing delays and some postponements regarding new machinery projects. Despite higher-than-usual market uncertainty, the general market sentiment remained positive, with service activity steadily improving throughout the year.

No major changes were observed in the display market. Automotive displays once again showed increasing market activity, but orders were still at a low level.

Operating environment in the regions

In Europe, the market was very slow as the automotive glass industry consolidates. However, some signs of slightly improving markets were visible towards the end of the year.

In North America, the market continued to be good outside of the traditional automotive market, i.e. for special products such as recreational vehicles (RVs) and heavy vehicles. Typically, orders from North American customers are for highly customized solutions, taking advantage of Glaston's flexibility and ability to respond to the customers' special requirements. In the latter part of the year, cautious signs of market recovery in South America were seen.

In China, where the market is more driven by the classic automotive and display industries, market activity continued at a good level and was clearly supported by the company's decision to establish the production of standard pre-processing automotive lines in the country.

Financial development of the group

Orders received and order book

Orders received in the financial year 2022 amounted to EUR 253.0 (216.2) million, up 17% compared to the corresponding period in 2021. Order intake for Heat Treatment equipment and services was up 7% and totaled EUR 95.1 (89.0) million with good demand for flat tempering and flat lamination technology throughout the year. The Insulating Glass equipment and services order intake was up 33% totaling EUR 126.6 (95.0) million with the EUR 31 million deal for multiple insulating glass lines, recorded in Q3, significantly contributing to the outcome. For Automotive & Display equipment and services, the order intake was on the same level as in the previous year and totaled EUR 30.4 (31.2) million, with America and China as the most active markets. Total Services business order intake increased by 7% in the period.

Orders received, EUR million	1–12/2022	1–12/2021	Change%
Heat Treatment	95.1	89.0	6.9%
Insulating Glass	126.6	95.0	33.3%
Automotive & Display	30.4	31.2	-2.4%
Segments, total	**252.1**	**215.1**	**17.2%**
Unallocated and eliminations	0.9	1.1	-13.5%
Glaston Group total	**253.0**	**216.2**	**17.0%**

The order book stood at EUR 138.3 (94.8) million at the end of the year. The Heat Treatment order book totaled EUR 54.1 (45.6) million, representing 39% of the order book, Insulating Glass EUR 78.7 (38.5) million, or 57%, and Automotive & Display EUR 5.5 (10.7) million, or 4% of the order book.

Order book, EUR million	31.12.2022	31.12.2021	Change%
Heat Treatment	54.1	45.6	18.5%
Insulating Glass	78.7	38.5	104.4%
Automotive & Display	5.5	10.7	-48.5%
Segments total	**138.3**	**94.8**	**45.8%**
Glaston Group total	**138.3**	**94.8**	**45.8%**

Net sales

The financial year 2022 net sales totaled EUR 213.5 (182.7) million. Net sales in the Heat Treatment segment increased by 14% and totaled EUR 85.0 (74.7) million. Net sales in the Insulating Glass segment increased by 10% and were EUR 90.1 (81.6) million. In the Automotive & Display segment, net sales totaled EUR 37.5 (25.6) million and increased by 46%. In 2022, the Services business grew its net sales by 14%.

Net sales, EUR million	1–12/2022	1–12/2021	Change%
Heat Treatment	85.0	74.7	13.9%
Insulating Glass	90.1	81.6	10.4%
Automotive & Display	37.5	25.6	46.4%
Segments total	**212.6**	**181.9**	**16.9%**
Unallocated and eliminations	0.9	0.8	13.7%
Glaston Group total	**213.5**	**182.7**	**16.9%**

Operating result and profitability

The financial year 2022 comparable EBITA amounted to EUR 13.6 (11.1) million, i.e. 6.4 (6.1)% of net sales. In the full year, EBITA improved mainly due to volume increase and improved margin in the services business. Also, higher other operating income contributed to the outcome. The comparable operating result was EUR 9.9 (6.6) million, i.e. 4.6 (3.6)% of net sales. The Group's operating result was EUR 7.6 (5.1) million. Items affecting comparability totaled EUR -2.3 (-1.5) million and were mainly related to the termination of operations in Russia, the Automotive standard products production transfer to China and expensed cloud-computing investments. Financial income and expenses amounted to EUR -2.5 (-3.5) million. The result before taxes was EUR 4.7 (1.2) million. The result for the financial year was EUR 3.1 (1.1) million. Earnings per share were EUR 0.037 (0.013) and comparable earnings per share were EUR 0.074 (0.051).

EUR million	1-12/2022	1-12/2021	Change%
Operating result	7.6	5.1	49.7%
Items affecting comparability[1	2.3	1.5	55.6%
Comparable EBIT	**9.9**	**6.6**	**51.0%**
Operating result	**7.6**	**5.1**	**49.7%**
Amortization and purchase price allocation [1	3.7	4.5	-18.2%
EBITA	**11.3**	**9.6**	**17.8%**
Items affecting comparability[1	2.3	1.5	55.6%
Comparable EBITA	**13.6**	**11.1**	**22.8%**
% of net sales	6.4%	6.1%	

[1 + cost, - income

Financial development of the reporting segments

Heat Treatment reporting segment in brief:

- Market activity at a good level throughout the year
- Orders received up 7% supported by the healthy demand environment and good investment activity
- Net sales up 14%, mainly due to the good order intake and services growth
- Profit improved due to higher volume and increased margin

Heat Treatment segment key figures

EUR million	1-12/2022	1-12/2021	Change%
Orders received	95.1	89.0	6.9%
of which service operations	29.0	28.8	0.8%
of which service operations, %	30.5%	32.4%	
Order book at end of period	54.1	45.6	18.5%
Net sales	85.0	74.7	13.9%
of which service operations	31.0	27.7	12.2%
of which service operations, %	36.5%	37.1%	
Comparable EBITA	5.1	3.4	52.4%
Comparable EBITA, %	6.1%	4.5%	
Operating result (EBIT)	2.3	0.6	288.3%
Operating result (EBIT), %	2.7%	0.8%	

Insulating Glass reporting segment in brief:

- Strong market activity resulting in very good order intake
- Strong order backlog at EUR 78.7 million
- Net sales up 10%
- Volume and other operating income impacted positively on profitability

Insulating Glass segment key figures

EUR million	1-12/2022	1-12/2021	Change%
Orders received	126.6	95.0	33.3%
of which service operations	27.3	24.5	11.6%
of which service operations, %	21.6%	25.8%	
Order book at end of period	78.7	38.5	104.4%
Net sales	90.1	81.6	10.4%
of which service operations	28.2	24.7	14.5%
of which service operations, %	31.3%	30.2%	
Comparable EBITA	6.8	6.5	4.3%
Comparable EBITA, %	7.5%	8.0%	
Operating result (EBIT)	4.9	4.6	6.3%
Operating result (EBIT), %	5.4%	5.6%	

Automotive & Display reporting segment in brief:

- Slightly improving market activity in the latter part of the year
- Order intake on the same level as in the previous year
- Net sales improved by 46% supported by higher machine order intake

Automotive & Display segment key figures

EUR million	1-12/2022	1-12/2021	Change%
Orders received	30.4	31.2	-2.4%
of which service operations	16.1	14.6	10.5%
of which service operations, %	53.0%	46.8%	
Order book at end of period	5.5	10.7	-48.5%
Net sales	37.5	25.6	46.4%
of which service operations	17.1	14.4	18.7%
of which service operations, %	45.6%	56.2%	
Comparable EBITA	1.5	1.2	28.0%
Comparable EBITA, %	4.1%	4.7%	
Operating result (EBIT)	0.3	-0.1	420.7%
Operating result (EBIT), %	0.8%	-0.4%	

Financial position, cash flow and financing

At the end of December, Glaston Group's balance sheet total was EUR 194.9 (197.3) million. Intangible assets amounted to EUR 76.1 (75.8) million, of which goodwill was EUR 58.7 (58.6) million. At the end of the period, property, plant and equipment amounted to EUR 22.6 (22.9) million and inventories to EUR 32.0 (27.3) million. In order to ensure the best possible customer service in times of unpredictable delivery times for components, inventories have been increased.

The comparable return on capital employed (ROCE) was 10.5 (6.1)%.

At the end of December, the company's net gearing was 19.5 (26.9)%. The equity ratio was 44.0 (42.3)%. Net interest-bearing debt totaled EUR 13.3 (18.3) million.

In the financial year, Glaston's cash flow from operating activities was EUR 10.2 (19.3) million. Working capital was stable whereas in the previous period, it clearly contracted. Cash flow from investing activities was EUR -5.5 (-3.1) million and cash flow from financing activities was EUR -11.2 (-13.8) million.

Capital expenditure and product development

Glaston Group's gross capital expenditure in the financial year totaled EUR 5.8 (5.2) million and was primarily related to product development. Depreciation and amortization of property plant, and equipment, and of intangible assets, totaled EUR -7.7 (-7.9) million.

Glaston continued to execute the strategy cornerstone initiative Innovate with customers to win. Based on customer feedback, Glaston prioritized its development initiatives to meet customer needs. In addition, R&D processes were improved to serve future growth and technology.

In Heat Treatment, the focus was to further develop the new self-learning Autopilot for tempering and lamination lines. The Autopilot was launched to a broader market in connection to the glasstec 2022 exhibition in September. To further support the new structural interlayers in laminated glasses, Glaston introduced a new convection control system for lamination lines that enables high-quality production of these glass types. With growing industry requirements for higher glass quality and zero tolerance of clearly visible glass defects, the AI-based solution White Haze Scanner was launched to the market.

To support the automatization of the heat treatment processes, further development steps were taken in automation by developing new AI-based online measurement devices.

In Insulating Glass Technologies, development focused on finalizing the MULTI'ARRISSER arrissing machine product family and several machine deliveries were completed. To better match customers' demand for double-glazing units, the development of an enhanced offering to the sealing robot family with mid-segment sealing machines was initiated.

In digitalization, Glaston continued to work with industry partners to match the need for open communication and integration between machinery by enhancing the capabilities to connect machines to each other by using open communication platforms and cloud-based connections.

In automotive, the next-generation pre-processing line CHAMP EVO and MATRIX EVO bending furnace were introduced in the latter part of the year. The CHAMP EVO has enhanced its modularity for customer-specific requirements and increased its dynamic performance. In the final quarter, the manufacturing of a MATRIX EVO bending furnace for R&D testing and prototyping purposes started at Glaston's plant in Tampere, Finland, with first deliveries already scheduled.

In the financial year 2022, research and product development expenditure, excluding depreciation, totaled EUR 9.2 (7.0) million, of which EUR 3.0 (1.8) million was capitalized. Research and product development expenditure amounted to 4.3 (3.8)% of net sales.

Organization & personnel

On 31 December 2022, Glaston Group had a total of 783 (750) employees. At the end of December, the Heat Treatment segment employed 292 (283) people, the Insulating Glass segment 370 (359) people and the Automotive & Display segment 119 (103) people. Of the Group's personnel, 35%, i.e. 272 employees, worked in Germany, 25%, i.e. 195, worked in Finland, 13% worked elsewhere in the EMEA area, 21% worked in Asia and 6% worked in the Americas. In the full year 2022, the Group had an average of 775 (731) employees. Total personnel costs amounted to EUR 65.4 (58.4) million, of which salaries and wages amounted to EUR 54.7 (48.6) million.

Due to the Russian invasion of Ukraine in February 2022, Glaston made the decision to cease its operations in Russia and business with Russian customers. In the second quarter, Glaston's operations in Russia were discontinued, and all employment contracts, six in total, were terminated.

Throughout the year, safety and well-being of the personnel have been prominent themes. The first group-wide safety week was organized in May with various initiatives to further develop safety at work at all Glaston sites.

In the latter part of the year, the first group-wide One Glaston survey, measuring the strategic employee engagement rate, was conducted. In total, 71% of the employees across the organization answered the survey. The engagement rate was 70. The non-financial strategic target is an engagement rate of over 75 out of 100 by 2025.

Changes in the Executive Management Group

General Counsel and member of Glaston's Executive Management Group, Taina Tirkkonen resolved to leave Glaston and her employment ended on 31 December 2022. On 20 December 2022, the appointment of Kaisa Latva as General Counsel and a member of the Executive Management Group was announced. She will take up her position on 1 April 2023 and reports to President & CEO Anders Dahlblom.

Strategy

Glaston's revised strategy and financial targets for 2021–2025 were announced in August 2021. In 2022, the strategy implementation proceeded according to plans. In line with Glaston's strategic focus to grow its business in China and improve operational efficiency, the plan to establish production for Automotive standard pre-processing equipment in Tianjin was disclosed in June.

Since the announcement, activities for ramping up the production, enhancing the product-specific production skills as well as setting up a local automotive supply chain network have proceeded in line with the plans. Demonstrating the viability of the strategic initiative, the first orders for the new Automotive pre-processing CHAMP EVO lines were received in the third quarter.

Further strengthening its position in China, Glaston entered the market of tempering technologies for solar panel production and introduced the new flat tempering line for solar panel tempering. Manufacturing of the CHF Solar line proceeded according to plan at the factory in Tianjin, China in the latter part of the year. A total of five solar lines will be delivered in the first half of 2023.

Financial and non-financial target development

For the financial strategic targets, net sales increased by 17% compared to the previous year and were well on track with the set target. EBITA margin developed positively to 6.4%. The return on capital employed (ROCE) increased to 10.5% (6.1%).

Financial targets by 2025	2022	2021
Net sales – annual average clearly exceeding the addressable equipment market growth	+17%	+7%
EBITA – 10%	6.4%	6.1%
ROCE – 16%	10.5%	6.1%
Non-financial targets by 2025	**2022**	**2021**
Net promoter Score (NPS) over 40	53	-
Lost time injury frequency rate (LTIFR) zero	3.9	3.3
Employee engagement over 75 out of 100	70	-
Reduction of scope 1&2 CO_2 emissions in relation to net sales by 50% from the 2020 level	-57%	-13%

For the non-financial strategic targets, the lost time injury frequency rate was 3.9 (3.3) as the number of accidents increased by one to a total of six compared to five in 2021. Glaston's CO_2 emissions (scope 1+2) were 1,491 (2,608) tons of CO_2 and CO_2 intensity (tons of CO_2 per millions of euros in net sales) was 7.0 (14.3), mainly due to the switch to renewable electricity in Finland and Germany. Measurement of the strategic employee engagement target started in the latter part of the year and the engagement rate was 70. In 2022, the measurement of the group-wide customer satisfaction target, Net Promoter Score (NPS), started. The customer satisfaction survey was sent out for delivered machine projects and the customers were asked to rate the success of the project and their willingness to recommend Glaston. In 2022, NPS was 53. In 2023, measurement and scope will be further developed.

Sustainability

As the innovative frontrunner in its industry, Glaston's ambition is to continue being at the forefront of developing the industry towards a more sustainable future.

In 2022, Glaston has been focusing on reducing the carbon footprint of its own operations by investing in energy efficiency in manufacturing operations and increasing the share of renewable electricity used in its manufacturing operations. In Glaston's Swiss production unit, renewable electricity has been the main source of energy already for years. To further reduce their CO_2 emissions, the heat distribution system was renewed in the latter part of the year. This will notably reduce the consumption of gas. Additionally, close to 400 solar panels with a total capacity of over 150 kWp were installed on the roof of the production unit. The solar panels have been producing energy for the factory's own use since November and from the beginning of December electricity was also fed into the grid.

In 2022, Glaston has calculated the climate impact the company creates in its downstream and upstream value chains (scope 3). The calculation based on 2021 data showed that the majority, around 99%, of all emissions related to Glaston's activities are generated in the company's value chain. The most significant sources of emissions are the use of sold products (84%) and purchased goods and services (15%). Constituting the starting point for future work, the results enable the company to better identify the measures that will support our efforts to strengthen its sustainable business.

In addition to the strategic non-financial targets, Glaston has set other sustainability targets. To meet the targets set for the strategy period, a roadmap was created and the indicators refined. The plan and the timetable for the measures were approved by the company's executive management group and the Board of Directors.

As part of the company's corporate responsibility work, Glaston's new financing agreement is linked to sustainability targets and the loan margin of the new financing agreement is adjusted by the achievement of Glaston's sustainability objectives annually. The objectives are safety at work, measured as a decrease of lost time accidents (lost time injury frequency rate) and CO_2 emissions (scope 1 & 2) in relation to net sales.

In the review period, Glaston was re-certified as a 'Nasdaq ESG Transparency Partner'.

Shares and shareholders

Glaston Corporation's shares are listed on the Nasdaq Helsinki Small Cap list. The trading code is GLA1V and the ISIN code is FI4000369657. Each share entitles its holder to one vote and voting right. Glaston Corporation's share capital on 31 December 2022 was EUR 12.7 (12.7) million.

1.1.-31.12.2022	No. of shares and votes	Share turnover, EUR million
GLA1V	84,289,911	7.8

	Highest	Lowest	Closing	Average price *)
Share price	1.19	0.71	0.90	0.95

	31.12.2022	31.12.2021
Market value	76.0	96.1
Number of shareholders	7,593	7,427
Foreign ownership, %	26.8	27.3

*) trade-weighted average

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10 largest shareholders 31 December, 2022

	Shareholder	Number of shares	% of shares and votes
1	Ahlstrom Capital Bv	22,245,716	26.4%
2	Hymy Lahtinen Oy	10,300,161	12.2%
3	Varma Mutual Pension Insurance Company Company	6,318,061	7.5%
4	Ilmarinen Mutual Pension Insurance	6,162,502	7.3%
5	OP-Finland Small Firms Fund	5,092,416	6.0%
6	Nordea Nordic Small Cap Fund	3,194,237	3.8%
7	Päivikki and Sakari Sohlberg Foundation	1,454,055	1.7%
8	Säästöpankki Pienyhtiöt	969,012	1.1%
9	Sijoitusrahasto Aktia Capital	900,000	1.1%
10	Mininvest Oy	889,340	1.1%
	10 largest shareholders total	**57,525,500**	**68.2%**
	Nominee registered shareholders	1,585,782	1.9%
	Other shares	25,178,629	29.9%
	Total	**84,289,911**	**100.0%**

Ownership distribution 31 December, 2022

	Shares total	% of shares and votes
Households	20,359,953	24.2%
Public sector institutions	12,920,563	15.3%
Financial and insurance institutions	9,600,638	11.4%
Corporations	15,715,628	18.6%
Non-profit institutions	1,482,744	1.8%
Foreign countries	22,624,603	26.8%
Total	**82,704,129**	**98.1%**
Nominee registered	1,585,782	1.9%
Total	84,289,911	100.0%
Total	**84,289,911**	**100.0%**

Shareholders by share ownership 31 December, 2022

Number of shares	Number of shareholders	% of shareholders	Shares total	% of shares and votes
1-100	1,827	24.06%	88,669	0.11%
101-1,000	3,258	42.91%	1,446,389	1.72%
1,001-10,000	2,146	28.26%	6,799,438	8.07%
10,001-100,000	315	4.15%	8,141,501	9.66%
100,001-99,999,999	47	0.62%	67,813,914	80.45%
Total	7,593	100,00%	84,289,911	100.00%
Number of shares issues			**84,289,911**	**100.00%**

The share ownership of the Board of Directors and the Executive Management Group is presented in Note 7.1 of the consolidated financial statements.

Share-based incentive plan

On 27 January 2022, Glaston decided on the share-based incentive plan 2022-2026 for the key employees in accordance with the terms and conditions materially corresponding to the terms and conditions of the share-based incentive plan 2019-2023. The Performance Share Plan comprises three performance periods, calendar years 2022-2024, 2023-2025 and 2024-2026. The Board of Directors resolves on the plan's performance criteria and the performance levels at the beginning of each performance period. The key employees will receive the company's shares as a reward, if the performance levels of the performance criteria, set by the Board of Directors, are achieved.

Performance Period 2022-2024

The potential reward of the performance period 2022-2024 will be based on the Glaston Group's comparable EBITA and Service Net Sales during the period of 1 January 2022-31 December 2024. If the performance levels of the performance criteria for the performance period 2022-2024 are achieved in full, the payable rewards correspond to a maximum total of 700,000 Glaston Corporation shares, including also the proportion to be paid in cash.

The potential reward from the performance period 2022-2024 will be paid in 2025 in a manner resolved by the Board of Directors, either partly in the company's shares and partly in cash, in which case the cash proportion is intended to cover taxes and tax-related costs arising from the reward to the key employee, or fully in cash.

The reward to be paid on the basis of the plan may be reduced if the reward cap set by the Board of Directors is reached.

In total 16 key persons, including the CEO and President and the members of the Executive Management Group, belong to the target group of the plan in the performance period 2022-2024.

Governance

Annual General Meeting 2022

The Annual General Meeting of Glaston Corporation was held on 12 April 2022 in Helsinki. The General Meeting adopted the financial statements and consolidated financial statements for the financial period from 1 January to 31 December 2021 and discharged the members of the Board of Directors and the President and CEO from liability for the financial year from 1 January to 31 December 2021.

In accordance with the proposal of the Board of Directors, the General Meeting resolved that a return of capital of EUR 0.03 per share be distributed for the financial year ended 31 December 2021. The return of capital was paid to shareholders who were registered in the Company's register of shareholders, maintained by Euroclear Finland Ltd, on the record date for payment, 14 April 2022. The return of capital was paid on 26 April 2022.

Adoption of the Remuneration Report for governing bodies

In accordance with the proposal of the Board of Directors, the General Meeting resolved to adopt the Remuneration Report for the governing bodies. The resolution on the adoption of the Remuneration Report is advisory.

Composition of the Board of Directors

In accordance with the proposal of the Shareholders' Nomination Board, the number of the members of the Board of Directors was resolved to be seven. The General Meeting resolved, in accordance with the proposal of the Shareholders' Nomination Board, to re-elect as members of the Board of Directors, Mr. Veli-Matti Reinikkala, Mr. Sebastian Bondestam, Mr. Antti Kaunonen, Ms. Sarlotta Narjus, Ms. Arja Talma, Mr. Tero Telaranta and Mr. Michael Willome. The Board of Directors was elected for a term continuing until the close of the next Annual General Meeting.

Remuneration of the members of the Board of Directors

In accordance with the proposal of the Shareholders' Nomination Board, the General Meeting resolved that the annual fee of the members of the Board of Directors are the following: Chair of the Board of Directors is paid an annual fee of EUR 70,000, the Deputy Chair an annual fee of EUR 43,000 and the other members of the Board of Directors an annual fee of EUR 33,000.

In accordance with the proposal by the Nomination Board, the General Meeting resolved that a member of the Board of Directors may, at his/her discretion, choose to receive the annual fixed remuneration partly in company shares and partly in cash so that approximately 40% of the annual fixed remuneration is paid in Glaston Corporation's shares. The number of shares forming the above remuneration portion, which would be payable in shares, will be determined based on the share value in the stock exchange trading maintained by Nasdaq Helsinki Ltd, calculated as the trade volume weighted average quotation of the share during the one-month period immediately following the date on which the interim report of January-March 2022 of the company is published.

In addition, the General Meeting resolved that in accordance with the proposal of the Shareholders' Nomination Board, meeting fees shall be paid for each meeting of the Board of Directors that a Member of the Board has attended, so that the Chair of the Board is paid EUR 800 for meetings held in the Chair's home country and EUR 1,500 for meetings held elsewhere and the other Members of the Board are paid EUR 500 for meetings held in their home country and EUR 1,000 for meetings held elsewhere. For per capsulum Board Meetings, half of the normal meeting fee will be paid. Furthermore, it was resolved that each Member of the Board will be compensated for travel and accommodation costs and direct expenses arising from their work for the Board of Directors in line with the Company's normal practice.

In addition, the General Meeting resolved in accordance with the proposal of the Shareholders' Nomination Board that the meeting fee for the Remuneration and Audit Committees remain unchanged and that all members of the Audit and Remuneration Committees will be paid a meeting fee of EUR 500 for each meeting attended. In addition to the meeting fee, the Chair of the Audit Committee will be paid an annual fee of EUR 10,000 and the Chair of the Remuneration Committee will be paid an annual fee of EUR 7,500.

Auditor

In accordance with the proposal of the Board of Directors, the General Meeting elected the authorized public accounting firm KPMG Oy Ab as the Company's auditor. The auditing firm has announced that the auditor in charge of the audit is Authorised Public Accountant Lotta Nurminen. In accordance with the proposal of the Board of Directors, the General Meeting decided that the remuneration of the auditor shall be paid based on a reasonable invoice approved by the Company.

Authorization to the Board of Directors to decide on the repurchase as well as on the acceptance as pledge of the company's own shares

In accordance with the proposal of the Board of Directors, the General Meeting authorized the Board of Directors to decide on the repurchase as well as on the acceptance as pledge of the Company's own shares in one or several tranches as follows.

The number of own shares to be repurchased or accepted as pledge shall not exceed 8,000,000 shares, which corresponds to approximately 10% of all registered shares in the Company, subject to the provisions of the Finnish Companies' Act on the maximum amount of shares owned by or pledged to the company or its subsidiaries. Only the unrestricted equity of the Company can be used to repurchase own shares on the basis of the authorization. Own shares can be repurchased at a price formed in public trading on the date of the repurchase or at a price otherwise formed on the market.

The Board of Directors decides how own shares will be repurchased or accepted as pledge. Own shares can be repurchased otherwise than in proportion to the shareholdings of the shareholders (directed repurchase).

The authorization is effective until 30 June 2023 and it revokes corresponding earlier authorizations.

Authorization to the Board of Directors to decide on the issuance of shares, as well as the issuance of options and other rights entitling to shares

In accordance with the proposal of the Board of Directors, the General Meeting authorized the Board of Directors to resolve one or more issuances of shares which contain the right to issue new shares or dispose of the shares in the possession of the Company and to issue options or other rights entitling to shares pursuant to Chapter 10 of the Finnish Companies Act. The authorization consists of up to 8,000,000 shares in the aggregate representing approximately 10% of the current number of shares in the Company.

The authorization does not exclude the Board of Directors' right to decide on a directed issue of shares. The authorization can be used for material arrangements from the Company's point of view, such as financing or implementing business arrangements or investments or for other such purposes determined by the Board of Directors in which case a weighty financial reason for issuing shares, options or other rights and possibly directing a share issue would exist.

The Board of Directors was authorized to resolve on all terms and conditions of the issuance of shares, options and other rights entitling to shares as referred to in Chapter 10 of the Companies Act, including the payment period, grounds for the determination of the subscription price and subscription price or allocation of shares, option or other rights free of charge, or that the subscription price may be paid besides in cash also by other assets either partially or entirely (contribution in kind).

The authorization is effective until 30 June 2023 and it revokes corresponding earlier authorizations.

Organization of the Board of Directors

Convening after the Annual General Meeting, the Board of Directors re-elected Veli-Matti Reinikkala as the Chair of the Board and Sebastian Bondestam as Deputy Chair of the Board. In addition, the composition of the Board committees was resolved to be as follows:

Audit Committee: Arja Talma (Chair), Veli-Matti Reinikkala, Tero Telaranta

Compensation Committee: Sebastian Bondestam (Chair), Antti Kaunonen, Sarlotta Narjus, Michael Willome.

On 15 December 2022, the Board of Directors decided on changes in the composition of the Board of Directors' Audit Committee and People and Remuneration Committee. Veli-Matti Reinikkala, a member of the Audit Committee, was elected as the Chair of the People and Remuneration Committee, while Sarlotta Narjus, a member of the People and Remuneration Committee, was elected as a member of the Audit Committee. The changes entered into force on 1 January 2023.

Shareholders' Nomination Board

On 9 September 2022, Glaston announced the composition of the Shareholders Nomination Board.

The Shareholders' Nomination Board comprises one member appointed by each of the four largest shareholders of Glaston Corporation. The shareholders entitled to appoint a member are determined on the basis of the shareholders' register of the Company maintained by Euroclear Finland Ltd. on the first working day in September.

Based on the ownership on 1 September 2022, the following persons have been nominated as members of the Nomination Board: Lasse Heinonen (Ahlstrom Capital BV), Jaakko Kurikka (Hymy Lahtinen Oy), Pekka Pajamo (Varma Mutual Pension Insurance Company) and Esko Torsti (Ilmarinen Mutual Pension Insurance Company). Veli-Matti Reinikkala, Chair of the Company's Board of Directors, has served as an advisory member of the Nomination Board.

In its organizing meeting on 9 September 2022, the Nomination Board elected Lasse Heinonen amongst its members as the Chair.

