glaston

Annual Review 2018

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Glaston in brief

Glaston's purpose is to build a better tomorrow through safer, smarter and energy-efficient glass solutions. Glaston is a frontrunner in glass industry technologies and services, responding globally to the glass processing needs of the architectural, solar, appliance and automotive industries. Our operations are divided into the glass processing machines, services and emerging technologies businesses. In our operations, we utilise emerging technologies that integrate smart and sustainable solutions into glass. We are committed to providing our clients with both the best know-how and the latest technologies in glass processing.

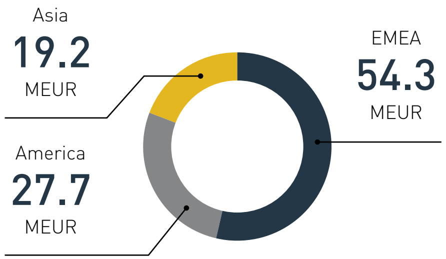
Glaston 2018

NET SALES

Net sales, EUR million

101.1

Glaston's net sales declined by 8% compared to 2017 and totaled EUR 101.1 (109.7) million.

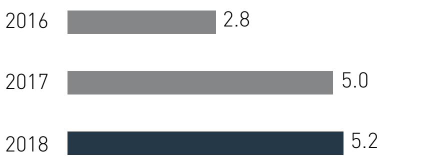


OPERATING PROFIT

Comparable operating profit, EUR million

5.2

Compared to 2017, Glaston's comparable operating profit increased and was EUR 5.2 (5.0) million.

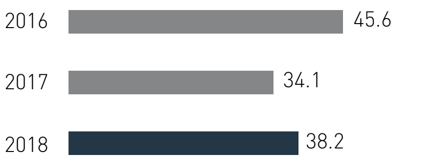


ORDER BOOK

Order book, EUR million

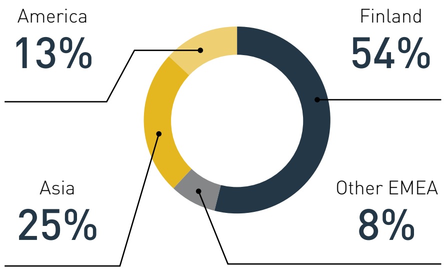
38.2

Glaston's order intake in 2018 totaled EUR 107.6 (103.7) million. The order book at the end of 2018 stood at EUR 38.2 (34.1) million.



PERSONNEL AT YEAR END

357



RESEARCH AND PRODUCT DEVELOPMENT

Research and Product Development Expenditure, % of net sales

3.7

Research and product development expenditure, excluding depreciation, totaled EUR 3.7 (4.0) million, i.e. 3.7 (3.6)% of net sales.

Glaston's product development is driven by various digitalisation-based services. The company objectively seeks new directions through open innovation and is involved in, among other things, the MIDAS project, launched in 2018, which is Finland's first industry-oriented machine-learning project. The focus of Glaston's research is tempering machine intelligence and the goal is a more automated tempering machine.

GLASSTEC 2018

The Glasstec 2018 Fair, held in Düsseldorf at the end of October, was a success for Glaston. The event is the glass industry's most important event. Our stand at the fair had a lots of visitors, customers had an opportunity to get to know our new products, and at the same time we engaged in many direct negotiations with them.

President & CEO's Review

Development in 2018 creates a strong foundation for future changes

In 2018, we created the foundation for development and future growth. Our order intake grew by 4% and our order book by 12% from the previous year. This creates a strong foundation for development in 2019 and also for future changes. Our net sales declined slightly, but at the same time our relative profitability improved from the previous year. At the end of November, we divested our Tools business in accordance with our strategy. The divestment supports our goal of further improving our profitability.

Increased economic and political uncertainty as well as various trade policy tensions have not, at least so far, affected our customers' willingness to invest or demand for our products. Market uncertainty slightly increased, however, towards the end of the year. Offer activity remained at a good level throughout the year, but customers' decision-making was slow.

Our purpose is to build a better tomorrow through safer, smarter, more energy-efficient glass solutions

Demand for environmentally sustainable and energy-efficient solutions, tightening safety regulations for buildings as well as growing visual and functional quality requirements for glass increasingly affect the way our customers operate. This creates new opportunities for Glaston, because our unique product and service portfolio means that we are in a strong position to respond to this demand.

As the industry's technology leader, we also realize our customers' highest ambitions

In the autumn, we announced a revised strategy for the next three years. Our strategic goal is to be the industry's innovative technology leader. We continue to focus on developing heat treatment technologies, while continuously seeking new opportunities for smarter and safer glass processing technologies. Our extensive installed base and superior global service network, in combination with innovations within digitalization and automation, will support our profitable growth. As the frontrunner in our field, we are in a unique position to fulfill the most demanding needs of our customers.

Interest in emerging glass technologies is growing

Emerging glass technologies and glass products such as smart glass that generate added value are making a strong entry into the market. Glaston's Emerging Technologies unit is constantly seeking new business opportunities, and the unit offers engineering and consulting services in the field of emerging glass technologies.

In the reporting period, negotiations progressed on new special projects for the needs of the automotive, solar energy and aviation industries. A long-running project under preparation with one customer received final approval at the end of the year and was confirmed as an order in January 2019.

Delivery plans for a GlastonAir™ tempering machine ordered in autumn 2017, which is particularly suited to the manufacture of thin solar panels, were confirmed as the customer's factory investment progressed, and the machine was delivered to China during autumn 2018. Installation at the customer's factory has begun and is expected to be completed by the end of the third quarter.

The nanotechnology company Heliotrope

> With our flexible production and supply chain management, we are constantly seeking new ways to maintain high quality and cost efficiency. We are strengthening our position as an innovative technology leader by investing strongly in research and product development and focusing on innovation and digitalization.

Technologies is developing for the market a new smart glass technology and Glaston's role in the project is developing product lines. In October, Heliotrope's smart glass technology was presented at Glaston's stand at the Glasstec Fair in Düsseldorf and it attracted a lot of interest among customers. During the year, test production of the Heliotrope prototype line continued. Glaston has the exclusive right to sell Heliotrope glass production lines globally. Testing of the final phase of the Heliotrope project is under way, and Heliotrope and Glaston expect that the first line will be ordered during 2019. Heliotrope lines include Glaston's and external manufacturers' equipment.

Glaston's acquisition of Bystronic glass, announced in January 2019, will strengthen the company's position in smart glass and other integrated line solutions, and will enable higher overall margins for deliveries.

In product development, the goal is to increase the level of digitalization and automation

We invest significantly in product development and innovations, more than the industry average. Research and product development expenditure in 2018 amounted to 3.7% of net sales. New digital and IoT-based products that facilitate the optimization of machine performance and the transition to fully automated glass processing continue to be at the forefront of product development.

At the 2018 Glasstec Fair, Glaston launched a number of new and further developed products. As glass is increasingly used in construction, the need for ever larger glasses is also growing. At the same time, this also creates the need to develop glass processing machines further. Glaston is investing in large-size flat tempering lines, and one of the most important products launched at the Glastec Fair was a machine designed for the heat treatment of jumbo-size architectural glass. In addition, many new digital reporting tools were introduced at the fair.

Significance of efficiency and maintenance further underlined

The glass processing technology market is highly fragmented, with many small players operating in different parts of the glass processing chain. Customers may have up to 10–15 suppliers of equipment, services and spare parts. With multiple interfaces to manage, customer operations are resource intensive and time-consuming. As a result, customers are increasingly looking for more efficiency with a stronger focus on services.

Changing customer needs for glass as well as more stringent safety and quality requirements are also challenging glass processing technology suppliers. In response to market changes and to serve customers optimally, market consolidation is inevitable. Glaston's aims to be at the forefront of market change.

With the Bystronic glass acquisition, we will respond more comprehensively to customers' growing needs

At the beginning of 2019, we announced that we had signed an agreement to purchase the Swiss-German company Bystronic glass. In the glass processing market, Bystronic glass is a globally operating high-end machinery, systems, software and services provider, whose range of products and services is highly complementary to Glaston's offering. The acquisition, one of the largest in the sector for two decades, is our response to the market's growing needs. It supports our goal of further strengthening our position in the glass processing value chain and diversifying our offering for the architectural market as well as complementing our offering for the automotive market. The combination of the companies creates for us a unique opportunity to develop for our customers' benefit a comprehensive portfolio of products and services that in the future will cover the entire value chain.

We improve our operations by continuously listening to the customer

Our customers are at the heart of our strategy and everything we do. Only by constantly developing customer orientation and creating more customer-centric approaches will we create customer value, continuously improve our customer experience and thereby our own operations. At the same time, continuously developing smart technology and digital services, as well as innovations and the integration of new business models while listening to our customers are the steps towards creating customer value.

This approach will benefit all of our stakeholders, including our shareholders and our employees. By emphasizing lifecycle thinking, innovative solutions and energy efficiency in our offering, we will achieve our long-term goal, namely profitable growth.

I would like to thank our employees for their dedicated work to achieve our common goals. I also thank our customers and shareholders for their trust. At the same time, I wish the newcomers to the Glaston team, the employees of Bystronic glass, a warm welcome to work for the success of the renewed and unified Glaston.

Arto Metsänen
President & CEO

Glaston responsibility

Glaston's purpose is to build a better tomorrow through safer, smarter, more energy-efficient glass solutions. As environmental awareness increases, demand for more energy-efficient and environmentally sustainable glass solutions is growing. This is resulting in rapid development of smart glass, very thin glass, and glass used in solar energy solutions. As our industry's innovative technology leader, we are strongly involved in this development, and we are continually launching more advanced technology to meet the changing needs of the market.

Glaston supports the UN's Sustainable Development Goals, which will guide member states' sustainable development efforts up to 2030. We have identified six goals that also emerge from our own strategy and are most relevant 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 is part of our everyday activities. Our responsibility work is guided by our Code of Conduct, which has been approved by the company's Board of Directors. The Code of Conduct describes our requirements and expectations regarding responsible and ethical conduct. In addition, the Code of Conduct guides our employees in their daily work with colleagues and customers, suppliers, and other stakeholders.

We require high ethical standards of our personnel and partners. As a company, we are committed to complying with the relevant national and international laws, provisions and generally excepted operating practices in all of our activities. In our daily operations, we are committed to combating bribery and corruption.

In the Annual Report 2018, Glaston's corporate responsibility is examined from the perspective of social responsibility, environmental responsibility and financial responsibility. We will develop our responsibility reporting in 2019 and our goal is to publish a more comprehensive responsibility report for year 2019.

Glaston and UN's Sustainable Development Goals

UN Sustainable Developement Goals	Implementation in Glaston
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	· occupational health care in all operating countries according to local needs and requirements · in Finland, personnel have extended healthcare provision · minimizing health risks: e.g. enhanced health checks for the 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
Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all **Goal 9:** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation **Goal 11:** Make cities and human settlements inclusive, safe, resilient and sustainable	· reducing the harmful environmental impact of cities with new glass technology, such as smart glass · Emerging Technologies unit, which provides engineering and consulting services for the production of smart glass and energy glass windows and solar energy applications · GlastonAir™ air flotation technology for glass tempering meets the needs of solar panel and solar cell glass · enabling the introduction of resource-efficient, clean and environmental friendly production processes · ISO 9001 quality management system and ISO 14001 environmental management system · 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 IIOT · participating in the development of society by paying taxes, wages and dividends
Goal 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	· development of environmentally friendly technologies · product development in close cooperation with research institutes and educational institutions

Social responsibility

Goals:

Glaston's strength is its skilled, goal-oriented and motivated personnel. For this reason, we ensure the continuous development of our employees' expertise. In addition, wellbeing and safety at work are very important to us. We also provide our employees with an inspiring working environment, where they have an opportunity to develop and learn, regardless of their age or background.

In 2018, the number of our employees decreased by 11% as a result of the sale of the Tools business. Of our total workforce, 23% were women and 77% were men. At supervisor-level, women accounted for 22% and men for 78%. Of our senior management, i.e. members of the Executive Management Group, 25% were women and 75% were men.

Glaston is a global operator and it has operating locations in more than 10 countries. A local presence is an opportunity to influence and act responsibly on a local level, for example by providing jobs. In 2018, 54% of our personnel worked in Finland and 8% elsewhere In the EMEA area, 25% in Asia and 13% North and South America.

Skills development

In Glaston, personnel training is mainly organized internally and according to local needs. In 2018, areas of focus included sales and field service process and product training as well as developing a problem-solving culture. Problem-solving skills were further developed in Glaston's Excellence Problem Solving training, which aims to ensure a consistent way of solving demanding technical problems. A total of around 50 supervisors and technical experts have participated in the training in 2017–2018. In addition, we trained a group of facilitators to lead problem-solving workshops. We have invested in developing and securing our key competence, namely process expertise, in the form of a Future Makers program. The goal of the year-long trainee program was to safeguard process expertise also in the future and to train new people to become Glaston experts.

With the aid of the eSkills online learning system, our entire workforce can learn and develop their skills independently. The eSkills platform provides training related

Fixed-term and part time employees

	2018	2017	2016
The share of fixed-term employees among all employees, %	**5%**	**2%**	**7%**
Finland	13	10	25
Other countries	4	-	2
Total	**17**	**10**	**27**
The share of part time employees among all employees, %	**2%**	**2%**	**7%**
Finland	2	6	12
Other countries	5	4	16
Total	**7**	**10**	**28**

Sickleave, Finland

	2018	2017	2016
Sickleave total	905	1,161	947
Per employee	3	3	2

Average wage indices (wage compared to equivalent competence level in the marketplace)

	Women	Men
Finland	96%	100%
China	109%	110%

Finland includes salaried employees and management (excl. President & CEO)

China includes salaried employees, incl. local management to our products, processes and operating practices. In 2018, we focused particularly on information security training and developing our employees' digital preparedness. In addition, we regularly arrange training in Finland on occupational safety and legislation themes.

Wellbeing at work

We invest in the wellbeing at work of our personnel in many ways. We arrange occupational health care in all operating countries according to local needs and requirements. In Finland, for example, our personnel are covered by extended health care provision. Flexible working hours, teleworking and a nursing service for sick children are available to support reconciliation of work and leisure time. Glaston employees who are 50 years old and over are enrolled in our senior program, which includes, among other things, an enhanced health check. Providing common hobby sessions as well as sport and exercise benefits, we encourage our personnel to stay active. Our personnel in Finland can implement the extension of hours under the Competitiveness Pact by exercising together or by developing their skills in leisure time.

We respect human and labor rights. Our ethical Code of Conduct clearly states that we treat all employees fairly and equally. Personnel have the opportunity to report, via a whistleblowing service, possible violations of the Code of Conduct. During 2018, no legal cases related to human rights were raised against Glaston.

Remuneration

As a rule, all of Glaston's personnel are covered by an annual bonus scheme, and bonuses are determined on the basis of Glaston's financial success. In addition, the reward scheme includes the Glaston Awards, which are given for good work performance in accordance with the company's values and supporting the implementation of the strategy. We give around 20 awards each year, on average, for excellent customer feedback, good project work and helping colleagues.

Since 2014, Glaston has had a share-based incentive scheme for the Group's key personnel. The incentive scheme is tied to the development of Glaston's share price.

Diverse cooperation

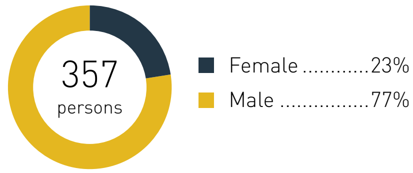
Glaston's goal is to be a reliable and responsible partner for many different stakeholders. We work closely with various educational institutions and research institutes. Important partners include the Technical Research Centre of Finland VTT, the Tampere University of Technology and Business Finland. In addition, we actively offer summer work, diploma work and training positions, which are often also a channel to a permanent job in Glaston.

In product development, cooperation is further highlighted, because we open-mindedly seek new directions, harnessing open innovation. In 2018 we joined the MIDAS project, which is Finland's first industry-oriented machine-learning project. In addition, we were one of the main organizers in the XR Challenge, an international challenge competition for businesses and students in the fields of virtual (VR), augmented (AR) and mixed (MR) reality. In the competition, participants demonstrated how the business of industrial companies can be developed by virtual reality means.

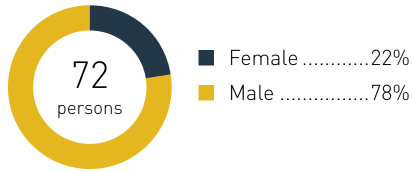
A significant part of our partnership work is cooperation that takes place with business partners. Assembly is a key part of our production, so a seamless supply chain and good supplier relationships are vital. In accordance with our Code of Conduct, we act fairly towards suppliers, service providers, and subcontractors. We require them to respect the principles set out in our Code of Conduct. In 2018, Glaston had around 440 suppliers.

Every year, we carry out supplier evaluations. In Finland we select 40–50 key suppliers. The evaluation process involves, among others, quality management personnel, buyers, the procurement manager and the factory director. Based on the evaluation, we select around 10 suppliers, with which we conduct a more detailed review of their operations and agree on any areas requiring development. In addition, we make visits to suppliers, if necessary.

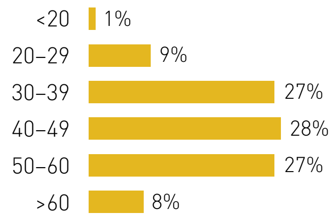
Gender distribution of personnel 2018



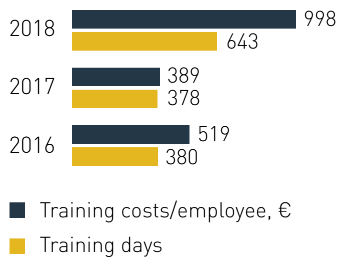
Gender distribution of supervisors 2018



Age distribution of personnel 2018



Training days and costs



Environmental responsibility

Goals:

Glaston is a frontrunner in glass processing technologies and services. To promote sustainable development, quality and environmental issues are central to our operations. We continuously develop the quality, reliability and energy efficiency of our products. Certified ISO 9001 quality management systems and operations in accordance with the ISO 14001 environmental management system form the foundation of Glaston's management of quality and environmental issues.

Glaston has two kinds of impact on the environment:

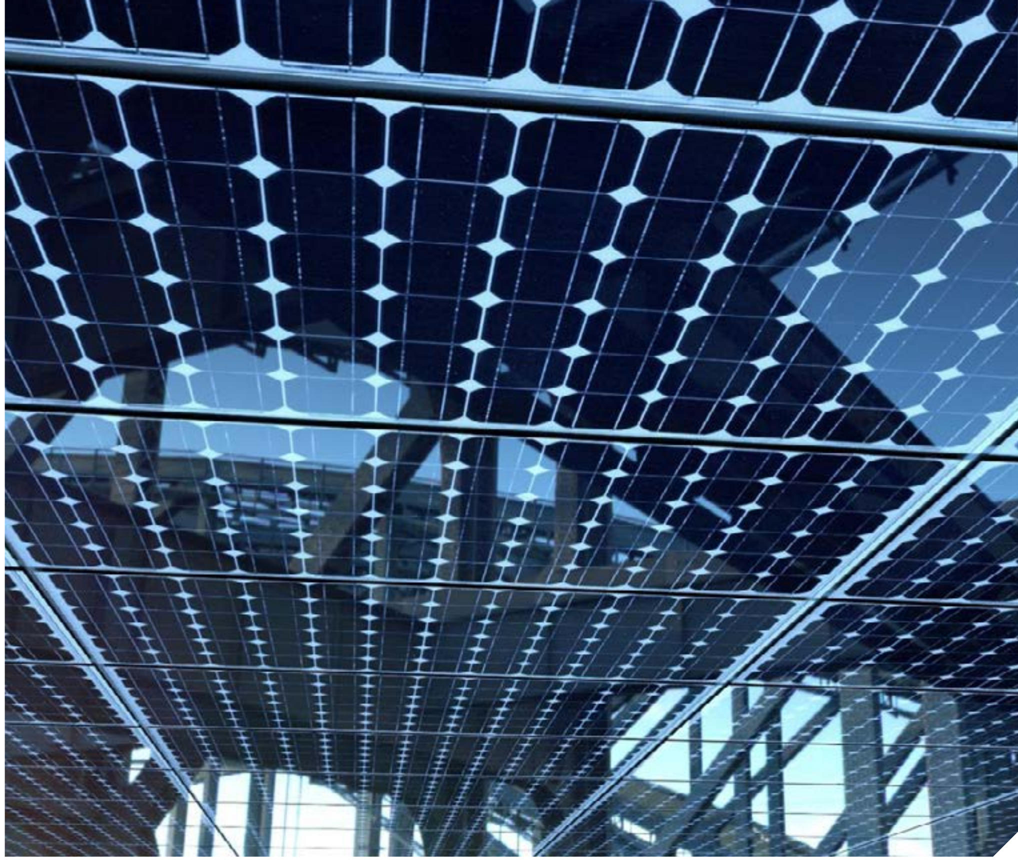
- direct effects of its own operations
- indirect effects, when glass processed with Glaston's machines is used by end-customers

As the industry's technology leader, we strive to promote sustainable development. Our direct adverse environmental impact is minor. The most significant environmental effects arise from the life-cycle energy consumption of our machines.

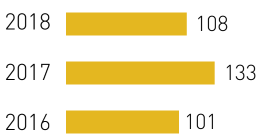
In the market, we are known for the high quality of our products. We manage quality and environmental issues in accordance with the ISO 9001 quality management system and the ISO 14001 environmental management system. Quality issues are at the heart of our operations, and 2019 is the 25th anniversary of Glaston first receiving a quality certificate.This means, among other things, that the operating environment, stakeholders and risk management have been taken into account in all that we do. We continuously assess our operations to ensure we are acting in accordance with requirements.

The largest environmental effects arising from our own activities come from transport and the energy consumption of properties. Energy audits are regularly conducted at our Tampere properties, and measures agreed to further reduce our energy consumption.

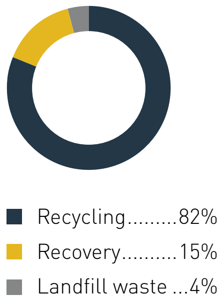
In our development work, we are fully open to the utilization of new technology and the opportunities created by digitalization in order to make our products higher in quality, more reliable and more energy efficient.



Quantity of waste, t

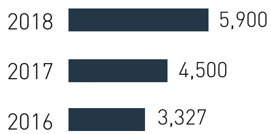


Waste processing, 2018



Energy consumption, kWh

Water consumption, m³



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The long life cycle of our glass processing machines, up to 20 years, supports the environmental goals of sustainable development. We design and build our machines to withstand continuous use at high utilization rates. Proactive and regular maintenance and our extensive range of upgrade products enhance production efficiency and extend the economic life of machines. We support our customers throughout the entire life cycle of their machines. By utilizing cloud services and the opportunities offered by IIoT (Industrial Internet of Things), we help our customers to use their machines as efficiently as possible. In addition, we facilitate real-time customer support in the event of disruptions without delays and environmentally harmful travel.

We are constantly developing the quality, reliability and energy efficiency of our products, because our customers' end products require consistently higher quality and more versatile features. The most significant cost items in our customers' production are materials and energy. The energy efficiency of our glass processing machines is at the heart of our product development. As a result of product development, the energy consumption of our main products has been substantially reduced, and in the tempering process of low-emissivity glass, for example, the saving has been around 30% in 10 years. The real-time quality measurement system iLooK detects deviations in the quality of processed glass immediately, thereby minimizing material waste and additional costs.

Smart glass and solar energy

Increasing environmental awareness and the climate change debate are also reflected in the glass industry and, as the frontrunner of our industry, we take this into account in our product development.

Energy is the biggest cost item in the lifetime of buildings, and heat generation and loss through windows accounts for 25–30% of the energy used for heating and cooling buildings. New energy standards and stricter legislation are driving demand for more energy-efficient and environmentally conscious solutions in both new and renovation construction. The energy-saving potential is enormous, because in the EU area up to 86% of buildings' glass surfaces consist of outdated and less energy-efficient single or double glazing. The glass processing industry has actively developed types of glass that can be used to optimize the need for heating and cooling in buildings and thereby reduce energy consumption.

Emerging glass technologies and glass products such as smart glass that generate added value are making a strong entry into the market. The potential of smart glass is enormous and growth of the smart glass market is clearly the highest of all of the glass industry's segments. Annual growth of this market is projected to be around 12-15% until 2025.* In this development, we are strongly involved via our Emerging Technologies unit, which provides engineering and consulting services for the production of intelligent glass and energy glass windows and solar energy applications. Our unit also sells and supplies these production lines.

One of our first projects is Heliotrope Technologies, a California-based nanotechnology company. The aim of our cooperation is to develop a glass based on smart glass technology which is price-competitive and suitable for mass production, and which regulates precisely and quickly the thermal and light transmittance of glass.

Solar energy is growing in popularity, and demand for the glass used in solar panels is expected to grow annually by around 20% up to 2021.** Strict quality requirements, for example in relation to glass thickness and curved surfaces, are set for the glass used in solar panels and cells. The Glaston-developed GlastonAir™ air flotation technology for glass tempering meets this need excellently, because by using our machine it is possible to temper 2.0 mm thick glass that has an extremely uniform and optically the best possible quality.

* Source: Grand View Research

** Source: Freedonia

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Financial responsibility

Goals:

At the heart of our financial responsibility is ensuring our profitability and competitiveness. Our main goal is securing profitable growth. With profitable operations, we are able to fulfill our obligations towards our key stakeholders. Personnel salaries, payment of goods and service providers, social taxes, and potential dividends and returns of capital for shareholders are our most important obligations.

We operate internationally in Europe, Asia and in North and South America. Our Group consists of the parent company Glaston Corporation and our subsidiaries in Finland, Germany, the USA, the UK, France, Singapore, China, Russia, Mexico and Brazil. We influence society by providing jobs and a livelihood for our employees. Via the private consumption of our personnel, the salaries that we pay impact the gross domestic product of their respective countries. In addition, our presence creates demand for the services and products of local businesses.

We are committed to paying all taxes required by applicable tax laws, regulations and statutes. Our most significant tax items are withholding taxes on employees' salaries, VAT and income tax. We are committed to complying with the tax laws and taxation practices of the countries we operate in, and we cooperate with local tax authorities in accordance with local laws and practices.

We manage our finances in a responsible and long-term manner. Our approach is both active and anticipatory. We seek long-term financing solutions. Our Group's Chief Financial Officer is responsible for managing financial risks.

Distribution of economic impact

EUR million		2018	2017	2016
Customers	Profits	101.1	109.7	107.1
Suppliers	Purchases, materials and services	71.1	67.6	68.1
Employees	Salaries, bonuses and other social costs	23.4	24.4	26.2
Financiers	Financial costs	0.7	0.8	1.0
Owners	Dividend/Return of capital	1.9	0.0	0.0
Public sector	Taxes	0.2	0.2	0.4
Community investments	Benefications	0.0	0.0	0.0
Investements to the development of business	R&D	4.1	3.8	2.5

	Purchases			R&D			Salaries			Taxes			Total		
EUR million	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016
Finland	49.5	47.6	43.9	4.0	3.6	1.3	13.1	12.8	12.8	0.0	0.2	0.0	66.7	64.3	58.8
Other EMEA	4.0	2.9	3.8	0.1	0.1	0.1	3.2	3.5	3.4	0.2	0.1	0.1	7.5	6.6	7.4
Americas	9.3	9.3	14.0	-0.2	-0.2	0.9	3.8	4.7	6.0	0.0	0.0	0.3	13.0	13.8	21.0
Asia	8.2	7.7	6.3	0.2	0.3	0.3	3.2	3.4	3.9	-0.1	0.0	0.0	11.5	11.4	10.5

Developing responsibility in 2019

We will develop our responsibility reporting in 2019. We will determine the priority areas of our responsibility based on a materiality analysis. This will form the basis for building our corporate responsibility goals. In addition, we will define our internal processes and operating models.

Our goal is to publish a more comprehensive responsibility report in 2019.

Corporate Governance Statement 2018

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 of NASDAQ Helsinki Stock Exchange. In addition, Glaston complies with the Finnish Corporate Governance Code 2015, which is publicly available at the address www.cgfinland.fi.

The report has been approved by the Company's Board of Directors. 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 a salaries and remuneration statement on the Company's website at the address www.glaston.net/en/investors/Governance. The information is also included in the Annual Review 2018.

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.

General Meeting of Shareholders

The General Meeting of Shareholders is the Company's ultimate decision-making body. It decides on the duties for which it is responsible in accordance with the Finnish Companies Act and the Articles of Association, which include the adoption of the financial statements and the consolidated financial statements contained therein, the distribution of profits, and the discharge of the Members of the Board of Directors and the President & CEO from liability. In addition, the General Meeting of Shareholders elects the Board of Directors and the Auditors. The Annual General Meeting decides on the remuneration paid to Members of the Board and the Auditors. The Annual General Meeting, furthermore, may decide on, for example, amendments to the Articles of Association, issuances of shares, and the acquisition of the Company's own shares.

Glaston Corporation's General Meeting of Shareholders meets at least once per year. The Annual General Meeting must be held at the latest by the end of May. In accordance with the Articles of Association, the notice to attend a General Meeting of Shareholders must be published on the Company's website no earlier than two (2) months before the last day of registration and no later than three (3) weeks before the General Meeting, but at least nine (9) days before the record date of the General Meeting. The Board of Directors may also decide to publish the notice of the General Meeting in one or more Finnish- or Swedish-language national newspapers. In addition, Glaston publishes the notice to the General Meeting of Shareholders as a stock exchange release.

The minutes of the General Meeting, including the voting results and the appendices of the minutes that are part of the resolutions made by the meeting, are posted on the Company's website within two weeks of the meeting.

The President & CEO, the Chairman of the Board and the Members of the Board of Directors shall attend the General Meeting of Shareholders. In addition, the Auditor shall be present at the Annual General Meeting.

Extraordinary General Meeting

An Extraordinary General Meeting of Shareholders is convened when the Board of Directors considers there is good cause to do so, or if the Auditor or shareholders who control one tenth of all the shares so demand in writing for the consideration of a certain issue.

Shareholders' Rights

In accordance with the Finnish Companies Act, a shareholder shall have the right to have a matter falling within the competence of the General Meeting dealt with by the General Meeting, if the shareholder so requests in writing from the Board of Directors well in advance of the meeting, so that the matter can be mentioned in the notice to attend. Glaston shall publish on its website, at the latest by the end of the financial year preceding the Annual General Meeting, the date by which a shareholder must notify the Board of Directors of his/her request. At a General Meeting, shareholders shall have the right to make proposals and ask questions on the matters on the agenda of the meeting.

A shareholder shall have the right to participate in a General Meeting if the shareholder is registered in the Company's register of shareholders eight (8) days before a General Meeting. Owners of nominee-registered shares may be temporarily registered in the Company's list of shareholders for participation in a General Meeting. A shareholder may attend a General Meeting personally or through an authorized representative. A shareholder may also have an assistant at a General Meeting.

Annual General Meeting 2018

The Annual General Meeting was held in Helsinki on 10 April 2018. The meeting was attended by 53 shareholders, representing a total of 61% of the Company's voting rights. The Annual General Meeting adopted the financial statements and discharged the President & CEO and the Members of the Board of Directors from liability for financial year 2017. In accordance with the proposal of the Board of Directors, the Annual General Meeting resolved that a return of capital of EUR 0.01 per share be paid for the financial year 2017. The return of capital was paid on 26 April 2018.

In accordance with the proposal of the Shareholders' Nomination Board, the Annual General Meeting resolved that the annual remuneration payable to the members of the Board of Directors be increased by 15%, and therefore that the Chairman of the Board be paid an annual fee of EUR 46,000, the Deputy Chairman EUR 34,500 and the other members of the Board EUR 23,000.

The Annual General Meeting authorized the Board of Directors to decide on the issuance of shares as well as the issuance of options and other rights granting entitlement to shares. The authorization covers a maximum of 20,000,000 shares. The authorization is valid until 30 June 2019.

The Annual General Meeting decided in accordance with Chapter 3, Section 14 a, Subsection 3 of the Finnish Companies Act, that rights to all shares recorded on the joint book-entry account of Glaston Corporation and the rights based on such shares, whose registration had not been requested in accordance with Chapter 6, Section 3 of the Act on the Book-Entry System and Clearance Activity prior to the resolution of the Annual General Meeting, be forfeited. In addition to the shares, all rights based on those shares, such as undrawn dividends, shall also be forfeited. Rules and regulations regarding treasury shares shall be applied to the forfeited shares after the resolution. On 30 January 2018, the number of Glaston Corporation's shares in the joint book-entry account was 75,200. The Board of Directors decided to cancel the shares and the cancellation was entered into the Trade Register on 27 April 2018, after which the number of Glaston Corporation shares is 193,633,136.

All documents relating to the Annual General Meeting are available on the Company's website at the address www.glaston.net.

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 (5) and a maximum of nine (9) 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. According to the Articles of Association, a person who has reached 67 years of age cannot be elected a Member of the Board of Directors.

Under Recommendation 10 of the Finnish Corporate Governance Code, a majority of Members of the Board shall be independent of the Company, and at least two (2) Members who are independent of the Company shall also be independent of the Company's significant 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.

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 Chairman and a Deputy Chairman 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 primarily 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 Chairman 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 the Company's head office 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 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 at least two meetings per year.

Board of Directors in 2018

At the Annual General Meeting, held on 10 April 2018, the Members of the Board of Directors Teuvo Salminen, Kai Mäenpää, Sarlotta Narjus, Anu Hämäläinen and Tero Telaranta were re-elected for a term of office ending at the closing of the next Annual General Meeting. In addition, it was resolved that Antti Kaunonen and Sebastian Bondestam be elected as new Members of the Board of Directors for the same term.

The Board memberships of Andreas Tallberg, Claus von Bonsdorff and Pekka Vauramo ended on 10 April 2018. Andreas Tallberg served as Chairman of Glaston's Board of Directors from 13 March 2007 to 10 April 2018. Claus von Bonsdorff served on Glaston's Board of Directors from 16 March 2006 to 10 April 2018 and Pekka Vauramo from 5 April 2011 to 10 April 2018.

Teuvo Salminen has served as Chairman of the Board, and Sebastian Bondestam as Deputy Chairman, since 10 April 2018.

In 2018, an external evaluator conducted the Board evaluation process, consisting of self-evaluations, peer evaluations and interviews. The evaluation process consisted of numeric assessments and the possibility to provide more detailed comments. Feedback from selected members of management was also requested as part of this evaluation process. The results of the evaluation were discussed and analyzed by the Board and improvement proposals were agreed based on these discussions.

The work of the Board, together with the Company's management, focused on the strategy process, which resulted in a revised strategy for 2018–2021, published in November. In addition, the foundations for the Company were further strengthened and growth opportunities were reviewed for, among other things, potential industry cooperation projects and emerging technologies. Projects related to the digitization of operations were also an area of focus. The Board also monitored the Company's development in improving operational activities and profitability.

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, in principle, independent of the Company. Member of the Board Tero Telaranta is dependent on a significant shareholder of the Company, AC Invest Eight B.V., whose ownership was 17.5% at 31 December 2018.

The Members of the Board have no conflicts of interest between the duties they have in the Company and their private interests.

Information on Members of the Board of Directors

TEUVO SALMINEN, b. 1954, M.Sc.(Econ.), APA
Member of the Board since 2010, Chairman of the Board since 2018. Independent of the Company and of significant shareholders.
Share ownership on 31.12.2018:
562,277 shares
Main occupation: Professional Board Member
Primary work experience:
Pöyry Plc, 1985–2010:
Senior Advisor 2010, Group Executive Vice President, Deputy to the CEO, 1999–2009
Head of Infrastructure & Environment Business Group, 1998–2000
Head of Construction Services Business Group, 1997–1998
Chief Financial Officer, 1988–1999
Key positions of trust:
Cargotec Plc, Member of the Board, since 2010
Evli Bank Plc, Member of the Board, since 2010
Pöyry Plc, Deputy Chairman of the Board, since 2015
3Step It Group, Member of the Board, since 2016
Havator Oy, Chairman of the Board, since 2010
Holiday Club Resorts Oy, Member of the Board, since 2015

SEBASTIAN BONDESTAM, b. 1962, M.Sc.(Eng.)
Member of the Board and Deputy Chairman of the Board since 2018. Independent of the Company and of significant shareholders.
Share ownership on 31.12.2018: no shares
Main occupation: Uponor Infra Oy, President; Uponor Corporation, Deputy to the CEO.
Primary work experience:
Uponor Corporation, Executive Vice President, Supply Chain, 2007–2013
Tetra Pak Market Operations, Director, Converting EU, 2004–2007
Tetra Pak Asia & Americas, Vice President, Converting Americas, 2001–2004
Business Unit Tetra Brik, Director, Converting Americas, 1999–2001
Tetra Pak, Production Director, UK, 1997–1999
Tetra Pak, Factory Manager, China, 1995–1997
Key positions of trust:
no other positions of trust

ANU HÄMÄLÄINEN, b. 1965, M.Sc.(Econ.)
Member of the Board since 2012. Independent of the Company and of significant shareholders.
Share ownership on 31.12.2018:
150,000 shares
Main occupation: Wärtsilä Corporation, Vice President, Group Treasury, Financial Services and Support
Primary work experience:
Wärtsilä Corporation, Vice President, Group Control, 2010–2015
Wärtsilä Corporation, Director, Financial Accounting, 2008–2010
SRV Group, Senior Vice President, Financial Administration, IFRS & IPO Project Manager, 2006–2008
Quorum Group, Administration Director and Senior Partner, 2005–2006
Pohjola Group, 2001–2005: Conventum Securities Ltd., Managing Director, 2004–2005
Conventum Ltd., Administration Director and Senior Partner, 2001–2004
Key positions of trust:
Fingrid Plc, Member of the Board, since 2016

ANTTI KAUNONEN, b. 1959, D.Sc.(Tech.), MBA
Member of the Board since 2018. Independent of the Company and of significant shareholders.
Share ownership on 31.12.2018:
10,000 shares
Main occupation: Cargotec Corporation, President of Kalmar Business Area
Primary work experience:
Cargotec Corporation, Senior Vice President, Automation and Project Division in Kalmar, 2015–2016
Voith, Germany, 2007–2015
Metso Corporation, (Neles Automation, Valmet Automation and Kajaani Automation), Finland, USA and China, 1986–2007
Tampere University of Technology, Finland, Professor (part-time), 1998–2007
Tampere University of Technology, Finland, 1983–1986
Key positions of trust:
Foundation of the Tampere University of Technology, Board Member, 2014–2018
Jiangsu Rainbow Heavy Industries Co. Ltd., Shenzhen, China, Board Member, since 2017

KAI MÄENPÄÄ, b. 1960, M.Sc.(Eng.)
Member of the Board since 2017. Independent of the Company and of significant shareholders.
Share ownership on 31.12.2018: 12,500 shares
Main occupation: Valmet Technologies Oy, Vice President, Energy Sales and Services Operations, EMEA
Primary work experience:
Valmet Power Oy, Finland, 2014-2015, Vice President, Energy Sales and Services Operations, EMEA; Managing Director
Metso Power Oy, Finland, 2007–2014, Vice President, Capital Projects; Vice President, EMEA; Managing Director
Kvaerner Power Oy, Finland, 2003–2007, Vice President, Capital Projects; Managing Director
Kvaerner Pulping Oy, Finland, 1996–2003, Vice President, Recovery Boilers SBU, Vice President, Boilers SBU, Managing Director (2000–2003)
Key positions of trust:
no other positions of trust

SARLOTTA NARJUS, b. 1966, M.Sc. (Architecture) SAFA
Member of the Board since 2016.
Independent of the Company and of significant shareholders
Share ownership on 31.12.2018: no shares
Main occupation: SARC Architects Ltd, CEO
Key positions of trust:
no other positions of trust

TERO TELARANTA, b. 1971, M.Sc.(Eng.), M.Sc.(Econ.)
Member of the Board since 2017. Independent of the company, dependent on a significant shareholder.
Share ownership on 31.12.2018: 1,000 shares
Main occupation: Ahlström Capital, Director, Industrial Investments
Primary work experience:
Corob Group, CEO, 2013–2015
CPS Color Group, EVP, Equipment Division (Corob), 2012–2013
Cargotec Corporation 2006–2012: SVP, Tail Lifts 2008–2012 & VP, Corporate Development 2006–2008
Bain & Company, 1998–2006, various positions
Key positions of trust:
Destia Group, Member of the Board, since 2015
Enics AG, Member of the Board, since 2016

Attendance of Members of the Board at meetings of the Board 2018

	Meetings of the Board	Attendance, %
Teuvo Salminen, Chairman	13/13	100
Sebastian Bondestam, Deputy Chairman	10/13 *)	100
Anu Hämäläinen	13/13	100
Antti Kaunonen	10/13*)	100
Kai Mäenpää	13/13	100
Sarlotta Narjus	13/13	100
Tero Telaranta	13/13	100
	*) Member from 10 April 2018	
until 10 April 2018		
Claus von Bonsdorff	3/3	100
Andreas Tallberg	3/3	100
Pekka Vauramo	3/3	100

Attendance at meetings of the Board

In 2018 Glaston's Board of Directors held 13 meetings. The attendance of Members of the Board at the meetings was 100%.

Committees of the Board of Directors

The Company has no separate Audit Committee established by the Board of Directors and therefore the Board of Directors is responsible for the duties of the Audit Committee in accordance with the Finnish Corporate Governance Code. The Company's Board of Directors has considered that it wishes to participate as a whole in the preparation of issues specified for the Board and that the effectiveness of the Company's Corporate Governance is such that it does not currently require the establishment of separate committees.

Shareholders' Nomination Board

The Shareholders' Nomination Board 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. In addition, the 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 Finnish Corporate Governance Code.

The Nomination Board consists of four members, all of which are appointed by the Company's four largest shareholders, who shall appoint one member each. The Chairman of the Company's Board of Directors shall serve as an advisory member of the Nomination Board.

The Company's largest shareholders entitled to appoint members to the Nomination Board shall be determined on the basis of the registered holdings in the company's shareholder register held by Euroclear Finland Ltd as of the first working day in September in the year concerned. The Nomination Board shall elect a Chairman from among its members. The Chairman of the Board of Directors shall convene the first meeting of the Nomination Board and the Nomination Board's Chairman shall be responsible for convening subsequent meetings.

A Nomination Board shall be established to serve until a General Meeting decides otherwise. The members of the Nomination Board shall be appointed annually and the term of office of the members shall expire 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 Board.

The members of the Nomination Board shall not be entitled to receive a fee for membership of the Board. The travel expenses of members of the Nomination Board shall be reimbursed in accordance with the Company's travel rules. The Nomination Board may within the scope of its duties use external experts, at the Company's approved expense, to identify and assess candidates as potential Members of the Board of Directors.

The Nomination Board shall submit its proposals to the Company's Board of Directors annually by the end of the 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.

Individuals proposed as members of the Board of Directors shall possess the competence required of the position and the opportunity to spend an adequate amount of time in handling the duties required of the position.

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 Chairman's vote shall be decisive. If the votes are tied in the election of the Chairman, the member candidate for Chairman nominated by the shareholder who had the largest number of shares when the Nomination Board was established shall be elected as Chairman.

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 2018

Glaston's Shareholders' Nomination Board in 2018, based on ownership on 3 September 2018, comprised Lasse Heinonen, nominated as a member by AC Invest Eight B.V., Jaakko Kurikka, nominated as a member by Hymy Lahtinen Oy, Sami Jormalainen, nominated as a member by OP-Finland Small Firms, and Esko Torsti, nominated as a member by lmarinen Mutual Pension Insurance Company. Teuvo Salminen, Chairman of the Glaston Corporation's Board of Directors, served as an advisory member of the Nomination Board.

In its organizing meeting held on 5 October 2018, the Nomination Board elected Lasse Heinonen from among its members to be Chairman. The Board met three (3) times during 2018 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 focused in its activities on preparing a proposal on the composition of the Board of Directors, on the identification of candidates as potential Members of the Board of Directors, and on remuneration issues pertaining to the Members of the Board of Directors. In its assessment of Members of the Board of Directors, the Nomination Board has taken into account the competence, experience and diversity of views of the Members of the Board.

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.

Arto Metsänen has served as President & CEO since 1 September 2009. SVP, Machines Sasu Koivumäki serves as Deputy to the President & CEO.

Executive Management Group

The Executive Management Group consists of the President & CEO, the Chief Financial Officer, the Senior Vice Presidents of the business areas, the Senior Vice Presidents of the Asia and EMEA market areas, the Senior Vice President of the Emerging Technologies Unit, and the General Counsel and Senior Vice President, Human Resources. 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.

The Chairman 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 Chairman 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.