On 14 December 2022, the Shareholders' Nomination Board disclosed its proposal concerning the Board composition and remuneration to the AGM 2023. According to the proposal, the Nomination Board proposed that the number of members of the Board of Directors would be seven and that Sebastian Bondestam, Antti Kaunonen, Sarlotta Narjus, Veli-Matti Reinikkala, Arja Talma, Tero Telaranta and Michael Willome be re-elected as Members of the Board of Directors. The Nomination Board proposed that the annual remuneration of the Members of the Board of Directors would remain unchanged and be as follows: Chair EUR 70,000, Vice Chair EUR 43, 000 Members EUR 33,000.

Report on non-financial information 2022

Sustainable business has been set as a focus area in Glaston's strategy for 2021–2025. Non-financial targets have been introduced alongside financial targets. They emphasize the sustainability of the company's business and the strategic importance of environmental, social and governance (ESG) commitments. Glaston's material responsibility themes are: responsibility in own operations (personnel, environment, responsible business), responsible procurement, responsible partner and responsible member of society. This report includes the targets and key indicators for each material aspect of Glaston for the purposes of managing sustainability work.

Sustainability will be discussed in more detail in Glaston's Annual Review, which will be published in week 11.

Glaston's business model and value creation

Glaston provides glass processing machines and related services to the architectural glass, automotive glass, solar and display industries. Glaston's portfolio includes heat treatment and insulating glass technologies and services in the architectural market and pre-processing technologies in the automotive and display industry markets, as well as related services. Glaston has the most extensive product portfolio in the sector.

As an innovative frontrunner in its industry, Glaston seeks to drive the industry toward a more sustainable future. The majority of the company's business concerns customers operating in the architecture segment. The key technologies of the company's products facilitate improving the energy efficiency and safety of buildings.

Glaston has sales and service offices and production in nine countries around the world. At the end of 2022, the company had four production plants: Tampere in Finland; Neuhausen in Germany, Bützberg in Switzerland, and Tianjin in China. At the end of the year, the company had 783 employees.

Glaston wants to have a positive impact on the societies in which it operates. The company creates value for its customers with its energy-efficient and reliable products and services in particular. As an employer and buyer of goods and services, the company creates prosperity and jobs locally. In addition, the company creates financial value as a tax payer in the countries in which it operates. Glaston engages in close cooperation with different research institutions and universities, which creates societal value through product development and innovation. In 2022, Glaston paid shareholders a return of capital of EUR 2.5 million. Glaston paid EUR 0.7 million in taxes.

Responsibility at Glaston

In accordance with Glaston's strategy, the company's objective is to build a better tomorrow through safer, smarter, and more energy-efficient glass solutions. As environmental awareness increases, the demand for more energy-efficient and environmentally more sustainable glass solutions will increase. Glaston continuously develops its product and service offering to be able to meet clients' increasing need for reducing the material and energy consumption and emissions of their production.

In Glaston's updated strategy, sustainable business is a key focus area, and non-financial targets have been introduced alongside the financial targets. The new non-financial targets promoting sustainable business for the strategy period 2021–2025 are:

- Customer satisfaction (Net Promoter Score, NPS) over 40.
- Group-wide occupational safety target: zero lost-time accidents (LTA), (progress is measured by accident frequency, LTIFR).
- Employees' commitment rate over 75 (out of 100).
- Glaston's CO_2 emissions (Scope 1 + 2) in relation to net sales 50% lower than in 2020. In 2020, greenhouse gas emissions amounted to 2,777 tons of carbon dioxide, with net sales of EUR 170.1 million.

Material responsibility topics

Glaston updated the material sustainability topics in late 2021, paying particular attention to the non-financial targets of the updated strategy. The material themes are: responsibility in own operations (personnel, environment, responsible business), responsible procurement, responsible partner and responsible member of society. In connection with the materiality assessment, the most significant climate and biodiversity risks associated with Glaston's operations and caused by them were also identified. A roadmap was prepared and the indicators and targets connected to the materiality themes were specified further during 2022.

The results for 2022 are reported in more detail in the Annual Review.

Policies and due diligence

At Glaston, responsibility is part of our day-to-day operations. Glaston is committed to complying with national and international law, regulations and commonly accepted operating methods in full in everything it does.

Glaston has prepared a Code of Conduct to be able to do more than the required minimum. The Code, approved by the company's Board of Directors, presents Glaston's ethical principles in a clear way, and it guides all of the company's operations. The Code of Conduct lays down the company's requirements and expectations with regard to responsible and ethical operations. The Code guides Glaston's employees in their day-to-day work with their colleagues and clients, suppliers and other stakeholders. The matters discussed include workplace practices, responsible business practices, environmental matters and sustainability. Training in the Code is the key indicator of responsible business, with the coverage target set at 100 percent. The training must be completed once every two years. In 2022, more than 93 percent of employees had completed the Code of Conduct training. The Code of Conduct training is also part of the orientation of new employees.

The Code of Conduct also includes a commitment to respecting human rights; all forms of harassment and other inappropriate treatment are strictly prohibited. Glaston is committed to preventing bribery and corruption in its day-to-day operations. Every Glaston employee should report any misdemeanors or violations of the Code of Conduct. Glaston investigates all reported incidents promptly and confidentially and takes appropriate action based on the findings of the investigation. During 2022, a total of five suspected misdemeanors or violations of the Code of Conduct were reported. In addition to the Code of Conduct, a separate Supplier Code of Conduct has been published and is attached to purchase agreements.

The Code of Conduct is supplemented by Group-level policies approved by the Board of Directors: anti-bribery and anti-corruption policy, CAPEX policy, credit management policy, disclosure policy, Group Treasury policy, information security policy, tax policy, and risk management policy. The Group-level policies are supplemented by local occupational safety and health policies, among others. Occupational safety and health is managed and developed in the company's local units in accordance with local legislation.

Information security has become increasingly important, and particular attention has been paid to the development of information security in relation to both Glaston's own and its clients' data. Glaston's information security policy was updated in 2022. IT security is monitored and audited, and Glaston's Executive Management Group and the Audit Committee of the Board of Directors regularly review information security matters and plan and measures to manage risks. The company uses a SOC (Security Operations Center) service for monitoring information security events 24/7. No significant information security incidents were reported in 2022.

Glaston operates in accordance with the ISO 9001 quality management system in its assembly and production units. In Finland, Glaston manages environmental matters in accordance with the ISO 14001 environmental management system.

Glaston has a whistleblowing channel that employees can use to anonymously report any breaches of the Code of Conduct or other guidelines. The Group-level guidelines are available on the company's Intranet. Local guidelines are available on the intranet sites and shared networks of the local offices. If necessary, they are distributed to the personnel as hardcopies (personnel manual).

Risk management is an essential part of Glaston's management and control system. The purpose of risk management is to ensure the identification, management and monitoring of risks relating to business objectives and functions. The principles and operating method of risk management are specified in the risk management guideline approved by the company's Board of Directors. The leading principle of risk management is the continuous, systematic and appropriate development and execution of the risk management process, aiming to comprehensively identify and appropriately manage risks.

Management of sustainability

Sustainable business, environmental and social responsibility, and good corporate governance are included in the strategy approved by the Board of Directors. Sustainable business is promoted within a Group-wide cornerstone project.

The development of the sustainability agenda is promoted by the Sustainability working group. The group coordinates the development of sustainable business at Glaston and implements related practices. The Group reports on the development to the Group's Executive Management Group and Board of Directors.

Personnel and social responsibility

At the end of 2022, Glaston had 783 employees (December 31, 2021: 750), of whom 195 (184) worked in Finland. The average number of employees during the year was 775 (731). Personnel expenses totaled EUR 65.4 (58.4) million in January–December.

Employees who are professional, committed and feel well are Glaston's strength. Glaston has committed to the continuous improvement of its employees' expertise and offering them a safe and inspiring work environment in which they can learn and develop.

All Glaston employees must be treated fairly and equally. Glaston is committed to equality, and therefore all harassment is prohibited. Glaston respects the freedom of association and recognizes the right to collective bargaining.

At Glaston, people are treated in an appreciating, polite and respectful manner. The work environment is based on mutual trust, and no harassment, discrimination, threats, pressuring or abuse is tolerated. Insulting and inappropriate behavior is not tolerated.

Employees and candidates must be treated and assessed based on their work-related abilities, and no one may be discriminated based on race, skin color, nationality, ethnic origin, religion, gender, sexual orientation, disability, trade union membership or political affiliations.

The company's aim is for no cases of workplace harassment to be reported. All reported cases are investigated, and if it is found warranted, the necessary action will be taken. The parties involved will be informed of the outcome of the process. One suspected case of workplace harassment was reported in 2022, and following the investigation, it resulted in the termination of the employment of the employee concerned.

Glaston's updated strategy for 2021-2025 highlights occupational safety and the commitment rate of personnel as focus areas. The personnel commitment rate target set by the company is for the rate to increase to over 75 on a scale of 1–100 by 2025. The current situation of personnel commitment was measured in 2022 with an employer image survey, and the commitment rate was 70. The Group-level occupational safety target is zero lost-time accidents. In order to reach the target, safety has been incorporated into the ways of working. A safety working group, comprising representatives of different functions, works to manage and develop safety. In 2022, the accident frequency rate, or number of lost-time accidents per one million hours worked (LTIFR), was 3.9 (3.3).

Human rights

Glaston respects human rights and basic labor rights according to the United Nations Universal Declaration of Human Rights, and the company is committed to implementing the United Nations Guiding Principles on Business and Human Rights, the United Nations Global Compact, OECD's Guidelines for Multinational Enterprise and the International Labour Organization's Declaration of Fundamental Principles and Rights at Work. Glaston does not accept the use of child or forced labor in its own, suppliers or subcontractors operations.

Glaston operates globally and therefore in a multicultural environment. Glaston's Code of Conduct includes a commitment to respecting human rights. Any breaches of the guidelines may be reported to Glaston's General Counsel at the designated e-mail address or anonymously via Glaston's Whistleblowing channel.

In accordance with its Code of Conduct, Glaston treats its suppliers, service providers and subcontractors fairly. In turn, Glaston expects that they comply with the laws and regulations and respect the principles specified in the company's Code of Conduct. In 2022, no suspicions of violations of human rights were reported in the company.

Anti-corruption and anti-bribery

In Glaston's Code of Conduct, the company undertakes to promote fair competition and comply with legislation in all of its operations. The Code of Conduct states that business relationships must be based on objective criteria. Direct or indirect payments must not be made or the company's funds transferred directly or indirectly to any party in order to obtain inappropriate benefit. The Code of Conduct requires avoiding conflicts of interest and refusing all inappropriate payments and benefits.

The purpose of Glaston's anti-bribery and anti-corruption policy is to increase Glaston employees' awareness of the risk of corrupt payments, to unequivocally prohibit the payment and receipt of bribes, and to ensure that the company conducts business honestly, in accordance with ethical standards and in compliance with anti-corruption laws, rules and regulations.

In 2022, no bribery or suspicions of corruption emerged in the company.

Environmental responsibility

The majority of Glaston's environmental impacts are caused when clients use Glaston technologies throughout their lifecycle.

Glaston develops and designs its machines to endure use at a high utilization rate. Predictive and regular maintenance and an extensive range of upgrade products increase the efficiency of production operations and prolong the service life of the machines. The long service lives of Glaston's glass processing machines, up to 20 years, support the environmental targets of sustainable development.

The development of the energy and material efficiency of products is a continuous effort. Improving the energy efficiency of the products has been at the core of product development work for a long time, and as a result of the development work, clients are able to process their glass increasingly energy-efficiently. In addition, the company invests in digital and IoT-based solutions and services in its product development. They make it possible to optimize the performance of the machine and real-time client support without environmentally burdening travel.

The safety of the use of Glaston machines is based on the EU Machine Directive and the EN standards mentioned therein. All Glaston machines made in Europe comply with the said EU Directive.

No major environmental accidents or spillages were reported in 2022.

In Glaston's own operations, the biggest environmental impacts are due to energy consumption and associated emissions, waste and transport. With regard to the use of machines, the most significant environmental aspect is the electricity consumption of the machines.

Glaston is committed to reducing its CO_2 emissions (Scope 1 + 2) in relation to net sales by 50 percent from the level of 2020 by 2025. In 2022, greenhouse gas emissions (Scope 1 & 2), calculated according to the GHG Protocol, were1,491 (2,608) tCO_2. As of January 2022, the production facilities in Finland and Germany switched to renewable electricity, significantly reducing their CO_2 emissions. In relation to net sales, emissions decreased by 57% compared to 2021.

In 2022, the company calculated its Scope 3 emissions, i.e. the value chain emissions, for the first time. Constituting the starting point for future work, the results enable the company to better identify the measures that will support its efforts to strengthen sustainable business.

The EU taxonomy

The European Union's Sustainable Finance Classification System (EU taxonomy) was published in 2020 and contributes to the achievement of the EU environmental goals by channeling investments for the transition to a climate-neutral and environmentally sustainable economy.

The taxonomy includes six environmental objectives and related technical screening criteria. The environmental objectives are: 1) climate change mitigation, 2) climate change adaptation, 3) the sustainable use and protection of water and marine resources, 4) the transition to a circular economy, 5) pollution prevention and control and 6) the protection and restoration of biodiversity and ecosystems. The taxonomy currently covers measures related to climate change mitigation and climate change adaptation.

In 2022, companies covered by the Non-Financial Reporting Directive reported their share of taxonomy-eligible activities. In 2023, alignment with the EU Taxonomy is reported. For an eligible activity to be aligned with the EU Taxonomy it further has to comply with the Technical Screening Criteria (TSC) and the Do No Significant Harm (DNSH) Criteria. In addition, the company has to fulfill Minimum Social Safeguards.

Technical Screening Criteria

The technical screening criteria form the basis for taxonomy reporting and are criteria for determining the conditions under which an economic activity qualifies as contributing substantially to the environmental objectives and for determining whether that economic activity causes no significant harm to any of the other environmental objectives. For the first two objectives (climate change mitigation and climate change adaptation), the criteria were published in spring 2021.

Glaston has conducted an analysis of its operations and concluded that the Insulating Glass technologies and related services, as well as all equipment and services to solar energy technology providers, are enabling activities that substantially contribute to climate change mitigation. Glaston's Insulating Glass technologies, machines, manufacturing lines, upgrade options and services that enable manufacturing of insulating glass unit systems are taxonomy-eligible activities, conforming with the definition and fulfilling the internationally standardized requirements and essential characteristics of insulating glass units. Further, hand-operated or power-driven lifting, handling, loading or unloading machinery, edge working machines and equipment are considered not to be taxonomy-eligible activities when not installed as a part of an existing or new insulating glass manufacturing lines.

The EU Taxonomy has set clear requirements for windows and doors for substantial contribution to climate change mitigation in the Annex to the Commission Delegated Regulation[*)].

The manufacture of energy-efficiency equipment for buildings, in accordance with Section 3.5 of the Annex, identifies the manufacturing of high-performance windows and their key components as an economic activity that significantly contributes to climate change mitigation. Insulated Glass Units (IGU's) represent between 70 to 80% of the surface area of a window and are key components affecting their energy efficiency, which has been demonstrated in studies of CO_2 savings[**)]. Insulating glass manufacturing technologies for windows are essential for achieving the set threshold in the regulation.

The economic activities of manufacturing energy-efficient windows and doors are covered in Section 3.5 by NACE codes C16.23 and C25.12, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Glaston's insulating glass technologies and related services are enabling activities in accordance with Article 10 of Regulation (EU) 2020/852.

Similarly, Glaston's technologies for processing glass for photovoltaic modules and related services is regarded as an enabling activity as it is a key component for manufacturing renewable energy technologies, and is covered in Section 3.1 by NACE code C28.99.

Further, Glaston has made an investment in a solar power plant at its production unit in Switzerland. The solar panels have been producing energy for the factory's own use since November 2022. The investment is covered in Annex 1 of the Delegated Regulation[*)], Section 7.6. Installation, maintenance and repair of renewable energy technologies by NACE code 43.21.

Based on this 43% of the Group's turnover is taxonomy eligible. In total, Glaston has identified 28% of the total investments to be taxonomy eligible as well as 28% of operating expenditure in 2022.

Do No Significant Harm (DNSH)

Glaston has carried out an assessment to ensure that the do no significant harm criteria are met for the environmental objectives 2-6 listed above in accordance with the applicable technical screening criteria for Climate Change Mitigation. The assessment is based on scientific articles, industry association publications and established international product standards. Glaston's eligible activities comply with all DNSH criteria as set out in the regulation.

The DNSH criteria for disclosed activities for glass processing technologies for photovoltaic modules (3.1. manufacture of renewable technologies) and for insulating glass technologies (3.5 manufacture of energy efficiency equipment for buildings) are the same.

[*)] COMMISSION DELEGATED REGULATION (EU) …/… supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives. C/2021/2800 final

[**)] Potential impact of high-performance glazing on energy and CO_2 saving in Europe, TNO, 2019.

The DNSH requirement under objective 4) transition to a circular economy, mandates an economic activity to assess and where feasible, adopt techniques that support:

A. reuse and use of secondary raw materials and reused components in products manufactured;
B. design for high durability, recyclability, easy disassembly and adaptability of products manufactured;
C. waste management that prioritizes recycling over disposal in the manufacturing process;
D. information on and traceability of substances of concern throughout the life cycle of the manufactured products.

Glass is a fully recyclable and reusable material and does not contain substances of concern. Recycled glass is a valuable resource for the glass industry to replace virgin raw materials and input as a raw material to reduce energy consumption and CO_2 emissions. Further, material off-cuts generated in flat glass processing can be subject to direct recycling in glass manufacturing furnaces due to its high purity. In addition, flat glass products manufactured accordingly to relevant product standards ensure reasonable working life and durability. Also, insulated glass units can be dismantled, collected and recycled. Insulating glass units can be assigned with information on traceability and substances of concern when applicable.

Minimum Safeguards (MS)

The EU Taxonomy Regulation contains a requirement for minimum social safeguards. Compliance with the Minimum Safeguards is determined by assessing performance criteria against four core topics: 1) Human rights, including workers' rights, 2) Bribery/corruption, 3) Taxation and 4) Fair competition.

In October 2022, the EU Platform on Sustainable Finance published recommended indicators for assessing the non-fulfillment of minimum safeguards, which are inadequate or non-existent corporate due diligence processes on human rights, final liability in respect of breaches of human rights topics, the lack of collaboration with a National Contact Point (NCP), an assessment of non-compliance with OECD guidelines or non-response to allegations by the Business and Human Rights Resource Centre.

Compliance with Minimum Social Safeguards has been assessed at company level. None of the indicators recommended for the assessment have been discovered in the company's operations. Based on this assessment, Glaston meets the criteria for alignment with Minimum Safeguards.

Human Rights

Since 2008, Glaston's daily operations have complied with the company's Code of Conduct. Approved by the company's Board of Directors, the Code of Conduct includes, among other things, a commitment to respect human rights. Glaston respects human rights and basic labor rights according to the United Nations Universal Declaration of Human Rights, and the company is committed to implementing the United Nations Guiding Principles on Business and Human Rights, the United Nations Global Compact, OECD's Guidelines for Multinational Enterprise and the International Labour Organization's Declaration of Fundamental Principles and Rights at Work.

In the future, Glaston will assess its human rights impact (human rights due diligence) in order to identify any human rights impacts related to our business and to prevent or mitigate any related risks. If any impacts are identified, we will attempt to eliminate, prevent or mitigate them. We provide people who are affected by the impacts with access to legal remedies or possible compensations if it is discovered that we have caused or contributed to the impacts.

In 2022, Glaston's operations began to pay more attention to the processes of assessing and identifying human rights impacts, and the company carried out a non-formal human rights risk assessment taking into account the nature of the company's business and areas of operation*). The company is primarily active in Europe and the United States. Glaston's Code of Conduct and the Supplier Code of Conduct play an important role in the management of human rights risks. Personnel are expected to participate regularly in Code of Conduct training, and the commitment rate to the Supplier Code of Conduct was increased significantly in 2022. In addition, Glaston's supplier audit model was developed to include the supplier's corporate responsibility and human rights due diligence. The new model will be introduced in 2023. The model's effectiveness will be monitored and it will be developed further, if necessary.

Glaston has established a process to ensure that any violations of the Code of Conduct and other guide-

*) Information on Glaston's human rights approach can be found on the company's website.

lines can be reported. Any violations of the Code of Conduct may be reported to Glaston's General Counsel at the designated e-mail address or anonymously via Glaston's whistle-blowing channel. Glaston investigates all reported incidents promptly and confidentially and takes appropriate action based on the findings of the investigation.

Corruption

At Glaston, combating corruption and bribery is included in the company's Code of Conduct, and the topics are covered extensively in the mandatory Code of Conduct training.

In 2020, in order to focus particular attention on risks related to bribery and corruption, Glaston's Board of Directors approved the Group's anti-bribery and anti-corruption policy. The purpose of this policy is to increase Glaston employees' awareness of the risk of corrupt payments, to unequivocally prohibit the payment and receipt of bribes, and to ensure that the company conducts business honestly, in accordance with ethical standards and in compliance with anti-corruption laws, rules and regulations.

A separate anti-bribery and anti-corruption training program was developed at the end of 2022, and it will be launched in early 2023. Any violations or suspicions of improper activity or payments can be reported via the company's whistleblowing channel. Glaston or its senior management, including the senior management of its subsidiaries, has never been charged with or convicted in a court of corruption.

Taxation

Glaston is committed to complying with local tax laws and regulations as well as the OECD Transfer Pricing Guidelines. Glaston is committed to pay taxes and other tax-like charges based on current laws and to report and disclose its tax information in accordance with applicable legislation.

Glaston's Tax Policy defines Glaston Group's tax strategy as well as constitutes a general framework and guidelines for tax governance within the Group. The Tax Policy also provides a framework for tax risk management and determines key measures and controls to manage taxes.

The Tax Policy is approved by Glaston's Board of Directors. Glaston or its subsidiaries have never been found to have violated tax laws.

Fair competition

Glaston complies internationally with EU competition legislation, while also taking into account all stricter local rules. Glaston regularly arranges training for its personnel on fair business and competition issues. In addition, policy briefings are regularly held, for example in connection with trade fairs, for personnel working at the customer interface. Fair competition training material is always available on the company's intranet. In the company's communication channels, personnel are regularly informed about the principles of fair competition and related training material.

Any violations or suspicions of improper activity can be reported via the whistleblowing channel. The company or its senior management, including the senior management of its subsidiaries, has never been convicted of violating competition laws.

Conclusion

Glaston has reviewed the Technical Screening Criteria for each of its eligible activities and all the eligible activities also meet the Technical Screening Criteria for substantial contribution to climate change mitigation. Further, based on the analysis made by the company, the identified activities do no significant harm (DNSH) to any of the other five environmental objectives. Compliance with Minimum Social Safeguards has been assessed at the level of the whole company and the company fulfills the criteria for Minimum Social Safeguards.

Based on the assessment made by Glaston, 43% of the Group's turnover is taxonomy aligned. In total, Glaston has identified 28% of the total investments to be taxonomy aligned as well as 28% of operating expenditure in 2022.

Turnover

Economic activities	Code(s)	Absolute turnover EUR	Proportion of turnover %	Substantial contribution criteria: Climate change mitigation %	Climate change adaptation %	Water and marine resources %	Circular economy %	Pollution %	Biodiversity and ecosystems %	DNSH criteria: Climate change mitigation (Y/N)	Climate change adaptation (Y/N)	Water and marine resources (Y/N)	Circular economy (Y/N)	Pollution (Y/N)	Biodiversity and ecosystems (Y/N)	Minimum safeguards (Y/N)	Taxonomy-aligned proportion of turnover 2022%	Category (enabling activity E)	Category (transitional activity T)
A. TAXONOMY-ELIGIBLE ACTIVITIES %																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
Activity 1: Insulating glass technologies	C16.23; C25.12	89,149	42%	100%	0%	0%	0%	0%	0%		Y	Y	Y	Y	Y	Y	42%	E	
Activity 2: Glass processing technologies for photovoltaic modules	C28.99	1,452	1%	100%	0%	0%	0%	0%	0%		Y	Y	Y	Y	Y	Y	1%	E	
Turnover of environmentally sustainable activities taxonomy-aligned activities (A.1)		**90,600**	**43%**														**43%**		
A.2. Taxonomy eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Activity 1: None		-	0%																
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**-**	**0%**														0%		
TOTAL (A.1 + A.2)		**90,600**	**43%**														43%	100%	0%
B. TAXONOMY NON-ELIGIBLE ACTIVITIES																			
Turnover of Taxonomy-non-eligible activities (B)		122,920	57%																
TOTAL (A+B)		**213,520**	**100%**																

Capital Expenditure (CapEx)

Economic activities	Code(s)	Absolute CapEx EUR	Proportion of CapEx %	Substantial contribution criteria: Climate change mitigation %	Climate change adaptation %	Water and marine resources %	Circular economy %	Pollution %	Biodiversity and ecosystems %	DNSH criteria: Climate change mitigation (Y/N)	Climate change adaptation (Y/N)	Water and marine resources (Y/N)	Circular economy (Y/N)	Pollution (Y/N)	Biodiversity and ecosystems (Y/N)	Minimum safeguards (Y/N)	Taxonomy -aligned proportion of CapEx 2022 %	Category (enabling activity) E	Category (transitional activity)
A. TAXONOMY-ELIGIBLE ACTIVITIES %																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
Activity 1: Insulating glass technologies	C16.23 C25.12	1,715	24%	100%	0%	0%	0%	0%	0%		Y	Y	Y	Y	Y	Y	24%	E	
Activity 2: Glass processing technologies for photovoltaic modules	C28.99	82	1%	100%	0%	0%	0%	0%	0%		Y	Y	Y	Y	Y	Y	1%	E	
Activity 3: Installation, maintenance and repair of solar photovoltaic systems and the ancillary technical equipment (Switzerland factory)	F42.21	208	3%	100%	0%	0%	0%	0%	0%		Y	Y	Y	Y	Y	Y	3%		
CapEx of environmentally sustainable activities taxonomy-aligned activities (A.1)		**2,004**	**28%**														**28%**		
A.2. Taxonomy eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Activity 1: None		-	0%																
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**-**	**0%**														0%		
TOTAL (A.1 + A.2)		2,004	28%														28%	100%	0%
B. TAXONOMY NON-ELIGIBLE ACTIVITIES																			
CapEx of Taxonomy-non-eligible activities (B)		5,165	72%																
TOTAL (A+B)		**7,170**	**100%**																

Operating Expenditure (OpEx)

Economic activities	Code(s)	Absolute OpEx EUR	Proportion of OpEx %	Substantial contribution criteria: Climate change mitigation %	Climate change adaptation %	Water and marine resources %	Circular economy %	Pollution %	Biodiversity and ecosystems %	DNSH criteria: Climate change mitigation (Y/N)	Climate change adaptation (Y/N)	Water and marine resources (Y/N)	Circular economy (Y/N)	Pollution (Y/N)	Biodiversity and ecosystems (Y/N)	Minimum safeguards (Y/N)	Taxonomy -aligned proportion of OpEx 2022 %	Category (enabling activity) E	Category (transitional activity)
A. TAXONOMY-ELIGIBLE ACTIVITIES %																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
Activity 1: Insulating glass technologies	C16.23, C25.12	2,789	28%	100%	0%	0%	0%	0%	0%		Y	Y	Y	Y	Y	Y	28%	E	
OpEx of environmentally sustainable activities taxonomy-aligned activities (A.1)		**2,789**	**28%**																
A.2. Taxonomy eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Activity 1: None		-	0%																
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**-**	**0%**														0%		
TOTAL (A.1 + A.2)		**2,789**	**28%**														28%	100%	0%
B. TAXONOMY NON-ELIGIBLE ACTIVITIES																			
OpEx of Taxonomy-non-eligible activities (B)		7,002	72%																
TOTAL (A+B)		**9,792**	**100%**																

Going forward, Glaston's conclusions on the taxonomy may change as the assessment criteria become more precise and further guidance is available.

Accounting policy

The consolidated financial statements of Glaston Group are prepared in accordance with International Financial Reporting Standards (IFRS), including International Accounting Standards (IAS) and Interpretations issued by the International Financial Reporting Interpretations Committee (SIC and IFRIC). The Taxonomy key performance indicators (KPIs) have been calculated by using the financial information presented in Glaston's financial statements for the fiscal year 2022.

Turnover

Glaston has calculated KPI for turnover based on its interpretation of definitions presented in the Disclosures Delegated Act***).

The numerator of turnover KPI, as defined in the Disclosures Delegated Act, includes the portion of net turnover derived from products or services, including intangibles, associated with Taxonomy-aligned economic activities. The denominator equals Group total net sales that are reported in the Annual Report (see page 94) in accordance with IFRS for the period January 1 to December 31, 2022.

Glaston's taxonomy-aligned turnover includes sales of insulating glass machines and services as well as sales of tempering lines which are specified for manufacturing glass components for solar panel production. For Insulating Glass technologies, machines, manufacturing lines, upgrade options and services that enable manufacturing of insulating glass unit systems are included whereas loading or unloading machinery, edge working machines and equipment when not installed as a part of an existing or new insulating glass manufacturing lines, are excluded.