Executive Management Group in 2018

The Executive Management Group convened six (6) times in 2018. The Executive management groups consisted of President & CEO Arto Metsänen, SVP Machines & Deputy to President & CEO Sasu Koivumäki, CFO Päivi Lindqvist, SVP Services Artturi Mäki, SVP Emerging Technologies Juha Liettyä, SVP EMEA Pekka Hytti, SVP Asia Frank Chengdong Zhang and general Counsel & SVP Human Resources Taina Tirkkonen (on maternity leave since 10 January 2018).

Contents

Johtoryhmän jäsenten tiedot

ARTO METSÄNEN, b. 1956, M.Sc.(Eng.)
President and CEO
Employed by the Company and Chairman of the Executive Management Group since 2009
Share ownership on 31.12.2018:
1,750,000 shares
Primary work experience:
CPS Colour Group Oy, President & CEO, 2005–2009
Consolis Oy, President & CEO, 2005
Sandvik Tamrock Oy, President, 2003–2005
Sandvik Tamrock, SVP USA and Mexico, 2002–2003
Sandvik Tamrock Oy, SVP South Europe and Middle East, 1998–2002

SASU KOIVUMÄKI, b. 1974, M.Sc.(Econ.)
Senior Vice President, Machines and Deputy CEO
Employed by the company since 2002, Member of the Executive Management Group since 2012
Share ownership on 31.12.2018:
300,000 shares
Primary work experience:
Glaston Corporation, Chief Financial Officer, 2012–2016
Glaston America Inc., Sales Director, 2010–2012
Glaston Corporation, Finance Manager, 2007–2010
Tamglass Finton Oy, Managing Director, 2005–2007
Tamglass Glass Processing Ltd, Business Controller, 2002–2005
Finnforest Oyj, Several financial management positions, 1998–2002

TAINA TIRKKONEN, b. 1975, LL.M., M.Sc.(Admin.), MBA
General Counsel and Senior Vice President, Human Resources
Employed by the Company since 2011, Member of the Executive Management Group since 2013
Share ownership on 31.12.2018: 75,000 shares
Primary work experience:
Metso Minerals Oy, Legal Counsel, 2008–2011
Cargotec Corporation, Legal Counsel, 2006–2008

JUHA LIETTYÄ, b. 1958, B.Sc.(Eng.)
Senior Vice President, Emerging Technologies
Employed by the company since 1986, Member of the Executive Management Group since 2007
Share ownership on 31.12.2018:
250,000 shares
Primary work experience:
Glaston Finland Oy, SVP, Americas, 2016
Glaston Finland Oy, SVP, Machines, 2013-2016
Glaston Finland Oy, SVP, Heat Treatment Product Line, 2012–2013
Glaston Finland Oy, SVP, Services Business, 2009–2012
Glaston Corporation, SVP, Quality and Business Development, 2007–2009
Kyro Corporation, SVP, Technology, 2003–2007
Tamglass Engineering Ltd. Oy, Managing Director, 1999–2003
Tamglass Ltd. Oy, Several management positions, 1991–2003

PÄIVI LINDQVIST, b. 1970, M.Sc.(Econ), MBA
Chief Financial Officer
Employed by the company and Member of the Executive Management Group since 2016
Share ownership on 31.12.2018: 60,000 shares
Primary work experience:
Basware Corporation, Vice President, Business Control, 2014–2016
Outokumpu Plc, Divisional CFO, Stainless Coil EMEA, 2012–2013; SVP Communications and Investor Relations, 2007–2011
Tieto Corporation, EVP, Communications and Investor Relations, and financial expert positions, 1997–2007

ARTTURI MÄKI, b. 1969, M.Sc.(Eng.)
Senior Vice President, Services
Employed by the company and Member of the Executive Management Group since 2016
Share ownership on 31.12.2018: 12,531 shares
Primary work experience:
Valmet, Director, Roll Maintenance, 2015–2016
Valmet / Metso Paper, Director, Roll Operations, 2011–2015
Metso Paper: General Manager, Production Development, Service, 2008-2011; Vice President, Spare parts, Asia-Pacific, 2006-2007; Global Technology Manager, Process Parts, 2002-2005; Production Manager, Winders, 1998–2002

FRANK CHENGDONG ZHANG, b. 1968, e-MBA
B.Sc. (Power Machinery Engineering)
Senior Vice President, Asia
Employed by the company since 2008, Member of the Executive Management Group since 2010
Share ownership on 31.12.2018: no shares
Primary work experience:
GE 2005–2008:
GE Motors & Controls, General Manager, Asia, 2005–2008
GE Lighting Systems, Product Line Director, 2005–2008

PEKKA HYTTI, b. 1955, M.Sc.(Eng.)
Senior Vice President, EMEA
Employed by the company since 2010, Member of the Executive Management Group since 2015
Share ownership on 31.12.2018: 100,000 shares
Primary work experience:
Sandvik Mining and Construction, Sub-region Med, General Manager, Sandvik Italy S.p.A., 2004–2009
Sandvik Tamrock, Business Line Manager, Tools, Sandvik Espanola SA, 2000–2004
Drilltech Mission LLC, USA, Sales and Marketing Manager, 1999
Tamrock Oy 1992–1998:
Surface Division, Sales and Marketing Manager, 1992–1995
Product Companies, Vice President, Product Support, 1995–1998
Product Companies, General and Plant Manager, Tampere, 1998
Oy Tampella Ab, Tamrock, 1982–1992

The Extended Management Group comprised of, in addition to the members of the Executive Management Group, Moreno Magon, Vice President Sales & Services, South America; Scott Steffy, Vice President Sales & Services, North America; Antti Hakanen, Vice President Business Control; Heikki Halonen, Finance Director, Asia; and Joséphine Mickwitz, Vice President IR, Communications and Marketing. The Extended Management Group met three times during 2018.

Main Features of the 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 for the main areas of its operations Group-wide principles 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 each Member of 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 auditing or commissions the internal 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, control of risk management activities and processes, business continuity planning and crisis management. As part of the risk management process, the most significant risks and their possible impacts are reported to company management and the Board of Directors regularly, based on which management and the Board can make decisions on the level of risk that the Company's business areas are possibly 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 area and Group-level management systems. Risk management is the responsibility of the directors and managers of each business area and 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 business-area 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 of 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.

Business-area and group-level risk management is included in the regularly repeated 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 area of operations.

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

With the aid of the risk management process, risks are systematically identified and assessed in each business area and at Group level. In addition, at each level measures are specified which, when implemented, will achieve an acceptable level of risk. 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 31. The management and organization of the Group's financial risks are presented in more detail in Note 3 of the consolidated financial statements on page 56.

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, through a whistleblowing service, 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. The Auditor's duty is 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 2018

At the 2018 Annual General Meeting, the accounting firm Ernst & Young Oy was elected as the Company's Auditor.

The auditor with principal responsibility was Kristina Sandin APA. Auditing units representing Ernst & Young have mainly served as the auditors of the Company's subsidiaries in each country. In 2018 the Group's auditing costs totaled approximately EUR 287,000, of which Ernst & Young received approximately EUR 262,000. Ernst & Young Oy's auditing expenses for the audit for financial year 2018 totaled approximately EUR 221,000. In addition, auditing units belonging to Ernst & Young have provided other advice to Group companies to a value of EUR 191,000.

Related-party transactions

Glaston Group's related parties include the Members of the Board of Directors, the Members of the Executive Management Group, the President & CEO and their family members as well as the Group's parent company (Glaston Corporation) and its subsidiaries and associated companies. Shareholders that have significant influence in Glaston through their shareholding are also considered to related parties, as are the companies controlled by these shareholders. Parties are considered to be related to each other if one party is able to exercise control or significant influence over the other party's financial and operating decision-making. There is no special decision-making procedure with respect to related party transactions. In its transactions with associated companies and other related parties, Glaston adheres to the same commercial terms and conditions as in its transactions with external parties.

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 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 has decided that it will not establish and 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.

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.

Report of the Board of Directors

Glaston's markets and market development
Glaston is a frontrunner in glass industry technologies and services, responding globally to the glass processing needs of the architectural, solar, appliance and automotive industries. Demand for Glaston's products and services is dependent on demand for glass and glass processors' capacity. Demand for glass is expected to grow by around 3–5% annually in the coming years. Demand for smart glass is expected to grow by 12–15 %.

Use of glass in construction is increasing through urbanization. Special requirements for glass are growing due to changing environmental factors, increasing safety regulations and energy-efficiency demands. In the automotive industry, the relative proportion of glass in vehicles is growing and use of thin glass, in particular, is increasing. Growth of solar energy, intelligent glass and energy-efficient glass packages is being supported by increasing environmental awareness and investments in renewable energy. Most, i.e. around 80%, of glass produced with Glaston's technology is supplied to the building industry, around 10% to the automotive industry, and the remaining 10% to the appliance industry.

Glaston operates in a global market, and the company's business is to a large extent linked to trends in global investment demand.

EMEA
Euro area growth weakened slightly towards the end of 2018. Trade policy tensions and the long-running and confusing Brexit situation further increased uncertainty. In Central Europe, and particularly in Germany and Austria, glass processing investment activity continued to be good, however. Tightening of Finland's operational safety regulations for glass structures increased demand and investment. The situation in Turkey remained unchanged, and no change is expected before the 2019 local elections.

The European Commission forecasts that euro area growth will continue, but will decline slightly in 2019. Growth is supported, in particular, by Austria, Germany and Netherlands. Construction in Germany is projected to grow at an average rate of 5% annually, and the planned tightening of safety glass regulations will increase demand for safety glass and laminated glass in particular. Glass processing investment activity in Eastern Europe is expected to remain good, particularly in Poland.

Americas
Confidence in the US economic outlook continued to be strong in the fourth quarter, and GDP development continued to be good. Demand in Glaston's market and customers' willingness to invest clearly picked up in the review period. In Glaston's assessment, tightening building regulations and higher quality requirements for glass supported demand for Glaston's products. In addition, a tax reform that entered into effect in the USA at the beginning of last year, which will accelerate tax write-offs on investments, is expected to have a positive impact on customers' willingness to investment.

Challenges continued in the Mexico, Central America and South America markets.

Asia-Pacific
The Asia-Pacific area is expected to be the fastest growing market area for glass processing in the coming years. The Chinese glass industry market is the largest in the Asia-Pacific area. Price competition is intense and local operators have a significant competitive advantage in a cost-conscious market. Glaston has developed a competitive product for the Chinese market, which the company began to market at the beginning of 2019.

The markets in South-East Asia developed positively and, particularly in the Philippines, Indonesia, Thailand and Vietnam, interest in energy-efficient glass solutions was good. In India and its neighboring markets, development was steady. Market activity and demand, both for new glass processing machines and modernizations, were good in Australia and New Zealand during the review period.

Emerging Technologies
Emerging glass technologies and value-adding glass products, such as intelligent glass, are making a strong entry into the market. Glaston's Emerging Technologies unit is continually looking for new business opportunities, and it provides engineering and consultant services in the field of emerging glass technologies.

In the reporting period, negotiations progressed on new special projects for the needs of the automotive, solar energy and aviation industries. A long-running project under preparation with one customer received final approval at the end of the year and was confirmed as an order in January 2019.

Delivery plans for a GlastonAir™ tempering machine ordered in autumn 2017, which is particularly suited to the manufacture of thin solar panels, were firmed up as the customer's factory investment progressed, and the machine was delivered to China during autumn 2018. Installation at the customer's factory has begun and is expected to be completed by the end of the third quarter.

The nanotechnology company Heliotrope Technologies is developing a new glass technology for the market, and Glaston's role in the project is production line developer, manufacturer and global distributor. Heliotrope's smart glass technology was presented in October at Glaston's stand at the Glasstec Fair, and it aroused much interest among customers.

Glaston has the exclusive right to sell Heliotrope glass production lines globally. Testing of the final phase of the Heliotrope project is under way, and Heliotrope and Glaston expect that the first line will be ordered during 2019. Heliotrope lines include Glaston's and external manufacturers' equipment.

Glaston's acquisition of Bystronic glass, implemented in 2019, strengthens the company's position in intelligent glass and other integrated line solutions, and enables higher overall margins for deliveries.

Order intake and order book

Glaston's order intake in January-December grew 4% compared with the previous year and totaled EUR 107.6 (103.7, taking into account sold business** operations 102.4) million. Taking into account the sale of the pre-processing and tools businesses, order intake grew 5%.

Machines

In many countries, there was a shortage of tempered glass capacity, and there was demand in all tempered product segments. Glaston's customers are increasingly looking for solutions with a higher level of automation, which was reflected in growth of demand for various line integrations and automated line solutions. At the Glasstec Fair, we launched a new upgrade for the Assistant Pro process automation solution. The solution automatically adjusts the tempering process based on the loading pattern of the glass loaded into the machine. The Assistant Pro feature as well as the company's strong line integration capability increased the competitiveness of the FC series' tempering machine, particularly in developed markets. In addition, various digital services based on data collected from machines were launched at the end of 2018. These are Glaston's first productized digital services, which will generate a continuous cash flow for Glaston. With the service, customers have the opportunity to monitor and reduce process waste.

The growth in the average glass size continued and this was reflected in demand for tempering and laminating machines. Glaston launched a new Jumbo series machine at Glasstec. The Jumbo series further strengthens Glaston's already strong competitiveness in the large machines segment.

In the autumn, Glaston also launched a revamped FC series annual model, one key feature of which is new Vortex Pro convection. With Vortex Pro, Glaston's customers can run their lines at a higher loading rate while increasing the machine's automation level. The first new generation FC series machines were sold in the fourth quarter.

Services

Glaston's installed and operating machine stock comprises over 2,000 machines. The company has invested significantly in its modernization services, and responds comprehensively to customers' needs by offering over 100 different upgrade options. The introduction of digital maintenance services advanced, and Glaston received a number of iControl modernization orders for different types of machine.

** In May 2017, Glaston sold its pre-processing business in the USA and Canada, and in December 2018 its Tools business in Italy and the USA.

Order book

Glaston's order book at the end of 2018 stood at EUR 38.2 (34.1) million, up 12% compared with corresponding period of the previous year. The Machines business order book grew by 16% to EUR 35.5 (30.6) million. The Services business order book fell by 23% to EUR 2.7 (3.5) million.

Net sales

Glaston's net sales declined in the reporting period by 8% and totaled EUR 101.1 (109.7, taking into account sold business** operations 106.7) million. Taking into account the divestment of the pre-processing business in 2017 and the Tools business last year, the decline was 5%. The net sales of the Machines business totaled EUR 65.2 (68.8) million. Net sales of the Services business** declined by 12% and totaled EUR 37.6 (42.8, taking into account sold business operations 39.8) million. In January 2018, Glaston made the decision to discontinue the production operations of its Chinese joint venture Glaston Tools (Sanhe) Co., Ltd. Glaston owned 70% of the joint venture. The company's net sales were EUR 0.7 million in 2017.

Net sales of the EMEA area grew by 5% and totaled EUR 54.3 (51.5) million. The pick-up in the Asian market area also continued, and net sales grew by 16% to EUR 19.2 (16.5) million. The development of net sales in the Americas area was affected by the sale of the company's North American pre-pro-

		restated*	
Order book, EUR million	**31.12.2018**	**31.12.2017**	**31.12.2016**
Machines	35.5	30.6	39.9
Services	2.7	3.5	5.7
Total	**38.2**	**34.1**	**45.6**

		restated*	
Net sales, EUR million	**2018**	**2017**	**2016**
Machines	65.2	68.8	67.4
Services	37.6	42.8	41.8
Other and internal sales	-1.7	-2.0	-2.0
Total	**101.1**	**109.7**	**107.1**

cessing business, implemented in spring 2017, and lower demand in the early part of the year. The net sales of the Americas area totaled EUR 27.7 (41.6) million, down 34% compared with the corresponding period of the previous year. Taking into account the sale of the pre-processing business, the decline was 29%.

As Glaston's largest market area, the EMEA area remained strong, and it accounted for 54% of the Group's net sales. Asia accounted for 19% of net sales and the Americas for 27%.

Operating result and profitability

The comparable operating profit for 2018 was EUR 5.2 (5.0) million, i.e. 5.2 (4.6)% of net sales. The lower net sales of the Machines business and the lower volume and profitability on non-core pre-processing and tools business operations had a negative impact on profitability. Despite this, operating profit was better than the previous year, due to good development of the profitability of heat treatment machines and related service business and, to some extent, lower fixed costs. Items affecting comparability recognized during the year totaled EUR 1.8 (0.4) million, which related primarily to the divestment of the company's Tools business and the closure of the production operations of the Chinese joint venture Glaston Tools (Sanhe) Co., Ltd.

Glaston's operating profit for 2018 was EUR 3.4 (4.6) million. Financial income and expenses were EUR -0.7 (-0.9) million. The result before taxes was EUR 2.7 (3.8) million. The result for the review period was EUR 2.0 (2.6) million. January–December earnings per share were EUR 0.011 (0.014) and comparable earnings per share were EUR 0.021 (0.016).

Comparable operating profit, EUR million	2018	restated* 2017	2016
EBIT	**3.4**	**4.6**	**2.3**
Items affecting comparability	-1.8	-0.4	-0.5
Comparable operating profit	**5.2**	**5.0**	**2.8**

	2018	restated* 2017	2016
Operating profit, EUR million	3.4	4.6	2.3
Operating profit, % of net sales	3.4%	4.2%	2.1%
Profit for the year attributable to owners of the parent, EUR million	2.2	2.6	1.0
Profit for the year attributable to owners of the parent, % of net sales	2.2%	2.4%	1.0%

	2018	restated* 2017	2016
Earnings per share	0.011	0.014	0.005
Earnings per share, basic and diluted, EUR	**0.011**	**0.014**	**0.005**

	2018	restated* 2017	2016
Return on capital employed (ROCE), %	6.8	9.2	4.6
Return on equity, %	5.4	7.1	2.8

	2018	restated* 2017	2016
Equity ratio, %	50.3	44.7	43.2
Gearing, %	34.2	35.7	46.7
Net gearing, %	13.1	2.3	-1.7
Interest-bearing net debt, EUR million	4.9	0.9	-0.6

Cash flow, financial position and financing

Glaston's cash flow from operating activities, before the change in working capital, was EUR 5.0 (7.4) million in January-December. Cash flow from the change in working capital was EUR -5.1 (-7.3) million in January–December. Cash flow from investments was EUR -1.5 (-2.1) million and cash flow from financing activities was EUR -3.0 (-2.8) million. A return of capital totaling EUR 1.9 million was paid in April.

At the end of the reporting period, the Group's cash and cash equivalents totaled EUR 7.9 (12.4) million. Net interest-bearing debt totaled EUR 4.9 (0.9) million and net gearing was 13.1 (2.3)%.

At the end of December, the consolidated asset total was EUR 90.9 (96.7) million. The equity attributable to the owners of the parent was EUR 37.1 (36.9) million. Equity per share was EUR 0.19 (0.19). The comparable return on equity in the reporting period was 10.3 (8.2)%. The comparable return on capital employed was 10.5 (10.0)%. The company's equity ratio was 50.3 (44.7)%.

* Glaston has applied the new revenue recognition standard IFRS 15 fully retrospectively from 1 January 2018, and therefore the financial statements 1 January – 31 December 2018 are reported in accordance with the new standard for 2018 actual data and 2017 comparison data. Adjusted comparison figures presented in the tables of the review refer to IFRS 15 adjustments.

Capital expenditure, depreciation and amortization

Glaston's January–December gross capital expenditure totaled EUR 2.0 (2.3) million. Investments were mainly related to product development. Depreciation and amortization on property, plant and equipment, and on intangible assets totaled EUR 3.0 (3.0) million.

Strategy

Glaston published its revised strategy and goals in November 2018. The company's strategic goal is to be the industry's innovative technology leader, realizing its customers highest ambitions in glass. Glaston's purpose is to build a better tomorrow through safer, smarter, more energy-efficient glass solutions.

The demand for environmentally sustainable and energy-efficient solutions, tightening safety standards as well as growing visual and functional quality requirements increasingly affect the way our customers operate. With our unique portfolio of products and services, Glaston is in a strong position to respond to the demand for innovative solutions. In our strategy, we continue to focus on developing our core heat treatment technologies, while continuously seeking opportunities for new glass processing technologies within new, smarter and safer glass. Our extensive installed base and superior global service network, in combination with innovations within digitalization and automation, puts us in a unique position to fulfill the most demanding needs of our customers while at the same time supporting our profitable growth ambitions.

Supported by our flexible production and supply chain management, we continuously seek new ways to maintain high quality and cost efficiency. High investment in R&D and our focus on innovation and digitalization strengthen our position as the industry's innovative technology leader.

Strategic measures, acquisitions and divestments

In December, Glaston announced an agreement to sell its Tools business (Glaston Tools) to the Italian company Bavelloni S.p.A. in accordance with its updated strategy. The Italian tools company left the Glaston Group at the end of November. In accordance with its strategy, Glaston will focus on heat treatment and emerging glass technologies and related maintenance services. The net sales of the Glaston Tools business totaled around EUR 6 million in 2018 and the company had around 35 employees.

Plans to acquire the Swiss-German Bystronic glass company advanced in the latter part of 2018. Bystronic glass provides high quality machinery, systems and services for glass processing worldwide, and its offering is highly complementary to Glaston's. On 25 January 2019, Glaston announced that it had signed an agreement to acquire Bystronic Maschinen AG and Bystronic Lenhardt GmbH and subsidiaries ,with a company value of EUR 68 million.

Investments in product development, digitalization and emerging technologies

Product development activity in the review period was affected by the timing of new product launches at the industry's most important fair, Glasstec 2018, held at the end of October, where Glaston announced a number of new and further developed products.

Glaston is investing in large-size flat tempering lines, and one of the most important products launched at the fair was the Jumbo series machine, which is designed for the heat treatment of jumbo-size, typically 3300 mm x 12000 mm, architectural glass. The amount of energy required in normal production by the jumbo-size heat treatment line is reduced by Glaston's Fusion option, in which energy is directed only to the areas required by production.

Glaston has continued the development of the Insight Reporting tool, intended for measuring and reporting the quality of flat-tempered and laminated glass. The reporting tool provides immediate information on the success of production and saves it in an easily accessible form. Products have also been added to the iLook product range.

In addition to above product launches, Glaston has continued investing in product development and emerging glass technologies in line with the company's growth strategy. New digital and IoT-based products that facilitate the transition to fully automated glass processing continue to be at the forefront of product development.

In the second quarter of 2018, Glaston received a positive decision on its participation in the national MIDAS project, which is Finland's first industry-oriented machine-learning project, led by the DIMECC innovation platform. The substantial two-year project will accelerate Glaston's development work aimed at utilizing digitalization in its operations. Glaston's research topic is focused on tempering machine artificial intelligence and is aimed at developing a more automated and easier-to-use tempering furnace.

In addition, Glaston has been one of the main organizers in the XR Challenge, an international challenge competition for businesses and students in the fields of virtual (VR), augmented (AR) and mixed (MR) reality. The goal of the competition has been to demonstrate how companies can develop their businesses through virtual reality means.

With regard to emerging glass technologies, product testing of the Heliotrope prototype line as well as glass durability and ageing tests were carried out. The material has been proved to be effective and in tests it has met the targets set for it to date.

In January–December, research and product development expenditure, excluding depreciation, totaled EUR 3.7 (4.0) million, of which EUR 1.0 (1.4) million was capitalized. Research and product development expenditure amounted to 3.7 (3.6)% of net sales.

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EUR million	2018	restated* 2017	2016
Research and development expenditure	3.7	4.0	3.0
Capitalized development costs during the reporting period	-1.0	-1.4	-1.4
Amortization, impairment losses and reversals of impairment losses of capitalized development costs during the reporting period, net	1.3	1.2	1.0
Research and development expenditure, % of net sales	3.7%	3.6%	2.8%

Organization and employees

In 2018, the introduction of an information system covering all of Glaston's personnel and key human resources processes continued. The second phase of the project, which began in 2017, focused on system localizations and the introduction of the recruitment section of the system. In 2018, the system was implemented successfully in all countries and for all HR processes.

In 2018, the team-based performance review process was developed further. The aim of the process is to support the implementation of the updated strategy. The process has been refined and, for example, team configurations have been changed to increase cooperation and interaction.

During the year, a number of training events were organized, including Genuine Care Days and Genuine Sales Days as well as process training. In addition, the company organized sales negotiation skills and problem-solving training for its personnel with the aim of developing Glaston's problem-solving culture.

The Pulse survey aims to ascertain employees' satisfaction quickly and easily, even on a monthly basis. In addition to measuring satisfaction, the survey has a monthly question on strategy, leadership or other topical issues.

In December, Glaston signed an agreement on the sale of the Tools business to the Italian company Bavelloni S.p.A. Glaston Tools employed 35 people, who were transferred in connection with the sale to the service of Bavelloni.

Glaston had a total of 357 (402) employees on 31 December 2018. Of the Group's employees, 54% worked in Finland and 8% elsewhere in the EMEA area, 25% in Asia and 13% in the Americas. The average number of employees was 379 (409).

	2018	2017	2016
Salaries and bonuses, EUR million	23.351	24.419	25.947
Personnel at end of year	357	402	415
Average number of employees	379	409	437

Corporate responsibility

Glaston's purpose is to build a better tomorrow through safer, smarter, more energy-efficient glass solutions. As environmental awareness increases, the demand for more energy-efficient and environmentally sustainable glass solutions is increasing. This is resulting in rapid development of intelligent glass, very thin glass and solar energy glass solutions. As our industry's innovative technology leader, we are strongly involved in this development, and we are continually launching more advanced technology to meet the changing needs of the market.

Responsibility is part of Glaston's day-to-day operations, and is based on the Code of Conduct approved by the Board of Directors. The Code of Conduct outlines the company's requirements and expectations for responsible and ethical conduct as well as, for example, how the company requires employees to act in their daily work with colleagues and customers, suppliers and other stakeholders.

Glaston is committed to complying with the relevant national and international laws, provisions and generally excepted operating practices in all of its activities. In its daily operations, the company is committed to combating bribery and corruption.

Glaston's Annual Review 2018, to be published in Week 11, examines the company's corporate responsibility from the perspectives of social, financial and environmental responsibility. The company will develop its corporate responsibility reporting during 2019 with the aim of publishing a more comprehensive corporate responsibility report for 2019.

Shares and shareholders

Glaston Corporation's paid and registered share capital on 31 December 2018 was EUR 12.7 million. In accordance with a decision of the Annual General Meeting, the Board of Directors decided to cancel the Glaston Corporation shares in the joint book-entry account, a total of 75,200 shares. The cancellation of the shares was entered in the Trade Register on 27 April 2018. Following this, Glaston Corporation has a total of 193,633,136 issued and registered shares. The company has one series of share.

At the end of December, the company held 788,582 of the company's own shares (treasury shares), corresponding to 0.41% of the total number of issued and registered shares and votes. The counter book value of the treasury shares is EUR 51,685. Every share that the company does not hold itself entitles its owner to one vote at a General Meeting of Shareholders. The share has no nominal value. The counter book value of each registered share is EUR 0.07.

In January–December, a total of approximately 16.1 (60.8) million of the company's shares were traded, i.e. around 8.3 (31.5)% of the average number of registered shares.

The Board of Directors has authorized management to study the possibility of reducing the number of the company's shares by combining the shares (so-called reverse split). The objective of combining the shares would be to increase interest in the company's share, to improve conditions for share trading and to increase flexibility in connection with possible dividend payment. The arrangement requires a decision of Glaston's General Meeting of Shareholders, and the Board of Directors in its invitation to an Extraordinary General Meeting, published on 1 February 2019, proposes to the Extraordinary General Meeting that five (5) of the company's shares be combined into one (1).

At the end of the year, Glaston Corporation's largest shareholders were AC Invest Eight B.V. 17.52%, Hymy Lahtinen Oy 12.08%, OP-Finland Small Firms Mutual Fund 7.31%, Ilmarinen Mutual Pension Insurance Company 7.15%, and Varma Mutual Pension Insurance Company 6.60%.

At the end of the period, Glaston Corporation had 5,876 shareholders.

Per share data

	2018	restated 2017	2016
Equity per share attributable to owners of the parent, EUR	0.19	0.19	0.18
Return of capital/share, EUR*	0.006	0.010	-
Effective return of capital yield, %*	1.5	2.1	-
Price / earnings (P/E) ratio	34.7	34.2	75.3
Price / equity attributable to owners of the parent per share	2.03	2.45	2.17
Share price at end of year, EUR	0.39	0.47	0.40
Market capitalization of registered shares excluding treasury shares, EUR million	75.2	90.3	77.2
Share turnover (1,000 shares)	16,082	60,779	31,898
Share turnover, % of average number of shares	8.3	31.5	16.5
Number of shares at end of the year	193,633,136	193,708,336	193,708,336
Average number of shares, excluding treasury shares	192,844,554	192,919,754	192,919,754

* Board's proposal to Annual General Meeting

Largest shareholders 31 December 2018

	Shareholder	Number of shares	% of shares and votes
1	Ac Invest Eight B.V.	33,931,442	17.5%
2	Hymy Lahtinen Oy	23,400,000	12.1%
3	OP-Finland Small Firms Fund	14,154,400	7.3%
4	Ilmarinen Mutual Pension Insurance Company	13,843,878	7.1%
5	Varma Mutual Pension Insurance Company	12,786,643	6.6%
6	Evli Finnish Small Cap Fund	8,419,500	4.3%
7	Hulkko Juha Olavi	5,000,000	2.6%
8	Päivikki and Sakari Sohlberg Foundation	3,965,600	2.0%
9	Oy Investsum Ab	3,358,000	1.7%
10	Kirkon Eläkerahasto	3,089,406	1.6%
11	Sijoitusrahasto Taaleritehdas Mikro Markka	2,375,600	1.2%
12	Säästöpankki Pienyhtiöt	2,307,860	1.2%
13	Sumelius Birgitta Christina	1,944,734	1.0%
14	Metsänen Arto Juhani	1,750,000	0.9%
15	Sumelius Bjarne Henning	1,701,504	0.9%
16	Von Christierson Charlie	1,600,000	0.8%
17	Oy Nissala Ab	1,500,000	0.8%
18	Sumelius-Koljonen Barbro	1,235,988	0.6%
19	Lahtinen Jeppe Juhani Urponpoika	1,200,001	0.6%
20	Apteekkien Eläkekassa	1,200,000	0.6%
	20 largest shareholders, total	**138,764,556**	**71.7%**
	Nominee-registered	2,464,545	1.3%
	Other shareholders	52,404,035	27.1%
	Total	**193,633,136**	**100.0%**
	Treasury shares	-788,582	-0.4%
	Total excluding treasury shares	192,844,554	99.6%

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Ownership distribution 31 December 2018

	Shares total	% of shares and votes
Households	52,453,973	27.09%
Public sector institutions	30,939,927	15.98%
Financial and insurance institutions	28,935,941	14.94%
Corporations	37,276,328	19.25%
Non-profit organizations	4,424,280	2.28%
Foreign countries	37,138,142	19.18%
Total	191,168,591	98.73%
Nominee-registered	2,464,545	1.27%
Total book-entry account shares	193,633,136	100.00%
Total	**193,633,136**	**100.00%**

Shareholders by share ownership 31 December 2018

Number of shares	Number of shareholders	% of shareholders	Shares total	% of shares and votes
1 - 100	515	8.76%	28,508	0.01%
101 - 1,000	2,306	39.24%	1,266,835	0.65%
1,001 - 10,000	2,384	40.57%	9,081,578	4.69%
10,001 - 100,000	562	9.56%	16,576,431	8.56%
100,001 - 99,999,999	109	1.86%	166,679,784	86.08%
Total	5 876	100%	193,633,136	100.00%
Number of issued shares, total			**193,633,136**	**100.00%**

Governance

General Meeting of Shareholders

The Annual General Meeting of Glaston Corporation was held in Helsinki on 10 April 2018. The Annual General Meeting adopted the financial statements and consolidated financial statements for the period 1 January – 31 December 2017. The Annual General Meeting discharged the Members of the Board of Directors and the President & CEO from liability for the financial year 1 January–31 December 2017.

In accordance with the proposal of the Board of Directors, Annual General Meeting decided that, based on the balance sheet adopted for financial year 2017, a return of capital of EUR 0.01 per share be paid. Capital was paid from the reserve for invested unrestricted equity to shareholders who were registered in the company's register of shareholders, maintained by Euroclear Finland Ltd, on the record date for payment, 12 April 2018. The return of capital was paid on 26 April 2018.

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 Annual General Meeting decided, in accordance with the proposal of the Shareholders' Nomination Board, to re-elect the current members of the Board of Directors, Teuvo Salminen, Anu Hämäläinen, Sarlotta Narjus, Kai Mäenpää and Tero Telaranta for a term of office ending at the close of the next Annual General Meeting. In addition, it was resolved that Antti Kaunonen and Sebastian Bondestam be elected as new members of the Board of Directors for the same term.

In its organizing meeting, held after the Annual General Meeting, the Board of Directors elected Teuvo Salminen as Chairman of the Board and Sebastian Bondestam as Deputy Chairman of the Board.

Remuneration of the members of the Board of Directors

In accordance with the proposal of the Shareholders' Nomination Board, the Annual General Meeting resolved that the annual remuneration payable to the members of the Board of Directors be increased by 15%, and therefore that the Chairman of the Board be paid an annual fee of EUR 46,000, the Deputy Chairman EUR 34,500 and the other members of the Board EUR 23,000.

Auditor

In accordance with the proposal of the Board of Directors, the Annual General Meeting elected Authorized Public Accounting firm Ernst & Young Oy as the company's auditor, with Authorized Public Accountant Kristina Sandin as the main responsible auditor.

Board authorization

The Annual General Meeting authorized the Board of Directors to decide on the issuance of shares as well as the issuance of options and other rights granting entitlement to shares. The authorization covers a maximum of 20,000,000 shares.

The authorization does not exclude the Board of Directors' right to decide on a directed issue. It was proposed that the authorization be used for executing or financing arrangements important from the company's point of view, such as business arrangements or investments, or for other such purposes determined by the Board of Directors in which a weighty financial reason would exist for issuing shares, options or other rights granting entitlement to shares and possibly directing a share issue.

The Board of Directors is authorized to resolve on all other 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 the subscription price or allocation of shares, options or other rights without payment or that the subscription price may be paid besides in cash also with other assets either partially or entirely. The authorization is valid until 30 June 2019 and it invalidates earlier authorizations.

Shares in the joint book-entry account and the rights carried by these shares

The Annual General Meeting decided in accordance with Chapter 3, Section 14 a, Subsection 3 of the Finnish Companies Act, that rights to all shares recorded on the joint book-entry account of Glaston Corporation and the rights based on such shares, whose registration had not been requested in accordance with Chapter 6, Section 3 of the Act on the Book-Entry System and Clearance Activity prior to the resolution of the Annual General Meeting, be forfeited. In addition to the shares, all rights based on those shares, such as undrawn dividends, shall also be forfeited. Rules and regulations regarding treasury shares shall be applied to the forfeited shares after the resolution. On 30 January 2018, the number of Glaston Corporation's shares in the joint book-entry account was 75,200. The cancellation of the shares was entered in the Trade Register on 27 April 2018. Following this, the total number of Glaston Corporation shares is 193,633,136.

Composition of the Nomination Board

Based on the ownership situation on 3 September 2018, the following were selected as members of Glaston's Nomination Board: Lasse Heinonen (AC Invest Eight B.V.), Jaakko Kurikka (Hymy Lahtinen Oy), Sami Jormalainen (OP-Finland Small Firms) and Esko Torsti (Ilmarinen Mutual Pension Insurance Company). In its organizing meeting held on 5 October 2018, the Nomination Board elected Lasse Heinonen from among its members to be Chairman.

Teuvo Salminen, Chairman of the Company's Board of Directors, serves as an advisory member of the Nomination Board.

The proposals of the Nomination Board to the Annual General Meeting were published on 28 January 2019 and they are available on the company's website www.glaston.net.

Flagging notifications

2 January 2018: Glaston Corporation received a notification, pursuant to Chapter 9 Section 5 of the Finnish Securities Market Act, that Ilmarinen Mutual Pension Insurance Company's holding of shares and votes in Glaston Corporation had exceeded 5%. Ilmarinen Mutual Pension Insurance Company and Etera Mutual Pension Insurance Company merged on 1 January 2018, as a result of which Ilmarinen Mutual Pension Insurance Company's holding of all shares and votes in Glaston Corporation was 7.15%.

4 June 2018: Glaston Corporation received a notification, pursuant to Chapter 9 Section 5 of the Finnish Securities Market Act, that Evli Bank Plc's holding of shares and votes in Glaston Corporation had fallen below 5% as the result of a sale of shares that took place on 31 May 2018.

Risks, risk management and business uncertainties

Glaston's key risks are divided into strategic, operational and financial risks.

Strategic risks

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

Business environment risks

Glaston operates in the global market, and changes in the development of the global economy and business cycles directly affect the Group's operations and risks. Glaston's order intake is highly dependent on global investment demand, which is affected by the growth outlook for the global economy and geopolitical developments. A general increase in uncertainty may reduce willingness to invest and thereby negatively impact Glaston's order intake, net sales and earnings.

Glaston's position in a cyclical market is stabilized to a certain extent by a flexible production model based on capacity outsourcing and a business distribution in which a significant share of net sales comes from the Services business. In accordance with its strategy, Glaston is investing in growing its more stable Services business to mitigate the impact of cyclicity in the Machines business. At the same time, the Emerging Technologies business, which operates partly in different cycles, will contribute to the stability of the company's operations in the future.

Competitive situation and price risks

The glass processing technology sector is diversified and there are many small players in the market. Competitors' consolidation projects could, if realized, change the dynamics of the market and the relative market and price negotiation position of operators. Glaston is constantly exploring opportunities for acquisitions, particularly in the areas of glass processing machines, maintenance services and software, in order to be at the forefront of market development. On 25 January 2019, Glaston announced that it had signed an agreement to purchase the Swiss-German company Bystronic glass. There may be risks associated with acquisition integration and combining the companies.

Competitive positions may also be changed by expansion into new areas by machine manufacturers of a lower segment in terms of price and technology. This risk is greatest in the price-conscious Asian and South American markets. For the Group's long-term growth, its position in the Asian market is particularly significant. In order to strengthen its position in the Asian market, Glaston has developed a product at a lower price and technology level, which will be launched commercially in early 2019.

A long-term strengthening of the euro against other key currencies, particularly the US dollar, may weaken Glaston's position relative to competitors outside the euro area. Intensified competition may lead to a deterioration of order intake, project-specific margins or terms of payment, and thus affect the Group's earnings and cash flow.

Technology risks

One of Glaston's most significant strategic risks is technology risk, namely the entry into the market of a competing machine and glass processing technology, which would result in a reduction of Glaston's currently high market shares and require the company to make considerable product development investments. There is also a technology risk, associated with the entry into the market of competing technologies, in the projects of Glaston Emerging Technologies unit, which focuses on Glaston's new technologies. The unit invests in new, early-stage technologies whose viability on a commercial scale is uncertain. Glaston mitigates these risks by making larger product development investments than other players in the market and by striving to be at the forefront of technology development. The product portfolio of the Emerging Technologies unit will be expanded into many new technologies, which will contribute to reducing the impact of the technology risk associated with any single technology.

Operational risks

Operational risk management is part of the daily work of business areas. Opportunities and risks are identified, assessed and managed on a daily basis; they are reported and assigned to the appropriate level of management. The status of opportunities and threats is regularly assessed, and appropriate measures are taken if necessary.

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 a single project may have significant financial implications if its size or contractual terms and conditions are exceptional.

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

Glaston Group includes a few units whose financial performance has been unsatisfactory in recent years, and failure to revitalize these units or a delay in doing so could have a negative impact on the Group's result and cash flow. In the review period, in line with its strategy, Glaston has divested its non-core Tools business, simultaneously reducing risks associated with profitability development.

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.

Glaston continually develops its information systems and, despite careful planning, temporary disruptions to operations might be associated with the introduction stages. Due to the industrial internet, the significance of information security risks has increased, and the management of such risks is a subject of particular attention.

Financial risks

The Group's most significant financial risks are foreign exchange, credit and refinancing risks. Financial risks and their management are described in financial statements item Management of Financial Risks.

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

Events after the closing date

On 25 January 2019, Glaston announced that it had signed an agreement to acquire Bystronic Maschinen AG and Bystronic Lenhardt GmbH and subsidiaries ("Bystronic glass") with a value of EUR 68 million. The Swiss-German Bystronic glass provides high quality machinery, systems and services for

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glass processing worldwide, and its offering is highly complementary to Glaston's. Bystronic glass is currently part of the broadly diversified Swiss Conzzeta Group.

The acquisition supports Glaston's goal of further strengthening its position in the glass processing value chain. It increases Glaston's insulating glass offering in the architectural market as well as its pre-processing offering in the automotive and display industries. As a result of the acquisition, Glaston will have a unique and value-adding offering benefitting its customers. The acquisition provides excellent opportunities for cross-selling of new equipment, for providing services directly from one supplier and for the joint development of integrated production lines. In addition, Bystronic glass supports our future growth targets in emerging glass technologies. As a result of the acquisition, Glaston Corporation will grow substantially, and this will also offer a platform for growth and consolidation in the future. The indicative* combined net sales of Glaston Corporation and Bystronic glass were EUR 214 million in 2018. The acquisition is expected to improve overall financial performance. More information on the acquisition can be found in the stock exchange release published on 25 January 2019.

In the Emerging Technologies unit, a long-running project under preparation with one customer received final approval at the end of the year and was confirmed as an order in January 2019. The order is strategic, as it is the Emerging Technologies unit's first order for the automotive industry.

On 1 February 2019, the Board of Directors of Glaston decided to invite the company's shareholders to an Extraordinary General Meeting to be held on Tuesday, 26 February 2019. The meeting will discuss the Board of Directors' proposal, pursuant of the Chapter 15 Section 9 of the Companies Act, to combine shares and for the related redemption of shares in deviation from the proportional shareholdings of the shareholders. In addition, the meeting will discuss decisions required by the above-mentioned corporate acquisition relating to authorizations given to the Board of Directors on the issuance of shares. To finance part of the acquisition, the company has negotiated with certain of its existing shareholders on a directed share issue of approximately EUR 15,000,000 ("Directed Share Issue") and on a share issue of approximately EUR 32,000,000 pursuant to the shareholders' pre-emptive subscription right ("Rights Issue"). The above-mentioned proposals for decision on the matters on the agenda of the Extraordinary General Meeting as well as the invitation to the meeting are available on the Glaston Corporation website at the address www.glaston.net.

* The combined financial information is presented for indicative purposes only. The combined financial information provides a picture of the combined company's net sales assuming that the business operations belonged to the same company from the beginning of the most recent financial period. The combined financial information is based on a hypothetical situation and it should not be considered to be pro forma financial information, because it does not take into account differences in accounting principles nor the effects of purchase price allocation.

Uncertainties and factors affecting development in the near future

Glaston operates in a global market in which both political and economic instability arise. The company's uncertainties in the near future are to a large extent linked to the development of global investment demand and, in some geographical areas, also to customers' access to financing. Glaston continuously monitors the development outlook of the global economy and its impact on the development of the sector. If the demand situation of the sector deteriorates substantially, this will affect Glaston's net sales and earnings with a 3–6 month delay. Increased economic and political uncertainty as well as various trade policy tensions did not affect Glaston customers' willingness to invest or demand for products, but uncertainty in the market increased slightly towards the end of the year.

The Group's net sales are affected mainly by the level and timing of order intake as well as the geographical and product mix of orders. Glaston's order book at the end of 2018 was strong and it created a good basis for development in 2019. In 2019, no large-scale sales events, like the Glasstec Fair, will be held in the industry.

There is uncertainty associated with the

Parent company information, EUR million	**2018**	**2017**	**2016**
Net sales	2.9	2.7	3.0
Operating result	-0.8	-0.1	-0.8
Result before taxes and appropriations	-1.5	-0.8	-8.2
Income taxes for the financial year	-0.0	-0.2	0.0
Result for the financial year	-0.0	0.0	-5.7
Balance sheet total	89.4	95.6	99.7
Shareholders' equity	52.3	54.2	54.2
Salaries and bonuses	1.2	1.4	1.2
Average number of employees	9	9	10

timing of the Bystronic glass acquisition, progress with integration and conversion of financial reporting to suit Glaston's accounting principles, which might have an effect on the company's development in 2019.

Glaston's outlook for 2019

The company's business is seasonal and, historically, the first quarter of the year is generally the weakest and the final quarter the strongest. Net sales and comparable operating profit are expected to be low for the first quarter of 2019, due to the low number of new orders received in the third quarter and the beginning of the fourth quarter of last year.

Deviating from Glaston's disclosure policy and due to the timetable of the Bystronic glass acquisition, Glaston will disclose information on its outlook for the whole of 2019 at a later stage.