Turnover KPI is calculated based on net sales per project and therefore double counting is avoided.

Capital expenditure

Glaston has calculated the KPI for taxonomy-aligned CapEx based on its interpretation of definitions presented in the Disclosures Delegated Act.

The denominator of CapEx KPI, as defined in the Disclosures Delegated Act, includes additions to tangible and intangible assets during the financial year considered before depreciation, amortization and any re-measurements. Total capital expenditure covers costs that are accounted in accordance with IAS 16 Property, Plant and Equipment, IAS 38 Intangible Assets as well as IFRS 16 Leases. Glaston capitalizes development costs of new products. Additionally, CapEx includes other tangible and intangible assets, such as property, IT equipments and software, machinery and other equipments. Total CapEx inclusions are further described in Notes 3.1. Intangible Assets, 3.2. Tangible Assets and 3.3. Leases.

The numerator of CapEx KPI includes the part of capital expenditure, as defined in the Disclosures Delegated Act, that relates to assets or processes that are associated with taxonomy-aligned economic activities. Should the capital expenditure relate only partly to taxonomy-aligned economic activity, the expenditure has been attributed through an allocation key based on net sales.

Operating expenditure

Glaston has calculated KPI for taxonomy-aligned OpEx based on its interpretation on definitions presented in the Disclosures Delegated Act.

The denominator of OpEx KPI, as defined in the Disclosures Delegated Act, includes direct non-capitalized costs that relate to research and development, building renovation measures, short-term lease, day-to-day servicing (i.e. maintenance and repair) of property, plant and equipment. Research and development costs include personnel expenses and other fixed costs.

The numerator of OpEx KPI includes the part of operating expenditure, as defined in the Disclosures Delegated Act, that relates to assets or processes that are associated with taxonomy-aligned economic activities.

Should the operating expenditure relate only partly to a taxonomy-aligned economic activity, the expenditure has been attributed through an allocation key based on net sales. Depreciation is excluded from this KPI.

***) COMMISSION DELEGATED REGULATION (EU 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation

Business risks

Glaston is exposed to risks that may result from changes in the business environment or the company's operational activities. The risk factors described below may potentially have a negative impact on the company's business or financial status and therefore on the company's value.

Strategic risks

A review of strategic risks is part of the Group's strategic planning process. A risk is defined as strategic where, if realized, it may have long-term effects on business.

Business environment risks

The company operates worldwide and changes in the global economy and business cycles directly impact the company's operating conditions. The company's business is largely linked to trends in global investment demand. Demand for the company's products is influenced by global, regional and national macroeconomic conditions, which affect the end users of its products. As a result, Glaston is exposed to business cycles in its customers' industries, such as the construction, automotive, display and solar panel industries.

In recent years, general economic and financial market conditions in Europe and elsewhere in the world have fluctuated significantly. High inflation, the price and availability of energy, rising interest rates and supply chain disruptions have weakened the global economic outlook, and these pose a risk to the company's operations and profitability. In addition, Russia's invasion of Ukraine has increased geopolitical risks and inflation pressures, and has, in turn, intensified disruptions in global supply chains. The general increase in uncertainty may reduce customers' willingness to invest and thereby negatively impact Glaston's order intake, net sales and earnings. Given the strategic importance of the Chinese market, the impact of any of the aforementioned in China could have adverse effects on the implementation of the company's strategy.

In Europe, the energy crisis is strongly impacting the energy-intensive glass industry, which has been largely dependent on gas imported from Russia. Soaring energy prices and availability concerns in Europe, in particular, may impact the willingness of Glaston's customers to invest in new machines. Furthermore, the significant price increase of float glass has impacted customers' short-term profitability. On the other hand, in the longer term, energy-related risks could lead to general energy consumption awareness and drive demand for investments in energy-saving technologies and renewable energy solutions.

The COVID-pandemic has affected commercial building industry development and, as a result of the pandemic, the future role of office buildings might change as remote work becomes more commonplace. In the mid-to-long term, this could have an impact on commercial building development, which is an important driver, particularly for flat tempering and flat laminating products in the heat treatment business. Demand for insulating glass machines is currently driven by the widespread global need to improve the energy performance of buildings and is, therefore, less dependent on the global economic cycle. This brings stability to the company alongside the more cyclical heat treatment and automotive glass businesses.

Due to rising costs caused by increasing global environmental requirements and environmental pollution, vehicle manufacturers need to invest in more low-emission and energy-efficient technologies and products. Changing consumer behavior, stricter requirements and tighter regulation have led to a shift in the investments of automotive industry customers. Long-term disruption and structural changes in the market could impact demand for the Group's automotive glass machines. Increasing automotive glass requirements present new challenges for glass processing, bringing new players to the market and creating new opportunities for glass processing technology suppliers. From a technical perspective, environmental requirements will be met through, among other things, the use of lighter vehicle structures, on which thin glass, in particular, will have a positive impact.

Heat treatment and automotive glass machines accounted for 36% of the company's net sales in 2022. In addition to sales of new machines, the company is focusing on increasing its services business, with the aim of partially balancing its cyclically sensitive business and improving its profitability.

Competitive situation and price risks

Competition in the glass processing machines and services market is intense, and Glaston is in competition with several multinational companies and regional manufacturers and service providers, as well as indirectly also with its customers' operations. The intensification of competition may lead to a deterioration of order intake, project margins or terms of payment, thereby adversely impacting Glaston's business. Existing or new competitors may expand into one or more of the company's key markets, or may seek to increase their market share through aggressive pricing strategies or other means. For example, in China, which is the largest market for the glass processing industry, purchasing behavior is more cost-conscious than in other market areas. Consequently, price competition is intense and local players have a certain competitive advantage in the market. This market also plays an important role in Glaston's renewed strategy. The company's position in the Chinese market and its success in launching and increasing the sales of new products developed for the market are important factors in the company's long-term growth.

Glaston's renewed strategy identifies opportunities for the company to strengthen its market position and cost competitiveness as well as seek growth by developing its product range to better meet the needs of mid-range segment customers in the glass processing market, particularly in Asia and even more specifically in China architectural market. In 2022, the company announced its plan to establish the production of automotive glass pre-processing equipment for standard products at Glaston's factory in China.

Technology and IPR risks

One of Glaston's most significant strategic risks is technology risk, i.e. the entry into the market by a competing machine or glass processing technology, which would result in a reduction of Glaston's currently high market shares and require the company to make considerable investments in product development. This risk could also be realized if Glaston's technology would infringe third-party rights.

Responsibility and climate change risks

Glaston has assessed its responsibility risks, including risks related to climate change, in both its strategic and operational risk assessments. The risks were not found to be significant, however. The potential risks associated with responsibility, climate change and Glaston's products include regulatory changes, environmental protection and climate-related disruptions in the supply chain.

Glaston's position as a frontrunner in technology development reduces the company's responsibility risks and supports the exploitation of the opportunities provided by more stringent environmental requirements, for example through the insulating glass and solar panel technologies offered by the company. In addition, a key focus of Glaston's product development work is the energy-efficiency of products, and consequently customers can process their glass with lower electricity consumption than before.

Glaston has assessed its climate-related risks and biodiversity by utilizing the Task Force on Climate-related Financial Disclosures (TCFD) framework.

Changes in the climate

As a result of climate change, changes in annual rainfall and extreme weather conditions are becoming more common. Glaston's production facilities are located in such a way that there is a low risk that flooding would jeopardize their activities. On the other hand, the increased severity of extreme weather events might lead to additional disruptions in the supply chain, thereby adversely affecting Glaston's operations. Glaston manages these risks at the Group level and takes the necessary preventive measures for its production facilities and their machinery and equipment.

Compliance and corruption risk

Glaston recognizes the risk of becoming the target of third-party fraud as well as the possibility of corruption and fraud in the company's operating areas. Glaston's operations are guided by its Code of Conduct approved by the company's Board of Directors. The company always adheres to high ethical operating principles and requires strict compliance with its anti-corruption procedures. The Code of Conduct describes the company's requirements and expectations regarding responsible and ethical conduct. In addition, the Code of Conduct guides Glaston's employees in their daily work with colleagues, customers, suppliers and other stakeholders. The topics covered include workplace conduct and responsible business practices as well as the environment and sustainable development. All personnel are trained in the Code of Conduct.

In order to focus particular attention on risks related to bribery and corruption, the Code of Conduct is complemented by the Anti-bribery and anti-corruption policy approved by the Board of Directors. The purpose of this policy is to increase Glaston employees' awareness of the risk of corrupt payments, to unequivocally prohibit the payment and receipt of bribes, and to ensure that the company conducts business honestly, in accordance with ethical standards and in compliance with anti-corruption laws, rules and regulations. Local guidelines supplement the Group-level guidelines.

Glaston has a whistleblowing system, which allows personnel to report any violations of the Code of Conduct and other guidelines. Group-level guidelines are available on the company's intranet. Local guidelines are available on either the intranet sites or shared networks of operating locations.

Operational risks

Operational risk management forms part of the daily work of business areas. Opportunities and risks are identified, assessed and managed on a daily basis.

Glaston's most significant operational risks include management and possible quality problems related to demanding customer projects, availability of components, management of the contractual partner and subcontractor network, product development, succeeding in the protection and efficient production of intellectual property rights as well as the availability and permanence of expert personnel. In some cases, the possible failure of even a single project may have significant financial implications if its size or contractual terms and conditions are exceptional.

Disruptions in supply chains

Of the above mentioned, the supply chain disruptions currently constitute the main risk for Glaston's business operations. These disruptions intensified in 2022 and are expected to continue in 2023. Glaston is actively mitigating the higher than customary risks related to raw material and component prices and availability. Major supply chain disruptions may impact the company's performance.

Data and cyber security risks

Glaston continually develops its information systems and, despite careful planning, temporary disruptions to operations might be associated with the introduction stages of new systems. Because of the industrial internet and general development in the field of information systems, the significance of cyber security risks has increased, and the management of such risks is subject to particular attention. Severe cyber security attacks may impact the company's ability to conduct its business operations without interruptions. The IT Security Policy of the company lists the targets and principles and defines the responsibilities with respect to IT security. The IT Security Policy is reviewed and audited regularly.

Other operational risks

The successful growth of the Group's operations requires successful management and the controlled growth of resources. In addition, digitalization is bringing new requirements for technological and business management expertise. The Group's ability to attract talent and maintain a high level of job satisfaction among its employees is further emphasized.

Glaston's balance sheet contains a substantial amount of goodwill. A prolonged period of low demand may lead to a situation in which Glaston's recoverable amounts are insufficient to cover the carrying amounts of asset items, particularly goodwill. If this happens, it will be necessary to recognize an impairment loss, which, when implemented, will weaken the result and equity.

Pandemic risk

In 2022, the impact of the COVID-19 pandemic further decreased, and coronavirus-related restrictions were removed during the year. In China, restrictions were not removed until the end of 2022, and the restrictions that were in effect for almost the entire year therefore affected the company's operations and result. After the removal of strict restrictions, the virus has spread strongly through the Chinese population. The pandemic situation and related restrictions may change suddenly. New lockdown measures could also impact the company's development in China in 2023.

The risk of the spread of new virus variants still exists, which could cause serious business challenges similar to those experienced in previous years.

Financial risks

The Group's most significant financial risks are foreign exchange, credit, interest rate and refinancing risks. Financial risks and their management are described in the section Management of Financial Risks of the Annual Review.

The Group's risk management processes are described in the Corporation Governance Statement.

Corporate Governance Statement

Glaston has published a separate Corporate governance statement for 2022 that complies with the recommendations of the Finnish Corporate Governance Code for listed companies. The statement is available on the company's website.

Short-term risks and business uncertainties

For Glaston's business operations, supply chain disruptions are the main short-term risk, and these are expected to continue well into 2023. Glaston continues to actively mitigate the higher-than-normal risks related to raw materials and component prices and availability. Major supply chain disruptions may impact the company's performance as component scarcity may cause revenue recognition delays, whereas heavily increasing prices of raw materials may add to short-term profitability pressure. Additionally, inflationary pressures combined with tighter monetary control could have a negative impact on customers' investment decisions. Amid increasing market uncertainty, customers may also want to postpone or cancel their orders.

Increasing uncertainty in the global markets has impacted on economic growth and could lead to a recession. This would affect Glaston's business environment, with short-term risks mainly linked to the development of global investment demand. Glaston continuously monitors the development outlook of the global economy and its impact on the progress of its markets. If the demand environment deteriorates substantially, this will mainly affect Glaston's net sales and earnings with a delay of six to nine months.

In Europe, the glass industry, as an energy-intensive industry, is severely impacted by the ongoing energy crisis. In previous months, the sector has already seen glass manufacturers closing down or reducing their production in Europe. Soaring energy prices and availability concerns in Europe in particular may impact the willingness of Glaston's customers to invest in new machinery. Furthermore, the significant price increase of float glass has impacted customers' short-term profitability. For the energy-intensive float glass industry, an uninterrupted supply of energy is crucial. The industry is dependent on fossil fuels, mainly gas, which in Europe partly came from Russia. Significant rationing of natural gas could lead to serious or even permanent damage to float glass producing equipment. In the longer term, the energy-related risks could lead to general energy consumption awareness and drive demand for investments in energy-saving technologies and renewable energy solutions.

Even though the impact of the COVID-19 pandemic has further decreased, there is still a risk of new virus variants spreading, causing severe business challenges like those experienced in previous years. In the event of new lockdowns and travel restrictions, service work and the spare parts business as well as machine installations would be affected. Due to the above mentioned circumstances, there is higher than normal uncertainty related to customers' investment behavior in regions potentially affected by the pandemic.

Labor shortages and rising employee turnover are growing concerns in the market. Glaston's ability to maintain a high level of job satisfaction among its employees and also to attract new employees is further emphasized.

Glaston's outlook for 2023

In 2023, Glaston expects the overall market activity to remain at a good level despite some regional differences. Although the megatrends support the use of energy-efficient windows, demand in Europe could be affected by the slowdown in the architectural market. In the Americas, Glaston expects the demand to continue strong, whereas in China, the prospects of the architectural market are uncertain.

In 2023, Glaston continues to focus on the execution of its strategy, which will incur costs and capital expenditure ahead of the effect on revenue growth. As supply chain disturbances and geopolitical tensions continue, a higher-than-normal uncertainty is related to the development of economic activity and customers' investments.

Glaston entered 2023 with an order backlog 46% higher than in the previous year. This provides a strong starting point for 2023 and supports the company's net sales and profitability development. Glaston Corporation estimates that its net sales and comparable EBITA will improve in 2023 from the levels reported for 2022. As is typical, Glaston expects the first quarter of 2023 to be the weakest of the year, additionally impacted by low upgrade net sales and a higher share of new products. In 2022, Group full-year net sales totaled EUR 213.5 million and comparable EBITA was EUR 13.6 million.

Board of Directors' proposal on the distribution of profits

The distributable funds of Glaston Corporation are EUR 61,114,846 of which EUR 1,775,240 represents the loss for the financial year. The company has no funds available for dividend distribution.

The Board of Directors proposes to the Annual General Meeting to be held on 4 April 2023 that the loss for the financial year 2022 be placed in retained earnings and no dividend be paid.

The Board of Directors proposes to the Annual General Meeting that based on the balance sheet to be adopted for financial period 2022, a return of capital of a total of EUR 3,371,596 be distributed., i.e. EUR 0.04 per share.

The return of capital will be paid from the reserve for invested unrestricted equity to shareholders who are registered in the company's register of shareholders, maintained by Euroclear Finland Ltd, on the record date for payment, 6 April 2023. The Board of Directors proposes to the Annual General Meeting that the return of capital be paid on 20 April 2023.

The number of shares entitled to a return of capital on the date of the proposal on the distribution of profits is 84,289,911, corresponding to a total return of capital of EUR 3,371,596.

EUR 57,743,250 will be left in distributable funds.

No substantial changes in the company's financial position have taken place after the end of the financial year. In the view of the Board of Directors, the proposed distribution of profits does not jeopardize the company's solvency.

Helsinki, 8 February 2023
Glaston Corporation
Board of Directors

Per Share Data

	2022	2021	2020
Earnings per share, EUR	0.037	0.013	-0.065
Comparable earnings per share	0.074	0.051	-0.003
Return of capital per share, EUR [1]	0.04	0.03	0.02
Return of capital ratio, % [1]	109.1%	227.6%	-
Return of capital yield [1]	4.4%	2.6%	2.2%
Return of capital , EUR million [1]	3.4	2.5	1.7
Adjusted equity attributable to owners of the parent per share, EUR	0.81	0.81	0.82
Price per earnings per share (P/E) ratio	24.6	86.5	-13.7
Price per equity attributable to owners of the parent per share	1.11	1.41	1.09
Number of shares at the end of the year	84,289,911	84,289,911	84,289,911
Number of shares, average	84,289,911	84,289,911	84,289,911

	2022	2021	2020
Share price and turnover			
Share proce, year high, EUR	1.19	1.40	1.27
Share price, year low, EUR	0.71	0.72	0.58
Share price, volume-weighted year average, EUR	0.95	0.98	0.78
Share price, end of year, EUR	0.90	1.14	0.89
Number of shares traded (1.000)	8,153	20,577	24,638
% of average number of registered shares	9.7%	24.4%	29.2%
Market capitalization of registered shares, end of year, treasury shares excluded, EUR million	76.0	96.1	75.0

[1] Board of Directors' proposal to 2023 Annual General Meeting

Financial Ratios

EUR thousand	2022	2021	2020
Income statement and profitability			
Net sales	213,520	182,662	170,067
Operating result	7,640	5,105	-541
% of net sales	3.6%	2.8%	-0.3%
Comparable operating result (EBIT)	9,917	6,569	3,225
% of net sales	4.6%	3.6%	1.9%
Comparable EBITA	13,624	11,098	7,742
% of net sales	6.4%	6.1%	4.6%
Financial income and expenses (net)	-2,899	-3,945	-2,761
% of net sales	-1.4%	-2.2%	-1.6%
Result before income taxes and non-controlling interests	4,740	1,160	-3,302
% of net sales	2.2%	0.6%	-1.9%
Income taxes	-1,649	-49	-2,161
Net profit / loss attributable to owners of the parent	3,091	1,111	-5,463
% of net sales	1.4%	0.6%	-3.2%
Return on capital employed (ROCE), %	6.9%	2.8%	-0.4%
Comprable return on capital employed (Comparable ROCE), %	10.5%	6.1%	4.7%
Return on equity, %	4.5%	1.6%	-7.7%
Research and development expenses	7,662	6,450	5,823
% of net sales	3.6%	3.5%	3.4%
Gross capital expenditure	5,850	5,168	3,368
% of net sales	2.7%	2.8%	2.0%
Order book, EUR million	138.3	94.8	63.9

EUR thousand	2022	2021	2020
Statement of financial position and solvency			
Property, plant and equipment and intangible assets	46,337	47,392	48,605
Goodwill	58,662	58,605	58,327
Non-current assets total	107,751	111,581	113,494
Equity attributable to owners of the parent	68,437	68,030	68,881
Liabilities	126,455	129,253	138,399
Total assets	194,892	197,283	207,281
Capital employed	103,974	113,152	125,764
Net interest-bearing debt	13,312	18,269	33,623
Equity ratio, %	44.0%	42.3%	41.2%
Gearing, %	51.9%	66.3%	82.6%
Net gearing, %	19.5%	26.9%	48.8%
Personnel			
Personnel, average	775	731	744
Personnel, at the end of the period	783	750	723

The reconciliation of alternative performance measures

EUR thousand	2022	2021	2020
Comparable operating result (EBIT) and EBITA			
Operating result	7,640	5,105	-541
Items affecting comparability	2,278	1,464	3,766
Comparable EBIT	9,917	6,569	3,225
Operating result	7,640	5,105	-541
Amortization and purchase price allocation	3,707	4,530	4,517
EBITA	11,346	9,634	3,976
Items affecting comparability	2,278	1,464	3,766
Comparable EBITA	13,624	11,098	7,742
% of net sales	6.4%	6.1%	4.6%

EUR thousand	2022	2021	2020
Comparable ROCE% and EPS			
Profit/loss for the period before taxes	4,740	1,160	-3,302
Financial expenses	2,742	2,184	2,740
Purchase price allocation	1,638	2,503	2,771
Items affecting comparability	2,278	1,464	3,766
Total	11,399	7,311	5,974
Equity	68,437	68,030	68,881
Interest bearing liabilities	35,536	45,121	56,882
Avg (1.1. and end of period)	108,562	119,007	126,043
Comparable ROCE%	**10.5%**	**6.1%**	**4.7%**
Profit/loss for the period	3,091	1,111	-5,463
Purchase price allocation	1,639	2,503	2,771
Items affecting comparability	2,278	1,464	3,766
Tax	-783	-793	-1,307
Total	6,224	4,285	-233
Number of shares , average	84,290	84,290	84,290
Comparable earnings per share	**0.074**	**0.051**	**-0.003**

Definitions of Key Ratios

Per share data

Earnings per share (EPS)

$$\frac{\text{Net result attributable to owners of the parent}}{\text{Average number of shares}}$$

Dividend per share*

$$\frac{\text{Dividends paid}}{\text{Number of issued shares at end of the period}}$$

Dividend payout ratio*

$$\frac{\text{Dividend per share}}{\text{Earnings per share}} \times 100$$

Dividend yield per share*

$$\frac{\text{Dividend per share}}{\text{Share price at end of the period}} \times 100$$

Equity attributable to owners of the parent per share

$$\frac{\text{Equity attributable to owners of the parent at end of the period}}{\text{Number of shares at end of the period}}$$

Average trading price

$$\frac{\text{Shares traded (EUR)}}{\text{Shares traded (volume)}}$$

Price per earnings per share (P/E)

$$\frac{\text{Share price at end of the period}}{\text{Earnings per share (EPS)}}$$

Price per equity attributable to owners of the parent per share

$$\frac{\text{Share price at end of the period}}{\text{Equity attributable to owners of the parent per share}}$$

Share turnover

The proportion of number of shares traded during the period to weighted average number of shares

Market capitalization

Number of shares at end of the period x share price at end of the period

Number of shares at period end

Number of issued shares - treasury shares

* Definitions are also applied with return of capital

Financial ratios

EBITDA

Profit / loss before depreciation, amortization and impairment

Operating result (EBIT)

Profit / loss after depreciation, amortization and impairment

Cash and cash equivalents

Cash + other financial assets (includes cash and cash equivalents at amortized cost)

Net interest-bearing debt
Interest-bearing liabilities (includes interest-bearing liabilities at amortized cost) - cash and cash equivalents

Financial expenses
Interest expenses of financial liabilities + fees of financing arrangements + foreign currency differences of financial liabilities

Equity ratio, %

$$\frac{\text{Equity (Equity attributable to owners of the parent +non-controlling interest) x 100}}{\text{Total assets - advance payments received}}$$

Gearing, %

$$\frac{\text{Net interest-bearing debt x 100}}{\text{Equity (Equity attributable to owners of the parent + non-controlling interest)}}$$

Net gearing, %

$$\frac{\text{Net interest-bearing debt x 100}}{\text{Equity (Equity attributable to owners of the parent + non-controlling interest)}}$$

Return on capital employed, % (ROCE)

$$\frac{\text{Profit / loss before taxes + financial expenses x 100}}{\text{Equity + interest-bearing liabilities (average of 1 January and end of the reporting period)}}$$

Return on equity, % (ROE)

$$\frac{\text{Profit / loss for the reporting period x 100}}{\text{Equity (Equity attributable to owners of the parent + non-controlling interest) (average of 1 January and end of the reporting period)}}$$

Alternative performance measures

Comparable EBIT:
Operating result after depreciation, amortization and impairment, +/- items affecting comparability + large, expensed cloud-computing investments.

Comparable EBITDA:
Operating result before amortization and impairment, +/- items affecting comparability + large, expensed cloud-computing investments.

Comparable EBITA:
Operating result before amortization, impairment of intangible assets and purchase price allocation +/- items affecting comparability + large, expensed cloud-computing investments.

Comparable return on capital employed, % (Comparable ROCE):
(Profit / loss before taxes + amortization of purchase price allocations +/- items affecting comparability + financial expenses x 100) / Equity + interest-bearing liabilities, average of 1 January and end of the reporting period.

Comparable earnings per share (Comparable EPS):
Net result attributable to owners of the parent +/- (items affecting comparability+ amortization of purchase price allocations) net of tax / Average number of shares.

Items affecting comparability:
Items affecting comparability are adjusted for non-business transactions or changes in valuation items when they arise from restructuring, acquisitions and disposals, related integration and separation costs, sale or impairment of assets. These may include staff reductions, rationalization of the product range, restructuring of the production structure, and reduction of premises. Impairment losses on goodwill, gains or losses on disposals due to changes in the group structure, exceptionally large gains or losses on tangible and intangible assets, exceptional compensations for damages and legal proceedings are restated as an item affecting comparability.

Consolidated financial statements

Consolidated statement of profit or loss

EUR thousand	Note	1 January–31 December 2022	2021
Net sales	2.2.	**213,520**	**182,662**
Other operating income	2.3.	3,583	4,284
Changes in inventories of finished goods and work in progress	2.4.	1,016	1,003
Own work capitalized		606	5
Materials	2.4.	-97,926	-82,964
Personnel expenses	2.5.	-65,357	-58,371
Other operating expenses	2.4.	-40,120	-33,590
Depreciation, amortization and impairment	3.4.	-7,681	-7,924
Operating result		**7,640**	**5,105**
Financial income	2.8.	124	334
Financial expenses	2.8.	-3,024	-4,279
Financial items, net		-2,899	-3,945
Result before income taxes		**4,740**	**1,160**
Income taxes	2.9.	-1,649	-49
Profit for the period		**3,091**	**1,111**
Attributable to:			
Owners of the parent		3,091	1,111
Non-controlling interest		-	-
Earnings per share, EUR, basic and diluted	**2.10.**	**0.037**	**0.013**

The main calculations presented by the Group must be read together with the relevant notes.

Consolidated statement of comprehensive income

	1 January–31 December	
EUR thousand	2022	2021
Profit for the period	**3,091**	**1,111**
Other comprehensive income that will be reclassified subsequently to profit or loss:		
Exchange differences on translating foreign operations	462	1,377
Cash flow hedges	726	-55
Cash flow hedges, taxes	-65	-
Other comprehensive income that will not be reclassified subsequently to profit or loss:		
Fair value changes of financial assets measured at fair value through other comprehensive income	-	-2,834
Actuarial gains and losses arising from defined benefit plans	-2,083	1,762
Actuarial gains and losses arising from defined benefit plans, taxes	445	-567
Other comprehensive income for the period	**-515**	**-316**
Total comprehensive income for the period	**2,576**	**795**
Attributable to:		
Owners of the parent	2,576	795
Non-controlling interest	-	-

The main calculations presented by the Group must be read together with the relevant notes.

Consolidated statement of financial position

EUR thousand	Note	at 31 December 2022	2021
Assets			
Non-current assets			
Goodwill	3.1., 3.4.	58,662	58,605
Other intangible assets	3.1.	17,473	17,209
Property, plant and equipment	3.2.	22,620	22,874
Right-of-use assets	3.3.	6,245	7,310
Financial assets measured at fair value through other comprehensive income	5.5.	8	8
Loan and other non-current receivables	4.2.	605	2,933
Deferred tax assets	2.9.	2,139	2,643
Total non-current assets		**107,751**	**111,581**
Current assets			
Inventories	4.1.	31,959	27,277
Trade and other receivables	4.2.	23,958	17,115
Contract assets	2.2.	9,000	14,322
Assets for current tax	2.9.	–	137
Cash equivalents	5.2.	22,224	26,852
Total current assets		**87,141**	**85,702**
Total assets		**194,892**	**197,283**

EUR thousand	Note	at 31 December 2022	2021
Equity and liabilities			
Equity			
Share capital		12,696	12,696
Other restricted equity reserves		295	286
Reserve for invested unrestricted equity		105,334	107,863
Other unrestricted equity reserves		373	-288
Retained earnings		-50,260	-52,527
Total equity		**68,437**	**68,030**
Non-current liabilities			
Non-current interest-bearing liabilities	5.6.	23,931	30,405
Non-current lease liabilities	5.6.	5,863	6,882
Non-current non interest bearing liabilities	4.3.	–	6
Non-current provisions	4.4.	427	297
Deferred tax liabilities	2.9.	9,096	9,263
Total non-current liabilities		**39,317**	**46,853**
Current liabilities			
Current interest-bearing liabilities	5.6.	4,039	6,159
Current lease liabilities	5.6.	1,703	1,675
Current provisions	4.4.	3,196	2,482
Trade and other current interest-free payables	4.3.	73,137	69,259
Contract liabilities	2.2.	3,936	2,063
Liabilities for current tax	2.9.	1,126	763
Total current liabilities		**87,138**	**82,400**
Total liabilities		**126,455**	**129,253**
Total equity and liabilities		**194,892**	**197,283**

The main calculations presented by the Group must be read together with the relevant notes.