Board of Directors' proposal on the distribution of profits

The distributable funds of Glaston Corporation are EUR 14,294,804, of which EUR 24,344 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 2019 that the loss for the financial year 2018 be added in retained earnings and that no dividend be paid.

The Board of Directors proposes, conditional on the decision of the Extraordinary Meeting of Shareholders, that, on the basis of the balance sheet adopted for financial period 2018, a return of capital of EUR 0.006 per share, a total of EUR 1,157,067, be distributed before the reverse share split to be approved by the General Meeting to be held on 26 February, which is equivalent to approximately EUR 0.03 per share after the reverse share split proposed by the Board of Directors.

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, 8 April 2019. The Board of Directors proposes to the Annual General Meeting that the return of capital be paid on 25 April 2019.

On the day that the proposal for the return of capital was made, the number of shares entitling to a return of capital was 192,844,554, which means that the total amount of the return of capital would be EUR 1,157,067.

EUR 13,137,737 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, 12 February 2019
Glaston Corporation
Board of Directors

Financial Ratios

EUR thousand	2018	restated* 2017	2016
Income statement and profitability			
Net sales	101,139	109,665	107,141
Operating result	3,390	4,619	2,257
% of net sales	3.4%	4.2%	2.1%
Comparable operating result	5,220	4,994	2,760
% of net sales	5.2%	4.6%	2.6%
Financial income and expenses (net)	-695	-852	-671
% of net sales	0.7%	0.8%	0.6%
Result before income taxes and non-controlling interests	2,695	3,767	1,585
% of net sales	2.7%	3.4%	1.5%
Income taxes	-690	-1,163	-574
Net profit / loss attributable to owners of the parent	2,165	2,640	1,025
% of net sales	2.1%	2.4%	1.0%
Return on capital employed (ROCE), %	6.8%	9.2%	4.6%
Return on equity, %	5.4%	7.1%	2.8%
Research and development expenses	4,098	3,848	2,550
% of net sales	4.1%	3.5%	2.4%
Gross capital expenditure	2,020	2,300	3,888
% of net sales	2.0%	2.1%	3.6%
Order book, EUR million	38.2	34.1	45.6

EUR thousand	2018	restated* 2017	2016
Statement of financial position and solvency			
Property, plant and equipment and intangible assets	13,493	14,939	16,098
Goodwill	30,551	30,551	30,551
Non-current assets total	50,838	50,943	52,908
Equity attributable to owners of the parent	37,140	36,885	35,608
Equity (includes non-controlling interest)	37,206	37,112	35,888
Liabilities	53,666	59,552	65,165
Total assets	90,873	96,664	101,053
Capital employed	49,939	50,369	52,635
Net interest-bearing debt	4,880	870	-626
Equity ratio, %	50.3%	44.7%	43.2%
Gearing, %	34.2%	35.7%	46.7%
Net gearing, %	13.1%	2.3%	-1.7%

Personnel	2018	2017	2016
Personnel, average	379	409	437
Personnel, at the end of the period	357	402	415

* Glaston is applying the new revenue recognition standard 'IFRS 15 Revenue from Contracts with Customers' fully retrospectively from 1 January 2018 and has prepared a restated income statement and balance sheet for 2017. Restatement is described in following notes: 3,4,5,6,8,11,17,18.

Per Share Data

	2018	restated 2017	2016
Earnings per share, EUR	0.011	0.014	0.005
Return of capital per share, EUR*	0.006	0.010	-
Return of capital ratio, %*	53.4%	73.1%	-
Return of capital yield*	1.5%	2.1%	-
Equity attributable to owners of the parent per share, EUR	0.19	0.19	0.18
Price per earnings per share (P/E) ratio	34.7	34.2	75.3
Price per equity attributable to owners of the parent per share	2.03	2.45	2.17
Capital repayment, EUR million*	1.2	1.9	-
Number of shares at the end of the year	193,633,136	193,708 336	193,708,336
Number of shares at the end of the year, treasury shares excluded	192,844,554	192,919,754	192,919,754
Number of shares, average, adjusted with share issue, treasury shares excluded	192,844,554	192,919,754	192,919,754

	2018	restated 2017	2016
Share price and turnover			
Share price, year high, EUR	0.51	0.56	0.51
Share price, year low, EUR	0.37	0.39	0.33
Share price, volume-weighted year average, EUR	0.44	0.42	0.38
Share price, end of year, EUR	0.39	0.47	0.40
Number of shares traded (1,000)	16,082	60,779	31,898
% of average number of registered shares	8.3%	31.5%	16.5%
Market capitalization of registered shares, end of year, EUR million	75.2	90.3	77.2

* The Board of Directors' proposal to the Annual General Meeting.

Definitions of Key Ratios

Financial ratios

EBITDA

Profit / loss of continuing operations before depreciation, amortization and impairment, share of associates' results included

Operating result (EBIT)

Profit / loss of continuing operations after depreciation, amortization and impairment, share of associates' results included

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, %

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

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:

Profit / loss of continuing operations after depreciation, amortization and impairment, share of associates' results included – items affecting comparability

Comparable EBITDA:

Profit / loss of continuing operations before depreciation, amortization and impairment, share of associates' results included – items affecting comparability

Items affecting comparability:

Items affecting comparability are related to restructuring and for events or activities, which are not part of the normal business operations. They can include expenses arising from personnel reduction, product portfolio rationalization, changes in production structure and from reduction of offices. Impairment loss of goodwill, exceptionally large gains or losses from disposals of property, plant and equipment and intangible assets as well as capital gains or losses arising from group restructuring are restated as items affecting comparability.

Per share data

Earnings per share (EPS)

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

Dividend per share*

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

Dividend payout ratio*

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

Dividend yield*

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

Equity attributable to owners of the parent per share

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

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

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Consolidated Financial Statements

Consolidated Statement of Financial Position

EUR thousand	Note	at 31 December 2018	restated* 2017
Assets			
Non-current assets			
Goodwill	12,13	30,551	30,551
Intangible assets	13	5,763	6,524
Property, plant and equipment		7,730	8,415
Financial assets measured at fair value through other comprehensive income	16	3,015	2,999
Loan receivables	18	3,162	1,442
Deferred tax assets	11	617	1,011
Total non-current assets		**50,838**	**50,943**
Current assets			
Inventories	17	5,774	10,952
Assets for current tax	11	377	136
Trade and other receivables	18	15,716	22,247
Contract assets	6	10,315	-
Cash and cash equivalents			
Cash		7,852	12,386
Total current assets		**40,035**	**45,721**
Total assets		**90,873**	**96,664**

* Glaston is applying the new revenue recognition standard 'IFRS 15 Revenue from Contracts with Customers' fully retrospectively from 1 January 2018 and has prepared a restated income statement and balance sheet for 2017. Restatement is described in following notes: 3,4,5,6,8,11,17,18.

EUR thousand	Note	at 31 December 2018	restated* 2017
Equity and liabilities			
Equity			
Share capital		12,696	12,696
Share premium account		25,270	25,270
Other restricted equity reserves		70	70
Reserve for invested unrestricted equity		39,628	41,556
Treasury shares	4	-3,308	-3,308
Fair value reserve		72	110
Other unrestricted equity reserves		53	92
Retained earnings and exchange differences		-39,504	-42,240
Net result attributable to owners of the parent		2,165	2,640
Attributable to owners of the parent		**37,140**	**36,885**
Non-controlling interest		**67**	**228**
Total equity		**37,206**	**37,112**
Non-current liabilities			
Non-current interest-bearing liabilities	21	8,089	10,613
Non-current non interest bearing liabilities and provisions	22	567	1,560
Deferred tax liabilities	11	378	267
Defined benefit pension and other defined long-term employee benefit liabilities	20	149	493
Total non-current liabilities		**9,183**	**12,933**
Current liabilities			
Current interest-bearing liabilities	21	4,644	2,644
Current provisions	22	1,681	2,382
Trade and other payables	23	37,321	39,358
Contract liabilities	6	657	2,018
Liabilities for current tax	11	180	218
Total current liabilities		**44,483**	**46,619**
Total liabilities		**53,666**	**59,552**
Total equity and liabilities		**90,873**	**96,664**

Consolidated Statement of Profit or Loss

EUR thousand	Note	1 January - 31 December 2018	restated* 1 January - 31 December 2017
Net sales	5	**101,139**	**109,665**
Other operating income	7	2,243	1,703
Changes in inventories of finished goods and work in process	17	-1,656	-1,802
Own work capitalized		348	1,152
Materials	8	-49,225	-50,999
Personnel expenses	9	-23,351	-24,419
Other operating expenses	8	-23,087	-27,689
Depreciation, amortization and impairment charges	12	-3,021	-2,991
Operating result		**3,390**	**4,619**
Financial income	10	117	244
Financial expenses	10	-812	-1,096
Net financial expenses		-695	-852
Profit / loss before income taxes		**2,695**	**3,767**
Income tax expense	11	-690	-1,163

EUR thousand	Note	1 January - 31 December 2018	restated* 1 January - 31 December 2017
Profit / loss for the year		**2,005**	**2,604**
Attributable to non-controlling interest		-160	-36
Attributable to owners of the parent		**2,165**	**2,640**
Total		**2,005**	**2,604**
Earnings per share, EUR		0.011	0.014
Earnings per share, EUR, basic and diluted		**0.011**	**0.014**
Net result attributable to owners of the parent, EUR thousand		2,165	2,640
Average number of shares (1,000 shares)		192,845	192,920
Earnings per share (EPS), EUR, basic and diluted		**0.011**	**0.014**

* Glaston is applying the new revenue recognition standard 'IFRS 15 Revenue from Contracts with Customers' fully retrospectively from 1 January 2018 and has prepared a restated income statement and balance sheet for 2017. Restatement is described in following notes: 3,4,5,6,8,11,17,18.

Consolidated Statement of Comprehensive Income

EUR thousand	1 January - 31 December 2018	restated* 2017
Profit / loss for the period	**2,005**	**2,604**
Other comprehensive income that will be reclassified subsequently to profit or loss:		
Exchange differences on translating foreign operations	57	-797
Fair value changes of financial assets measured at fair value through comprehensive income	16	9
Cash flow hedges	-90	39
Income tax on other comprehensive income	-3	-2
Total	**-21**	**-751**
Other comprehensive income that will not be reclassified subsequently to profit or loss:		
Exchange differences on actuarial gains and losses arising from defined benefit plans	-3	4
Actuarial gains and losses arising from defined benefit plans	41	-38
Total	**38**	**-34**
Other comprehensive income for the reporting period, net of tax	**18**	**-785**
Total comprehensive income for the reporting period	**2,022**	**1,819**
Attributable to:		
Owners of the parent	2,183	1,872
Non-controlling interest	-161	-53
Total comprehensive income for the reporting period	**2,022**	**1,819**

* Glaston is applying the new revenue recognition standard 'IFRS 15 Revenue from Contracts with Customers' fully retrospectively from 1 January 2018 and has prepared a restated income statement and balance sheet for 2017. Restatement is described in following notes: 3,4,5,6,8,11,17,18.

Consolidated Statement of Changes in Equity

EUR thousand 2017	Note	Share capital	Share premium account	Reserve for invested unrestricted equity	Treasury shares	Fair value and other reserves	Retained earnings	Cumulative exchange difference	Attributable to owners of the parent	Non-controlling interest	Total equity
Equity 1 January		**12,696**	**25,270**	**41,556**	**-3,308**	**230**	**-46,077**	**5,241**	**35 608**	**280**	**35,888**
Restate: IFRS 15		-	-	-	-	-	-595	-	-595	-	-595
Restated equity 1 January		12,696	25,270	41,556	-3,308	230	-46,672	5,241	35,013	280	35,293
Total comprehensive income for the year	20	-	-	-	-	42	2 606	-776	1,872	-53	1,819
Equity 31 December		**12,696**	**25,270**	**41,556**	**-3,308**	**272**	**-44,066**	**4,465**	**36,885**	**228**	**37,112**
2018											
Equity 1 January		**12,696**	**25,270**	**41,556**	**-3,308**	**272**	**-44,066**	**4,465**	**36,885**	**228**	**37,112**
Restate: IFRS 9		-	-	-	-	-	0	-	0	-	0
Restated equity 1 January		**12,696**	**25,270**	**41,556**	**-3,308**	**272**	**-44,066**	**4,465**	**36,885**	**228**	**37,112**
Total comprehensive income for the year	20	-	-	-	-	-78	2 203	58	2,183	-161	2,022
Return of capital		-	-	-1,928	-	-	-	-	-1,928	-	-1,928
Equity 31 December		**12, 696**	**25,270**	**39,628**	**-3,308**	**194**	**-41,862**	**4,523**	**37,140**	**67**	**37,206**

Consolidated Statement of Cash Flows

EUR thousand	1 January - 31 December 2018	restated* 2017
Cash flows from operating activities		
Net result attributable to owners of the parent	2,165	2,640
Adjustments to net result attributable to owners of the parent*	846	2,297
Depreciation, amortization and impairment	3,021	2,991
Interest received	112	238
Interest paid	-341	-414
Dividends received	8	7
Other financing items	-394	-360
Income taxes paid	-382	14
Cash flows from operating activities before change in net working capital	**5,034**	**7,413**
Change in net working capital		
Change in inventories	3,547	215
Change in current receivables	-8,159	-2,956
Change in interest-free current liabilities	-462	-4,555
Change in net working capital, total	**-5,074**	**-7,296**
Cash flows from operating activities	**-40**	**117**
Cash flows from investing activities		
Capital expenditure in property, plant and equipment and intangible assets	-1,846	-2,281
Proceeds from sale of investments	143	-
Proceeds from sale of property, plant and equipment and intangible assets	211	220
Cash flows from investing activities	**-1,492**	**-2,061**
Cash flow before financing	**-1,531**	**-1 944**

EUR thousand	1 January - 31 December 2018	restated* 2017
Cash flows from financing activities		
Draw-down of non-current loans	20	6,025
Repayments of non-current loans	-	-660
Change in current loan receivables (decrease +, increase -)	-492	385
Draw-down of current loans	9,000	2,000
Repayments of current loans	-9,644	-10,549
Return of capital	-1,928	-
Cash flows from financing activities	**-3,045**	**-2,799**
Effect of exchange rate fluctuations	**42**	**-245**
Net increase (- decrease) in cash and cash equivalents	**-4,535**	**-4,987**
Cash and cash equivalents at end of period	7,852	12,386
Cash and cash equivalents at beginning of period	12,386	17,374
Net increase (- decrease) in cash and cash equivalents	**-4,535**	**-4,987**

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

* Glaston is applying the new revenue recognition standard 'IFRS 15 Revenue from Contracts with Customers' fully retrospectively from 1 January 2018 and has prepared a restated income statement and balance sheet for 2017. Restatement is described in following notes: 3,4,5,6,8,11,17,18.

Supplemental Information for Statement of Cash Flows

	1 January - 31 December	
EUR thousand	**2018**	**2017**
Cash and bank	7,725	12,099
Other securities	127	288
Total cash and cash equivalents	**7,852**	**12,386**
Disposal of subsidiaries		
Proceeds from sale of investments	300	-
Expenses related to the sale, paid during the year	-	-
Cash and cash equivalents of divested subsidiaries	-257	-
Net cash flow	**43**	**-**
Net assets disposed		
Net working capital	990	-
Property, plant, equipment, intangible assets, shares and other long-term investments	208	-
Other interest-free liabilities	-357	-
Total disposed net assets	**841**	**-**

Glaston Tools s.r.l. , Glaston's subsidiary in Italy was sold in December from which EUR 0.4 million was booked as loss.
The company's external revenue for the financial year 2018 was EUR 3 million. and the loss for the financial year was EUR 0.2 million.

Summary of significant accounting policies – consolidated financial statements

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

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 a 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 one reportable segment, which consist of operating segments Machines and Services. Supporting activities include head office operations.

The Board of Directors of Glaston Corporation has in its meeting on 12 February 2019 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.

Basis of Presentation

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.

Applied new and amended standards and interpretations

In addition to the standards and interpretations presented in the financial statements for 2018, the Group will adopt the following published standards, interpretations and changes to existing standards and interpretations in its 2019 financial statements or later.

IFRS 16 Leases

(to be applied for the reporting periods beginning on 1 January 2019) IFRS 16 replaces the existing guidance IAS 17 Leases. Under IFRS 16, all lease contracts over 12 months in length 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 will adopt the exemption permitted by IFRS 16 for leases of less than 12 months and assets of low value and will continue to treat them as other leases.

From the lessor's perspective, reporting will remain the same as at present under the existing standard, i.e. leases will continue to be divided into finance leases and other leases.

The new lease standard will have an impact on the Company's statement of profit or loss, statement of financial position and key figures. Under the new standard, Glaston will recognize in the statement of financial position assets and liabilities covered by current leases of premises and vehicles. Under IAS 17, these leases have been treated as other leases, whose lease liability is presented in the notes to the financial statements. In the statement of profit or loss, the present rental expense will be removed and replaced by a depreciation of a right-of-use asset and an interest expense reported in financial expenses.

Glaston will apply the new standard in full retrospectively from 1 January 2019, and will prepare a restated statement of profit or loss and statement of financial position for 2018. The impact of adopting the standard will significantly increase Glaston's property, plant and equipment and interest-bearing liabilities. Glaston will publish comparable data for 2018 during Q1 2019.

Management estimates that the other IFRSs, IFRIC interpretations and changes to existing standards and interpretations that enter into force in 2019 or thereafter will have no material affect on Glaston's consolidated financial statements or the disclosure thereof.

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.

Associates, where the Group has a significant influence (holding normally 20–50 per cent), are accounted for using the equity method. The Group's share of the associates' net results for the financial year is recognized as a separate item in profit or loss. The Group's interest in an associate is carried in the statement of financial position at an amount that reflects its share of the net assets of the associate together with goodwill on acquisition, if such goodwill exists. When the Group's share of losses exceeds the carrying amount of associate, the carrying amount is reduced to nil and recognition of further losses ceases unless the Group is committed to satisfy obligations of the associate by guarantees or otherwise.

Other shares, i.e. shares in companies in which Glaston owns less than 20 per cent 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.

Non-controlling interests are presented separately in arriving at the net profit or loss attributable to owners of the parent. They are also shown separately within equity. If the Group has a contractual obligation to redeem the share of the non-controlling interest with cash or cash equivalents, non-controlling interest is classified as a financial liability. The effects of the transactions made with non-controlling interests are recognized in equity, if there is no change in control. These transactions do not result in goodwill or gains or losses. If the control is lost, the possible remaining ownership share is measured at fair value and the resulting gain or loss is recognized in profit or loss. Total comprehensive income is attributed also to non-controlling interest even if this will result in the non-controlling interest having a deficit balance.

Foreign Subsidiaries

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 equity as cumulative exchange difference. 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.

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.

Financial Assets and Liabilities

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.

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.

In reporting periods 2018 and 2017, hedge accounting was used in hedging the trade receivables of projects. At the end of reporting periods 2018 and 2017, Glaston had open foreign exchange 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. Investments whose fair value cannot be reliably determined, such as unlisted shares and other investments, are stated at acquisition cost or lower if an impairment loss is recognized for the investment.

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.

Cash and Cash Equivalents

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.

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 convertible bond, pension loans, loans from financial institutions, finance lease liabilities, debenture bond, 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.

At the end of 2018 and 2017 Glaston had no convertible bond.

Revenue Recognition

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 (partial revenue recognition). 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 unfinished construction contracts.

Pensions and Other Long-term Employee Benefits

The Group has various pension plans in accordance with the local conditions and 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.

In addition to defined benefit pensions, Glaston has other long-term employee benefits, such as termination benefits. These benefits are accounted for as post-employment benefits, and they are presented separately from defined benefit pensions.

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

Share-based Payments

Glaston Corporation has share-based incentive plans for the Group's key personnel. Depending on the plan, the reward is settled in shares, cash, or a combination thereof, provided that the key employee's employment or service with the Group is in force and the criteria for the performance is fulfilled. If a key employee's employment or service with the Group ends before the payment of a reward, the main principle is that no reward will be paid.

The granted amount of the incentive plans settled in shares is measured at fair value at the grant date, and the cash-settled part of the plans is measured at fair value at the reporting or payment date.

The expenses arising from the incentive plans are recognized in profit or loss during the vesting periods. The cash-settled portion of the incentive plans is recorded as a liability in the statement of financial position, if it has not been paid, and the portion settled in shares is recorded in retained earnings in equity net of tax. Glaston records the personnel costs arising from the share-based incentive plans to the extent it is liable to pay them. The share-based incentive plans are described in Note 28 to the consolidated financial statements.

Current and Deferred Taxes

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 also 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.

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.

Items Affecting Comparability

Glaston includes in items affecting comparability mainly items arising from restructuring and structural changes. They can include expenses arising from personnel reduction, product portfolio rationalization, changes in production structure and from reduction of offices. Impairment loss of goodwill is also included in items affecting comparability. Items affecting comparability are recognized in profit or loss in the income or expense category where they belong by their nature and they are included in operating result. In its key ratios Glaston presents also comparable operating result.

If a non-comparable expense is reversed for example due to changes in circumstances, the reversal is also included in items affecting comparability.

In addition, exceptionally large gains or losses from disposals of property, plant and equipment and intangible assets as well as capital gains or losses arising from group restructuring are included in items affecting comparability.

Intangible Assets

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.

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 2018 or 2017 Glaston did not have any qualifying assets.

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Goodwill
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 made after 1 January 2004, is treated as an asset of the foreign entity and translated at the closing exchange rates at the end of the reporting period. Goodwill arising from the acquisitions of foreign entities made before 1 January 2004, has been translated into euros at the foreign exchange rate prevailing on the acquisition date.

Acquisitions made after 1 January 2004, 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). Acquisitions made before 1 January 2004, have not been restated to be in accordance with IFRS-standards. The revised IFRS 3 standard has been applied for business combinations made after 1 January 2010.

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.

Property, Plant and Equipment
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

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 2018 or 2017 Glaston did not have any qualifying assets.

Discontinued Operations and Assets and Liabilities of Disposal Group Classified as Held for Sale
A discontinued operation is a segment or a unit representing a significant geographical area, which has been disposed of or is classified as held for sale. The profit for the period attributable to the discontinued operation is presented separately in the consolidated statement of profit or loss. Also post-tax gains and losses recognized on the measurement to fair value less costs to sell or on the disposal of the asset or disposal group are presented in the statement of profit or loss as result of discontinued operations. Comparative information has been restated.

Non-current assets or disposal groups are classified as held for sale and presented separately in the statement of financial position if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use. In order to be classified as held for sale the asset or disposal group must be available for immediate sale in its present condition and the sale must be highly probable. In addition, the sale should qualify for recognition of a complete sale within one year from the date of the classification.

An asset classified as held for sale is measured at the lower of its carrying amount and fair value less costs to sell and it is not depreciated or amortized.

Also liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the statement of financial position.

IFRS 5 Non-current Assets Held for Sale and Discontinued Operations is not applied retrospectively if the valuations and other information required by the standard were not obtainable at the time the classification criteria were met.

Impairment of Assets
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. Other 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 recording the impairment loss a positive change has occurred in the estimates of the recoverable amount, 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. They 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 is the weighted average cost of capital. It is a pre-tax rate and reflects current market assessments of the time value of money at the time of review and the risks related to the assets. Impairment of assets has been described in more detail in Note 12 to the consolidated financial statements.

Inventories

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.

Government Grants

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.

Accounting for Leases

Glaston Group has entered into various operating leases, the payments under which are treated as rentals and charged to profit or loss over the lease term.

Leases of property, plant and equipment where Glaston has substantially all the rewards and risks of the ownership, are classified as finance leases. Finance leases are capitalized at the inception of the lease at the lower of the fair value of the leased asset or the present value of the minimum lease payments. Lease payments are allocated between liability and finance charges. The lease liabilities net of finance charges are included in interest-bearing liabilities, with the interest element charged to profit or loss over the lease period.

Property, plant and equipment acquired under finance lease contracts are depreciated over the shorter of the useful life of the asset or the lease period.

Provisions

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.

Segment Information

Glaston has combined the operating segments, Machines and Services, into a single reporting segment. The business consists of the manufacture and sale of heat treatment glass machines as well as the service operations for these machines.

The reportable segment applies Glaston Group's accounting and measurement principles. The reportable segment consist of operating segments, which have been aggregated in accordance with the criteria of IFRS 8.12. Operating segments have been aggregated, when the nature of the products and services is similar, the nature of the production process is similar, as well as the type or class of customers. Also the methods to distribute products or to provide services are similar. Glaston follows the same commercial terms in transactions within the segment as with third parties.

The reportable segment is disclosed in more detail in the Note 5 to the consolidated financial statements.

Critical Accounting Estimates and Judgments

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 Note 2 to the consolidated financial statements.

Dividends

Dividens 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.

Treasury Shares

Treasury shares acquired by the company and the related costs are presented as a deduction of equity. Gain or loss on surrender of treasury shares are recorded in reserve for invested unrestricted equity net of tax.

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.

Order Book

Glaston's order book includes the binding undelivered orders of the Group at the end of the reporting period. Orders for new machines and machinery upgrades are recognized in the order book only after receiving a binding agreement and either a down payment or a letter of credit.

Orders Received

Glaston's orders received include the binding orders received and recognized in the order book during the reporting period as well as net sales of the service business, including net sales of spare parts. Machine upgrades, which belong to the service business, are included in orders received based on the binding orders received and recognized in the order book during the reporting period.

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Critical accounting estimates and judgments

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. The sensitivity analyses related to the impairment tests performed are described in Note 12 to the consolidated financial statements.

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. 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 2018, Glaston had EUR 4.1 (4.5) million of capitalized development expenditure on its statement of financial position.

Measurement of inventories and trade and loan receivables 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. If management estimates that 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. The carrying amount of inventory at the end of the reporting period was EUR 5.8 (10.9) million, the carrying amount of trade receivables was EUR 12.7 (18.9) million and the carrying amount of loan receivables was EUR 1.7 (0.8) million.

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. At the end of the reporting period, Glaston's had deferred tax assets of Continuing Operations totaling EUR 0.6 (1.0) million and deferred tax liabilities totaling EUR 0.4 (0.3) million.

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. Glaston's most significant provision at the end of the reporting period was the warranty provision, totaling EUR 2.1 (3.6) million. 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. If the management has estimated that it is unlikely, that Glaston has an obligation, a contingent liability is presented in the notes to the consolidated financial statements.

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.

In satisfying the terms of IFRS 15, Glaston recognizes the revenue from tailor-made glass processing machine deliveries over time (partial revenue recognition). 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 partial revenue recognition, the loss is recognized for the period in which it is identified.

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 Brazilian Real. The US dollar accounted for approximately 21 per cent of the net sales of   in 2018 (33 per cent). The Euro and US dollar together accounted for approximately 87 per cent of the invoicing in 2018 (92 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 2018, 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 2018 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 2018. 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 on page 57, 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	
EUR thousand	Gross position	-10 per cent	+ 10 per cent
USD/EUR	-1,519	-169	138
BRL/EUR	-825	-92	75
CNY/EUR	-2,999	-333	273
GBP/EUR	232	26	-21
	-5,111		

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 per cent changed of interest rates to interest expences for the period of 12 months. At the end of 2018 this effect was EUR 70 thousand (EUR 90 thousand). The decrease is due to a decrease in loan capital compared to the previous year.

On 31 December 2018, the Group's interest-bearing net debt mainly consisted of loans agreed with lenders in the financing agreement signed in June 2017 as well as a TyEL loan.

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 2018 is EUR -0.07 / +0.04 (-0.09 / +0.05) 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 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.

At the end of 2018 8.7 (17.0) per cent of Group's trade receivables were secured by various types of guarantees.

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. 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 2018, was EUR 12.7 million (EUR 18.9 million).

Ageing analysis and changes in allowance account of trade receivables are presented in Note 18 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

The Group's funding is mainly organized by using the approximately EUR 35 million facilities agreement signed 2017 from which EUR 25 million is committed credit facilities.

Committed credit facilities

EUR million	In use	Unused	Total
Committed credit facilities 31.12.2018	5.3	19.7	25.0
Committed credit facilities 31.12.2017	6.9	18.1	25.0

Maturity analysis of financial liabilities 31 December 2018

EUR thousand			Maturing in		
Maturity of financial liabilities	**Carrying amount**	**Contractual cash flows**	**< 12 months**	**1–2 years**	**> 2 years**
Financial liabilities					
Commercial papers	2,000	2,000	2,000	-	-
Interest bearing loans	8,716	9,153	2,795	5,360	998
Other interest-bearing loans	2,017	2,097	20	371	1,706
Trade payables	11,072	11,072	11,072	-	-

Maturity analysis of financial liabilities 31 December 2017

EUR thousand			Maturing in		
Maturity of financial liabilities	**Carrying amount**	**Contractual cash flows**	**< 12 months**	**1–2 years**	**> 2 years**
Financial liabilities					
Commercial paper	-	-	-	-	-
Interest bearing loans	11,260	12,026	2,846	3,012	6,168
Other interest-bearing loans	1,997	2,152	-	-	2,152
Trade payables	11,160	11,160	11,160	-	-

Maturity of rental obligations is presented in Note 26 to the consolidated financial statements.

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 (gearing ratio) and 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	31 December, 2018	restated 31 December, 2017
Interest-bearing net debt		
Non-current interest-bearing liabilities	8,089	10,613
Current interest-bearing liabilities	4,644	2,644
Cash and cash equivalents	-7,852	-12,386
Total	**4,880**	**870**
Equity		
Attributable to owners of the parent	37,140	36,885
Non-controlling interest	67	228
Total	**37,206**	**37,112**
Total assets	90,873	96,664
Advances received, continuing and discontinued operations	-16,977	-11,552
Total	**73,896**	**85,112**
Equity ratio, %	50.3%	43.6%
Net gearing, %	13.1%	2.3%

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. The authorizations of the Board of Directors to acquire and dispose own shares, and to issue new shares, are disclosed in Note 4 to the consolidated financial statements. 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.

Shares and Shareholders

Shares and Voting Rights
Glaston Corporation has one class of shares. The number of outstanding shares is 193,633,136 (treasury shares are included in the number of shares) and each share, with the exception of treasury shares, carries one vote at general meetings of shareholders. There are no limitations to transfer the shares. At the end of 2018 and 2017, 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 0.07 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 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.

Cancellation of shares
Glaston Corporation's General Meeting made on 10 April 2018 a decision in accordance with Chapter 3, Section 14 a, Sub-section 3 of the Finnish Companies Act, that all rights to shares recorded on the joint book-entry account of Glaston Corporation whose registration has not been requested in accordance with Chapter 6, Section 3 of the Act on the Book-Entry System and Clearance Activity (in Finnish: Laki arvo-osuusjärjestelmästä ja selvitystoiminnasta) prior to the resolution of the General Meeting, are to be forfeited. In addition to the shares, all rights based on those shares such as e.g. dividend that have not been expired, shall be also forfeited.
On 30 January 2018, the number of Glaston Corporation's shares in the joint book-entry account was 75,200.

Number of shares and treasury shares	2018	2017
Number of shares (registered)		
Number of shares 1 January	193,708,336	193,708,336
Cancellation of shares 27 April	-75,200	-
Number of shares 31 December	193,633,136	193,708,336
Treasury shares 31 December	-788,582	-788,582
Number of shares 31 December, excluding treasury shares	**192,844,554**	**192,919,754**
Average number of shares 31 December, excluding treasury shares	**192,844,554**	**192,919,754**
Acquisition and disposal of treasury shares		
Treasury shares 1 January, shares	788,582	788,582
Treasury shares 31 December, shares	**788,582**	**788,582**
Treasury shares 1 January, EUR thousand	3,308	3,308
Treasury shares 31 December, EUR thousand	**3,308**	**3,308**

Glaston's treasury shares consist of shares acquired for the share-based incentive scheme. Share acquisition and the scheme management have been outsourced to an external service provider. Irrespective of the legal form of the procedure, the shares have been treated as if Glaston would have acquired the shares itself.

Share-based incentive plan and management's shareholding

Share-based incentive plan is presented in detail in Note 28.
The Board of Directors' and Executive Management Group's share ownership is presented in detail in Note 29.

Equity attributable to owners of the parent per share	2018	restated 2017
Equity attributable to owners of the parent, EUR thousand	37,140	36,885
Number of shares	192,844,554	192,919,754
Equity attributable to owners of the parent per share, EUR	**0.19**	**0.19**
Distribution of profit		
Return of capital per share, EUR*	0.006	0.01

* The Board of Directors' proposal to the Annual General Meeting.

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Segment Information

Glaston has one reportable segment, which consists of two operating segments Machines and Services. Previously reported separately, the segments have been presented as one reportable segment since 1 July 2015, and comparable figures have been restated accordingly. The reportable segment applies Glaston Group's accounting and measurement principles as described in Note 1 to the consolidated financial statements. Glaston follows the same commercial terms in transactions between the segment as with third parties.

The reportable segment consists of operating segments, which have been aggregated in accordance with the criteria of IFRS 8.12. Operating segments have been aggregated, when the nature of the products and services is similar, the nature of the production process is similar, as well as the type or class of customers. Glaston's business consists of the manufacture and sale of heat treatment glass machines as well as the service operations for these machines. There is a high level of integration between safety glass machines and maintenance. Product development as well as sales and distribution are shared functions, serving both business areas. Their customers are the same, as is their market development, which is linked to the general development of the global market. Also the methods to distribute products or to provide services are similar. In the long term, also sales development and gross profit of the operating segments are similar.

Glaston's highest operative decision maker (CODM, Chief Operating Decision Maker) is Glaston Corporation's President & CEO, supported by the Executive Management Group. The President & CEO assesses the Group's financial position and its overall development.

Reportable segment

EUR thousand **2018**	**Machines**	**Services**	**Total segment**	**Unallocated and eliminations and adjustments**	**Total**
External net sales	65,164	35,826	100,991	148	101,139
Internal net sales	78	1,772	1,850	-1,850	-
Total net sales	**65,242**	**37,598**	**102,840**	**-1,701**	**101,139**
Comparable operating result of the segment					**5,220**
Items affecting comparability					-1,830
Operating result					**3,390**
Financial items					-695
Income taxes					-690
Result for the reporting period					**2,005**
Segment assets					77,285
Other assets					13,587
Total assets					**90,873**
Segment liabilities					40,317
Other liabilities					13,349
Total liabilities					**53,666**
Operative net working capital					**36,968**

The items affecting comparability of January-December 2018, in total EUR 1.8 million negative, consist of personnel and other costs related to business restructuring in Italy, United States, China and Brazil.

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.

restated

2017	Machines	Services	Total segment	Unallocated and eliminations and adjustments	Total
External net sales	68,541	40,399	108,940	725	109,665
Internal net sales	250	2,435	2,686	-2,686	-
Total net sales	**68,791**	**42,835**	**111,626**	**-1,961**	**109,665**
Comparable operating result of the segment					**4,994**
Items affecting comparability					-375
Operating result					**4,619**
Financial items					-852
Income taxes					-1,163
Result for the reporting period					**2,604**
Segment assets					77,310
Other assets					17,336
Total assets					**94,647**
Segment liabilities					43,786
Other liabilities					13,749
Total liabilities					**57,534**
Operative net working capital					**33,525**

The items affecting comparability of January-December 2017, in total EUR 0.4 million negative, consist of personnel and other costs related to business restructuring in United States, China and Brazil as well as sale of an unused property in Finland.

Non-cash income and expenses included in operating result*	2018	2017
Segment total	-1,036	-2,061
Unallocated	-22	-1
Total non-cash expenses and income	**-1,059**	**-2,063**

* Excluding impairment.

Non-cash income and expenses in 2018 included the following items: impairment losses of trade receivables EUR -0.7 million, impairment losses of inventory EUR -0.7 million, changes in provisions EUR 0.4 million.

Non-cash income and expenses in 2017 included the following items: impairment losses of trade receivables EUR -0.3 million, impairment losses of inventory EUR -0.7 million, changes in provisions EUR -1.0 million.

Orders received and order book

EUR million	2018	2017
Orders received		
Machines	73.6	63.8
Services	34.0	39.9
Total	**107.6**	**103.7**
Order book		
Machines	35.5	30.6
Services	2.7	3.5
Total	**38.2**	**34.1**

Personnel

	2018	2017
Total number of personnel at year end	**357**	**402**
Number of personnel at the end of the year by geographical location		
Finland	193	168
Other EMEA*	28	64
Americas*	48	54
Asia*	88	116
Total number of personnel	**357**	**402**

Entity-wide disclosures

EUR thousand	2018	2017
Net sales by product groups		
Goods sold	97,467	104,404
Services rendered	3,673	5,261
Total net sales	**101,139**	**109,665**
Net sales by country by destination		
Finland	7,065	1,180
Other EMEA*	47,215	50,356
Americas*	27,658	41,605
Asia*	19,201	16,523
Total	**101,139**	**109,665**

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

	2018	2017
Property, plant and equipment and intangible assets by geographical location (goodwill excluded)		
Finland	9,439	9,883
Other EMEA*	18	262
Americas*	101	221
Asia*	3,935	4,573
Total property, plant and equipment and intangible assets, goodwill excluded	**13,493**	**14,939**

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

IFRS15 adjustment

Statement of Profit or Loss

EUR million	1-12/2017
Machines	-0.5
Services	-0.2
Other and intersegment sales	0.0
Net sales Glaston Group total	**-0.7**
Comparable EBIT	**-0.4**
Items affecting comparability	-
EBIT	-0.4
Net financial items	-
Income taxes	0.1
Net result	**-0.3**

EUR million	Q4/2017
Machines	-3.1
Services	-0.3
Other and intersegment sales	0.0
Net sales Glaston Group total	**-3.4**
Comparable EBIT	**-1.2**
Items affecting comparability	-
EBIT	-1.2
Net financial items	-
Income taxes	0.1
Net result	**-1.1**

Statement of Financial Position

EUR million	31.12.2017	01.01.2017
Inventories	1.1	0.7
Receivables	-	-1.3
Total assets	1.1	-0.6

	31.12.2017	01.01.2017
Equity	-0.9	-0.6
Liabilities	2.0	-
Total equity and liabilities	1.1	-0.6

Per share data

EUR million	31.12.2017
Earnings per share	-0.006

Contents

Revenue from contracts with customer

Classification of net sales

EUR thousand

2018	Machines	Services	Total segment	Unallocated and eliminations and adjustments	Total
External net sales	65,164	35,826	100,991	148	101,139
Internal net sales	78	1,772	1,850	-1,850	-
Total net sales	**65,242**	**37,598**	**102,840**	**-1,701**	**101,139**
Timing of revenue recognition					
Over time	64,973	5,812	70,785	-	70,785
At a point in time	269	31,786	32,055	-1,701	30,354
Total net sales	**65,242**	**37,598**	**102,840**	**-1,701**	**101,139**

2017	Machines	Services	Total segment	Unallocated and eliminations and adjustments	Total
External net sales	68,541	40,399	108,940	725	109,665
Internal net sales	250	2,435	2,686	-2,686	-
Total net sales	**68,791**	**42,835**	**111,626**	**-1,961**	**109,665**
Timing of revenue recognition					
Over time	64,921	3,658	68,579	-	68,579
At a point in time	3,871	39,176	43,047	-1,961	41,086
Total net sales	**68,791**	**42,835**	**111,626**	**-1,961**	**109,665**

Contents

Contract assets and liabilities

EUR thousand

	31.12.2018	31.12.2017	01.01.2017
Contract assets			
Trade receivables	4,939	9,862	9,100
Project income receivables	10,315	0	0
Contract assets total	**15,254**	**9,862**	**9,100**
Contract liablities			
Advance payments	-11,149	-9,840	-10,731
Project expense liablities	-657	-2,018	-1,275
Contract liablities total	**-11,806**	**-11,858**	**-12,006**
Gross contract assets/liabilities	**3,448**	**-1,996**	**-2,906**

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. Due to the short-term nature of the projects, the relief afforded by IFRS 15.120 has been applied in reporting.

Terms of payment are generally 14–30 days from billing.

Glaston has applied IFRS 15 partial revenue recognition retrospectively for all projects and has not utilized the reliefs afforded by IFRS 15.C5.

	31.12.2018	31.12.2017
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	24,791	27,041

Contents

Other Operating Income

Other operating income

EUR thousand	**2018**	**2017**
Capital gains on sale of property, plant and equipment	276	413
Rents	984	951
Government grants	22	26
Insurance compensation	659	7
Other income	302	305
Other operating income total	**2,243**	**1,703**

Government grants are essentially related to regional headquarter compensation.

Contents

Materials and Other Operating Expenses

EUR thousand	2018	restated 2017
Materials		
Materials and supplies, purchases during the period	-48,789	-51,385
Change in inventories of materials and supplies	-436	386
Total materials	**-49,225**	**-50,999**
Other operating expenses		
Leases	-2,587	-2,816
Losses on sale of property, plant and equipment	-63	-97
Losses from sale of investment	-398	-240
Subcontracting and maintenance	-3,095	-3,827
Commissions	-492	-2,035
Freight expenses	-2,671	-3,118
Travel expenses	-3,856	-4,133
External services, not production related	-2,006	-1,934
IT, internet and phone	-3,203	-2,640
Electricity, heating	-991	-1,064
Marketing expenses	-1,001	-1,083
Other expenses	-2,724	-4,702
Total other operating expenses	**-23,087**	**-27,689**
Fees for professional services rendered by auditors		
Auditing, EY	-262	-228
Other services, EY	-70	-4
Auditing, other companies	-25	-24
Tax advisory, other companies	-121	-29
Total	**-478**	**-286**

The principal auditor of Glaston Group during the financial years of 2018 and 2017 has been Ernst & Young.

EUR thousand	2018	2017
Research and development costs		
Recognized in profit or loss	-2,769	-2,598
Amortization, impairment losses and reversals of impairment losses of capitalized development costs during the reporting period, net	-1,330	-1,250
Total	**-4,098**	**-3,848**
As a percentage of net sales	4.1%	3.5%
Capitalized development costs during the reporting period	967	1,379
Capitalized development costs during the reporting period, total	**967**	**1,379**

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Employee Benefits and Number of Personnel

EUR thousand	2018	2017
Employee benefits		
Wages and salaries	18,780	19,247
Pension expenses	2,421	2,586
Other personnel expenses	2,135	2,576
Other post-employment benefits	15	10
Total personnel expenses	**23,351**	**24,419**

Share-based incentive plans are described in more detail in Note 28 to the consolidated financial statements.

Pension expenses

Defined benefit plans	71	-8
Defined contribution plans	2,350	2,594
Total pension expenses	**2,421**	**2,586**

Pension benefits are presented in more detail in Note 20 to the consolidated financial statements.

Number of personnel

Number of personnel, average	379	409
Personnel in Finland, end of the period	193	168
Personnel outside Finland, end of the period	164	234
Total, end of period	**357**	**402**

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Financial Income and Expenses

EUR thousand	2018	2017
Recognized in profit or loss		
Interest income		
Interest income on loans and receivables	109	237
Total interest income	109	237
Dividend income		
Dividend income measured at fair value through other comprehensive income	8	7
Interest expenses		
Interest expenses on financial liabilities measured at amortized cost	-339	-410
Other interest expenses	-1	-1
Total interest expenses	-341	-411
Other financial expenses		
On financial liabilities measured at amortized cost	-239	-287
On bank fees	-91	-108
Currency derivatives financial	-1	6
Other financial expenses	-72	-6
Total other financial expenses	-402	-394
Foreign exchange differences, net		
On financial liabilities measured at amortized cost	-12	-65
On loans and receivables	-54	-748
Other foreign exchange gains and losses	-3	522
Total foreign exchange differences	-69	-291
Total financial income and expenses in financial items	**-695**	**-852**

EUR thousand	2018	2017
Net foreign exchange differences in operating result		
Net sales	-161	166
Purchases	-136	-390
Other operating expenses	4	-54
Total	**-292**	**-279**
Derivatives recognized in profit or loss		
Currency derivatives, hedge accounting		
Realized currency derivatives recognized in net sales	-45	249
Total	**-45**	**249**
Electricity derivatives, non-hedge accounting		
Realized electricity derivatives recognized in operating expenses	-	27
Total	**-**	**27**
Recognized in other comprehensive income		
Fair value changes of financial assets measured at fair value through other comprehensive income	16	9
Total in other comprehensive income	**16**	**9**

Borrowing costs were not capitalized in Glaston Group in 2018 or 2017 as Glaston has not had any qualifying assets as defined in IAS 23 Borrowing Costs.
Impairment losses on trade receivables are presented in Note 18.