Consolidated statement of changes in equity

EUR thousand 2022	Share capital	Reserve for invested unrestricted equity	Fair value and other reserves	Retained earnings	Cumulative exchange difference	Total equity
Equity 1 January	**12,696**	**107,863**	**-165**	**-57,394**	**5,030**	**68,030**
Profit for the period	**-**	**-**	**-**	**3,091**	**-**	**3,091**
Other comprehensive income						
Total exchange differences on translating foreign operations	–	–	–	–	462	462
Actuarial gains and losses arising from defined benefit plans	–	–	–	-2,083	–	-2,083
Actuarial gains and losses arising from defined benefit plans, taxes	–	–	–	445	–	445
Cash flow hedges	–	–	726	–	–	726
Cash flow hedges, taxes	–	–	-65	–	–	-65
Fair value changes of financial assets measured at fair value through other comprehensive income	-	-	-	-	-	-
Other comprehensive income for the period	**-**	**-**	**661**	**-1,638**	**462**	**-515**
Total comprehensive income for the period	**-**	**-**	**661**	**1,453**	**462**	**2,576**
Share-based incentive plan	–	–	–	185	–	185
Share-based incentive plan, taxes	–	–	–	-37	–	-37
Return of capital	–	-2,529	–	–	–	-2,529
Total transactions with the owners of the Company	**-**	**-2,529**	**-**	**148**	**-**	**-2,381**
Other changes	–	–	–	212	–	212
Equity 31 December	**12,696**	**105,334**	**496**	**-55,581**	**5,492**	**68,437**

The main calculations presented by the Group must be read together with the relevant notes.

Consolidated statement of changes in equity

EUR thousand 2021	Share capital	Reserve for invested unrestricted equity	Fair value and other reserves	Retained earnings	Cumulative exchange difference	Total equity
Equity 1 January	**12,696**	**109,549**	**-165**	**-56,844**	**3,646**	**68,881**
Profit for the period	**-**	**-**	**-**	**1,111**	**-**	**1,111**
Other comprehensive income						
Total exchange differences on translating foreign operations	-	-	-	33	1,344	1,377
Actuarial gains and losses arising from defined benefit plans	-	-	-	1,762	-	1,762
Actuarial gains and losses arising from defined benefit plans, taxes	-	-	-	-567	-	-567
Cash flow hedges	-	-	-	-55	-	-55
Cash flow hedges, taxes	-	-	-	-	-	-
Fair value changes of financial assets measured at fair value through other comprehensive income	-	-	-	-2,834	-	-2,834
Other comprehensive income for the period	**-**	**-**	**-**	**-1,661**	**1,344**	**-316**
Total comprehensive income for the period	**-**	**-**	**-**	**-549**	**1,344**	**795**
Share-based incentive plan	-	-	-	-	170	170
Share-based incentive plan,taxes	-	-	-	-	-34	-34
Return of capital	-	-1,686	-	-	-	-1,686
Total transactions with the owners of the Company	**-**	**-1,686**	**-**	**-**	**136**	**-1,550**
Other changes	-	-	-	-	-96	-96
Equity 31 December	**12,696**	**107,863**	**-165**	**-57,394**	**5,030**	**68,030**

The main calculations presented by the Group must be read together with the relevant notes.

Consolidated statement of cash flows

EUR thousand	1 January–31 December 2022	1 January–31 December 2021
Cash flows from operating activities		
Profit for the period	3,091	1,111
Adjustments[1]	10,191	8,481
Interest received	121	214
Interest paid	-445	-1,411
Other financing items	-1,744	-239
Income taxes paid	-707	-1,026
Cash flows from operating activities before change in net working capital	**10,508**	**7,131**
Change in net working capital		
Change in inventories	-4,405	-3,363
Change in current receivables	-1,873	10,766
Change in interest-free current liabilities	5,930	4,794
Change in net working capital, total	**-348**	**12,197**
Cash flows from operating activities	**10,160**	**19,328**
Cash flows from investing activities		
Other purchases of non-current assets	-5,850	-5,168
Proceeds from sale of business	-	400
Proceeds from sale of other non-current assets	362	1,621
Cash flows from investing activities	**-5,487**	**-3,147**
Cash flow before financing	**4,673**	**16,180**

EUR thousand	1 January–31 December 2022	1 January–31 December 2021
Cash flows from financing activities		
Draw-down of non-current loans	24,000	-
Repayments of non-current loans	-31,000	-
Change in loan receivables (decrease +, increase -)	309	48
Draw-down of current loans	6,269	-
Repayments of current loans	-8,232	-12,144
Return of capital	-2,529	-1,686
Cash flows from financing activities	**-11,182**	**-13,782**
Effect of exchange rate fluctuations	**1,882**	**1,194**
Net increase (- decrease) in cash and cash equivalents	**-4,628**	**3,593**
Cash and cash equivalents at beginning of period	26,852	23,259
Cash and cash equivalents at end of period	22,224	26,852
Net increase (- decrease) in cash and cash equivalents	**-4,628**	**3,593**

[1] Cash flow supplemental information

The above figures cannot be directly derived from the statements of financial position.

Supplemental information for statement of cash flows

	1 January–31 December	
EUR thousand	**2022**	**2021**
Cash and bank	22,224	26,852
Total cash and cash equivalents	**22,224**	**26,852**
Cash flows from operating activities		
Adjustments		
Depreciation, amortization and impairments	7,681	7,924
Changes of provision	845	-1,015
Financing items	2,899	3,945
Taxes	1,649	49
Others	-2,883	-2,421
Adjustments Total	**10,191**	**8,481**
Cash flows from investing activities		
Proceeds from sale of business*	-	400
Net cash flow	**-**	**400**
Total cash outflow on lease liablities in cash flow from operating activities	-3,563	-3,184

* On 30 September 2021, Glaston divested its glass handling business to Cimec Oy

1. General accounting policies

1.1. Basic information

Glaston Corporation is a public limited liability company organized under the laws of the Republic of Finland and domiciled in Helsinki, Finland. Glaston's shares are publicly traded in Nasdaq Helsinki Ltd. Small Cap in Helsinki, Finland. Glaston Corporation is the parent of Glaston Group and its registered office is at Lönnrotinkatu 11, 00120 Helsinki, Finland.

Glaston Group is an international glass technology company. Glaston is one of the leading manufacturers of glass processing machines globally. Its product range and service network are the most extensive in the industry. The operations of Glaston Group are organized in three reportable segments which consists of operating segments.

The Board of Directors of Glaston Corporation has in its meeting on 8 February 2023, approved these financial statements to be published. According to the Finnish Companies' Act, the shareholders have a possibility to approve or reject or make a decision on altering the financial statements in a General Meeting to be held after the publication of the financial statements.

1.2. Basis of preparation

The financial statements have been prepared on a going concern basis.

The consolidated financial statements of Glaston Group are prepared in accordance with International Financial Reporting Standards (IFRS), including International Accounting Standards (IAS) and Interpretations issued by the International Financial Reporting Interpretations Committee (SIC and IFRIC). International Financial Reporting Standards are standards and their interpretations adopted in accordance with the procedure laid down in regulation (EC) No 1606/2002 of the European Parliament and of the Council. The Notes to the Financial Statements are also in accordance with the Finnish Accounting Act and Ordinance and the Finnish Companies' Act.

The consolidated financial statements include the financial statements of Glaston Corporation and its subsidiaries. The functional and reporting currency of the parent is euro, which is also the reporting currency of the consolidated financial statements. Functional currencies of subsidiaries are determined by the primary economic environment in which they operate.

The financial year of Glaston Group as well as of the parent and subsidiaries is the calendar year ending 31 December.

The financial statements have been prepared under the historical cost convention except as disclosed in the accounting policies below.

The figures in Glaston's consolidated financial statements are mainly presented in EUR thousands. Due to rounding differences the figures presented in tables do not necessarily add up to the totals of the tables.

1.3 Consolidation principles

The consolidated financial statements include the parent and its subsidiaries. Subsidiaries are companies in which the parent has, based on its holding, more than half of the voting rights directly or via its subsidiaries or over which it otherwise has control. Divested subsidiaries are included in the consolidated financial statements until the control is lost, and companies acquired during the reporting period are included from the date when the control has been transferred to Glaston. Acquisitions of subsidiaries are accounted for under the purchase method.

Other shares, i.e. shares in companies in which Glaston owns less than 20 percent of voting rights, are classified as assets recognized at fair value through other comprehensive income, or if the fair value cannot be measured reliably, at acquisition cost, and dividends received from them are recognized in profit or loss.

All inter-company transactions are eliminated as part of the consolidation process. Unrealized gains arising from transactions with associates are eliminated to the extent of the Group's interest in the entity. Unrealized losses are eliminated in the similar way as unrealized gains, but only to the extent that there is no evidence of impairment.

Transactions in Foreign Currency

In their own day-to-day accounting the Group companies translate transactions in foreign currencies into their own reporting or functional currency at the exchange rates prevailing on the dates of the transactions. At the end of the reporting period, the unsettled balances of foreign currency transactions are measured at the exchange rates prevailing at the end of the reporting period. Foreign exchange gains and losses arising from trade receivables are entered as adjustments of net sales and foreign exchange gains and losses related to trade payables are recorded as adjustments of purchases. Foreign exchange gains and losses arising from financial items are recorded as financial income and expenses.

1.4. Estimates and assessments by Management

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the end of the reporting period and the recognized amounts of revenues and expenses during the reporting period. Actual results may differ from these estimates.

In addition, management uses judgment in applying the accounting principles and in choosing the applicable accounting policies, if IFRS allow alternative methods.

The following items include critical accounting estimates: impairment testing of assets; estimated fair values of property, plant and equipment and intangible assets acquired in an acquisition and their estimated useful lives; useful lives of other intangible assets and property, plant and equipment; future economic benefits arising from capitalized development cost; measurement of inventories and trade and loan receivables; recognition and measurement of deferred taxes; estimates of the amount and probability of provisions and actuarial assumptions used in defined benefit plans.

The critical accounting estimates and judgments are described in more detail in the notes.

1.5. Applied New and Amended IFRS Standards and IFRIC interpretations

At the beginning of the financial year, no new standards or amendments to standards have entered into force that would have had a material effect on the Glaston Group's financial statements.

In addition to the standards and interpretations presented in the financial statements for 2022, The Group will adopt IFRS standards, IFRIC interpretations and changes to existing standards and interpretations that enter into effect in 2023. These are not estimated to have a material effect on Glaston's consolidated financial statements.

2. Group performance

2.1. Reporting segments

Accounting policy

Glaston's reportable segments are Glaston Heat Treatment, Glaston Insulating Glass, Glaston Automotive & Display . The reportable segments consist of operating segments and they comply with the group's accounting and valuation principles. In inter-segment transactions, Glaston complies with the same commercial terms and conditions as in its third party transactions.

Segment assets include external trade receivables and inventory, and segment liabilities include external trade payables and advance payments received. In addition, segment assets and liabilities include business related prepayments and accruals as well as other business related receivables and liabilities. Segment assets and liabilities do not include loan receivables, prepayments and receivables related to financial items, interest-bearing liabilities, accruals and liabilities related to financial items, income and deferred tax assets and liabilities nor cash and cash equivalents.

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Reporting segments

EUR thousand 2022	Heat Treatment	Insulating Glass	Automotive & Display	Total segments	Unallocated	Total
External net sales	85,027	90,107	37,471	212,605	915	213,520
Internal net sales	11	2	0	13	-13	–
Total net sales	**85,038**	**90,109**	**37,471**	**212,618**	**902**	**213,520**
Operating result	2,325	4,877	289	7,491	149	7,640
Financial items	–	–	–	–	-2,899	-2,899
Income taxes	–	–	–	–	-1,649	-1,649
Profit for the reporting period	**2,325**	**4,877**	**289**	**7,491**	**-4,400**	**3,091**
Segment assets	65,847	72,467	31,278	169,592	–	169,592
of which investments	2,616	1,668	1,566	5,850	–	5,850
Other assets	–	–	–	–	25,301	25,301
Total assets	**65,847**	**72,467**	**31,278**	**169,592**	**25,301**	**194,892**
Segment liabilities	42,271	31,046	7,236	80,554	–	80,554
Other liabilities	–	–	–	–	45,901	45,901
Total liabilities	**42,271**	**31,046**	**7,236**	**80,554**	**45,901**	**126,455**
Operative net working capital	**-18,874**	**23,431**	**25,772**	**30,329**	**198**	**30,528**

EUR thousand 2021	Heat Treatment	Insulating Glass	Automotive & Display	Total segments	Unallocated	Total
External net sales	74,652	81,611	25,593	181,857	805	182,662
Internal net sales	–	266	3	269	-269	–
Total net sales	**74,652**	**81,877**	**25,596**	**182,126**	**536**	**182,662**
Operating result	599	4,589	-90	5,098	7	5,105
Financial items	–	–	–	–	-3,945	-3,945
Income taxes	–	–	–	–	-49	-49
Result for the reporting period	**599**	**4,589**	**-90**	**5,098**	**-3,987**	**1,111**
Segment assets	67,190	67,802	32,193	167,185	–	167,185
of which investments	1,708	2,854	606	5,168	–	5,168
Other assets	–	–	–	–	30,099	30,099
Total assets	**67,190**	**67,802**	**32,193**	**167,185**	**30,099**	**197,283**
Segment liabilities	37,677	30,300	5,722	73,700	–	73,700
Other liabilities	–	–	–	–	54,262	54,262
Total liabilities	**37,677**	**30,300**	**5,722**	**73,700**	**54,262**	**127,962**
Operative net working capital	**-18,986**	**-4,556**	**7,937**	**-15,605**	**-105**	**-15,709**

Non-cash income and expenses included in operating result[1]

	2022	2021
Segment total	1,142	-596
Unallocated	–	–
Total non-cash expenses and income	**1,142**	**-596**

[1] Excluding impairment

Non-cash income and expenses in 2022 included the following items: impairment losses of trade receivables EUR 0.1 million, impairment losses of inventory EUR 0.2 million, changes in provisions EUR 0.8 million.

Non-cash income and expenses in 2021 included the following items: impairment losses of trade receivables EUR -0.7 million, impairment losses of inventory EUR -0.3 million, changes in provisions EUR 0.4 million.

Personnel

Number of personnel at the end of the year by segment	2022	2021
Heat Treatment	292	283
Insulating Glass	370	359
Automotive & Display	119	103
Total Segments	**781**	**745**
Unallocated	2	5
Total Glaston Group	**783**	**750**

Number of personnel at the end of the year by geographical location	2022	2021
Finland	195	184
Other EMEA*	377	364
Americas*	50	49
APAC*	161	153
Total	**783**	**750**

Entity-wide disclosures

Net sales by product groups	2022	2021
Goods sold	204,534	173,735
Services rendered	8,986	8,927
Total	**213,520**	**182,662**

Net sales by country by destination	2022	2021
Finland	5,326	4,300
Other EMEA*	106,895	91,378
Americas*	60,861	55,447
APAC*	40,439	31,536
Total	**213,520**	**182,662**

Assets by country	2022	2021
Finland	56,114	66,208
Other EMEA*	105,746	95,469
Americas*	13,832	17,388
APAC*	19,200	18,218
Total	**194,892**	**197,283**

*EMEA = Europe, the Middle East and Africa
Americas = North, Central and South America
APAC = China and the rest of the Asia-Pacific area

Glaston's revenues from any single external customer do not exceed 10 per cent of Glaston's total revenue.

2.2. Revenue from contracts with customer

Accounting policy

Net sales include the total invoicing value of products sold and services provided less discounted interest and sales tax, cash discounts and rebates. Foreign exchange differences arising from trade receivables are recognized as sales adjustments.

Revenue from the sale of goods is recognized at a specific date or within a certain period, according to when the buyer receives the goods or gains control. Normally, this takes place at the date of the delivery in accordance with the terms of delivery. Revenue from services rendered and repair work is recognized when the service has been rendered or the work has been completed. Revenue is recognized in an amount that reflects the consideration to which the entity expects to be entitled in exchange for goods delivered or services rendered.

In satisfying the terms of IFRS 15, Glaston recognizes the revenue from tailor-made glass processing machine deliveries over time. As a revenue recognition practice, Glaston applies the cost-to-cost method, i.e. the share of accumulated project costs compared to total estimated costs is used as the degree of completion. Revenue recognition takes place over time, according to when costs accumulate and are recognized for the project.

Contractual receivables are recognized when project billing is lower than revenue recognized based on the progress of the project and, similarly, advances received and contractual liabilities are recognized if project billing exceeds the revenue recognized on the basis of the project.

Contractual liabilities are recognized as revenue as the project is completed. Projects subject to partial revenue recognition are, as a rule, completed in less than a year from start-up.

Estimates and assessments by Management

In satisfying the terms of IFRS 15, Glaston recognizes the revenue from tailor-made glass processing machine deliveries over time. As a revenue recognition practice, Glaston applies the cost-to-cost method, i.e. the share of accumulated project costs compared to total estimated costs is used as the degree of completion. Revenue recognition takes place over time according to when costs accumulate and are recognized for the project. Costs attributable to a project for which revenue is not yet recognized are included in inventories as construction contracts. Estimates are monitored and updated monthly and changes in revenue recognition are recognized in the same month as a forecast is changed. Forecasts are related to material and wage costs and to project overheads, which may result in a risk of a greater increase in a project's overall costs than forecast. Other risks related to the project and its profitability are unforeseen technical problems with supplied and installed equipment, which may give rise to repair costs. If project costs exceed the revenue of a project subject to over time revenue recognition, the loss is recognized for the period in which it is identified.

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Revenue from contracts with customer
Classification of net sales
EUR thousand

2022	Heat Treatment	Insulating Glass	Automotive & Display	Total segment	Unallocated	Total
External net sales	85,027	90,107	37,471	212,605	915	213,520
Internal net sales	11	2	0	13	-13	-
Total net sales	**85,038**	**90,109**	**37,471**	**212,618**	**902**	**213,520**
Revenue recognition						
Over time	75,250	59,870	12,306	147,425	-	147,425
At a point in time	9,789	30,240	25,165	65,193	902	66,095
Total net sales	**85,038**	**90,109**	**37,471**	**212,618**	**902**	**213,520**

2021	Heat Treatment	Insulating Glass	Automotive & Display	Total segment	Unallocated	Total
External net sales	74,652	81,611	25,593	181,857	805	182,662
Internal net sales	-	266	3	269	-269	-
Total net sales	**74,652**	**81,877**	**25,596**	**182,126**	**536**	**182,662**
Revenue recognition						
Over time	53,399	45,459	10,332	109,190	-	109,190
At a point in time	21,253	36,418	15,264	72,936	536	73,472
Total net sales	**74,652**	**81,877**	**25,596**	**182,126**	**536**	**182,662**

Contract assets and liabilities

	31.12.2022	31.12.2021	1.1.2021
Contract assets			
Trade receivables	6,459	4,372	4,239
Project income receivables	49,897	45,109	27,347
Contract assets total	**56,356**	**49,481**	**31,586**
Contract liablities			
Advance payments	-47,356	-35,160	-35,339
Project expense liablities	-3,936	-2,063	-1,935
Contract liablities total	**-51,292**	**-37,222**	**-37,274**
Gross contract assets/liabilities	**5,064**	**12,259**	**-5,689**

	31.12.2022	31.12.2021
Transaction price allocated to performance obligations that are partially or fully unsatisfied at the end of the reporting period		
Allocated transaction price expected to be recognised as revenue	44,412	77,168

2.3. Other operating income

Accounting policy

Government or other grants are recognized in profit or loss in the same periods in which the corresponding expenses are incurred. Government grants received to acquire property, plant and equipment are reduced from the acquisition cost of the assets in question.

Other operating income

EUR thousand	**2022**	**2021**
Capital gains on sale of property, plant and equipment	20	930
Sale of Handling business	–	900
Rents	1,038	986
Government grants	198	716
Insurance compensation	15	1
Legal compensation	1,229	–
Other income	1,083	751
Other operating income total	**3,583**	**4,284**

Government grants

2022

Glaston Finland Oy was granted a total of EUR 179 thousand from Business Finland's innovation finance.

Glaston Management Shanghai Co. Ltd. was granted tax cost subsidy of EUR 3 thousand.

Glaston Tianjin Co. Ltd was granted a Covid cost subsidy of EUR 16 thousand.

2021

Glaston Finland Oy was granted a total of EUR 60 thousand from Business Finland's innovation finance.

Glaston Finland Oy was granted the State Treasury's business Covid cost support of EUR 500 thousand.

Australian branch office of Glaston Finland Oy was granted a Covid cost subsidy of EUR 31 thousand.

Glaston Singapore Pte. Ltd. was granted a total of EUR 78 thousand from Government Job Support Scheme (JSS).

Glaston Switzerland AG was granted a total of EUR 46 thousand subsidy contribution for R&D project.

2.4. Materials and other operating expenses

EUR thousand	2022	2021
Materials		
Materials and supplies, purchases during the period	-101,320	-82,916
Change in inventories of materials and supplies	3,393	-48
Total materials	**-97,926**	**-82,964**
Other operating expenses		
Leases	-3,563	-3,184
Losses on sale of property, plant and equipment	-33	-5
Subcontracting and maintenance	-5,603	-4,331
Commissions	-1,656	-1,576
Freight expenses	-6,700	-5,200
Travel expenses	-6,108	-3,883
External services, not production related	-4,175	-3,274
IT, internet and phone	-6,459	-5,948
Electricity, heating	-1,201	-1,214
Marketing expenses	-1,365	-845
Other expenses	-3,217	-4,131
Total other operating expenses	**-40,120**	**-33,590**

EUR thousand	2022	2021
Fees for professional services rendered by auditors		
Auditor KPMG		
Auditing	-302	-321
Legal statements	-15	-
Tax advisory	-83	-140
Other services	-12	-
Total	**-412**	**-461**

The auditor of Glaston Group during the financial years of 2022 and 2021 has been KPMG. KPMG Oy Ab fee from other than auditing was EUR 12 (0) thousand. Fee to other audit companies was EUR 59 (17) thousand.

EUR thousand	2022	2021
Research and development costs		
Recognized in profit or loss	-6,186	-5,116
Amortization of capitalized development costs during the reporting period	-1,475	-1,335
Total	**-7,662**	**-6,450**
As a percentage of net sales	3,6%	4.5%
Capitalized development costs during the reporting period	**3,015**	**1,840**

2.5. Employee benefits and number of personnel

EUR thousand	2022	2021
Employee benefits		
Wages and salaries	54,673	48,579
Pension expenses	4,506	3,789
Other personnel expenses	6,178	6,003
Total personnel expenses	**65,357**	**58,371**
Pension expenses		
Defined benefit plans	343	231
Defined contribution plans	4,163	3,558
Total pension expenses	**4,506**	**3,789**

	2022	2021
Number of personnel		
Number of personnel, average	775	731
Personnel in Finland, end of the period	195	184
Personnel outside Finland, end of the period	588	566
Total	**783**	**750**

Information on the Group's executive management group's employee benefits and other related party events is presented in Note 7.1.

Share-based incentive plans are described in more detail in Note 2.6. to the consolidated financial statements.

Pension benefits are presented in more detail in Note 2.7. to the consolidated financial statements.

2.6. Share-based incentive plans

Accounting policy

Glaston's share-based incentive plans are directed to the Group's key personnel as part of the Group's incentive schemes.

The plans aim to align the interests of the company's shareholders and key personnel in the Group in order to raise the value of Glaston.

The expenses arising from the incentive plans have been recognized in profit or loss and in equity during the vesting periods. Equity-settled share-based payment transactions are valued at the time of grant. Glaston has recorded the share-based incentive plans as equity-settled share-based payment transactions.

Share-based incentive plans

In January 2022, the Board of Directors of Glaston Corporation resolved on the share-based incentive plan 2022-2026 for the Group key employees in accordance with the terms and conditions materially corresponding to the terms and conditions of the share-based incentive plan 2019-2023.

The aim of the incentive plan is to align the objectives of the shareholders and the key employees in order to increase the value of the company in the long term, to retain the key employees at the company, and to offer them a competitive incentive plan that is based on earning and accumulating the company's shares.

The Performance Share Plan 2022-2026 comprises three performance periods, calendar years 2022-2024, 2023-2025, and 2024-2026. From the Performance Share Plan 2019 – 2023 has been comprised two performance periods, calendar years 2020 – 2022 sekä 2021 – 2023. The Board of Directors resolves on the plan's performance criteria and on the performance levels at the beginning of each performance period. The key employees will receive the company's shares as a reward, if the performance levels of the performance criteria, set by the Board of Directors, are achieved. As a rule, no reward will be paid, if a key employee's employment or service terminates before the reward payment.

The CEO and President and each member of the Executive Management Group of the Company must hold 50% of the net number of shares he or she has received on the basis of the plan until the number of the company's shares he or she holds corresponds to the value of his or her gross annual base salary. Such number of shares must be held as long as such person's employment or service in a company belonging to the Group Company continues.

Performance Period 2022-2024

The potential reward of the performance period 2022-2024 will be based on the Glaston Group's comparable EBITA and Service Net Sales during the period of 1 January 2022-31 December 2024. If the performance levels of the performance criteria for the performance period 2022-2024 are achieved in full, the payable rewards correspond to a maximum total of 700,000 Glaston Corporation shares, including also the proportion to be paid in cash.

The potential reward from the performance period 2022-2024 will be paid in 2025 in a manner resolved by the Board of Directors, either partly in the company's shares and partly in cash, in which case the cash proportion is intended to cover taxes and tax-related costs arising from the reward to the key employee, or fully in cash.

The reward to be paid on the basis of the plan may be reduced if the reward cap set by the Board of Directors is reached.

In total 16 key persons, including the CEO and President and the members of the Executive Management Group, belong to the target group of the plan in the performance period 2022–2024.

Performance Period 2021-2023

The potential reward of the performance period 2021–2023 will be based on the Glaston Group's comparable EBITA and Services Net Sales during a period of 1 January 2021—31 December 2023. If the performance levels of the performance criteria for the performance period 2021–2023 are achieved in full, the payable rewards correspond to a maximum total of 700,000 Glaston Corporation shares, including also the proportion to be paid in cash.

The potential reward from the performance period 2021–2023 will be paid in 2024 in a manner resolved by the Board of Directors, either partly in the company's shares and partly in cash, in which case the cash proportion is intended to cover taxes and tax-related costs arising from the reward to the key employee, or fully in cash.

The reward to be paid on the basis of the plan may be reduced, if the reward cap set by the Board of Directors is reached. In total 15 key employees, including the CEO and members of the Executive Management Group, belong to the target group of the plan in the performance period 2021–2023.

Performance Period 2020-2022

The reward of the performance period 2020–2022 is be based on the Glaston Group's comparable EBITA and average gearing during a period of 1 January 2020—31 December 2022. Based on the performance criteria for the performance period 2020–2022, the payable rewards correspond to approximately total of 29 000 Glaston Corporation shares, including also the proportion to be paid in cash.

The reward from the performance period 2020–2022 will be paid in the company shares in 2023. A total of 9 key employees belong to the target group on 31 December 2022.

Basic information of the share-based plans	2022-2024	2021-2023	2020-2022
Grant date	27 January 2022	23 June 2021	14 February 2020
Nature of the plan	Shares/cash	Shares/cash	Shares/cash
Target group	Key personnel	Key personnel	Key personnel
Maximum amount of shares (including cash)	700,000 shares	700,000 shares	500,000 shares
Total amount of shares at the end of the performance period (including cash)	-	-	28,967
Performance period begins	1 January 2022	1 January 2021	1 January, 2020
Performance period ends	31 December 2024	31 December 2023	31 December, 2022
End of restriction period/payment	1 April 2025	1 April 2024	1 April, 2023
Vesting conditions	Group's comparable EBITA and Service Net Sales Service period	Group's comparable EBITA and Service Net Sales Service period	Group's comparable EBITA and average net gearing Service period
Maximum contractual life, years	3	3	3
Remaining contractual life, years	2	1	0
Number of persons involved 31 December 2022	16	15	9

Effect on the profit or loss for the period and on financial position	2022	2021
Effect on the result of the reporting period, EUR thousand	215	206

2.7. Pension benefits

Accounting policy

The Group has various pension plans in accordance with the local practices in the countries where it operates. The pension plans are classified as defined contribution plans or defined benefit plans. The payments to the schemes are determined by actuarial calculations.