Income Taxes

EUR thousand	2018	restated 2017
Income tax charge in income statement		
Current income tax charge	-246	-371
Adjustments in respect of current income tax of previous years	92	186
Deferred tax charge	-530	-956
Other	-6	-22
Total income tax charge	**-690**	**-1,163**
Income taxes recognized in other comprehensive income and in equity		
Deferred taxes		
Fair value changes of financial assets measured at fair value through other comprehensive income	-3	-2
Total deferred taxes recognized in other comprehensive income and equity	-3	-2
Total taxes recognized in other comprehensive income and in equity	**-3**	**-2**

EUR thousand	2018	restated 2017
Reconciliation of income tax expense calculated at statutory tax rates with income tax expense in the income statement		
Profit before taxes	2,695	3,767
Tax at the tax rate applicable to the parent	-539	-753
Difference due to different tax rates of foreign subsidiaries	205	-234
Effect of changes in tax rates and tax laws	-622	931
Losses, where no deferred tax benefit is recognized	-	-238
Deferred taxes recognized during the reporting period in respect of previous years' temporary differences	-498	-1 088
Withholding taxes and adjustments in respect of current income tax of previous periods	6	-305
Use of losses, where no deferred tax asset was recognized	86	164
Effect of taxes not based on taxable income	672	361
Income taxes in the income statement	**-690**	**-1,163**
Effective tax rate	-26%	-31%

The Group companies have tax losses totalling EUR 33.0 (36.0) 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. There are several years before the tax losses expire.

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. 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 2018 or 2017 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.

		restated
EUR thousand	**2018**	**2017**
Tax assets and tax liabilities		
Deferred tax assets	617	1,011
Assets for current tax	377	136
Deferred tax liabilities	378	267
Liabilities for current tax	180	218

Reconciliation of deferred tax assets and deferred tax liabilities 2018

Deferred tax assets	1 Jan.	Exchange difference	Change in income statement (- tax expense)	Recognized in other comprehen-sive income	31 Dec.
Unrealized internal profits, inventory	193	-	-58	-	135
Unrealized internal profits, property, plant and equipment and intangible assets	-0	-	-	-	-0
Confirmed tax losses carried forward*	453	-	-325	-	128
Share-based payments	-	-	-	-	-
Other temporary differences	365	-	-11	-	354
Deferred tax assets in statement of financial position	**1,011**	**-**	**-394**	**-**	**617**

* No deferred tax asset from losses of the reporting period has been recognized during the reporting period.

Other temporary differences consist of expenses which were not tax deductible in the reporting period, but will be tax deductible in future.

Deferred tax liabilities	1 Jan.	Exchange difference	Change in income statement (+ tax expense)	Recognized in other comprehen-sive income	31 Dec.
Untaxed reserves	-435	-	47	-	-388
Defined benefit employee benefits	17	-	-	-	17
Fair value changes of financial assets measured at fair value through other comprehensive income	32	-	-	3	35
Share-based payments	-	-	-	-	-
Other temporary differences	653	-	60	-	713
Deferred tax liabilities in statement of financial position	**267**	**-**	**107**	**3**	**378**

Other temporary differences consist of, among other things, differences between local and IFRS accounting principles, which create timing differences in recognizing revenue and expenses.

Total change in deferred taxes in income statement (- tax expense)	**-530**

Reconciliation of deferred tax assets and deferred tax liabilities 2017

Deferred tax assets	1 Jan.	Exchange difference	Change in income statement (- tax expense)	Recognized in other comprehen-sive income	31 Dec.
Unrealized internal profits, inventory	204	-	-11	-	193
Unrealized internal profits, property, plant and equipment and intangible assets	-0	-	-	-	-0
Confirmed tax losses carried forward*	1,085	-	-632	-	453
Share-based payments	-	-	-	-	-
Other temporary differences	876	-	-511	-	365
Deferred tax assets in statement of financial position	**2,165**	**-**	**-1,154**	**-**	**1,011**

* No deferred tax asset from losses of the reporting period has been recognized during the reporting period.

Other temporary differences consist of expenses which were not tax deductible in the reporting period, but will be tax deductible in future.

Deferred tax liabilities	1 Jan.	Exchange difference	Change in income statement (+ tax expense)	Recognized in other comprehen-sive income	31 Dec.
Untaxed reserves	-401	-	-34	-	-435
Defined benefit employee benefits	14	-	2	-	17
Fair value changes of financial assets measured at fair value through other comprehensive income	30	-	-	2	32
Share-based payments	-0	-	-	-	-0
Other temporary differences	714	-	-61	-	653
Deferred tax liabilities in statement of financial position	**358**	**-**	**-93**	**2**	**267**

Other temporary differences consist of, among other things, differences between local and IFRS accounting principles, which create timing differences in recognizing revenue and expenses.

Total change in deferred taxes in income statement (- tax expense)	**-956**

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Depreciation, Amortization and Impairment of Assets

EUR thousand	2018	2017
Depreciation and amortization		
Intangible assets		
Intangible rights	554	596
Capitalized development expenditure	1,338	1,250
Property, plant and equipment		
Buildings and constructions	372	379
Machinery and equipment	598	627
Other tangible assets	157	139
Total depreciation and amortization	**3,021**	**2,991**
Impairment losses		
Intangible assets		
Intangible rights	-	-
Total impairment losses	**-**	**-**
Total depreciation, amortization and impairment	**3,021**	**2,991**

Impairment of assets

Goodwill and intangible assets with indefinite useful life are tested for impairment annually in accordance with IAS 36. Glaston does not have other intangible assets than goodwill with indefinite useful life and which are not amortized. Intangible assets not yet in use are also tested during the reporting period for impairment. Impairment testing is performed also always when there is indication that the recoverable amount of an asset or cash generating unit is lower than its carrying amount.

Glaston's cash generating units are Machines/ Heat Treatment and Services.

Goodwill has been tested for impairment by comparing the recoverable amount of the cash generating unit, to which the goodwill has been allocated, with the carrying amount of the cash generating unit. Impairment loss is recorded if the recoverable amount is lower than the carrying amount. Consistent methods have been used in testing property, plant and equipment and intangible assets. If the asset has been classified as held for sale, the recoverable amount used is the fair value of the asset less costs of sale.

The recoverable amount of a cash generating unit is its value in use, based on its discounted future cash flows. These cash flows are based on the budgets and estimates approved by the management. Budgets and estimates are used as a basis of the future cash flows for a maximum of five years. Cash flows have, however, been adjusted so that the future cash flows used in impairment testing exclude any cash flows from uncommitted future restructuring and cash flows arising from improving or enhancing the asset's performance. The cash flows of restructuring programs, in which the Group was committed at the date of the testing, are included in testing.

Subsequent cash flows are estimated by extrapolating the cash flow estimates. Terminal values have been calculated using Western European long-range growth rate if Western Europe has been considered to be the main market area of the cash-generating unit. If the main market areas are considered to have moved or to move over to other areas, such as Asia or other emerging markets, this growth have been taken into account in terminal value.

The assumptions used in impairment calculations are mainly the same as in estimates. The assumptions, such as for example market development on short term and price development of products, are based on past experience and information gathered from external sources. Assumptions on market development on longer term are based on external sources, such as market studies on development of flat glass consumption, which has a major impact on Machines in particular. The new products are expected to receive good response from customers and this is expected to give Glaston better position on the market compared to competitors. Restructuring measures to improve cost structure have already improved and will further improve profitability.

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 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.

There are no changes in the sources of information used in determining the discount rates. The importance of the different geographical areas has slightly changed due to the change in the geographical focus of business. This has had an impact on defining the risk-free interest rates and country risk premiums. The impact of the global economic uncertainty on the level of interest rates in different geographical areas has affected the determination of the discount rate.

Discount rates have been calculated separately for each cash generating unit and they can vary between the units. The discount rate depends, among other things, on the geographcial allocation of cash flows as well as the relative importance of these cash flows. These can differ between the cash generating units.

The most significant assumptions used in value in use calculations in 2018	**Machines/ Heat Treatment**	**Services**
Pre-tax discount rate	12.1%	12.6%
Long-term growth rate	2.0%	2.0%

The most significant assumptions used in value in use calculations in 2017	**Machines/ Heat Treatment**	**Services**
Pre-tax discount rate	11.3%	12.0%
Long-term growth rate	2.0%	2.0%

Impairment testing of goodwill

Goodwill EUR million

Cash generating unit	**1 January, 2018**	**Impairment loss**	**31 December, 2018**
Machines			
Heat Treatment	4.1	-	4.1
Services	26.5	-	26.5
Total	**30.6**	**-**	**30.6**

Cash generating unit	**1 January, 2017**	**Impairment loss**	**31 December, 2017**
Machines			
Heat Treatment	4.1	-	4.1
Services	26.5	-	26.5
Total	**30.6**	**-**	**30.6**

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 reasonably possible change in a key assumption in the Machines/ Heat Treatment and Services do not cause the cash generating unit's carrying amount to exceed its recoverable amount. The cases in which a reasonably 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 on the next page.

The recoverable amounts of these cash generating units exceed their carrying amounts by 85 per cent in the Services business and by 416 per cent in the Heat Treatment 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
Services	10.2%	17.6%
Heat Treatment	10.0%	36.2%

Long-term growth rate*	Value assigned to the assumption	Value Change
Services	2.0%	-11.5%
Heat Treatment**	2,0%	-

* The consequential effects of the change in the assumption on other variables used to measure recoverable amounts have not been incorporated in the sensitivity analysis. Terminal year growth rate of Heat Treatment has no effect on the recoverable value.

** None of the possible reasonably negative changes will result in the book value being higher than the recoverable amount.

The costs of Machines/ Heat Treatment business are estimated to be 92 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.

The costs of Services business are estimated to be 81 per cent of the estimated net sales during the testing period. Should the costs be 11 percentage points higher, the recoverable amount, other things being equal, would equal the carrying amount.

Impairment of property, plant and equipment and intangible assets and reversal of impairment loss

In 2018 or in 2017 Glaston had no impairment losses.

Contents

Intangible Assets

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.

EUR thousand

2018	Capitalized development expenditure	Intangible rights	Goodwill	Other capitalized expenditure	Advances paid	Total
Acquisition cost at beginning of year	21,340	4,291	24,291	503	614	51,039
Other increases	-	64	-	-	1,067	1,132
Decreases	-	-103	-	-	-	-103
Reclassifications and other changes	540	103	-	-	-643	0
Exchange differences	-3	-35	-	-	2	-37
Acquisition cost at end of year	**21,877**	**4,320**	**24,291**	**503**	**1,039**	**52,030**
Accumulated amortization and impairment at beginning of year	-17,386	-2,335	6,260	-503	-	-13,963
Accumulated amortization relating to decreases and transfers	-	103	-	-	-	103
Amortization during the reporting period	-1,338	-554	-	-	-	-1,893
Reclassifications and other changes	-	-0	-	-	-	-0
Exchange differences	3	35	-	-	-	37
Accumulated amortization and impairment at end of year	**-18,721**	**-2,752**	**6,260**	**-503**	**-**	**-15,716**
Carrying amount at end of year	**3,156**	**1,568**	**30,551**	**0**	**1,039**	**36,314**

2017	Capitalized development expenditure	Intangible rights	Goodwill	Other capitalized expenditure	Advances paid	Total
Acquisition cost at beginning of year	19,424	4,341	24,291	503	1,335	49,893
Other increases	426	110	-	-	1,050	1,585
Decreases	-0	-329	-	-	-	-329
Reclassifications and other changes	1,535	231	-	-	-1,767	-1
Exchange differences	-43	-63	-	-	-5	-111
Acquisition cost at end of year	**21,340**	**4,290**	**24,291**	**503**	**614**	**51,038**
Accumulated amortization and impairment at beginning of year	-16,163	-2,048	6,260	-503	-	-12,453
Accumulated amortization relating to decreases and transfers	-0	253	-	-	-	253
Amortization during the reporting period	-1,250	-596	-	-	-	-1,846
Exchange differences	27	57	-	-	-	85
Accumulated amortization and impairment at end of year	**-17,386**	**-2,335**	**6,260**	**-503**	**-**	**-13,962**
Carrying amount at end of year	**3,954**	**1,955**	**30,551**	**0**	**614**	**37,076**

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Property, Plant and Equipment

Glaston has given liens on chattel as security for liabilities. These are presented in Note 26. At the end of 2018 and 2017 Glaston did not have any pledged property, plant and equipment or intangible assets as security for liabilities.

At the end of 2018 and 2017 Glaston had not contractual commitments for the acquisition of property, plant and equipment.

In 2018 or 2017, Glaston did not receive any material third party compensation for items of property, plant and equipment that were impaired, lost or given up.

EUR thousand **2018**	**Land and water areas**	**Buildings and construc-tions**	**Invest-ment property**	**Machinery and equipment**	**Other tangible assets**	**Advances paid and assets under construction**	**Total**
Acquisition cost at beginning of year	474	4,784	2,606	1,716	339	684	10,602
Other increases	-	13	-	363	-	513	889
Decreases	-	-	-	-2,868	-	-	-2,868
Reclassifications and other changes	-	-	-	10	0	-10	0
Exchange differences	-	-35	-23	-75	4	-	-129
Acquisition cost at end of year	**474**	**4,761**	**2,583**	**-854**	**343**	**1,187**	**8,493**
Accumulated depreciation and impairment at beginning of year	-	-2,652	-243	506	203	-	-2,187
Accumulated depreciation relating to decreases and transfers	-	-	-	2,472	-	-	2,472
Depreciation during the reporting period	-	-237	-135	-598	-157	-	-1,128
Exchange differences	-	21	3	59	-3	-	80
Accumulated depreciation and impairment at end of year	**-**	**-2,868**	**-375**	**2,438**	**42**	**-**	**-763**
Carrying amount at end of year	**474**	**1,893**	**2,207**	**1,584**	**385**	**1,187**	**7,730**

2017							
Acquisition cost at beginning of year	474	5,022	2,778	1,862	272	739	11,147
Other increases	-	43	-	220	3	446	711
Decreases	-	-	-	-489	-64	-	-553
Reclassifications and other changes	-	-24	-	373	151	-501	-
Exchange differences	-	-257	-172	-251	-23	-	-703
Acquisition cost at end of year	**474**	**4,784**	**2,606**	**1,716**	**339**	**684**	**10,602**
Accumulated depreciation and impairment at beginning of year	-	-2,548	-115	454	273	-	-1,937
Accumulated depreciation relating to decreases and transfers	-	-	-	471	48	-	519
Depreciation during the reporting period	-	-240	-139	-627	-139	-	-1,144
Exchange differences	-	136	10	208	20	-	375
Accumulated depreciation and impairment at end of year	**-**	**-2,652**	**-243**	**506**	**203**	**-**	**-2,187**
Carrying amount at end of year	**474**	**2,131**	**2,363**	**2,222**	**541**	**684**	**8,415**

Carrying amount of machinery and equipment used in production 31 December, 2018		1,144
Carrying amount of machinery and equipment used in production 31 December, 2017		1 719

Subsidiary, with material non-controlling interest ownership

The group has a 70 per cent ownership in Chinese Glaston Tools (Sanhe) Co., Ltd. The remaining 30 per cent of the company is held by one investor Sanhe New Stone Tools Super Hard Materials Co.,Ltd. The group has the right to nominate two out of three directors to the board of directors, including the chairman, who has a casting vote in case of equality of votes at the board meeting. Consequently, the entity is fully consolidated by the group, the part of the investor companion is reported as non-controlling interest.

Glaston made the decision in January 2018 to discontinue the production operations of its Chinese joint venture Glaston Tools (Sanhe) Co.

Included in the consolidated financial statements are the following items, that represent the Group's interest in the asset and liabilities, revenue and expenses of the subsidiary. The financial information presented in the table is based on the financial statements of the subsidiary, prepared in accordance with IFRS.

EUR thousand	**2018**	**2017**
Non-current asset	-0	136
Current assets	231	760
Equity and long-term liabilites	223	758
Short-term liabilities	8	137
Turnover	364	677
Expenses	-834	-797
Profit / Loss for the period	-533	-120
Profit / Loss attributable to parent company shareholders	-373	-84
Profit / Loss attributable to non-controlling interest	-160	-36
Dividends paid to non-controlling interest	-	-
Net cash flow from operating activities	-69	-68
Net cash flow from investing activities	-	11

Other investments

Financial assets measured at fair value through other comprehensive income

EUR thousand **2018**	**Shares and oher long-term investments**
Carrying amount 1 January	2,999
Fair value changes recognized in other comprehensive income	16
Carrying amount 31 December	**3,015**

2017	**Shares and oher long-term investments**
Carrying amount 1 January	3,231
Disposals	-240
Fair value changes recognized in other comprehensive income	8
Carrying amount 31 December	**2,999**

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.

Contents

Inventories

Inventories

EUR thousand	2018	restated 2017
Materials and supplies	2,617	3,346
Work in process	1,251	4,568
Finished goods	1,584	2,761
Advances paid	322	277
Total inventories	**5,774**	**10,952**
Impairment losses of inventory during the period	-672	-741
Reversals of impairment losses of inventory during the period	-	9
Total	**-672**	**-731**

Contents

Receivables

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 25.

Credit quality of other receivables is based on the debtors' payment history. Other receivables are not past due nor impaired.

Each loan receivable has been individually analyzed for a possible impairment loss. These analyses are based on the financial position and future cash flows of the debtor. Debtors have no external credit rating. In 2018, no impairment losses were recognized.

Receivables

EUR thousand	2018	restated 2017
Trade receivables	12,316	18,945
Trade receivables, falling due after 12 months	413	-
Total trade receivables	12,729	18,945
Finance leasing receivables	79	79
Finance leasing receivables, falling due after 12 months	732	811
Prepaid expenses and accrued income	1,467	925
Prepaid expenses and accrued income, falling due after 12 months	138	144
Other receivables	1,628	1,929
Other receivables, falling due after 12 months	393	102
Current loan receivables	226	304
Non-current loan receivables*	1,485	450
Total receivables	**18,878**	**23,689**

* In non-current assets

Ageing analysis of trade receivables at 31 December

			Past due			
	Carrying amount of trade receivables after recognizing allowance account	**Not past due**	**< 30 days**	**31–180 days**	**181–360 days**	**> 360 days**
2018	12,729	7,762	1,204	2,077	1,139	548
2017	18,945	13,640	2,785	2,082	254	185

Allowance account of trade receivables is used based on expected credit losses. 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 an 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 both in 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. The gross amount of impaired trade receivables at the end of the reporting period was EUR 1.7 (2.2) million, and an impairment loss of these receivables was EUR 1.9 (1.8) million.

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.

Impairment losses of trade receivables and changes in allowance account of trade receivables

EUR thousand

Allowance account 1 January, 2017	**1,621**
Exchange difference	-87
Charge for the year	903
Utilized	-115
Unused amounts reversed	-568
Allowance account 31 December, 2017	**1,754**
Exchange difference	-87
Charge for the year	891
Utilized	-453
Unused amounts reversed	-453
Reclassification to discontinued operations	-223
Allowance account 31 December, 2018	**1,881**

Impairment losses of trade receivables recognized in profit or loss, net (- income)

2018	744
2017	347

Finance lease receivables

	2018		2017	
	Minimun lease receivables	**Unearned finance income**	**Minimun lease receivables**	**Unearned finance income**
Finance lease receivables are due as follows				
No later than 1 year	79	24	79	29
Later than 1 year and no later than 5 years	209	75	239	67
Later than 5 years	523	30	572	60
Total finance lease receivables	811	129	890	156
Present value of minimum lease receivables	825		903	

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Total Comprehensive Income Included in Equity

EUR thousand

2018	Other restricted equity reserves	Fair value reserve	Retained earnings	Cumulative exchange difference	Non-controlling interest	Total
Total other comprehensive income						
Total exchange differences on translating foreign operations	-1	-	-3	58	-1	54
Change in actuarial gains and losses	-	-	41	-	-	41
Fair value changes of financial assets measured at fair value through comprehensive income	-	16	-	-	-	11
Hedging	-	-90				-90
Income taxes on fair value changes of financial assets measured at fair value through comprehensive income	-	-3	-	-	-	2
Other comprehensive income	**-1**	**-77**	**38**	**58**	**-1**	**18**
Gain	**-**	**-**	**2,165**	**-**	**-160**	**2,005**
Total comprehensive income	**-1**	**-77**	**2,203**	**58**	**-161**	**2,022**

2017	Other restricted equity reserves	Fair value reserve	Retained earnings	Cumulative exchange difference	Non-controlling interest	Total
Total other comprehensive income						
Total exchange differences on translating foreign operations	-4	-	4	-776	-17	-794
Change in actuarial gains and losses	-	-	-38	-	-	-38
Fair value changes of financial assets measured at fair value through comprehensive income	-	9	-	-	-	9
Hedging		39				39
Income taxes on fair value changes of financial assets measured at fair value through comprehensive income	-	-2	-	-	-	-2
Other comprehensive income	**-4**	**46**	**-34**	**-776**	**-17**	**-785**
Gain	**-**	**-**	**2,640**	**-**	**-36**	**2,604**
Total comprehensive income	**-4**	**46**	**2,606**	**-776**	**-53**	**1,819**

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Pensions and Other Defined Long-term Employee Benefits

The Group has defined benefit schemes in the countries where it operates. The plans include retirement and termination benefits.

The Group has a defined benefit pension plan in Finland. The Group has also defined contribution pension plans, of which the charge to the income statement was EUR 2.4 (2.6) million.

In addition to defined benefit pensions, Glaston has other long-term defined employee benefits, such as statutory defined benefit severance pay schemes in Mexico in 2018. In 2017 Glaston had statutory defined benefit severance pay schemes in Italy and Mexico.