The contributions to defined contribution plans are charged to profit or loss in the period to which the contributions relate.

The obligations for defined benefit plans have been calculated separately for each plan. Defined benefit liabilities or assets, which have arisen from the difference between the present value of the obligations and the fair value of plan assets, have been entered in the statement of financial position.

The defined benefit obligation is measured as the present value of the estimated future cash flows using interest rates of government securities that have maturity terms approximating the terms of related liabilities or similar long-term interests.

For the defined benefit plans, costs are assessed using the projected unit credit method. Under this method the cost is charged to profit or loss so as to spread over the service lives of employees.

According to the standard Glaston records actuarial gains and losses in other comprehensive income. Only current and past service costs as well as net interest on net defined benefit liability can be recorded in profit or loss. Other changes in net defined benefit liability are recognized in other comprehensive income with no subsequent recycling to profit or loss.

Estimates and assessments by Management

Calculation of defined benefit pensions and other defined long-term employee benefits requires choosing certain assumptions which actuaries use in calculation of the obligations arising from defined benefit plans. These assumptions include, among other things, discount rates used in the measurement of plan assets and liabilities as well as other actuarial assumptions such as future salary increases and mortality rate.

The Group has a defined benefit pension plan in Glaston Switzerland AG, Switzerland. The Group has also defined contribution pension plans, of which the charge to the income statement was EUR 4.4 (3.9) million.

In addition to defined benefit pensions, Glaston has no other long-term defined employee benefits in 2022 and 2021.

Pension benefits

Amounts in the statement of financial position relating to defined benefit pension plans

EUR thousand	**2022**	**2021**
Present value of unfunded obligations	21,536	20,380
Fair value of plan assets	22,225	22,404
Total deficit of defined benefit pension plans	689	2,024
Difference	**689**	**2,024**
Amounts in the statement of financial position		
1.1. Net liability (asset +)	2,018	530
Liabilities	-	-6
Assets	-2,707	2,024
Adjustment to asset ceiling	689	-
Net liability (asset +)	**-**	**2,018**

Amounts in the statement of financial position relating to other long-term employee benefits

EUR thousand	**Present value of obligation**	**Fair value on plan assets**	**Total**
1.1.2022	**21,382**	**23,506**	**-2,124**
Interest expense / income	92	100	-8
Current service cost	720	-	720
Past service cost	-9	-	-9
Employee contributions	544	544	-
Employer contributions	-	611	-611
Benefits paid	1,740	1,740	-
Actuarial gains (-) / losses (+)	-2,942	-	-2,942
Other gains (-) / losses (+) on settlement	11	-	11
Return on plan assets (excluding amounts included in the net interest expense)	-	-4,275	4,275
31.12.2022	**21,536**	**22,225**	**-688**

EUR thousand	**Present value of obligation**	**Fair value on plan assets**	**Total**
1.1.2021	**20,939**	**20,385**	**554**
Interest expense / income	43	42	1
Current service cost	837	-	837
Past service cost	-420	-	-420
Employee contributions	493	493	-
Employer contributions	-	558	-558
Benefits paid	336	336	-
Actuarial gains (-) / losses (+)	-1,857	-	-1,857
Other gains (-) / losses (+) on settlement	10	-	10
Return on plan assets (excluding amounts included in the net interest expense)	-	592	-592
31.12.2021	**20,381**	**22,406**	**-2,025**

Glaston 2022

Sustainability

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Plan asset classes

EUR thousand	2022	2021
Cash and cash equivalents	667	672
Equity instruments	7,779	7,842
Debt instruments	7,112	7,170
Real estate	5,556	4,481
Other	1,111	2,240
Total plan assests	**22,225**	**22,404**

Actuarial assumptions

	2022 Defined pension plans	2021 Defined pension plans
Discount rate, %	2,20%	0.40%
Future salary increase, %	1,00%	1.00%
Duration in years	13,1	15.7

Sensitivity analysis, defined benefit obligation

EUR thousand	Changes in parameter	2022	2021
Discount rate	- 0.25%	22,245	21,209
Discount rate	+ 0.25%	20,869	19,610
Interest rate on retirement savings capital	- 0.25%	21,275	20,112
Interest rate on retirement savings capital	+ 0.25%	21,803	20,655
Salary increase	- 0.25%	21,451	20,271
Salary increase	+ 0.25%	21,616	20,491
Life expectancy	+ 1 year	21,859	20,791
Life expectancy	- 1 year	21,208	19,969

The pension foundation is able to adapt the contribution and benefits. In case of underfunding, there is a risk for the employer to be involved in additional payments to the foundation

The Group expects to contribute EUR 635 thousand to its other long-term employee benefit plans in 2023.

2.8. Financial income and expenses

EUR thousand	2022	2021
Interest income		
Interest income on loans and receivables	121	333
Total interest income	121	333
Dividend income		
Dividend income measured at fair value through other comprehensive income	-0	0
Interest expenses		
Interest expenses on financial liabilities measured at amortized cost	-716	-1,363
Interest expenses on lease liabilities	-438	-469
Other interest expenses	-1	-10
Total interest expenses	-1,155	-1,841
Other financial expenses		
On financial liabilities measured at amortized cost	-730	-
On bank fees	-278	-223
Currency derivatives forward points	-6	-2
Guarantee expenses	-79	-362
Impairment losses of loan receivables	155	-1,869
Other financial expenses	-207	-88
Total other financial expenses	-1,145	-2,544
Foreign exchange differences, net		
On financial liabilities measured at amortized cost	0	-113
On loans and receivables	-772	218
Other foreign exchange gains and losses	51	2
Total foreign exchange differences	-721	107
Total financial income and expenses in financial items	**-2,899**	**-3,945**

EUR thousand	2022	2021
Net foreign exchange differences in operating result		
Net sales	-1,039	-741
Purchases	113	450
Other operating expenses	-2	54
Total	**-928**	**-237**
Derivatives recognized in profit or loss		
Currency derivatives, hedge accounting		
Realized currency derivatives recognized in net sales	-1,457	-574
Currency derivatives forward points	-6	-2
Total	**-1,463**	**-575**
Recognized in other comprehensive income		
Fair value changes of financial assets measured at fair value through other comprehensive income	-	-2,834
Total in other comprehensive income	**-**	**-2,834**

Borrowing costs were not capitalized in Glaston Group in 2022 or 2021 as Glaston has not had any qualifying assets as defined in IAS 23 Borrowing Costs.

2.9. Income taxes

Accounting policy

The consolidated financial statements include current taxes, which are based on the taxable results of the group companies for the reporting period together with tax adjustments for previous reporting periods, calculated in accordance with the local tax rules, and the change in the deferred tax liabilities and assets.

Income taxes which relate to items recognized in other comprehensive income are recognized in other comprehensive income.

The Group's deferred tax liabilities and assets have been calculated for temporary differences, which have been obtained by comparing the carrying amount of each asset or liability item with their tax bases. Deferred tax assets are recognized for deductible temporary differences and tax losses to the extent that it is probable that taxable profit will be available, against which tax credits and deductible temporary differences can be utilized. In calculating deferred tax liabilities and assets, the tax rate used is the tax rate in force at the time of preparing the financial statements or which has been enacted by end of the reporting period.

Changes in tax rates have been taken into account when calculating deferred taxes. Corporate tax rate in Finland is 20.0 percent.

Deferred tax liability has not been recognized in 2022 or 2021 of the undistributed earnings of Finnish or foreign subsidiaries as the majority of such earnings can be transferred to the owner without any tax consequences.

Principal temporary differences arise from depreciation and amortization of property, plant and equipment and intangible assets, defined benefit plans, recognition of net assets of acquired companies at fair value, through other comprehensive income and derivative instruments at fair value, inter-company inventory profits, share-based payments and confirmed tax losses.

Other temporary differences in deferred tax assets consist of expenses which were not tax deductible in the reporting period, but will be tax deductible in future. Other temporary differences in deferred tax liabilities consist of, among other things, differences between local and IFRS accounting principles, which create timing differences in recognizing revenue and expenses.

Estimates and assessments by management

Recognition and measurement of deferred tax liabilities and assets include management estimates, especially deferred tax assets arising from confirmed tax losses of group companies or from other temporary differences. Deferred tax assets are recognized for deductible temporary differences and tax losses to the extent that it is probable that taxable profit will be available against which tax credits and deductible temporary differences can be utilized. All tax liabilities and assets are reviewed at the end of the reporting period and changes are recognized in profit or loss.

Income taxes

EUR thousand	**2022**	**2021**
Income tax charge in income statement		
Current income tax charge	-780	-1,142
Adjustments in respect of current income tax of previous years	-257	309
Deferred tax charge	-611	746
Other	-2	38
Total income tax charge	**-1,649**	**-49**
Income taxes recognized in other comprehensive income and in equity		
Deferred taxes		
Share-based incentive plan recognized in equity	-37	-34
Actuarial gains and losses arising from defined benefit plans	445	-567
Fair value changes of financial assets measured at fair value through other comprehensive income	-65	-
Total taxes recognized in other comprehensive income and in equity	343	**-601**

EUR thousand	2022	2021
Reconciliation of income tax expense calculated at statutory tax rates with income tax expense in the income statement		
Profit before taxes	4,740	1,160
Tax at the tax rate applicable to the parent	-948	-232
Difference due to different tax rates of foreign subsidiaries	18	-494
Tax exempt income and non-deductible expenses	-1,431	-467
Losses, where no deferred tax benefit is recognized	-1,108	-1,676
Deferred taxes recognized during the reporting period in respect of previous years' temporary differences	1,125	727
Withholding taxes and adjustments in respect of current income tax of previous periods	-254	347
Use of losses for which deferred tax has not been recognized	918	812
Deferred tax assets recognized in respect of confirmed losses in previous years	31	935
Income taxes in the income statement	**-1,649**	**-49**
Effective tax rate	35%	4%

The Group companies have tax losses totalling EUR 31.7 (40.1) million, which can be applied against future taxable income. A deferred tax asset has not been recognized for all tax losses, due to the uncertainty regarding the extent to which they can be used. Tax losses expire in the period 2023-2032. Some of the losses do not have an expiration date. Over the next two years, losses of approximately EUR 1 million will expire.

EUR thousand	2022	2021
Tax assets and tax liabilities		
Deferred tax assets	2,139	2,643
Assets for current tax	-	137
Deferred tax liabilities	9,096	9,263
Liabilities for current tax	1,126	763

Reconciliation of deferred tax assets and deferred tax liabilities 2022

Deferred tax assets	**1 January**	**Exchange difference**	**Change in income statement (- tax expense)**	**Recognized in equity**	**Recognized in other comprehensive income**	**31 December**
Unrealized internal profits, inventory	174	–	-60	–	–	114
Confirmed tax losses carried forward	1,262	–	-524	–	–	738
Share-based payments	-31	–	–	37	–	6
Other temporary differences	1,239	35	36	–	-29	1,281
Deferred tax assets in statement of financial position	**2,643**	**35**	**-548**	**37**	**-29**	**2,139**

Deferred tax liabilities	**1 January**	**Exchange difference**	**Change in income statement (+ tax expense)**	**Recognized in equity**	**Recognized in other comprehensive income**	**31 December**
Untaxed reserves	161	–	26	–	–	187
Defined benefit employee benefits	567	–	–	–	-445	123
Fair value changes of financial assets	-1	–	–	–	–	-1
PPA allocation	5,371	–	-1,164	–	–	4,207
Other temporary differences	3,165	121	1,201	–	94	4,581
Deferred tax liabilities in statement of financial position	**9,263**	**121**	**63**	**-**	**-351**	**9,096**

Total change in deferred taxes in income statement (- tax expense)	**-611**

Reconciliation of deferred tax assets and deferred tax liabilities 2021

Deferred tax assets	1 January	Exchange difference	Change in income statement (- tax expense)	Recognized in equity	Recognized in other comprehensive income	31 December
Unrealized internal profits, inventory	137	–	37	–	–	174
Confirmed tax losses carried forward	600	–	662	–	–	1,262
Share-based payments	-6	–	–	-25	–	-31
Other temporary differences	894	78	266	–	–	1,269
Deferred tax assets in statement of financial position	**1,625**	**78**	**965**	**-25**	**-**	**2,643**

Deferred tax liabilities	1 January	Exchange difference	Change in income statement (+ tax expense)	Recognized in equity	Recognized in other comprehensive income	31 December
Untaxed reserves	-351	–	512	–	–	161
Defined benefit employee benefits	-603	–	–	–	1,170	567
Fair value changes of financial assets	-1	–	–	–	–	-1
PPA allocation	5,871	–	-501	–	–	5,371
Other temporary differences	2,849	33	207	-7	83	3,165
Deferred tax liabilities in statement of financial position	**7,764**	**33**	**219**	**-7**	**1,253**	**9,263**

Total change in deferred taxes in income statement (- tax expense)	**746**

2.10. Earnings per share

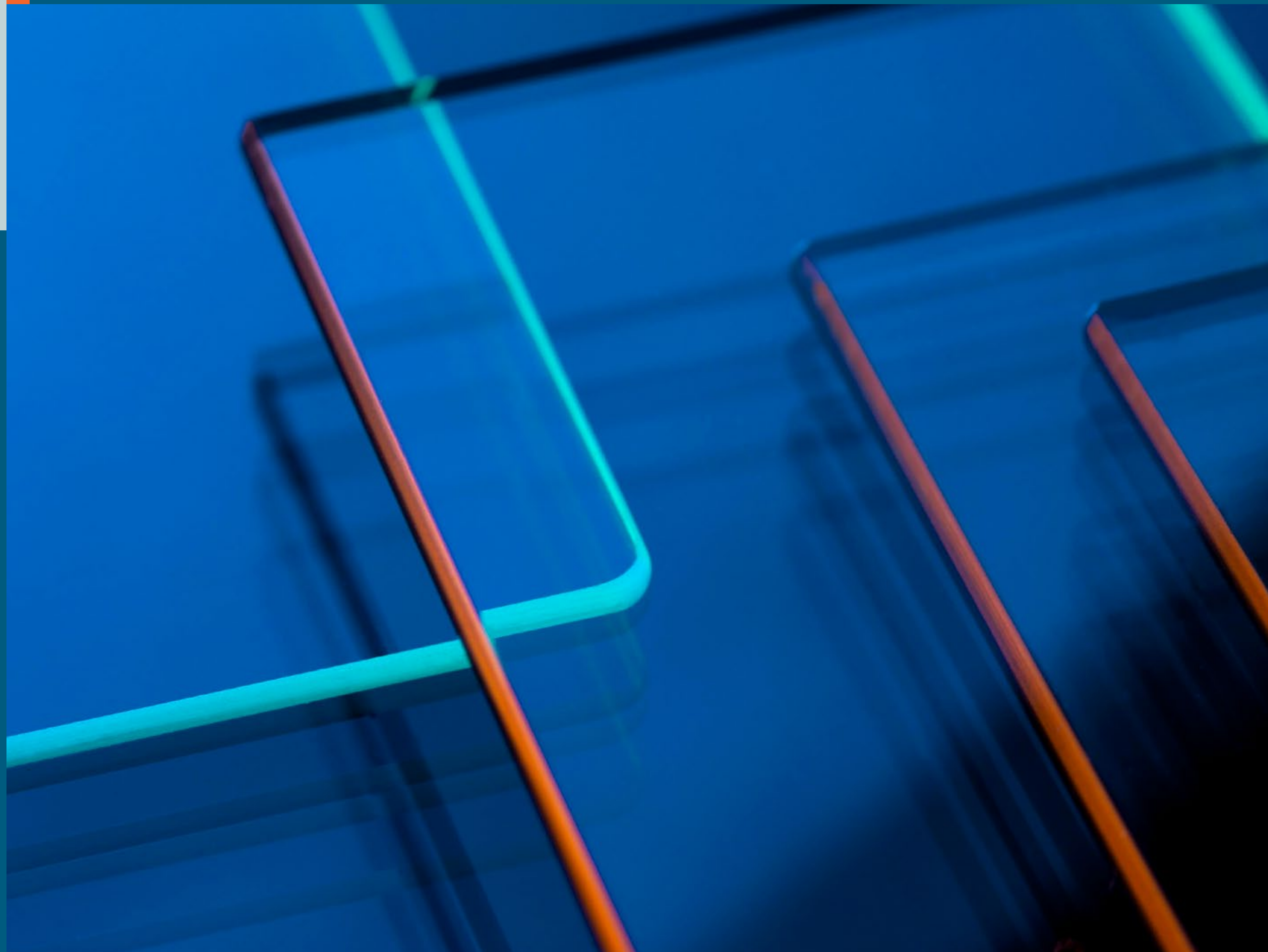
Earnings per share

Basic earnings per share are calculated by dividing the net result attributable to owners of the parent by the weighted share-issue adjusted average number of shares outstanding during the year, excluding shares acquired by the Group and held as treasury shares. In calculating diluted earnings per share, the weighted average number of shares takes into account the dilutive effect of the share-based compensation plan.

Earnings per share

EUR thousand	2022	2021
Net profit for the year attributable to owners of the parent:	**3,091**	**1,111**
Number of shares		
Weighted average number of shares outstanding	84,289,911	84,289,911
Diluted weighted average number of shares outstanding	85,043,569	84,772,089
Earnings per share from net profit attributable to equity holders of the parent		
Basic and diluted, Group total	0,037	0,013

3. Intangible assets and property, plant and equipment



3.1. Intangible assets

Accounting policy

Intangible asset is recognized in the statement of financial position if its cost can be measured reliably and it is probable that the expected future economic benefits attributable to the asset will flow to the Group. Intangible assets are stated at cost and amortized on a straight line basis over their estimated useful lives. Intangible assets with indefinite useful life are not amortized, but tested annually for impairment. Glaston's intangible rights include patents, trademarks, softwares, and other intangible rights.

The accounting for cloud computing arrangements depends on whether the cloud-based software classifies as a software intangible asset or a service contract. Those arrangements where the Company does not have control over the underlying software are accounted for as service contracts providing the Company with the right to access the cloud provider's application software over the contract period. The ongoing fees to obtain access to the application software, together with related configuration or customisation costs incurred, are recognised under Other operating expenses when the services are received. Prepayments paid to the cloud vendor for customizing services which are not distinct are recognized over the contract period.

Acquired intangible assets recognized as assets separately from goodwill are recorded at fair value at the time of the acquisition of the subsidiary.

The estimated useful lives for intangible assets are as follows:

Computer software, patents, licenses, trademarks, product rights	3-10 years
Capitalized development expenditure	5-7 years
Other intangible assets	5-10 years

Research costs are expensed as incurred. Expenditure on development activities, whereby research findings are applied to a plan or design for the production of new or substantially improved products, is capitalized if the product is technically and commercially feasible and the Group has sufficient resources to complete development and to use or sell the intangible asset. Amortization of the capitalized expenditure starts when the asset is available for use. The intangible assets not yet available for use are tested annually for impairment. Research expenditure and development expenditure recognized in profit or loss are recognized in operating expenses.

Borrowing costs are capitalized as part of the acquisition cost of intangible assets if the intangible assets are qualifying assets as defined in IAS 23 Borrowing Costs. In 2022 or 2021 Glaston did not have any qualifying assets.

Goodwill represents the excess of the acquisition cost over fair value of the assets less liabilities of the acquired entity. Goodwill arising from the acquisition of foreign entities of acquisitions is treated as an asset of the foreign entity and translated at the closing exchange rates at the end of the reporting period.

Acquisitions have been recognized in accordance with IFRS 3. Purchase consideration has been allocated to intangible assets, if they have met the recognition criteria stated in IAS 38 (Intangible Assets).

In accordance with IFRS 3 Business Combinations, goodwill is not amortized. The carrying amount of goodwill is tested annually for impairment. The testing is made more frequently if there are indications of impairment of the goodwill. Any possible impairment loss is recognized immediately in profit or loss.

Glaston's goodwill has been allocated to the cash generating units of the group.

Glaston has no other intangible assets than goodwill with indefinite useful life. All intangible assets with the exception of goodwill are amortized over their useful lives.

Estimates and assessments by Management

Useful lives of intangible assets and property, plant and equipment are based on management's best estimate of the period the asset is expected to be available for use by Glaston.

Customer relationships, trademarks, product development assets and other intangible assets acquired in a business combination are measured at fair value at the acquisition date and subsequently amortized over their estimated useful lives.

The actual useful life can, however, differ from the expected useful life resulting in adjustment of annual depreciation or amortization of the asset or in recording of impairment loss.

Glaston capitalizes development costs of new products. In addition to other capitalization criteria, management has to estimate the future economic benefits arising from the development cost. If management estimates that there will not be future economic benefits, the development cost is recognized in profit or loss. Whether a development cost is capitalized or recognized immediately in profit or loss can have an effect on the result of the reporting period. At the end of the reporting period of 2022, Glaston had EUR 7.6. (6.0) million of capitalized development expenditure on its statement of financial position.

Intangible assets

EUR thousand 2022	Capitalized development expenditure	Intangible rights	Customer relations	Goodwill	Advances paid	Total
Acquisition cost at beginning of year	25,662	15,975	11,400	52,345	2,758	108,140
Other increases	212	72	–	–	3,419	3,702
Decreases	–	-229	–	–	-6	-235
Reclassifications and other changes	1,472	27	–	–	-1,499	0
Exchange differences	-10	211	–	58	84	342
Acquisition cost at end of year	**27,336**	**16,056**	**11,400**	**52,402**	**4,756**	**111,950**
Accumulated amortization and impairment at beginning of year	-22,334	-13,117	-3,135	6,260	–	-32,327
Accumulated amortization relating to decreases and transfers	–	197	–	–	–	197
Amortization during the reporting period	-1,468	-859	-1,140	–	–	-3,467
Exchange differences	4	-215	–	–	–	-210
Accumulated amortization and impairment at end of year	**-23,806**	**-13,994**	**-4,275**	**6,260**	**–**	**-35,815**
Carrying amount at end of year	**3,530**	**2,062**	**7,125**	**58,662**	**4,756**	**76,135**

2021						
Acquisition cost at beginning of year	23,123	14,760	11,400	52,067	3,590	104,941
Other increases	254	941	–	–	2,017	3,212
Reclassifications and other changes	2,207	246	–	–	-2,492	-39
Exchange differences	78	241	–	277	51	648
Acquisition cost at end of year	**25,662**	**15,975**	**11,400**	**52,345**	**2,758**	**108,140**
Accumulated amortization and impairment at beginning of year	-20,926	-11,384	-1,995	6,260	–	-28,045
Amortization during the reporting period	32	211	–	–	–	244
Reclassifications and other changes	-1,338	-1,723	-1,140	–	–	-4,200
Exchange differences	-71	-231	–	–	–	-302
Accumulated amortization and impairment at end of year	**-22,334**	**-13,116**	**-3,135**	**6,260**	**–**	**-32,327**
Carrying amount at end of year	**3,328**	**2,859**	**8,265**	**58,605**	**2,758**	**75,813**

3.2. Property, plant and equipment

Accounting policy

Property, plant and equipment are stated at historical cost less accumulated depreciation and impairment losses. The cost of self-constructed assets includes the cost of materials, direct labor and an appropriate proportion of production overheads. When an asset consists of major components with different useful lives, they are accounted for as separate items. Assets from acquisition of a subsidiary are stated at their fair values at the date of the acquisition.

Depreciation is recorded on a straight-line basis over expected useful lives. Land is not depreciated since it is deemed to have indefinite useful life.

The most common estimated useful lives are as follows:

Buildings and structures	25–40 years
Heavy machinery	10–15 years
Other machinery and equipment	3–5 years
IT equipment	3–10 years
Other tangible assets	5–10 years

The buildings include the investment property which is part of the plant situated in Tianjin, China. This is reported as an investment property and has been leased since 2016 under a 10-year agreement.

Gain on the sale of property, plant and equipment is included in other operating income and loss in operating expenses.

The costs of major inspections or the overhaul of property, plant and equipment items, that occur at regular intervals and are identified as separate components, are capitalized and depreciated over their useful lives. Ordinary maintenance and repair charges are expensed as incurred.

Borrowing costs are capitalized as part of the acquisition cost of tangible assets if the tangible assets are qualifying assets as defined in IAS 23 Borrowing Costs. In 2022 or 2021 Glaston did not have any qualifying assets.

Glaston has given liens on chattel as security for liabilities. These are presented in Note 5.8. At the end of 2022 and 2021, Glaston did not have any pledged property, plant and equipment or intangible assets as security for liabilities.

At the end of 2022 and 2021, Glaston had not contractual commitments for the acquisition of property, plant and equipment.

In 2022 or 2021, Glaston did not receive any material third party compensation for items of property, plant and equipment that were impaired, lost or given up.

Glaston China has reported the expansion of its factory as investment property. In 2016, the expansion part was leased out to a third party for a period of ten years. Rental income in 2022 was EUR 0.3 million. Costs related to investment property were EUR 0.2 million.

EUR thousand 2022	Land and water areas	Buildings and constructions	Investment property	Machinery and equipment	Other tangible assets	Advances paid and assets under construction	Total property, plant and equipment	Right-of-use assets	Total property, plant and equipment and right-of-use assets
Acquisition cost at beginning of year	6,706	28,385	2,827	19,174	868	613	58,573	18,384	76,957
Other increases	2	245	–	1,007	–	894	2,147	963	3,111
Decreases	–	–	–	-970	-88	-11	-1,069	–	-1,069
Reclassifications and other changes	–	-118	–	-25	391	-707	-459	303	-156
Exchange differences	–	368	-63	127	15	–	447	–	447
Acquisition cost at end of year	**6,708**	**28,879**	**2,764**	**19,312**	**1,187**	**789**	**59,639**	**19,651**	**79,290**
Accumulated depreciation and impairment at beginning of year	–	-18,586	-852	-15,691	-570	–	-35,699	-11,083	-46,782
Accumulated depreciation relating to decreases and transfers	–	–	–	605	88	–	693	–	693
Depreciation during the reporting period	–	-702	-149	-875	-153	–	-1,879	-2,324	-4,203
Reclassifications and other changes	–	118	–	163	–	–	281	–	281
Exchange differences	–	-315	25	-113	-12	–	-415	–	-415
Accumulated depreciation and impairment at end of year	**–**	**-19,485**	**-976**	**-15,911**	**-647**	**–**	**-37,019**	**-13,407**	**-50,426**
Carrying amount at end of year	**6,708**	**9,395**	**1,788**	**3,401**	**540**	**789**	**22,620**	**6,245**	**28,865**

EUR thousand **2021**	**Land and water areas**	**Buildings and constructions**	**Investment property**	**Machinery and equipment**	**Other tangible assets**	**Advances paid and assets under construction**	**Total property, plant and equipment**	**Right-of-use assets**	**Total property, plant and equipment and right-of-use assets**
Acquisition cost at beginning of year	5,910	28,391	2,535	18,584	716	1,248	57,384	16,281	73,665
Other increases	1,177	–	–	267	1	510	1,956	1,834	3,790
Decreases	-381	-863	–	-759	-55	-94	-2,153	–	-2,153
Reclassifications and other changes	–	–	–	704	182	-1,052	-165	269	104
Exchange differences	–	857	292	378	24	–	1,551	–	1,551
Acquisition cost at end of year	**6,706**	**28,385**	**2,827**	**19,174**	**868**	**613**	**58,573**	**18,384**	**76,957**
Accumulated depreciation and impairment at beginning of year	–	-17,857	-632	-15,456	-313	–	-34,259	-9,368	-43,627
Accumulated depreciation relating to decreases and transfers	–	605	–	702	55	–	1,363	–	1,363
Depreciation during the reporting period	–	-655	-138	-908	-122	–	-1,823	-1,929	-3,752
Reclassifications and other changes	–	–	–	315	-168	–	147	222	369
Exchange differences	–	-680	-81	-344	-21	–	-1,127	–	-1,127
Accumulated depreciation and impairment at end of year	**–**	**-18,586**	**-852**	**-15,691**	**-570**	**–**	**-35,699**	**-11,075**	**-46,774**
Carrying amount at end of year	**6,706**	**9,798**	**1,975**	**3,484**	**298**	**613**	**22,874**	**7,310**	**30,184**

Carrying amount of machinery and equipment used in production 31 December, 2022	2,662
Carrying amount of machinery and equipment used in production 31 December, 2021	2,736

3.3. Right-of-use assets

Accounting policy

Leases are recognized in the lessee's statement of financial position. The lessee recognizes in the statement of financial position a right-of-use asset item, based on its right to use the said asset, and a lease liability item corresponding to the present value of the asset, based on the obligation to make the lease payments. Glaston adopts the exemptions permitted by IFRS 16 for leases of 12 months or less and for assets of low value and continues to treat them as other leases, and their costs are recognized as an expense on a straight-line basis.

Under IFRS 16 Leases, the amount of the right-of-use asset and the liability is calculated by discounting future lease payments based on the agreement. At the inception of the lease agreement, a lease liability is recognized, which is determined as the present value of the rental payables.The discount rate will primarily be the interest rate implicit in the lease, if available. In leases where the implicit interest rate is not specified, the discount rate used is the lessee's incremental borrowing rate, the components of which are the currency-specific reference rate, the interest margin and any country or currency risk premium. For leases valid until further notice, an estimate is made of the length of the lease.

Leases in the balance sheet

EUR thousand

Right-of-use assets	**Buildings**	**Vehicles**	**Others**	**Total**
Carrying amount at 1 January 2022	5,600	983	719	7,301
Additions	677	556	53	1,286
Decrease	–	-25	-3	-28
Depreciation expense	-1,355	-621	-348	-2,324
Carrying amount at 31 December 2022	4,922	893	421	6,235
Carrying amount at 1 January 2021	6,045	678	216	6,938
Additions	774	1,308	677	2,759
Decrease	–	-467	–	-467
Depreciation expense	-1,219	-536	-174	-1,929
Carrying amount at 31 December 2021	5,600	983	719	7,301

EUR thousand

Lease liabilities	**2022**	**2021**
Carrying amount at beginning of the period	8,551	8.204
Additions	1,320	2.221
Interest expense	438	469
Rental payment	-2,743	-2.343
Carrying amount at end of the period	**7,566**	**8.551**

The weighted average lessee's incremantal borrowing rate applied to lease liabilities recognized in the statement of financial position at the date initial application is 3.09%.

Maturity of lease liabilities is shown in note 5.6.

Leases in profit and loss statement

EUR thousand	2022	2021
Depreciation of right-of-use assets	-2,324	-1.913
Interest expense on lease liabilities	-438	-469
Low value lease expense	-266	-239
Short-term lease expense	-145	-118
Total amounts recognised in profit or loss	**-3,174**	**-2.739**

3.4. Depreciation, amortization and impairment of assets

Accounting policy

Intangible assets are stated at cost and amortized on a straight line basis over their estimated useful lives. Intangible assets with indefinite useful life are not amortized, but tested annually for impairment. The estimated useful lives for intangible assets are as follows: omputer software, patents, licenses, trademarks, product rights 3-10 years, Capitalized development expenditure 5-7 years, Other intangible assets 5-10 years. Depreciation is recorded on a straight-line basis over expected useful lives. Land is not depreciated since it is deemed to have indefinite useful life. The most common estimated useful lives are as follows: Buildings and structures 25-40 years, Heavy machinery 10-15 years, Other machinery and equipment 3-5 years, IT equipment 3-10 years, Other tangible assets 5-10 years.

Annual impairment tests for goodwill are performed during the fourth quarter of the year. If there is, however, an indication of impairment of goodwill, the impairment tests for goodwill are performed earlier during the financial year. Tangible and intangible assets of the Group are evaluated at the end of each reporting period or at any other time, if events or circumstances indicate that the value of an asset has been impaired.

If there are indications of impairment, the asset's recoverable amount is estimated, based on the higher of an asset's fair value less costs to sell and value in use. An impairment loss is recognized in profit or loss whenever the carrying amount of an asset or cash generating unit exceeds its recoverable amount. If subsequently a positive change has occurred in the estimates of the recoverable amount after recording the impairment loss, the impairment loss made in prior years is reversed no more than up to the value which would have been determined for the asset, net of amortization or depreciation, had not impairment loss been recognized in prior years. For goodwill, a recognized impairment loss is not reversed.

Cash flow projections have been calculated on the basis of reasonable and supportable assumptions. These are based on the most recent financial plans and forecasts that have been approved by management. Estimated cash flows are used for a maximum of five years. Cash flow projections beyond the period covered by the most recent plans and forecasts are estimated by extrapolating the projections.

The discount rate used in arriving at the recoverable amount is the pre-tax weighted average cost of capital, which reflects the current market assessment of time as well as the value of money and of risks related to the assets and the countries of operation. Also the industry's median capital structure has been taken into acccount in determining the discount rate as well as Glaston's cost of debt.

Estimates and assessments by Management

The most significant management estimates relate to impairment tests, which require use of estimates in the calculations. In impairment testing management estimates recoverable amount of an asset or a cash generating unit. Recoverable amount is the higher of fair value less costs to sell and value in use. When calculating value in use, management estimates the future cash flows as well as the discount rates used in discounting the cash flows. Discount rates reflect current market assessments of the time value of money at the time of impairment testing and the risks related to the tested assets. Estimated cash flows include assumptions of, among other things, future prices, production levels, costs and development of the markets. Impairment loss is recorded if the carrying amount exceeds recoverable amount.

EUR thousand	2022	2021
Depreciation and amortization		
Intangible assets		
Intangible rights	1,999	2,863
Capitalized development expenditure	1,468	1,338
Property, plant and equipment		
Buildings and constructions	2,210	2,003
Machinery and equipment	1,840	1,611
Other tangible assets	153	122
Total depreciation and amortization	**7,669**	**7,937**
Impairment losses		
Intangible assets		
Capitalized development expenditure	8	-
Property, plant and equipment		
Machinery and equipment	4	-12
Total impairment losses	**12**	**-12**
Total depreciation, amortization and impairment	**7,681**	**7,924**

Impairment of assets

The most significant assumptions used in value in use calculations in 2022	Heat Treatment Technologies	Insulating Glass Technologies	Automotive Glass Technologies
Pre-tax discount rate	10,8%	12,1%	10,5%
Long-term growth rate	1,0%	1,0%	1,0%

The most significant assumptions used in value in use calculations in 2021	Heat Treatment Technologies	Insulating Glass Technologies	Automotive Glass Technologies
Pre-tax discount rate	10.7%	14.3%	11.1%
Long-term growth rate	1.0%	1.0%	1.0%

Impairment testing of goodwill

Goodwill

EUR million

Cash generating unit	1 January, 2022	31 December, 2022
Heat Treatment Technologies	30,6	30,6
Insulating Glass Technologies	19,4	19,4
Automotive Glass Technologies	8,6	8,6
Total	**58,6**	**58,7**

Sensitivity analysis

The recoverable amounts used in impairment testing are subject to change if the assumption used in calculation of the recoverable amounts changes.

The management estimates, that in most cases, a reasonable possible change in a key assumption do not cause the cash generating unit's carrying amount to exceed its recoverable amount. The cases in which a reasonable possible change in a key assumption would cause the carrying amount of a cash generating unit to exceed its recoverable amount are presented in the table to the right.

The recoverable amounts of these cash generating units exceed their carrying amounts by 115 per cent in the Heat Treatment Technologies business, by 214 in the Insulating Glass Technologies business and by 109 per cent in the Automotive Glass Technologies business.

A change in an assumption which, other things being equal, would cause the recoverable amount to equal the carrying amount:

Post-tax discount rate	Value assigned to the assumption	Value Change
Heat Treatment Technologies	8.7%	20.8%
Insulating Glass Technologies	8.4%	28.4%
Automotive Glass Technologies	8.5%	19.4%

Long-term growth rate	Value assigned to the assumption	Value Change
Heat Treatment Technologies	1.0%	-18.1%
Insulating Glass Technologies	1.0%	-65.4%
Automotive Glass Technologies	1.0%	-15.9%

The costs of Heat Treatment Machines business are estimated to be 91 per cent of the estimated net sales during the testing period. Should the costs be 3 percentage points higher, the recoverable amount, other things being equal, would equal the carrying amount.

The costs of Insulating Glass Technologies business are estimated to be 90 per cent of the estimated net sales during the testing period. Should the costs be 6 percentage points higher, the recoverable amount, other things being equal, would equal the carrying amount.

The costs of Automotive Glass Technologies business are estimated to be 90 per cent of the estimated net sales during the testing period. Should the costs be 4 percentage points higher, the recoverable amount, other things being equal, would equal the carrying amount.

4. Net working capital

4.1. Inventories

Accounting policy

Inventories are reported at the lower of cost and net realizable value. Cost is determined on a first in first out (FIFO) basis, or alternatively, weighted average cost. Net realizable value is the amount which can be realized from the sale of the asset in the normal course of business, after allowing for the estimated costs of completion and the costs necessary to make the sale.

The cost of finished goods and work in process includes materials, direct labor, other direct costs and a systematically allocated appropriate share of variable and fixed production overheads. As Glaston's machine projects are usually not considered to be qualifying assets as defined in IAS 23, borrowing costs are not included in the cost of inventory in normal machine projects.

Used machines included in the inventory are measured individually so that the carrying amount of a used machine does not exceed the amount that is expected to be received from the sale of the machine. In this measurement, the costs arising from converting the used machine back to saleable condition are taken into account.

Prototypes of new machines included in inventory are measured at the lower of cost and net realizable value.

Estimates and assessments by Management

Measurement of inventories includes some management estimates. Inventories are measured at lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale. Net realizable value is used in testing the recoverable amount of inventories in order to avoid the inventories being carried in excess of amount expected to be realized from their sale or use.

EUR thousand	**2022**	**2021**
Inventories		
Materials and supplies	19,166	15,554
Work in process	8,217	7,856
Finished goods	4,132	3,660
Advances paid	445	207
Total inventories	**31,959**	**27,277**
Impairment losses of inventory during the period	-149	-818
Reversals of impairment losses of inventory during the period	374	545
Total	**225**	**-273**

4.2. Trade and other receivables

Accounting policy

In measuring expected credit losses from trade receivables, Glaston applies the IFRS 9 simplified approach, which uses a lifetime expected loss allowance to be assessed and recognized regularly. Credit loss risk related to customer contract assets is covered mainly by the advance payments received from the clients. These impairment losses are recognized in profit or loss. If the impairment loss recognized in the allowance account becomes final, trade receivables are decreased with the amount of the impairment loss and allowance account is adjusted respectively.

The counterparties of trade receivables do not normally have external credit rating. The credit quality of these receivables is assessed based on assessment of the impairment of financial assets based on expected credit losses and on the payment history of the customers and third party credit reports.

Also the trade receivables past due are analyzed on company lelvel, reporting unit level and individually. If the days past due exceed the time limits set in the Group's credit policy, an impairment loss is recognized of the trade receivable. The estimate made for doubtful receivables is based on a review of all trade receivables outstanding on the reporting date as well as on an assessment of the impairment of financial assets based on expected credit losses. If the counterparty of a trade receivable is insolvent, the trade receivable is individually determined to be impaired even though the trade receivable were not past due. Otherwise the trade receivables not past due are not determined to be impaired.

Finance lease receivable has been recognized when Glaston has leased machinery and equipment for production use, which have been treated as finance leases. The present value of the rental income from the leased machine, discounted at the market interest rate at the time of sale, is recorded as sales revenue. The lessor's leases are subdivided into finance leases and other leases.

Estimates and assessments by Management

Measurement of trade and other receivables includes some management estimates. If management estimates that the carrying amount of a trade or loan receivable exceeds its fair value, an impairment loss is recognized. For example, payment defaults or late payments are considered as indications of impairment of the receivable.

Trade and other receivables

EUR thousand	2022	2021
Receivables		
Trade receivables	17,768	12,503
Trade receivables, falling due after 12 months(1	–	3
Total trade receivables	17,768	12,506
Finance leasing receivables	94	90
Finance leasing receivables, falling due after 12 months(1	373	467
Prepaid expenses and accrued income	2,548	1,407
Prepaid expenses and accrued income, falling due after 12 months (1	131	139
Other receivables	3,548	2,959
Other receivables, falling due after 12 months(1	100	2,325
Current loan receivables	–	156
Total receivables	**24,563**	**20,048**

(1 In non-current assets

Prepaid expenses and accrued income consist mainly of accruals of financial items, fair values of derivative instruments, accruals related to sales, accruals related to insurances and other accruals.

Prepaid expenses and accrued income related to derivative instruments are disclosed in more detail in Note 5.6.

Ageing analysis of trade receivables at 31 December

	Carrying amount of trade receivables after recognizing allowance account	Not past due	Past due < 30 days	Past due 31-180 days	Past due 181-360 days	Past due > 360 days
2022	17,768	12,334	3,997	1,279	122	36
2021	12,506	9,322	2,103	840	170	72

Impairment losses of trade receivables and changes in allowance account of trade receivables

EUR thousand	
Allowance account 1 January, 2021	**1,354**
Exchange difference	156
Charge for the year	801
Utilized	-438
Unused amounts reversed	-292
Allowance account 31 December, 2021	**1,405**
Exchange difference	227
Charge for the year	412
Utilized	-555
Unused amounts reversed	-338
Allowance account 31 December, 2022	**1,151**

Impairment losses of trade receivables recognized in profit or loss, net (- income)

2022	-69
2021	698

Finance lease receivables

EUR thousand	2022		2021	
	Minimun lease receivables	Unearned finance income	Minimun lease receivables	Unearned finance income
Finance lease receivables are due as follows				
No later than 1 year	94	17	90	20
Later than 1 year and no later than 5 years	373	34	394	47
Later than 5 years	–	–	89	4
Total finance lease receivables	**467**	**51**	**574**	**71**
Present value of minimum lease receivables	**489**		**577**	

Operating leases as a lessor

Glaston has some other operating lease agreements where the Group acts as lessor. In Finland and China, premises adjacent to the factory are leased to external parties. The minimum payments for these non-cancellable lease agreements are shown in the table below

	2022	2021
Minimum future payments of operating leases		
Maturity within one year	911	883
Maturity later than one year and not later than five years	1,348	1,675
Maturity later than five years	–	81
Total minimum future payments of operating leases	**2,259**	**2,639**

4.3. Trade payables and other interest-free liabilities

Current interest-free liabilities

EUR thousand	2022	2021
Trade payables	16,369	15,853
Advances received	39,488	36,334
Accrued expenses and deferred income	15,185	14,622
Other current interest-free liabilities	2,096	2,451
Total current interest-free liabilities	**73,137**	**69,259**

Accruals mainly consist of cost accruals for machinery deliveries, accrued personnel expenses, accruals related to net sales and purchases, accruals of interests and other accruals.

4.4. Provisions

Accounting policy

A provision is recognized when as a consequence of some previous event there has arisen a legal or constructive obligation, and it is probable that this will cause future expenses and the amount of the obligation can be evaluated reliably.

A restructuring provision is booked only when a detailed and fully compliant plan has been prepared for it and implementation of the plan has been started or notification of it has been made known to those whom the arrangement concerns. The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the end of the reporting period. If the time value of money is material, provisions are discounted.

A provision for warranties is recognized when the underlying products are sold. The provision is estimated on the basis of historical warranty expense data. Warranty provision is presented as non-current or current provision depending on the length of the warranty period.

The amount and probability of provision requires management to make estimates and assumptions. Actual results may differ from these estimates.

Estimates and assessments by Management

If Glaston's management has assessed that as a result of a past event Glaston has a legal or constructive obligation, and that it is probable, that an outflow of resources will be required to settle the obligation, the management has estimated the amount of provision recognized from the obligation. The amount of the provision is the management's best estimate of the amount required to settle the obligation at the end of the reporting period. The management's estimate of the warranty provision is based on previous experience. The estimate of the restructuring provision is based on the restructuring plan in which the locations and personnel concerned have been identified. If possible, external experts have been used in estimating the amount of the provision.

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Non-current provisions

EUR thousand

2022	Warranty provision	Other provisions	Total
Carrying amount 1 January	174	123	297
Reclassification	-282	-	-282
Increase in provisions	521	11	532
Provisions released during the period	-118	-3	-121
Carrying amount 31 December	**296**	**131**	**427**

2021	Warranty provision	Other provisions	Total
Carrying amount 1 January	141	122	263
Reclassification	-125	-	-125
Increase in provisions	191	1	192
Provisions released during the period	-32	-	-32
Carrying amount 31 December	**174**	**123**	**297**

Current provisions

2022	Warranty provision	Restructuring provision	Other provisions	Total
Carrying amount 1 January	2,164	177	141	2,482
Exchange difference	3	21	2	26
Reclassification	282	-5	-	277
Increase in provisions	3,225	-	43	3,268
Provisions used during the period	-1,716	-70	-30	-1,816
Provisions released during the period	-1,028	-	-13	-1,042
Carrying amount 31 December	**2,930**	**124**	**142**	**3,196**

2021	Warranty provision	Restructuring provision	Other provisions	Total
Carrying amount 1 January	2,602	787	142	3,531
Exchange difference	83	6	10	99
Reclassification	125	-	-	125
Increase in provisions	2,288	-	82	2,370
Provisions used during the period	-802	-575	-81	-1,458
Provisions released during the period	-2,132	-41	-12	-2,186
Carrying amount 31 December	**2,227**	**177**	**141**	**2,482**

Reclassification refers to a transfer from long-term to short-term.

Warranty provisions

Glaston grants to its machine deliveries a guarantee period of 1 to 2 years. During the guarantee period Glaston repairs the defects, if any, of the machines and carries the costs of the repairing. The warranty provisions are expected to be realized within the next two years.

Restructuring provisions

Glaston has recorded restructuring provisions for rationalization measures by closing production units or reducing activities at the units. Restructuring provisions only include expenses that are necessarily entailed by the restructuring, and which are not associated with the on-going activities. The restructuring provision includes, but is not limited to, estimated provisions for employee benefits related to personnel whose employment has been terminated. For some of the provisions it is not possible to estimate timing of the outflow of economic benefits, for example due to the timing of such outflows are dependent on the actions of an external party.

Other provisions

Other provisions include, among other things, litigation provisions and provisions for costs, for which third party compensation has not yet been recognized.

5. Capital structure and financial instruments

5.1. Management of capital

The objective for management of capital is to secure the continuation of operations at all times and to maintain appropriate capital structure. In the capital management planning process, both current and future needs of the business are taken into consideration together with securing flexibility and competitive pricing of financing.

The primary measure for the Group's capital structure is net gearing. It is calculated as the ratio between net interest-bearing debt to equity. The Group's equity ratio is also used as a measure for the capital structure. It is calculated as the ratio between equity to the total assets adjusted with advance payments received. Additionally, the Group's liquid funds are monitored regularly.

The Group's loan agreements include covenants and other terms and conditions which are linked to consolidated key figures. If the covenant terms are not fulfilled, negotiations with the lenders will be initiated. These negotiations may lead to notice of termination of financial agreements. The covenants in use are net interest-bearing debt to equity (net gearing ratio) and net interest-bearing debt to EBITDA (leverage). Group treasury is responsible for monitoring the covenants and reports the situation regularly to management and the Board of Directors of Glaston Corporation. All covenant terms during the financial year have been met.

EUR thousand	2022	2021
Interest-bearing net debt		
Non-current interest-bearing liabilities	29,794	37,287
Current interest-bearing liabilities	5,742	7,834
Cash and cash equivalents	-22,224	-26,852
Total	**13,312**	**18,269**
Equity		
Attributable to owners of the parent	68,437	68,030
Total	**68,437**	**68,030**
Total assets	194,892	197,283
Advances received	-39,488	-36,334
Total	**155,404**	**-160,949**
Equity ratio, %	44.0%	42.3%
Net gearing, %	19.5%	26.9%

The consolidated equity and thus the capital structure is decreased by dividends and return of capital paid and acquisition of Glaston Corporation's own shares. The equity can be increased by disposal of own shares and share issues. Equity is also affected by the result for the reporting period, as well as by changes in fair value reserve and exchange differences included in equity.

5.2. Cash and cash equivalents

Accounting policy

Cash and cash equivalents comprise cash and other financial assets. Other financial assets are highly liquid investments with remaining maturities at the date of acquisition of three months or less. Bank overdrafts are included in current interest-bearing liabilities.

EUR thousand	2022	2021
Cash and bank	22,224	26,852
Total cash and cash equivalents	**22,224**	**26,852**

5.3. Equity

Accounting policy

Other restricted equity reserves

Other restricted equity funds include restricted capital not included in the share capital of subsidiaries.

Fair value and other reserves

The fair value and other reserve includes changes in the fair values of investments measured at fair value through other comprehensive income and changes in the fair value of instruments used in cash flow hedging if the hedge is effective and meets the criteria of hedge accounting requirements.

The exchange difference

In the consolidated financial statements, statements of profit or loss, statements of comprehensive income and statements of cash flows of foreign subsidiaries have been translated into euros using the average exchange rates of the reporting period and the statements of financial positions have been translated using the closing exchange rates at the end of the reporting period.

The exchange difference arising from translating the statements of profit or loss, statements of comprehensive income and statements of financial position using the different exchange rates is recognized as other comprehensive income and included in retained earnings in equity. Exchange differences arising from the translation of the net investments in foreign subsidiaries and associates in non-euro-area are also recognized in other comprehensive income and included in equity as cumulative exchange difference.

On the disposal of all or part of a foreign subsidiary or an associate, the cumulative amount or proportionate share of the exchange difference is reclassified from equity to profit or loss as a reclassification item in the same period in which the gain or loss on disposal is recognized.

Dividends and return of capital

Dividends or return of capital proposed by the Board of Directors are not recorded in the financial statements until they have been approved by the shareholders at the Annual General Meeting.

Share capital and number of shares

Shares and Voting Rights

Glaston Corporation has one class of shares. The number of outstanding shares is 84,289,911 and each share carries one vote at general meetings of shareholders. There are no limitations to transfer the shares. Glaston Corporation's share capital amounted to EUR 12,696,000. The share has no nominal value. The share's counter book value is EUR 0.15 per share. Glaston's shares are registered in the book-entry securities system maintained by Euroclear Finland Ltd.

According to the Articles of Association of Glaston Corporation, a shareholder whose proportion of all the company's shares or the votes conferred by the shares - either alone or together with other shareholders as defined hereinafter - reaches or exceeds 33 1/3 per cent or 50 per cent is obligated, upon a demand by the other shareholders, to redeem their shares and the securities entitling their holders to shares under the Companies Act according to the provisions of this article.

According to the Articles of Association of Glaston Corporation, the redemption price in respect of shares shall be the higher of the following:

a) the weighted average price of trading in the share during the last ten (10) trading days on the Nasdaq Helsinki Ltd. before the day when the company received from the Redeeming Shareholder a notification that the shareholding or voting rights limit as set forth above had been reached or exceeded or, should such notification be lacking or fail to be received by the deadline, when the company's Board of Directors otherwise received knowledge of it;

b) the average price, weighted by the number of shares, which the Redeeming Shareholder has paid for the shares which he/she has purchased or otherwise received during the last twelve (12) months before the day specified in paragraph a) above.

The redemption obligation set forth in the Articles of Association does not pertain to a shareholder who can prove that the shareholding or voting rights limit entailing a redemption obligation was reached or exceeded before the relevant provision of these Articles of Association was entered in the Trade Register.

Number of shares and treasury shares	2022	2021
Number of shares (registered)		
Number of shares 1 January	84,289,911	84,289,911
Number of shares 31 December	84,289,911	84,289,911

	2022	2021
Equity attributable to owners of the parent, EUR thousand	68,437	68,030
Number of shares	84,289,911	84,289,911
Equity attributable to owners of the parent per share, EUR	**0.81**	**0.81**

	2022	2021
Distribution of profit		
Return of capital per share, EUR[1]	0.04	0.03

[1] The Board of Directors' proposal to the 2023 Annual General Meeting.

5.4. Management of financial risks

Financial risk management

The main objectives for financial risk management within Glaston are to secure operational continuity, support the achievement of operational objectives and to implement treasury functions cost-effectively utilizing the Group's economies of scale.

The Group's treasury functions have been centralised to the parent, which is responsible for relations with financial institutions, long-term financing arrangements and the investment of liquid assets as well as the Group's internal funding allocations according to the liquidity needs of different group companies. Group Treasury cooperates with the group companies to identify the risks and provides financial services for the group companies in order to manage these identified risks.

The management of financial risks in Glaston Group is conducted in accordance with the Glaston Group's Treasury Policy approved by the Board of Directors of Glaston Corporation.

It is the responsibility of the CFO and Group Treasury to propose amendments to this policy as conditions within the Group and on the financial markets change. Group Treasury is responsible for monitoring compliance with the Treasury Policy as well as for presenting the need for changes to Treasury Policy to the parent's Board of Directors.

The Group's financial risks consist of foreign exchange, interest rate, credit, counterparty and liquidity risks. Due to its international operations the Group is exposed to risks arising from foreign exchange rate fluctuations. The effects of interest rate changes on the Group's annual result create an interest rate risk. Credit and counterparty risk primarily consists of risk related to credit granted to customers. Liquidity risk is defined as the risk that the Group's funds and borrowing facilities become insufficient to meet the needs of the business or that extra costs are incurred in order to arrange the financing needed.

Also investment of liquid funds is managed in accordance with the Treasury Policy. Liquid assets are invested in low risk instruments and only counterparties that possess good credit-worthiness are accepted.

Market risks

Foreign exchange risk

The Group operates internationally and is therefore exposed to transaction and translation risks arising from fluctuations in foreign exchange rates, which may have an effect on profit or loss and financial position. Transaction risks arise from cash flows generated by purchase and sales activities while translation risks arise from converting items in the statements of profit or loss and the statements of financial position of non-euro subsidiaries into the Group's reporting currency.

The invoicing currency for a large proportion of the Group's deliveries is the euro, which is also the Group's reporting currency. The most significant foreign exchange risk arises from exchange rate fluctuations between the euro and the US dollar, but the Group may also have significant exposures in Chinese Yuan, English Pound and Swiss Franc. The US dollar accounted for approximately 22 per cent of the net sales in 2022 (23 per cent). The Euro and US dollar together accounted for approximately 82 per cent of the invoicing in 2022 (83 per cent).

The Group did not have foreign currency denominated loans. The Group's internal loans are either short-term working capital credit facilities or subordinated long-term loans denominated on a case-by-case basis either in the local currency of the foreign subsidiary or in the reporting currency of the Group.

The objective for foreign exchange risk management is primarily to secure the planned result of group companies from unexpected currency fluctuations. Possible hedging of foreign exchange risk is conducted in accordance with the Treasury Policy and the group companies are responsible for reporting their respective foreign currency items. In 2022, large orders in USD and the percentage of the most probable 18-month orders defined in Treasury Policy were hedged by currency forward contracts. Cash flow hedging was based on IFRS 9 hedge accounting in 2022. Cash flow hedging is presented in note 5.8. The Group has not hedged net investments in foreign entities nor internal loans.

For the sensitivity analysis as defined in IFRS 7, a possible +/- 10 per cent change in the main currencies was assessed, with all other factors remaining unchanged. The sensitivity analysis is based on the foreign currency denominated assets and liabilities as of 31 December 2022. The analysis takes into consideration the impact of foreign exchange derivatives, if such instruments have been used, which offsets the effects of changes in foreign exchange rates.

In the table below, the effect of the main currencies on consolidated result before taxes has been analysed. Only risks that are related to financial instruments are included in the analysis.

				Change in currency rate, Gross position		**Change in currency rate, Net position impact on the income statement**	
EUR thousand	**Gross position**	**Currency Forwards nominal value**	**Net position**	**- 10 per cent**	**+ 10 per cent**	**- 10 per cent**	**+ 10 per cent**
USD/EUR	-24,979	18,294	-6,685	-2,775	2,271	-743	608
CHF/EUR	-558	-	-558	-62	51	-62	51
CNY/EUR	-7,981	-	-7,981	-887	726	-887	726
GBP/EUR	411	442	-31	46	-37	-3	3
	-33,107	18,736	-15,255				

Interest rate risk

Possible changes in the interest rates cause a risk that will affect the result of the Group. The objective of interest risk management is to minimize, if necessary, the effect of interest rate fluctuations on the Group's annual result.

As a measurement for the management of interest rate risk has been used an effect of the 1 percent changed of interest rates to interest expences for the period of 12 months. At the end of 2022 this effect was EUR 160 thousand (EUR 159 thousand).

On 31 December 2022, the Group's interest-bearing net debt mainly consisted of loans agreed with lenders in the financing agreement signed in 2022. In April 2022, Glaston entered into a 3-year interest rate swap with a nominal value of EUR 12 million to hedge a variable rate loan, which is subject to hedge accounting.

For the sensitivity analysis as defined by IFRS 7, a possible +1 / -0.5 percentage point change in the interest rates was assessed. The effect of the change on the Group's result before taxes given the level of debt with floating interest rates on 31 December 2022 is EUR -0.16 / +0.08 (-0.16 / +0.18) million and the effect to Group's equity is EUR +0.33 / -0.17 million.

Credit and counterparty risk

The Group becomes exposed to credit and counterparty risks when it grants payment time to the customers. The credit worthiness of these counterparties may decrease and affect the Group's result. Credit risk management is conducted in accordance with the Group's Credit Management Policy.

The objective for credit risk management is to reduce this risk as much as possible without compromising the flexibility needed by different business areas. Risk management is performed together with the business management with the objective to avoid major credit risk concentrations and to verify, that sufficient guarantees and collaterals are received. The Group reduces its credit risk by using letters of credit and various types of guarantees received from the customers to secure the receivables. In addition, the Group uses advance payments to reduce risk and to accelerate fund inflows. Glaston is closely monitoring and managing its liquidity and financial position. Credit risks are mitigated through stringent customer payment terms with significant customer advances. Orders are only registered in the order book upon receipt of a customer advance. In measuring expected credit losses, Glaston applies the IFRS 9 simplified approach, which uses a lifetime expected loss allowance from trade receivables to be assessed and recognized regularly.

At the end of 2022, 5.0 (19.6) per cent of Group's trade receivables were secured by LCs.

The Group's client base is diversified over several different geographical areas and customer segments, which reduces major concentrations of credit risk. The largest single customer's share of the Group's receivables is not significant in terms of risk management. Significant unfavourable changes in the level of investment demand might, however, cause changes in the development of the Group's credit risk.

The Group's liquid funds are invested to mitigate risk and only counterparties with high credit rating are accepted. The investment portfolio consist mainly of money market deposits or commercial papers.

Trade receivables

The quality of trade receivables is assessed by each group company based on the Group's Credit Management Policy. Based on these assessments, impairment losses on trade receivables are recognized in accordance with the Credit Policy.

The total carrying amount of trade receivables on 31 December 2022 was EUR 17.8 million (EUR 12.5 million).

Ageing analysis and changes in allowance account of trade receivables are presented in Note 4.2. to the consolidated financial statements.

Liquidity risk

Liquidity risk is defined as the risk that the Group's funds and borrowing facilities become insufficient to meet the business needs or that significant extra costs are incurred in order to arrange the financing needed.

Liquidity risk is managed through effective use of advance payments in order to reduce the amount of working capital tied up in the operations. A special focus is set on the working capital management and the development is monitored regularly. Short- and long-term cash planning is part of group companies' operational activity together with the Group Treasury. As a measurement for the liquidity risk are the Group's liquid funds and unused credit facilities. Group Treasury reports the Group's liquidity position regularly to the management and to the Board of Directors of Glaston Corporation

Glaston Corporation signed a new long-term financing agreement in March 2022. The financing agreement consists of EUR 30 million long-term loans as well as a EUR 25 million revolving credit facility. The agreement is for three years and includes two one-year options for extension of the loan period. The loan margin of the new financing agreement is adjusted by the achievement of Glaston's sustainability objectives annually. The objectives are Safety at work (decrease of lost time accidents, measured as lost time injury frequency rate LTIFR) and CO_2 emissions (Scope 1 & 2) in relation to net sales. The covenant terms of the financing package are described in the note 5.1. Management of capital.

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Committed credit facilities

EUR million	In use	Unused	Total
Committed credit facilities 31.12.2022	2.0	23.0	25.0
Committed credit facilities 31.12.2021	8.1	26.9	35.0

Maturity analysis of financial liabilities 31 December 2022

EUR thousand			Maturing in		
Maturity of financial liabilities	**Carrying amount**	**Contractual cash flows**	**< 12 months**	**1-2 years**	**> 2 years**
Financial liabilities					
Interest bearing loans	27,774	30,025	4,909	4,777	20,339
Other interest-bearing loans	196	206	41	41	123
Lease liabilities	7,566	7,566	1,703	1,774	4,089
Trade payables	16,369	16,369	16,369	–	–
Total	**51,905**	**54,166**	**23,022**	**6,592**	**24,551**

Maturity analysis of financial liabilities 31 December 2021

EUR thousand			Maturing in		
Maturity of financial liabilities	**Carrying amount**	**Contractual cash flows**	**< 12 months**	**1-2 years**	**> 2 years**
Financial liabilities					
Interest bearing loans	34,405	38,644	7,257	31,388	–
Other interest-bearing loans	2,159	2,210	2,210	–	–
Lease liabilities	8,557	10,413	1,675	1,964	4,918
Trade payables	15,853	15,853	15,853	–	–
Total	**60,974**	**67,120**	**26,995**	**33,352**	**4 918**

5.5. Financial assets and liabilities by category

Accounting policy

Glaston's financial assets have been classified into three categories: as assets recognized at amortized cost, at fair value through other comprehensive income and at fair value through profit or loss. The classification depends on the business model under which the financial assets are managed as well as the characteristics of the instrument's cash flows. A financial asset item is derecognized from the statement of financial position when Glaston's contractual right to the cash flows from the financial asset item expire or the financial asset item is transferred to an external party and the transfer fulfills the asset derecognition requirements of IFRS 9.

Financial liabilities are classified at amortized cost using the effective interest method, or at fair value through profit or loss. A financial liability or part of a financial liability is derecognized from the statement of financial position when the liability has ceased to exist, i.e. when the obligation specified in the contract has been discharged or canceled or has expired.

Glaston's long term financial assets have been classified into assets recognized at fair value through other comprehensive income. The classification depends on the business model under which the financial assets are managed as well as the characteristics of the instrument's cash flows. A financial asset item is derecognized from the statement of financial position when Glaston's contractual right to the cash flows from the financial asset item expire or the financial asset item is transferred to an external party and the transfer fulfills the asset derecognition requirements of IFRS 9.

Derivative Contracts Recognized at Fair Value through Profit or Loss, And Hedge Accounting

Derivative contracts are entered in the statement of financial position at the time of acquisition at fair value and remeasured at fair value in the financial statements using the market prices at the end of the reporting period. Entries of the changes of derivatives are influenced by whether a derivative contract falls within the scope of hedge accounting. Derivatives that do not meet the hedge accounting conditions are financial assets and liabilities acquired for trading and entered at fair value through profit or loss, and whose changes of value are recognized immediately through profit or loss.

When a hedging arrangement is entered into, the relationship between the item being hedged and the hedging instrument, as well as the objectives of the Group's risk management are documented. The IFRS 9 standard requires an economic relationship between the hedged item and the hedging instrument as well as the same hedge ratio that management actually uses in risk management.

If the hedging accounting conditions are met, cash flow hedge accounting under IAS 9 is applied with respect to foreign exchange derivatives. If the hedge accounting conditions are not met, the result of hedging instruments when hedging a commercial foreign exchange risk are recognized in profit or loss within other operating income or expenses.

Derivative instruments are included in the statement of financial position in current assets and liabilities. Trade date accounting is used in recognizing sales and purchases of derivatives.

Hedge accounting was used in hedging the trade receivables of projects and in hedging a variable rate loan. In April 2022, Glaston entered into a 3-year interest rate swap with a nominal value of EUR 12 million to hedge a variable rate loan, which is subject to hedge accounting. At the end of reporting period 2022, Glaston had open foreign exchange and interest rate forward contracts.

Other Assets Recognized at Fair Value through Profit or Loss

Other assets recognized at fair value through profit or loss may include current investments that are acquired and held for trading, i.e. acquired or incurred for the main purpose of selling them in the short term. Other assets recognized at fair value through profit or loss are included in current assets in the statement of financial position.

Fair values of other financial assets recognized at fair value through profit or loss are estimated to correspond to their carrying amounts because of their short maturities. Trade date accounting is used in recognizing purchases and sales of other assets recognized at fair value through profit or loss.

Loans and Other Receivables

Loans and other receivables are assets which are not included in derivative assets. Loans and other receivables arise when money, goods or services are delivered to a debtor. They are not quoted in an active market and payments related to them are either fixed or determinable. Loans and receivables granted by the Group are measured at amortized cost.

Loan receivables, trade receivables and other receivables have been classified as loans and other receivables. They are included in current or non-current financial assets in accordance with their maturity. Loan and trade receivables falling due after 12 months are discounted, if no interest is charged separately, and the increase in the receivable which reflects the passage of time is recognized as interest income in financial income and expenses.

Trade receivables are carried at the original invoice amount less the share of the discounted interest and an estimate made for doubtful receivables. The estimate made for doubtful receivables is based on a review of all trade receivables outstanding on the reporting date as well as on an assessment of the impairment of financial assets based on expected credit losses. Impairment losses of trade receivables are recorded in a separate allowance account within trade receivables, and the impairment losses are recognized in profit or loss as other operating expenses. If the impairment loss is final, the trade receivable is derecognized from the allowance account. If a payment is later received from the impaired receivable, the received amount is recognized in profit or loss as a deduction of other operating expenses. If no impairment loss has been recognized in allowance account and the impairment loss of the trade receivable is found to be final, impairment loss is recognized directly as deduction of trade receivables.

Loan receivables are carried at the original amount less an estimate made for doubtful receivables. The estimate made for doubtful receivables is based on a separate review of all loan receivables outstanding on the reporting date as well as on an assessment of the impairment of financial assets based on expected credit losses. For example, payment defaults or late payments are considered as indications of impairment of the receivable. Impairment losses of loan receivables are recognized in profit or loss as financial expenses. If a payment is later received from the impaired receivable, the received amount is recognized in profit or loss in financial items.

Financial Assets Valued at Fair Value through other comprehensive income

Financial assets measured at fair value through other comprehensive income are financial assets not included in derivative assets, assets or liabilities recognized at fair value through profit or loss, or other receivables.

Listed investments included in financial assets measured at fair value through other comprehensive income are valued at the market price at the end of the reporting period. The value of investments whose fair value is not based on verifiable market data, such as unlisted shares and other investments, is based on information obtained from the company or on the fair value of substantially similar instruments.

Unrealized changes in the fair value of financial assets measured at fair value through other comprehensive income are recognized in other comprehensive income less tax effects and are included in the fair value reserve in equity.

Financial assets at fair value through other comprehensive income are included in non-current assets in the statement of financial position.

Financial Liabilities Measured at Amortized Cost

On initial recognition financial liabilities are measured at their fair values that are based on the consideration received. Subsequently, financial liabilities are measured at amortized cost using the effective interest method. Transaction costs are included in the acquisition cost. Financial liabilities measured at amortized cost include pension loans, loans from financial institutions, finance lease liabilities, trade payables and advances received. They are included in current or non-current liabilities in accordance with their maturity.

Interest expenses are accrued for and mainly recognized in profit or loss for each period. If an asset is a qualifying asset as defined in IAS 23 Borrowing Costs, the borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalized to the acquisition cost of the asset. The capitalization applies mainly to property, plant and equipment and intangible assets.

Financial assets and liabilities by category

EUR thousand 31 December, 2022	Note	Financial assets and liabilities measured at fair value through other comprehensive income	Financial assets and liabilities at fair value through profit and loss	Financial liabilities at amortized cost	Total carrying amounts	Total fair value
Cash	5.2.	–	–	22,224	22,224	–
Trade receivables	4.2.	–	–	17,768	17,768	–
Other interest-free receivables	4.2.	–	–	4,635	4,635	–
Other non-current interest-free receivables	4.2.	–	–	100	100	–
Derivatives (receivables)	5.7.	1,087	–	–	1,087	–
Shares and oher long-term investments		7	–	–	7	–
Non-current interest-bearing liabilities	5.6.	–	–	-29,794	-29,794	-27,852
Current interest-bearing liabilities	5.6.	–	–	-5,742	-5,742	-5,872
Trade payables	4.3.	–	–	-16,369	-16,369	–
Other current interest-free liabilities	4.3.	–	–	-2,096	-2,096	–
Derivatives (liabilities)	5.7.	-395	–	–	-395	–
Total		**699**	**-**	**-9,274**	**-8,574**	**-33,724**
31 December, 2021						
Cash	5.2.	–	–	26,852	26,852	–
Trade receivables	4.2.	–	–	12,506	12,506	–
Other interest-free receivables	4.2.	–	–	3,183	3,183	–
Current loan receivables	4.2.	–	–	156	156	–
Other non-current interest-free receivables	4.2.	–	–	2,325	2,325	–
Derivatives (receivables)	5.7.	224	–	–	224	–
Shares and oher long-term investments		7	–	–	7	–
Non-current interest-bearing liabilities	5.6.	–	–	-37,287	-37,287	-36,384
Current interest-bearing liabilities	5.6.	–	–	-7,834	-7,834	-7,986
Trade payables	4.3.	–	–	-15,853	-15,853	–
Other current interest-free liabilities	4.3.	–	–	-1,788	-1,788	–
Derivatives (liabilities)	5.7.	-663	–	–	-663	–
Total		**-432**	**-**	**-17,740**	**-18,172**	**-44,370**

Fair value measurement hierarchy, Level 3, changes during the reporting period

	2022	2021
1 January	–	2,842
Impairment losses[1	–	-2,842
31 December	**-**	**-**

[1 Glaston wrote off balance sheet items related to the Heliotrope partnership,

	31.12.2022				31.12.2021			
	Level 1	**Level 2**	**Level 3**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Total**
Assets								
Currency forward contracts	–	1,087	–	1,087	–	224	–	224
Total	**-**	**1,087**	**-**	**1,087**	**-**	**224**	**-**	**224**
Liabilities								
Finacial liabilities	–	-33,724	–	-33,724	–	-44,370	–	-44,370
Currency forward contracts	–	-395	–	-395	–	-663	–	-663
Total	**-**	**-34,119**	**-**	**-34,119**	**-**	**-45,033**	**-**	**-45,033**

Fair value measurement hierarchy:

Level 1 = quoted prices in active markets

Level 2 = other than quoted prices included within Level 1 that are observable either directly or indirectly

Level 3 = not based on observable market data

Specific valuation techniques used to value financial instruments include:

- The fair value of forward foreign exchange contracts is determined by using forward rates at the closing date
- The use of quoted market prices or dealer quotes for similar instruments

5.6. Borrowings and lease liabilities

Non-current interest-bearing liabilities

EUR thousand	2022	2021
Loans from financial institutions	23,931	30,405
Lease liabilities	5,863	6,882
Total non-current interest-bearing liabilities	**29,794**	**37,287**

Maturity of long term interest bearing liabilities

	1-2 years	2-3 years	3-5 years	> 5 years	Total
Loans from financial institutions	4,000	19,774	157	-	23,931
Lease liablities	1,869	1,264	2,428	302	5,863
Total	**5,869**	**21,038**	**2,585**	**302**	**29,794**

Current interest-bearing liabilities

	2022	2021
Loans from financial institutions	4,039	6,159
Lease liabilities	1,703	1,675
Total current interest-bearing liabilities	**5,742**	**7,834**

Interest-bearing net liabilities

	2022	2021
Non-current interest-bearing liabilities	29,794	37,287
Current interest-bearing liabilities	5,742	7,834
Cash	-22,224	-26,852
Total	**13,312**	**18,269**

The Group's funding is mainly organized by using the Facilitites Agreement signed in March 2022. All Group loans from financial institutions are denominated in euros.

Group's loan agreements include covenants and other terms and conditions which are linked to consolidated key figures. If the covenant terms are not fulfilled, negotiations with the lenders will be initiated. These negotiations may lead to notice of termination of financial agreements. Covenant terms are described in more detail in Note 5.1.

The liquidity and currency risk related to interest-bearing debt is described in more detail in Note 5.4.

	1.1.2022	Cash flow*	Effective rate and Exchange differences	Reclassification	31.12.2022
Non-current interest-bearing liabilities	37,287	-1,743	93	-5,843	29,794
Current interest-bearing liabilities	7,834	-7,935	-	5,843	5,742
Total	**45,121**	**-9,678**	**93**	**-**	**35,536**

*Cash flow includes the changes of leasing agreements

5.7. Derivative instruments

Accounting policy

Derivative contracts are entered in the statement of financial position at the time of acquisition at fair value and remeasured at fair value in the financial statements using the market prices at the end of the reporting period. Entries of the changes of derivatives are influenced by whether a derivative contract falls within the scope of hedge accounting. Derivatives that do not meet the hedge accounting conditions are financial assets and liabilities acquired for trading and entered at fair value through profit or loss, and whose changes of value are recognized immediately through profit or loss.

When a hedging arrangement is entered into, the relationship between the item being hedged and the hedging instrument, as well as the objectives of the Group's risk management are documented. The IFRS 9 standard requires an economic relationship between the hedged item and the hedging instrument as well as the same hedge ratio that management actually uses in risk management.

If the hedging accounting conditions are met, cash flow hedge accounting under IAS 9 is applied with respect to derivatives. If the hedge accounting conditions are not met, the result of hedging instruments are recognized in profit or loss within other operating income or expenses.

Derivative instruments are included in the statement of financial position in current assets and liabilities. Trade date accounting is used in recognizing sales and purchases of derivatives.

Derivative instruments are used only for currency and interest rate hedging purposes. Nominal values of derivative instruments do not necessarily correspond with the actual cash flows between the counterparties and do not therefore give a fair view of the risk position of the Group. The fair values are based on market valuation on the date of reporting.

In reporting periods 2022 and 2021, hedge accounting was used in hedging the trade receivables of projects. In April 2022, Glaston entered into a 3-year interest rate swap with a nominal value of EUR 12 million to hedge a variable rate loan, which is subject to hedge accounting. At the end of reporting periods 2022 and 2021, Glaston had open foreign exchange forward contracts.

Nominal and fair values of derivative instruments

	2022		2021	
EUR thousand	**Nominal value**	**Fair value**	**Nominal value**	**Fair value**
Currency forwards	18,736	102	19,195	-341
Interest rate forwards	12,000	578	-	-

EUR thousand	2022	2021
Derivative instruments in the income statement		
Items included in net sales	-1,457	-574
Financial items	-6	-2
Derivative instruments in the statement of financial position, receivables and liabilities		
Accrued expenses and deferred income		
Currency and interest rate forwards	395	663
Accrued income		
Currency and interest rate forwards	1,087	224

5.8. Contingencies

EUR thousand	2022	2021
Loans secured with mortgages or pledges		
Loans from financial institutions	28,000	35,000
Liens on chattel	292,500	487,500
Carrying amount of pledged securities	21,590	25,982
Total mortgages, liens on chattel and pledged assets	**314,090**	**513,482**
Contingent liabilities		
Liens on chattel		
On behalf of own commitments	292,500	487,500
Securities pledged		
On behalf of own commitments	21,590	25,982
Total	**314,090**	**513,482**

Liens on chattel are related to companies: Glaston Services Ltd. Oy, Glaston Finland Oy, Companies are jointly responsible for the debts of Glaston Group.

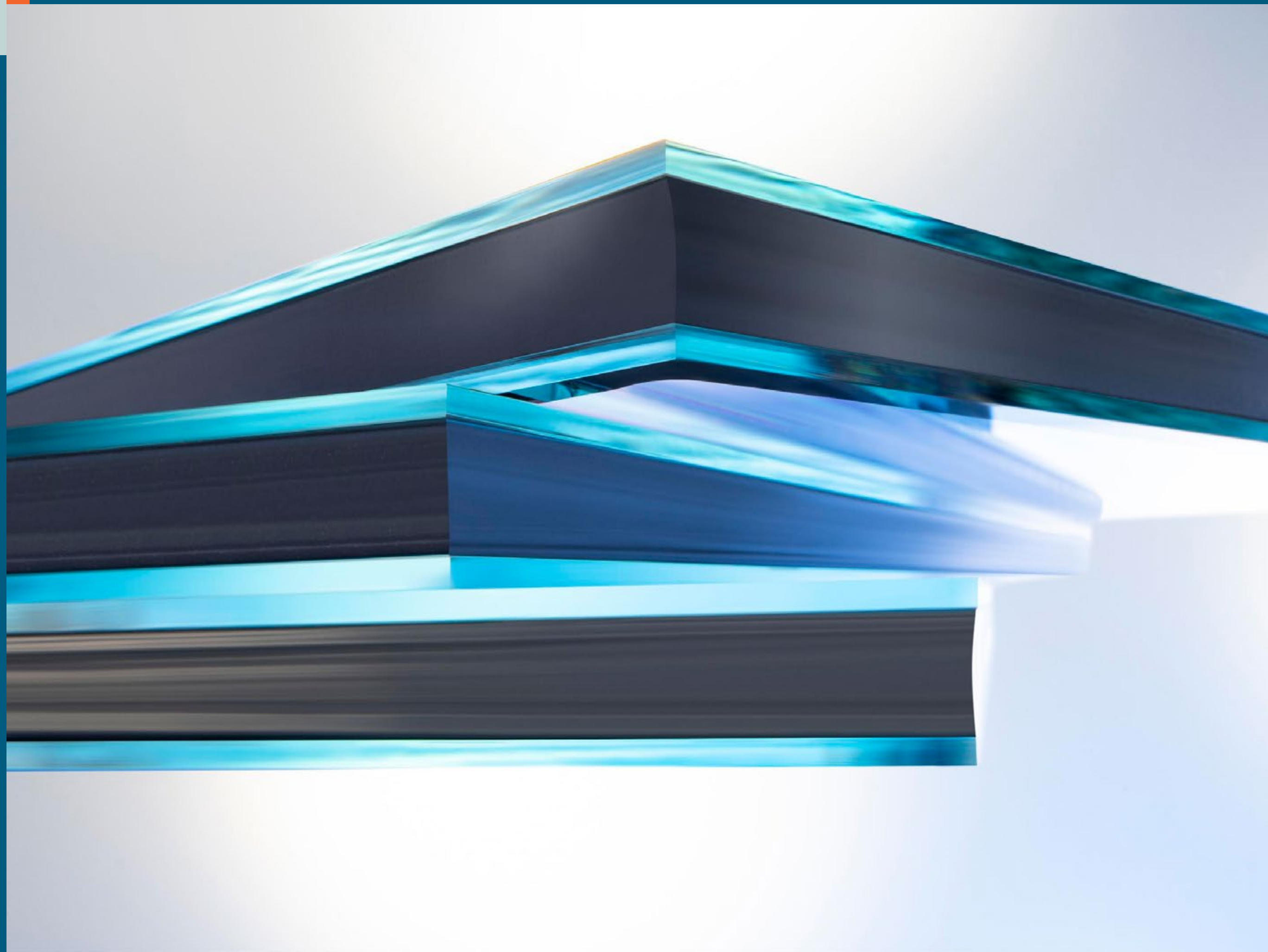
Guarantees		
On behalf of own commitments	15,308	8,504
On behalf of others	261	168
Total	**15,569**	**8,671**
Total contingent liabilities	**329,659**	**522,153**

Other contingent liabilities and litigations

At year end, Glaston Tianjin Co. Ltd. has endorsed EUR 0.3 million of bank drafts. The expiring dates of the bank drafts are in the first half of year 2023.

Glaston Group can be a defendant or plaintiff in a number of legal proceedings incidental to those operations. The Group does not expect the outcome of any unmentioned legal proceedings currently pending, either individually or in the aggregate, to have material adverse effect upon the Group's consolidated financial position or result.

6. Group stucture



6.1. Shares and holdings

Group companies			Group holding %	Parent holding %
Glaston Oyj Abp	Helsinki	Finland		
Uniglass Engineering Oy	Tampere	Finland	100%	100%
Glaston Services Ltd. Oy	Tampere	Finland	100%	100%
Glaston Finland Oy	Tampere	Finland	100%	
Glaston International Oy	Tampere	Finland	100%	
Glaston America, Inc.	Mount Laurel, NJ	United States	100%	
Glaston UK Ltd.	Shropshire	United Kingdom	100%	
Glaston France S.A.R.L.	Paris	France	100%	
Glaston Singapore Pte. Ltd.	Singapore	Singapore	100%	
Glaston Tianjin Co. Ltd.	Tianjin	China	100%	
Glaston Management (Shanghai) Co. Ltd.	Shanghai	China	100%	
Glaston China Co. Ltd.	Tianjin	China	100%	
Glaston Brasil Ltda	São Paulo	Brasil	100%	
Glaston Hong Kong Ltd.	Hong Kong	China	100%	
Glaston Germany GmbH *	Neuhausen-Hamberg	Germany	100%	
Bystronic Glass Machinery (Shanghai) Co. Ltd.	Shanghai	China	100%	
Glaston Switzerland AG	Bützberg	Switzerland	100%	
Bystronic Glass UK Ltd.	Shropshire	United Kingdom	100%	

*Pursuant to Sec. 291 German Commercial Code, all EU subsidiaries included in these consolidated financial statements are exempt from the duty to prepare their own consolidated financial statements and group management report for the subgroups in question.

For the following German corporations, the exempting provision pursuant to Sec. 264 (3) German Commercial Code applies in addition: Glaston Germany GmbH.

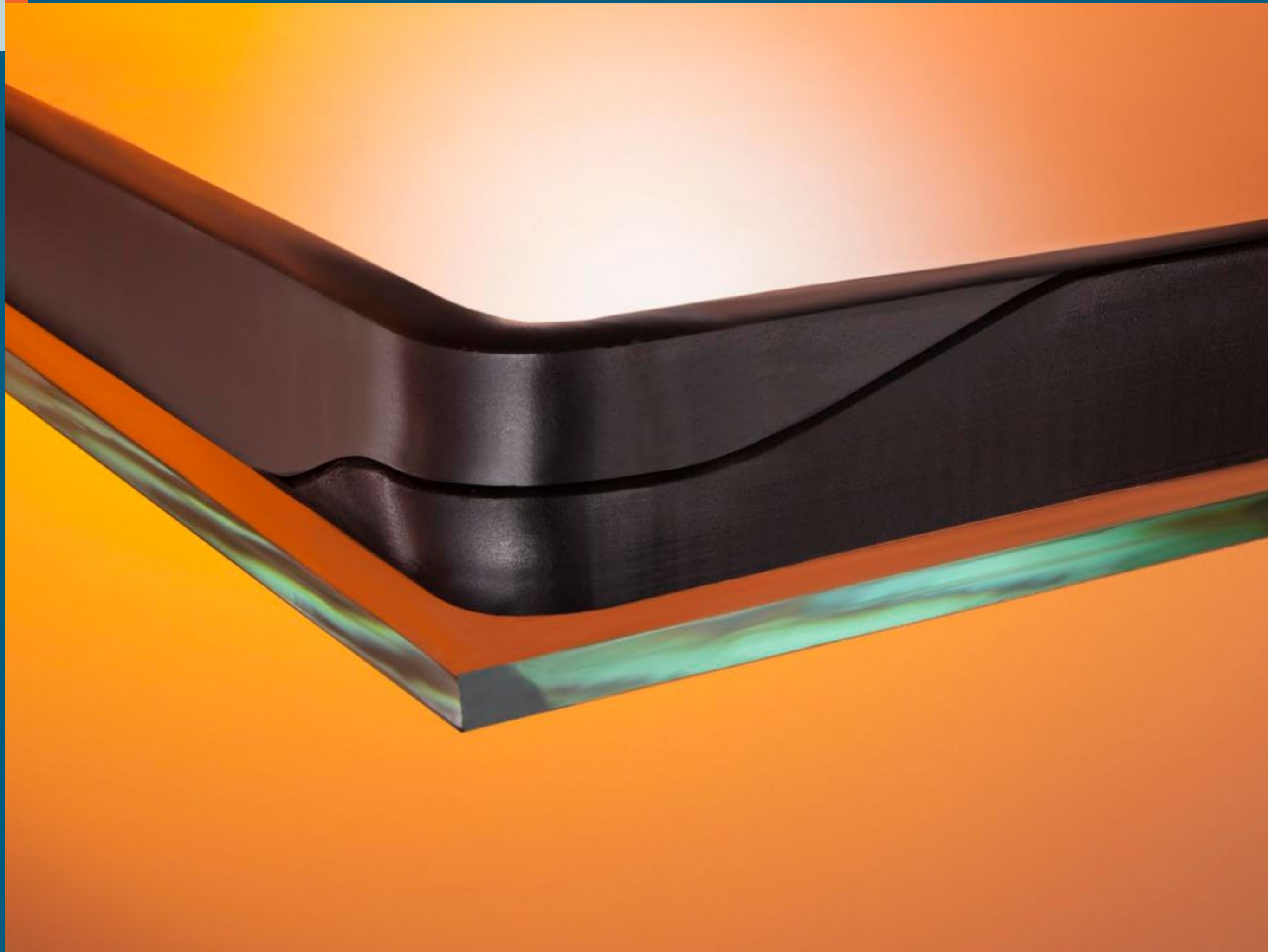
Changes in subsidiaries in 2022

- Glaston Emerging Technologies Oy was merged to Glaston Services Ltd Oy in July 2022
- OOO Bystronic Steklo was liquidated in July 2022
- LLC Glaston's shares were sold in July 2022

Changes in subsidiaries in 2021

- Bystronic Glass Inc. was merged to Glaston America Inc. in January 2021
- Bystronic Glass (Shanghai) Co. Ltd. was merged to Glaston Tianjin Co. Ltd. in June 2021

7. Other notes



7.1. Related parties

Parties are considered to be related parties if a party is able to exercise control over the other or substantially influence its decision-making concerning its finances and business operations.

Glaston Group's related parties include the parent of the Group (Glaston Corporation), subsidiaries.

Also the shareholders, which have significant influence in Glaston through shareholding, are considered to be related parties, as well as the companies controlled by these shareholders.

Related parties also include the members of the Board of Directors, the Group's Executive Management Group, the CEO and their family members as well as the companies controlled by them.

Glaston follows the same commercial terms in transactions with associates and other related parties as with third parties.

Total accrual based remuneration of the Board of Directors and the Executive Management Group was EUR 2,950 (2,851) thousand.

Remuneration of the Executive Management Group, accrual based

EUR	2022	2021
CEO		
Salaries	323,707	341,280
Bonuses	191,079	228,826
Share based benefit	-	126,500
Total	514,786	696,606
Fringe benefits	13,888	14,164
Total	**528,674**	**710,770**
Statutory pension payments (Finnish TyEL or similar plan)	144,073	124,521
Voluntary pension payments	37,303	38,880
Total other Executive Management Group		
Salaries	1,454,942	1,274,287
Bonuses	386,170	426,775
Share based benefit	19,879	31,680
Total	1,860,991	1,732,742
Fringe benefits	214,718	53,572
Total	**2,075,709**	**1,786,314**
Statutory pension payments (Finnish TyEL or similar plan)	302,202	197,941
Voluntary pension payments	40,096	37,659

The remuneration of the Executive Management Group includes salaries only for the period of membership.

The CEO's period of notice is 3 months. In the event the company would give notice to the CEO, he will receive an additional remuneration equaling 12 months' salary.

Compensation of the CEO and other members of the Executive Management Group consists of a fixed monthly salary, an annual bonus and a share-based incentive plan intended as a long-term incentive (described in more detail in Note 2.6.). The criteria for bonus payments are consolidated result, result of the business area or business unit as well as functional targets. The maximum annual bonus of the CEO is 80 per cent of the annual salary. The maximum annual bonus of the other members of the Executive Management Group is 40 per cent of the annual salary.

The retirement age of the CEO of Glaston Corporation and other members of the Executive Management Group is according to the normal local legislation, ie. 63-68 years.

Remuneration of the Board of Directors, accrual based

	2022			2021		
EUR	annual fee	meeting fee	total	annual fee	meeting fee	total
Veli-Matti Reinikkala, Chair of the Board of Directors	67,500	15,900	83,400	60,000	15,400	75,400
Sebastian Bondestam, Deputy Chair of the Board of Directors	49,750	6,750	56,500	47,500	8,000	55,500
Sarlotta Narjus	32,250	6,750	39,000	30,000	8,000	38,000
Antti Kaunonen	32,250	6,250	38,500	30,000	8,000	38,000
Arja Talma	42,250	6,750	49,000	30,000	6,000	36,000
Tero Telaranta	32,250	7,250	39,500	30,000	7,500	37,500
Michael Willome	32,250	7,750	40,000	30,000	8,000	38,000
Teuvo Salminen(1	–	–	–	17,500	1,800	19,300
Kai Mäenpää(2	–	–	–	15,000	1,000	16,000
Total	**288,500**	**57,400**	**345,900**	**290,000**	**63,700**	**353,700**

The members of Glaston Corporation's Board of Directors were paid an annual remuneration and a meeting fee; other compensation was not paid. The Chair of Glaston Corporation's Board of Directors was paid EUR 70,000 (60,000) annually, the Deputy Chair EUR 43,000 (40,000) annually and each of the members EUR 33,000 (30,000) annually. In addition, a meeting fee of EUR 800 (800) per meeting held in the Chair's home country and EUR 1,500 per meeting held elsewhere were paid to the Chair. The other members of Glaston Corporation's Board of Directors were paid EUR 500 per meeting held in the Board member's home country and EUR 1,000 per meeting held elsewhere. For the Board Meeting, which is hold per capsulam, will be paid half of the regular fee. A member of the Board may, at his/her discretion, choose to receive the annual fixed remuneration partly in company shares and partly in cash so that approximately 40% of the annual fixed remuneration is paid in Glaston Corporation's shares.

The members of Glaston Corporation's Committees are paid for every meeting, that the member has participated, EUR 500 per meeting held in the Board member's home country and EUR 1,000 per meeting held elsewhere. In addition, the Chair of the Audit Committee was paid an annual fee of EUR 10,000 and to the Chair of the People and Remuneration Committee an annual fee of EUR 7,500.

Board of Directors, share ownership

	Glaston shares	
	31.12.2022	31.12.2021
Veli-Matti Reinikkala, Chair of the Board of Directors	720,558	500,000
Sebastian Bondestam, Deputy Chair of the Board of Directors	51,255	35,137
Sarlotta Narjus	–	–
Antti Kaunonen	148,718	86,349
Arja Talma	22,713	10,344
Tero Telaranta	23,089	10,720
Michael Willome	–	–

Share ownership includes also the ownership of Glaston Corporation shares by the related parties of the person in question and entities controlled by the person in question.

Executive Management Group, share ownership

	Glaston shares	
	31.12.2022	31.12.2021
Anders Dahlblom, CEO	530,000	420,000
Sasu Koivumäki	89,979	89,979
Miika Äppelqvist	6,815	6,815
Päivi Lindqvist	38,680	38,680
Artturi Mäki	4,731	4,731
Robert Prange	40,000	30,000
Taina Tirkkonen	27,500	27,500
Hannele Anonen	–	–
Dietmar Walz	–	–

(1 Member of the Board of Directors until 13.4.2021
(2 Member of the Board of Directors until 13.4.2021

7.2. Events after end of the reporting period

There have been no significant events after end of the reporting period.

Income statement of the parent company (FAS)

EUR thousand	Note	1.1.–31.12. 2022	2021
Net sales	2	**4,041**	**4,098**
Other operating income	3	5,271	5,083
Personnel expenses	4	-3,303	-2,801
Depreciation, amortization and impairment losses	5	-365	-460
Other operating expenses	6	-7,179	-10,543
Operating profit / -loss		**-1,535**	**-4,624**
Net financial items	7	-237	-716
Profit / loss before appropriations and taxes		**-1,772**	**-5,340**
Appropriations	8	-4	-2
Income taxes	9	-	300
Profit / loss for the financial year		**-1,775**	**-5,042**

Balance sheet of the parent company (FAS)

EUR thousand	Note	31.12. 2022	2021
Assets			
Non-current assets			
Intangible assets	10	1,903	1,277
Tangible assets	10	16	22
Subordinated loan receivable Group Companies	11,12	36,846	36,846
Investments	11,12	17,211	17,211
Non-current assets, total		**55,977**	**55,356**
Current assets			
Non-current receivables	13	78,000	78,000
Current receivables	13	13,027	12,421
Cash and bank		13,322	20,895
Current assets, total		**104,349**	**111,316**
Total assets		**160,326**	**166,673**

EUR thousand	Note	31.12. 2022	2021
Equity and liabilities			
Equity			
Share capital		12,696	12,696
Hedging reserve		463	-
Reserve for invested unrestricted equity		110,056	112,584
Retained earnings		-47,165	-42,123
Profit / loss for the financial year		-1,775	-5,042
Total equity	14	**74,274**	**78,115**
Accumulated appropriations	15	103	100
Liabilities			
Non-current liabilities	16	24,000	31,006
Current liabilities	17	61,949	57,453
Total liabilities		**85,949**	**88,458**
Total equity and liabilities		**160,326**	**166,673**

Parent company cash flow statement (FAS)

EUR thousand	2022	2021
Cash flow from operating activities		
Profit / loss for the financial period	-1,775	-5,042
Adjustments:		
Income taxes for the period	-	-300
Deferred taxes	4	2
Financial income and expenses	237	716
Depreciation, amortization and impairment	365	460
Proceeds from disposal of tangible and intangible assets	-17	51
Other adjustments	-14	-2,817
Cash flow before change in net working capital	-1,202	-6,929
Change in net working capital		
Change in current interest-free receivables	-860	5,306
Change in current interest-free liabilities	-146	19,558
Cash flow from operating activities before financial items and taxes	-2,208	17,935
Interests paid and payments made for other financial items and income taxes		
Interests and other financial expenses paid	-1,694	-2,317
Interest received	1,456	2,716
Cash flow from operating activities before extraordinary items	-2,445	18,334
Cash flow from operating activities	**-2,445**	**18,334**

EUR thousand	2022	2021
Cash flow from investing activities		
Investments in tangible and intangible assets	-968	-254
Cash flow from investing activities	**-968**	**-254**
Cash flow from financing activities		
Drawn-down of non-current loans	24,000	-
Repayments in non-current loans	-31,000	-7,500
Change in current intra-group receivables	5,369	994
Drawn-down of current loans	4,000	-
Repayments of current loans	-4,000	-4,121
Return of capital	-2,529	-1,686
Cash flow from financing activities	**-4,159**	**-12,313**
Change in cash and cash equivalents	**-7,572**	**5,767**
Cash and cash equivalents at the beginning of the period	20,895	15,127
Cash and cash equivalents at the end of the period	13,322	20,895
Change in cash and cash equivalents	**-7,572**	**5,767**

1. Summary of significant accounting policies

Glaston Corporation is a public limited liability company organized under the laws of the Republic of Finland. Glaston's shares are publicly traded in the Nasdaq Helsinki Ltd. Small Cap in Helsinki, Finland. Glaston Corporation is domiciled in Helsinki, Finland and its registered office is Lönnrotinkatu 11, 00120 Helsinki, Finland. Glaston Corporation is the parent of Glaston Group.

The financial statements of Glaston Corporation are prepared in accordance with Finnish Accounting Standards (FAS). The consolidated financial statements of Glaston Group are prepared in accordance with International Financial Reporting Standards (IFRS), and Glaston Corporation applies in its separate financial statements the same accounting principles as Glaston Group to the extent it is possible within the framework of Finnish accounting practice. The accounting principles of Glaston Group are presented in the Notes to the Consolidated Financial Statements (Note 1).

The main differences in the accounting principles between Glaston Corporation's separate financial statements and Glaston Group's consolidated financial statement are presented in the following texts.

Fixed assets

Contrary to IAS38, intangible assets in the parent company's financial statements also include investments acquired as cloud services that meet the definition of an intangible asset.

Share-based incentive plans

At the end of the incentive period, the share-based incentive plans paid in cash have been recognized in the parent company's financial statements as personnel expenses and accrued liabilities.

Financial Assets and Liabilities and Derivative Instruments

Financial assets and liabilities with the exception of derivative instruments are recorded at cost or at cost less impairment losses. Fair value changes of derivatives are recognized in financial items. Valuation methods of derivatives are presented in the accounting policies of Glaston Group.

Finance Leasing

Lease payments are recognized as lease expenses. Leasing obligations are presented as contingent liabilities.

Appropriations

Untaxed reserves consist of a depreciation difference. This difference between scheduled depreciation and amortization and the depreciation and amortization deducted in arriving to taxable profit is presented as a separate item in the income statement and in the balance sheet. Group contributions received from and given to subsidiaries are presented as appropriations.

2. Net Sales

EUR thousand	2022	2021
Net sales by business		
Manufacturing industry	4,041	4,098
Net sales by country by destination		
Finland	534	465
Other EMEA	2,812	2,971
Americas	559	634
Asia	136	28
Total	**4,041**	**4,098**

EMEA = Europe, the Middle East and Africa
Americas = North, Central and South America
Asia = China and the rest of the Asia-Pacific area

3. Other Operating Income

EUR thousand	2022	2021
Charges from group companies	5,271	5,083
Other operating income, total	**5,271**	**5,083**

4. Personnel Expenses

EUR thousand	2022	2021
Salaries and fees	-2,679	-2,367
Pension expenses	-545	-377
Other personnel expenses	-78	-58
Total	**-3,303**	**-2,801**
Salaries and remuneration paid to members of the Board of Directors and Managing Director	875	1,064

	2022	2021
Employees during financial year, average		
White collar	18	13
Total	**18**	**13**

5. Depreciation, Amortization and Impairment Losses

EUR thousand	2022	2021
Depreciation and amortization according to plan		
Intangible assets		
Intangible rights	-228	-314
Other capitalized expenditure	-131	-138
Tangible assets		
Machinery and equipment	-6	-8
Total depreciation and amortization according to plan	**-365**	**-460**

6. Other Operating Expenses

EUR thousand	2022	2021
Rents	-195	-198
Information and communications technology expenses	-5,214	-5,107
Travel expenses	-97	-37
Losses on disposals of assets	-5	-
Intra-group credit loss	-	-2,839
Other expenses	-1,668	-2,363
Other operating expenses, total	**-7,179**	**-10,543**
Fees paid to auditors		
Audit	-61	-57
Statutory statements	-7	-
Other services	**-12**	**-4**
Total	**-80**	**-61**

7. Net Financial Items

EUR thousand	2022	2021
Interest and other financial income		
From group companies	1,395	1,432
From external parties	145	91
Interest and other financial income	**1,541**	**1,522**
Interest and other financial income, total	**1,541**	**1,522**
Interest and other financial expenses		
To group companies	-402	-415
To external parties	-1,375	-1,823
Interest and other financial expenses, total	**-1,777**	**-2,239**
Net financial items, total	**-237**	**-716**
Other financial income and expenses include foreign exchange gains and losses (net)	19	73

8. Appropriations

EUR thousand	2022	2021
Difference between depreciation and amortization according to plan and depreciation and amortization in taxation	-4	-2
Total	**-4**	**-2**

9. Income Taxes

EUR thousand	2022	2021
Change in deferred tax assets	–	300
Total	**–**	**300**

10. Fixed Assets

Intangible assets

EUR thousand	Intangible rights	Other capitalized expenditure	Advance payments and investments in progress	Total
Acquisition cost 1 January, 2022	5,659	1,284	66	7,010
Additions	65	–	925	990
Disposals	-107	-8	–	-115
Reclassifications	64	–	-64	–
Acquisition cost 31 December, 2022	**5,681**	**1,276**	**926**	**7,884**
Accumulated amortizations and impairment losses 1 January, 2022	-4,928	-805	–	-5,732
Accumulated amortizations of disposals and transfers	103	8	–	110
Amortization of the period	**-228**	**-131**	**–**	**-359**
Accumulated amortizations and impairment losses 31 December, 2022	**-5,053**	**-928**	**–**	**-5,981**
Carrying amount at 31 December, 2022	**628**	**349**	**926**	**1,903**
Carrying amount at 31 December, 2021	732	480	66	1,277

Tangible assets

EUR thousand	Intangible rights	Other capitalized expenditure	Advance payments and investments in progress	Total
Acquisition cost 1 January, 2022	305	129	–	434
Additions	–	–	–	–
Disposals	-135	-16	–	-151
Transfers between items	–	–	–	–
Acquisition cost 31 December, 2022	**170**	**113**	**–**	**283**
Accumulated depreciations and impairment losses 1 January, 2022	-293	-119	–	-412
Accumulated depreciations of disposals and transfers	135	16	–	151
Depreciation for the period	**-6**	**–**	**–**	**-6**
Accumulated depreciations and impairment losses 31 December, 2022	**-164**	**-103**	**–**	**-267**
Carrying amount 31 December, 2022	**6**	**10**	**–**	**16**
Carrying amount at 31 December, 2021	12	10	–	22

11. Investments

EUR thousand	Shares Group companies	Shares Others	Subordinated loan receivable Group companies	Total
Carrying amount at 1 January, 2022	17,204	8	36,846	54,058
Carrying amount at 31 December, 2022	**17,204**	**8**	**36,846**	**54,058**

12. Shares and holdings owned by the Parent

Subsidiary shares

EUR thousand	Ownership-%	Number of shares	Carrying amount
Uniglass Engineering Oy, Tampere, Finland	100%	20,000	2,351
Glaston Services Ltd. Oy, Tampere, Finland	100%	1,800,000	14,853
Total			**17,204**

Other		
Other shares and holdings	0%	8
Total		**8**

13. Receivables

EUR thousand	2022	2021
Non-current receivables		
Receivables from external parties		
Deferred tax assets	300	300
Total	300	300
Receivables from group companies		
Loan receivables	77,700	77,700
Total	77,700	77,700
Non-current receivables, total	**78,000**	**78,000**
Current receivables		
Receivables from external parties		
Trade receivables	55	2
Other receivables	33	33
Prepaid expenses and accrued income	1,234	314
Total	1,322	349
Receivables from group companies		
Trade receivables	3,088	2,660
Loan receivables	7,058	7,920
Accrued interest receivables	1,341	1,341
Prepaid expenses and accrued income	217	151
Total	11,704	12,073
Current receivables, total	**13,027**	**12,421**
Relevant items of prepaid expenses and accrued income		
Interest SWAP	578	-
Financial items	293	279
Prepaid insurances	110	-
Other	470	186
Prepaid expenses and accrued income, total	**1,451**	**465**

14. Equity

EUR thousand	2022	2021
Share capital 1 January	12,696	12,696
Share capital 31 December	12,696	12,696
Hedging reserve account 1 January	-	-
Change in financial year	463	-
Hedging reserve account 31 December	463	-
Reserve for invested unrestricted equity 1 January	112,584	114,270
Return of capital	-2,529	-1,686
Reserve for invested unrestricted equity 31 December	110,056	112,584
Retained earnings 1 January	-47,165	-42,123
Retained earnings 31 December	-47,165	-42,123
Profit / loss for the financial year	-1,775	-5,042
Equity at 31 December	**74,274**	**78,115**
Distributable funds at 31 December		
Reserve for invested unrestricted equity	110,056	112,584
Retained earnings	-47,165	-42,123
Profit / loss for the financial year	-1,775	-5,042
Distributable funds	**61,115**	**65,419**

Notes to parent company financial statements (FAS) / Note 15

15. Accumulated Appropriations

EUR thousand	2022	2021
Accumulated depreciation difference 1 January	100	97
Increase (+) / decrease (-)	4	2
Accumulated depreciation difference 31 December	**103**	**100**

Notes to parent company financial statements (FAS) / Note 16

16. Non-current Liabilities

EUR thousand	2022	2021
Liabilities to external parties		
Loans from financial institutions	24,000	31,000
Other liabilities	-	6
Liabilities to external parties, total	24,000	31,006
Non-current liabilities, total	**24,000**	**31,006**

Notes to parent company financial statements (FAS) / Note 17

17. Current Liabilities

EUR thousand	2022	2021
Liabilities to external parties		
Loans from financial institutions	4,000	4,000
Trade payables	-	420
Other liabilities	108	94
Accrued expenses and deferred income	1,662	1,395
Deferred tax liability	116	-
Liabilities to external parties, total	5,770	5,909
Liabilities to group companies		
Other interest-bearing liabilities	56,005	51,497
Trade payables	-	46
Accrued expenses and deferred income	59	-
Liabilities to group companies, total	56,063	51,544
Current liabilities, total	**61,833**	**57,453**
Accrued expenses and deferred income		
Salary and other personnel expense accruals	931	953
Interests	236	222
Other	554	220
Accrued expenses and deferred income, total	**1,720**	**1,395**

18. Contingent Liabilities

EUR thousand	2022	2021
Leasing liabilities		
Maturity within one year	68	56
Maturity later than one year	62	90
Total	**130**	**145**
Other rental liabilities		
Maturity within one year	48	49
Maturity later than one year	2	-
Total	**50**	**49**
Pledges		
On behalf of group companies	10,858	7,734
Loans secured with pledged assets and mortgages		
Loans from financial institutions	28,000	35,000
Liens on chattel		
On own behalf	97,500	97,500
Carrying amount of pledged securities	14,853	17,204

Mortgages, liens on chattel and pledged assets are given on own and other group companies behalf.

Liens on chattel are given jointly with Glaston Finland Oy and Glaston Services Ltd. Oy .

Signatures for the Board of Directors' Review and Financial Statements

Helsinki, 8 February 2023

Veli-Matti Reinikkala
Chair of the Board

Sebastian Bondestam
Deputy Chair of the Board

Sarlotta Narjus

Arja Talma

Michael Willome

Antti Kaunonen

Tero Telaranta

Anders Dahlblom
CEO

The Auditor's note
Our auditor's report has been issued today.

Tampere, 8 February 2023

KPMG Oy Ab
Authorised public accountants

Lotta Nurminen
Authorized Public Accountant, KHT

This document is an English translation of the Finnish auditor's report. Only the Finnish version of the report is legally binding.

Auditor's Report

To the Annual General Meeting of Glaston Corporation

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Glaston Corporation (business identity code 1651585-0) for the year ended 31 December, 2022. The financial statements comprise the consolidated balance sheet, income statement, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes, including a summary of significant accounting policies, as well as the parent company's balance sheet, income statement, statement of cash flows and notes.

In our opinion

- the consolidated financial statements give a true and fair view of the group's financial position, financial performance and cash flows in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU
- the financial statements give a true and fair view of the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Our opinion is consistent with the additional report submitted to the Audit Committee.

Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements section of our report*.

We are independent of the parent company and of the group companies in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

In our best knowledge and understanding, the non-audit services that we have provided to the parent company and group companies are in compliance with laws and regulations applicable in Finland regarding these services, and we have not provided any prohibited non-audit services referred to in Article 5(1) of regulation (EU) 537/2014. The non-audit services that we have provided have been disclosed in note 2.4 to the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Materiality

The scope of our audit was influenced by our application of materiality. The materiality is determined based on our professional judgement and is used to determine the nature, timing and extent of our audit procedures and to evaluate the effect of identified misstatements on the financial statements as a whole. The level of materiality we set is based on our assessment of the magnitude of misstatements that, individually or in aggregate, could reasonably be expected to have influence on the economic decisions of the users of the financial statements. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for qualitative reasons for the users of the financial statements.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. The significant risks of material misstatement referred to in the EU Regulation No 537/2014 point (c) of Article 10(2) are included in the description of key audit matters below.

We have also addressed the risk of management override of internal controls. This includes consideration of whether there was evidence of management bias that represented a risk of material misstatement due to fraud.

The key audit matter	How the matter was addressed in the audit
Revenue recognition (Note 2.2 Revenue from contracts with customers)	
The consolidated revenue comprise different revenue flows based on different contract types, such as sale of machines, spare parts and services. Revenue from the sale of goods is recognized at a point in time or over time when the buyer receives the goods or gains control. Revenue from services rendered and repair work is recognized when the service has been rendered or the work has been completed. The most significant risks relate to revenue from tailor-made glass processing machine deliveries for which the revenue is recognized over time applying percentage of completion method. These involve management judgment related to measuring the progress towards complete satisfaction of the performance obligation and total estimated costs. Net sales for the reporting period include EUR 147.4 million revenue recognized over time representing 69 percent of total net sales. Selection of revenue recognition methods and revenue recognition involve management judgement and thus revenue recognition is considered a key audit matter.	Our audit procedures included evaluation of the revenue recognition principles applied by the Group and assessment of their appropriateness by reference to IFRS standards. We have obtained an understanding of processes relating to different revenue flows and identified and assessed internal controls over revenue recognition as well as tested their effectiveness. In addition, we performed substantive testing and analytical procedures, partly based on data analytics, in order to assess the appropriateness of revenue recognition and the accounting treatment of recording revenue and the related expenses in the correct period. We assessed the control environment in respect of the main sales software and the related user rights management. We discussed with the management the revenue recognition practices applied and decisions involving management judgement which had an impact on revenue recognition. Furthermore, we considered the appropriateness of the Group's disclosures in respect of revenue recognition principles and net sales.
Valuation of goodwill (Note 3.1 Intangible Assets and 3.4 Depreciation, Amortization and Impairment of Assets)	
Value of goodwill amounts to EUR 58.7 million, which is 30 percent of the total assets and 86 percent of the consolidated equity. Goodwill is not amortized, instead it is tested for impairment at least on an annual basis. Impairment tests are based on future cash flow forecasts and determining the underlying key assumptions require management judgment. Due to the high level of management judgment related to the forecasts used in goodwill impairment tests and the significant carrying amounts involved, valuation of goodwill is considered as a key audit matter.	We have assessed the key assumptions used in the impairment calculations, such as profitability, discount rate and long-term growth rate with relation to the forecasts presented to the Board of Directors, external references and our own views. We involved KPMG valuation specialists when assessing the technical accuracy of the calculations and comparing the assumptions used with external market and industry data. In addition, we considered the appropriateness of the Group's disclosures in respect of goodwill impairment testing.

Responsibilities of the Board of Directors and the Managing Director for the Financial Statements

The Board of Directors and the Managing Director are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU, and of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the parent company's and the group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the parent company's or the group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the parent company's or the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the parent company or the group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Reporting Requirements

Information on our audit engagement

We were first appointed as auditors by the Annual General Meeting on May 28, 2020, and our appointment represents a total period of uninterrupted engagement of 3 years.

Other Information

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises the report of the Board of Directors and the information included in the Annual Report, but does not include the financial statements and our auditor's report thereon. We have obtained the report of the Board of Directors prior to the date of this auditor's report, and the Annual Report is expected to be made available to us after that date. Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. With respect to the report of the Board of Directors, our responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion, the information in the report of the Board of Directors is consistent with the information in the financial statements and the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Tampere, 8 February 2023
KPMG OY AB

LOTTA NURMINEN
Authorised Public Accountant, KHT

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Glaston Corporation is the glass processing industry's innovative technology leader supplying equipment, services and solutions to the architectural, automotive, solar and display industries. The company also supports the development of new technologies integrating intelligence to glass. Glaston is committed to providing its clients with both the best know-how and the latest technologies in glass processing, with the purpose of building a better tomorrow through safer, smarter, and more energy efficient glass solutions. Glaston operates globally with manufacturing, services, and sales offices in 9 countries. Glaston Corporation is a public limited liability and its shares (GLA1V) are listed on NASDAQ Helsinki Ltd. Small Cap..

Independent Auditor's Reasonable Assurance Report on Glaston Corporation's ESEF Financial Statements

To the Board of Directors of Glaston Corporation

We have undertaken a reasonable assurance engagement in respect of whether the consolidated financial statements for the year ended 31 December 2022 included in the digital financial statements 743700V3I7CLI3DJ8L62-2022-12-31-en.zip of Glaston Corporation (Business ID 1651585-0) have been marked up with iXBRL markups in accordance with the requirements of Article 4 of EU Delegated Regulation 2018/815 (ESEF RTS).

The Responsibility of the Board of Directors and Managing Director

The Board of Directors and Managing Director are responsible for preparing the report of the Board of Directors and financial statements (ESEF financial statements) that comply with the requirements of ESEF RTS. This responsibility includes:

- preparation of ESEF financial statements in XHTML format in accordance with Article 3 of the ESEF RTS
- marking up the primary statements and the notes to the consolidated financial statements, and the company identification data included in the ESEF financial statements with iXBRL tags in accordance with Article 4 of the ESEF RTS; and
- ensuring consistency between ESEF financial statements and audited financial statements.

The Board of Directors and the Managing Director are also responsible for such internal control as they deem necessary to prepare the ESEF financial statements in accordance with the requirements of the ESEF RTS.

Auditor's Independence and Quality Management

We are independent of the company in accordance with the ethical requirements applicable in Finland, which apply to the engagement we have performed, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

The auditor applies International Standard on Quality Management ISQM 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulations requirements.

Auditor's Responsibility

In accordance with the Engagement Letter our responsibility is to express an opinion on whether the marking up of the consolidated financial statements included in the ESEF financial statements comply in all material respects with the Article 4 of the ESEF RTS. We conducted our reasonable assurance engagement in accordance with *International Standard on Assurance Engagements 3000*.

The engagement involves procedures to obtain evidence whether;

- the primary statements of the consolidated financial statements included in the ESEF financial statements are, in all material respects, marked up with iXBRL tags in accordance with Article 4 of the ESEF RTS, and;
- whether the notes to the consolidated financial statements and the company identification data included in the ESEF financial statements data, have been marked up, in all material respects, with iXBRL tags in accordance with Article 4 of the ESEF RTS; and

- whether the ESEF financial statements and the audited financial statements are consistent with each other.

The nature, timing and the extent of procedures selected depend on practitioner's judgement. This includes the assessment of the risks of material departures from the requirements set out in the ESEF RTS, whether due to fraud or error.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion, the primary statements of the consolidated financial statements, the notes to the consolidated financial statements and the company identification data included in the ESEF financial statements of Glaston Corporation identified as 743700V3I7CLI3DJ8L62-2022-12-31-en.zip for the year ended 31 December 2022 are, in all material respects, marked up in compliance with the ESEF Regulatory Technical Standard.

Our audit opinion on the audit of the consolidated financial statements of Glaston Corporation for the year ended 31 December 2022 is set out in our Auditor's Report dated 8 February 2023. In this report, we do not express any audit opinion or other assurance conclusion on the consolidated financial statements.

Tampere 10 March, 2023

KPMG OY AB

Lotta Nurminen
Authorised Public Accountant, KHT