EUR thousand	**2018**	**2017**
Amounts in the statement of financial position relating to Finnish defined benefit pension plans		
Present value of unfunded obligations	7	8
Total deficit of defined benefit pension plans	**-**	-
Difference	**7**	**8**
Amounts in the statement of financial position		
Liabilities	7	8
Assets	-	-
Net liability (asset -)	**7**	**8**
Amounts in the statement of financial position relating to other long-term employee benefits		
Fair value of plan assets	-	-
Present value of unfunded obligations	142	477
Total deficit of defined benefit pension plans	**-**	-
Difference	**142**	**477**
Amounts in the statement of financial position		
Liabilities	142	477
Assets	-	-
Net liability (asset -)	**142**	**477**

Contents

Changes of Finnish defined benefit pension	Present value of obligation	Fair value on plan assets	Total
1 January, 2017	8	-	8
Current service cost	-	-	-
Interest expense / income	-	-	-
Past service cost	-	-	-
Total	**8**	**-**	**8**
Remeasurements			
Return on plan assets excluding amounts included in interest expence / income	-	-	-
Gain (-) / loss (+) from change in financial assumptions	-	-	-
Experience gain (-) / loss (+)	-	-	-
Total	**-**	**-**	**-**
Exchange differences	-	-	-
Contributions:			
Employers (+)	-	-	-
Plan participants (+)	-	-	-
Benefit payments (-)	-1	-	-1
31 December, 2017	**8**	**-**	**8**

	Present value of obligation	Fair value on plan assets	Total
1 January, 2018	8	-	8
Current service cost	-	-	-
Interest expense / income	-	-	-
Past service cost	-	-	-
Total	**8**	**-**	**8**
Remeasurements			
Return on plan assets excluding amounts included in interest expence / income	-	-	-
Gain (-) / loss (+) from change in financial assumptions	-	-	-
Experience gain (-) / loss (+)	-	-	-
Total	**8**	**-**	**8**
Exchange differences	-	-	-
Contributions:			
Employers (+)	-	-	-
Plan participants (+)	-	-	-
Benefit payments (-)	-1	-	-1
31 December, 2018	**7**	**-**	**7**

Changes of other long-term employee benefit plans

	Present value of obligation	Fair value on plan assets	Total
1 January, 2017	476	-	476
Divestments of subsidiaries	-	-	-
Current service cost	6	-	6
Interest expense / income	6	-	6
Past service cost	-	-	-
Total	**487**	**-**	**487**
Remeasurements			
Return on plan assets excluding amounts included in interest expence / income	-	-	-
Gain (-) / loss (+) from change in financial assumptions	9	-	9
Experience gain (-) / loss (+)	-	-	-
Total	**9**	**-**	**9**
Exchange differences	-19	-	-19
Contributions:			
Employers (+)	-	-	-
Plan participants (+)	-	-	-
Benefit payments (-)	-	-	-
31 December, 2017	**477**	**-**	**477**

	Present value of obligation	Fair value on plan assets	Total
1 January, 2018	477	-	477
Divestments of subsidiaries	-354	-	-354
Current service cost	7	-	7
Interest expense / income	8	-	8
Past service cost	-	-	-
Total	**138**	**-**	**138**
Remeasurements			
Return on plan assets excluding amounts included in interest expence / income	-	-	-
Gain (-) / loss (+) from change in financial assumptions	-11	-	-11
Experience gain (-) / loss (+)	-	-	-
Total	**-11**	**-**	**-11**
Exchange differences	15	-	15
Contributions:			
Employers (+)	-	-	-
Plan participants (+)	-	-	-
Benefit payments (-)	-	-	-
31 December, 2018	**142**	**-**	**142**

The Group expects to contribute EUR 6,6 thousand to its other long-term employee benefit plans in 2019.

Actuarial assumptions

	2018		2017	
	Finnish defined pension plans	**Other plans**	**Finnish defined pension plans**	**Other plans**
Discount rate, %	1.00%	9.10%	1.00%	1.66%-7.40%
Future salary increase, %	-	5.50%	-	5.50%
Future pension increases, %	1.85%	-	1.85%	-
Inflation, %	1.60%	4.00%	1.60%	1.50%-3.91%
Expected remaining service period, years	-	10	-	10

There are no plan assets.

Amounts for the current and previous periods, defined benefit pensions

	2018	2017	2016	2015
Defined benefit pension obligation	7	8	8	14
Plan assets	-	-	-	-
Surplus / deficit (-)	**-7**	**-8**	**-8**	**-14**
Experience adjustments on plan liabilities (gain -)	-	-	-	3

Amounts for the current and previous periods, other long-term employee benefit plans

	2018	2017	2016	2015
Defined benefit obligation	142	477	476	448
Plan assets	-	-	-	-
Surplus / deficit (-)	**-142**	**-477**	**-476**	**-448**
Experience adjustments on plan liabilities (gain -)	-	-	-	-

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Interest-bearing Liabilities

EUR thousand	2018	2017
Non-current interest-bearing liabilities		
Loans from financial institutions	8,089	10,613
Other non-current liabilities	-	-
Total non-current interest-bearing liabilities	**8,089**	**10,613**
Maturity of non-current interest-bearing liabilities		
2020 (2019)	5,429	2,644
2021 (2020)	643	5,333
2022 (2021)	-	640
2023 (2022) or later	2,017	1,997
Total	**8,089**	**10,613**
Non-current liabilities by currency		
EUR	8,089	10,613
Other currencies	-	-
Total	**8,089**	**10,613**

Group's funding is mainly organized by using the Facilitites Agreement signed in June 2017.

Some of 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. Covenant terms are described in more detail in Note 3.

The liquidity and currency risk related to interest-bearing debt is described in more detail in Note 3.

EUR thousand	2018	2017
Current interest-bearing liabilities		
Loans from financial institutions	2,644	2,644
Other current interest-bearing liabilities	2,000	-
Total current interest-bearing liabilities	**4,644**	**2,644**
Interest-bearing net liabilities		
Non-current interest-bearing liabilities	8,089	10,613
Current interest-bearing liabilities	4,644	2,644
Cash	-7,852	-12,386
Total	**4,880**	**870**

	01.01.2018	**Cash flow**	**Efective rate and Exchange differences**	**Re-classi-fication**	**31.12.2018**
Non-current interest-bearing liabilities	10,613	20	100	-2,644	8,089
Current interest-bearing liabilities	2,644	-644		2,644	4,644
Total					

Provisions

Non-current provisions

EUR thousand

2018	Warranty provision	Other provisions	Total
Carrying amount 1 January	1,560	-	1,560
Reclassification	-1,201	-	-1,201
Increase in provisions	208	-	208
Carrying amount 31 December	**567**	**-**	**567**

2017			
Carrying amount 1 January	1,377	-	1,377
Reclassification	-1,470	-	-1,470
Increase in provisions	1,654	-	1,654
Carrying amount 31 December	**1,560**	**-**	**1,560**

Current provisions

2018	Warranty provision	Restructuring provision	Other provisions	Total
Carrying amount 1 January	2,074	192	116	2,382
Exchange difference	-9	-21	-7	-37
Reclassification	1,201	-	-	1,201
Increase in provisions	850	53	0	904
Provisions used during he period	-1,197	-67	-36	-1,299
Provisions released during the period	-1,399	-	-70	-1,469
Carrying amount 31 December	**1,521**	**156**	**3**	**1,681**

2017				
Carrying amount 1 January	2,377	105	174	2,656
Exchange difference	-69	-14	-14	-97
Reclassification	1,470	-35	35	1,470
Increase in provisions	1,250	136	1	1,387
Provisions used during the period	-920	-	-59	-979
Provisions released during the period	-2,035	-	-22	-2,057
Carrying amount 31 December	**2,074**	**192**	**116**	**2,382**

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.

Contents

Interest-free Liabilities

EUR thousand	2018	2017
Current interest-free liabilities		
Trade payables	11,072	11,160
Advances received	16,977	11,552
Accrued expenses and deferred income	7,459	14,426
Other current interest-free liabilities	1,813	2,220
Total current interest-free liabilities	**37,321**	**39,358**

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.

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Financial Assets and Liabilities

EUR thousand **31 December, 2018**	**Note**	**Financial assets measured at fair value through other comprehensive income***	**Financial assets and liabilities at fair value through profit and loss***	**Loans and receivables**	**Financial liabilities at amortized cost**	**Total carrying amounts**	**Total fair value**
Cash	3	-	-	7,852	-	7,852	-
Trade receivables	18	-	-	12,729	-	12,729	-
Other interest-free receivables	18	-	-	1,847	-	1,847	-
Receivables related to financial liabilities		-	-	-	13	13	-
Current loan receivables	18	-	-	226	-	226	-
Other non-current interest-free receivables	18	-	-	393	-	393	-
Non-current loan receivables	18	-	-	1,485	-	1,485	-
Derivatives		-	-	-	-	-	-
Shares and oher long-term investments	16	3,015	-	-	-	3,015	-
Non-current interest-bearing liabilities	21	-	-	-	-8,089	-8,089	-7,803
Current interest-bearing liabilities	21	-	-	-	-4,644	-4,644	-4,648
Trade payables	23	-	-	-	-11,072	-11,072	-
Other current interest-free liabilities	23	-	-51	-	-1,762	-1,813	-
Total		**3,015**	**-51**	**24,532**	**-25,555**	**1,942**	**-12,451**

*If the fair value is not mentioned separately, the carrying amount is equal to fair value.

Effect of classification change, financial assets and liabilities for the comparative period in accordance with IFRS 9

EUR thousand **31 December, 2017**	**Note**	**Financial assets measured at fair value through other comprehensive income***	**Financial assets and liabilities at fair value through profit and loss***	**Loans and receivables**	**Financial liabilities at amortized cost**	**Total carrying amounts**	**Total fair value**
Cash	3	-	-	12,386	-	12,386	-
Trade receivables	18	-	-	18,945	-	18,945	-
Other interest-free receivables	18	-	-	1,929	-	1,929	-
Receivables related to financial liabilities		-	-	-	44	44	-
Current loan receivables	18	-	-	304	-	304	-
Other non-current interest-free receivables	18	-	-	992	-	992	-
Non-current loan receivables	18	-	-	450	-	450	-
Derivatives			40	-	-	40	-
Shares and oher long-term investments	16	2,999	-	-	-	2,999	-
Non-current interest-bearing liabilities	21	-	-	-	-10,613	-10,613	-10,207
Current interest-bearing liabilities	21	-	-	-	-2,644	-2,644	-2,610
Trade payables	23	-	-	-	-11,160	-11,160	-
Other current interest-free liabilities	23	-	-	-	-2,220	-2,220	-
Total		**2,999**	**40**	**35,007**	**-26,593**	**11,454**	**-12,817**

*If the fair value is not mentioned separately, the carrying amount is equal to fair value.

EUR thousand **31 December, 2017**	**Note**	**Assets available for sale***	**Financial assets and liabilities at fair value through profit and loss***	**Loans and receivables**	**Financial liabilities at amortized cost**	**Total carrying amounts**	**Total fair value**
Cash	3	-	-	12,386	-	12,386	-
Trade receivables	18	-	-	18,945	-	18,945	-
Other interest-free receivables	18	-	-	1,929	-	1,929	-
Receivables related to financial liabilities		-	-	-	44	44	-
Current loan receivables	18	-	-	304	-	304	-
Other non-current interest-free receivables	18	-	-	992	-	992	-
Non-current loan receivables	18	-	-	450	-	450	-
Derivatives		-	40	-	-	40	-
Available-for-sale shares	16	2,999	-	-	-	2,999	-
Non-current interest-bearing liabilities	21	-	-	-	-10,613	-10,613	-10,207
Current interest-bearing liabilities	21	-	-	-	-2,644	-2,644	-2,610
Trade payables	23	-	-	-	-11,160	-11,160	-
Other current interest-free liabilities	23	-	-	-	-2,220	-2,220	-
Total		**2,999**	**40**	**35,007**	**-26,593**	**11,454**	**-12,817**

*If the fair value is not mentioned separately, the carrying amount is equal to fair value.

Fair value measurement hierarchy

	31 Dec. 2018				31 Dec. 2017			
EUR thousand	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets								
Listed shares	173	-	8	**181**	157	-	8	**165**
Other long-term investments	-	-	2,834	**2,834**	-	-	2,834	**2,834**
Currency forward contracts	-	-	-	**-**	-	39	-	**39**
Total	**173**	**-**	**2,842**	**3,015**	**157**	**39**	**2,842**	**3,038**
Liabilities								
Finacial liabilities	-	-12,451	-	**-12,451**	-	-12,817	-	**-12,817**
Currency forward contracts	-	-51	-	**-51**	-	-	-	**-**
Total	**-**	**-12,502**	**-**	**-12,502**	**-**	**-12,817**	**-**	**-12,817**

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, fair value equals cost or cost less impairment

Fair value measurement hierarchy, Level 3, changes during the reporting period

	2018	2017
1 January	2,842	3,082
Additions	-	-
Disposals	-	-240
Impairment losses	-	-
Reclassification	-	-
31 December	**2,842**	**2,842**

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Derivative Instruments

Glaston hedges foreign currency-denominated sales and cash flows of binding orders received with currency forwards. In fulfilling the conditions of hedge accounting, cash flow hedge accounting under IFRS 9 is applied with respect to currency derivatives.

Derivative instruments are used only for 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. Maturity of the agreement is under 12 months.

Valuation methods of derivative instruments are presented in the Summary of Significant Accounting Policies and hedging principles in Note 3.

Nominal and fair values of derivative instruments

	2018		2017	
EUR thousand	**Nominal value**	**Fair value**	**Nominal value**	**Fair value**
Currency forwards	11,914	-51	4,870	39

EUR thousand	2018	2017
Derivative instruments in the income statement		
Items included in net sales	-45	249
Items included in operating expenses	-	27
Financial items	-1	6
Derivative instruments in the statement of financial position, receivables and liabilities		
Accrued expenses and deferred income		
Currency forwards	51	-
Accrued income		
Currency forwards	-	40

Contents

Contingencies

EUR thousand	2018	2017
Loans secured with mortgages or pledges		
Loans from financial institutions	6,785	8,689
Mortgages given	-	-
Liens on chattel	143,000	143,000
Carrying amount of pledged securities	23,941	23,941
Carrying amount of pledged receivables and other assets	-	-
Total loans secured with mortgages, liens on chattel and pledged assets	**6,785**	**8,689**
Total mortgages, liens on chattel and pledged assets	**166,941**	**166,941**
Contingent liabilities		
Liens on chattel		
On behalf of own commitments	143,000	143,000
Securities pledged		
On behalf of own commitments	23,941	23,941
Total	**166,941**	**166,941**
Guarantees		
On behalf of own commitments	6,216	10,026
On behalf of others	123	234
Repurchase obligation	-	-
Total	**6,339**	**10,260**
Total contingent liabilities	**173,280**	**177,201**

Operating leases

Glaston has various non-cancellable operating leases. The minimum future payments of these leasing contracts are presented in the table below.

EUR thousand	2018	2017
Minimum future payments of operating lease commitments		
Maturity within one year	1,970	2,093
Maturity later than one year and not later than five years	6,057	6,131
Maturity later than five years	3,597	4,603
Total minimum future payments of operating lease commitments	**11,625**	**12,827**

Operating leases as a lessor

Glaston has some operating lease agreements in which the Group acts as a lessor. The minimum future payments to be received from non-cancellable operating lease agreements are presented in the table below.

EUR thousand	2018	2017
Minimum future payments of operating leases		
Maturity within one year	801	802
Maturity later than one year and not later than five years	2,898	2,849
Maturity later than five years	405	681
Total minimum future payments of operating leases	**4,104**	**4,332**

Other contingent liabilities and litigations

Glaston Group has international operations and 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.

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Shares and Holdings

Group companies			Group holding %	Parent holding %
Glaston Corporation	Helsinki	Finland		
Uniglass Engineering Oy	Tampere	Finland	100%	100%
Glaston Services Ltd. Oy	Tampere	Finland	100%	100%
Glaston Emerging Technologies Oy	Tampere	Finland	100%	
Glaston Finland Oy	Tampere	Finland	100%	
Glaston International Oy	Tampere	Finland	100%	
Glaston Germany GmbH	Nürnberg	Germany	100%	
Glaston America, Inc.	Mount Laurel, NJ	United States	100%	
Glaston UK Ltd.*	Derbyshire	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%	
LLC Glaston	Moscow	Russia	100%	
Glaston Mexico S.A. de C.V.	Jalisco	Mexico	100%	
Glaston Brasil Ltda	São Paulo	Brazil	100%	
Glaston Hong Kong Ltd.	Hong Kong	China	100%	
Glaston Tools (Sanhe) Co., Ltd.	Sanhe	China	70%	

* For the year ending 31 December 2018, Glaston UK Ltd. was entitled to exemption from audit under section 479A of the UK Companies Act 2006.

Changes in subsidiaries in 2018

Glaston Tools s.r.l. was sold in December to Bavelloni S.p.A.

Changes in subsidiaries in 2017

Glaston Emerging Technologies Oy was established in May 2017.

Glaston USA, Inc. was merged to Glaston America, Inc. in October 2017.

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Share-based Incentive Plans

Share-based incentive plans
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 during the vesting periods. The cash-settled portion of the incentive plans is recorded as a liability in the statement of financial position, if it has not been paid. Glaston has recorded the personnel costs arising from the share-based incentive plans to the extent it is liable to pay them.

Share-based incentive plan 2018
On 8 February 2018, Glaston's Board of Directors approved a new period for the long-term incentive and commitment plan for the Group's key personnel including senior management of the Group and its subsidiaries.

The incentive plan is based on the development of Glaston's share price. The plan covers the years 2018–2020 and the possible rewards will be paid in spring 2021. The incentive plan for 2018 covers 20 key persons of Glaston.

Share-based incentive plan 2017
On 18 January 2017, Glaston's Board of Directors approved a new period for the long-term incentive and commitment plan for the Group's key personnel including senior management of the Group and its subsidiaries.

The incentive plan is based on the development of Glaston's share price. The plan covers the years 2017–2019 and the possible rewards will be paid in spring 2020. The incentive plan for 2017 covers 18 key persons of Glaston.

Share-based incentive plan 2016
On 19 January 2016, Glaston's Board of Directors approved a new period for the long-term incentive and commitment plan for the Group's key personnel including senior management of the Group and its subsidiaries.

The incentive plan is based on the development of Glaston's share price. The plan covers the years 2016–2018 and the possible rewards will be paid in spring 2019. The incentive plan for 2016 covers 16 key persons of Glaston.

Share-based incentive plan 2015
On 27 January 2015, Glaston's Board of Directors approved a new period for the long-term incentive and commitment plan for the Group's key personnel including senior management of the Group and its subsidiaries.

The incentive plan was based on the development of Glaston's share price. The plan covered the years 2015–2017 and the rewards was paid in spring 2018. The incentive plan for 2015 covered 29 key persons of Glaston.

Basic information of the share-based plans	2018-2020	2017-2019	2016-2018	2015-2017
Grant date	8 February, 2018	18 January, 2017	19 January, 2016	27 January, 2015
Nature of the plan	Cash	Cash	Cash	Cash
Target group	Key personnel	Key personnel	Key personnel	Key personnel
Maximum amount od cash	1,820,000	1,740,000	1,730,000	1,859,600
Total amount od cash at the end of the performance period, EUR thousand	-	-	-	119
Performance period begins	1 January, 2018	1 January, 2017	1 January, 2016	1 January, 2015
Performance period ends	31 December, 2020	31 December, 2019	31 December, 2018	31 December, 2017
End of restriction period/ payment	1 April 2021	1 April 2020	1 April 2019	1 April 2018
Vesting conditions	Share price	Share price	Share price	Share price
	Service period	Service period	Service period	Service period
Maximum contractual life, years	3	3	3	3
Remaining contractual life, years	2	1	0	0
Number of persons involved 31 December 2018	20	18	16	29

Effect on the profit or loss for the period and on financial position	2018	2017
Effect on the result of the reporting period, EUR thousand	-	119

The fair value of the share-based reward is defined on the date when the company and the target group have agreed on the plan (grant date). As the persons involved in the plan are not entitled to dividends during the performance period, the fair value of the equity-settled reward accounts for the share price at the grant date deducted by the dividends expected to be paid during the performance period.

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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 and associates. 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.

Glaston follows the same commercial terms in transactions with associates and other related parties as with third parties. Associates are described in more detail in Note 15 to the consolidated financial statements.

Total accrual based remuneration of the Board of Directors and the Executive Management Group was EUR 2,038 (2,092) thousand.

Remuneration of the Executive Management Group, accrual based

EUR	2018	2017
CEO Arto Metsänen		
Salaries	480,551	407,367
Bonuses	-	-
Share based benefit	-	23,040
Total	480,551	430,407
Fringe benefits	1,242	1,114
Total	**481,793**	**431,521**
Statutory pension payments (Finnish TyEL or similar plan)	77,316	69,203
Voluntary pension payments	57,460	45,975
Other members of the Executive Management Group		
Salaries	1,137,079	1,210,808
Bonuses	34,776	51,381
Share based benefit	-	48,000
Total	1,171,855	1,310,189
Fringe benefits	146,475	139,721
Total	**1,318,330**	**1,449,910**
Statutory pension payments (Finnish TyEL or similar plan)	149,075	193,648
Voluntary pension payments	22,369	20,966

The remuneration includes salaries only for the period of membership of the Executive Management Group.

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. If there is a change in control of the company where more than 50 per cent of the company's shares are transferred to a new owner, the CEO has the right to terminate his employment with 1 month's period of notice, in which case he would receive EUR 200,000 as compensation for temination of employment.

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 28). 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 50 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 CEO of Glaston Corporation is entitled to retire at the age of 63. The retirement age of 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

	2018		2017	
euroa	annual fee	meeting fee	annual fee	meeting fee
Teuvo Salminen, Chairman of the Board of Directors	42,000	7,900	30,000	4,500
Sebastian Bondestam, Deputy Chairman of the Board of Directors[1]	25,875	4,000		
Anu Hämäläinen	22,250	5,500	20,000	4,500
Sarlotta Narjus	22,250	5,500	20,000	4,500
Kai Mäenpää	22,250	5,500	15,000	3,000
Tero Telaranta	22,250	5,500	5,000	1,500
Antti Kaunonen[2]	17,250	4,000		
Andreas Tallberg[3]	10,000	2,400	40,000	7,200
Claus von Bonsdorff[4]	5,000	1,500	20,000	4,500
Pekka Vauramo[5]	5,000	1,500	20,000	4,500
Kalle Reponen[6]			5,000	1,000
Total	**194,125**	**43,300**	**175,000**	**35,200**

The members of Glaston Corporation's Board of Directors were paid an annual remuneration and a meeting fee; other compensation was not paid. The Chairman of Glaston Corporation's Board of Directors was paid EUR 46,000 (40,000) annually, the Deputy Chairman EUR 34,500 (30,000) annually and each of the members EUR 23,000 (20,000) annually. In addition, a meeting fee of EUR 800 (800) per meeting was paid to the chairman of the meeting and EUR 500 (500) to the other participants of the meeting. The members of the Board of Directors did not receive any shares or share derivatives as remuneration during the year.

The members of Glaston Corporation's Board of Directors are covered by voluntary pension insurance accrued from board membership fees. The value of the pension insurance corresponds to the Finnish TyEL pension.

Board of Directors, share ownership

	Glaston shares	
	31 December 2018	31 December 2017
Teuvo Salminen, Chairman of the Board of Directors	562,277	562,277
Sebastian Bondestam, Deputy Chairman of the Board of Directors[1]	-	-
Anu Hämäläinen	150,000	150,000
Sarlotta Narjus	-	-
Kai Mäenpää	12,500	12,500
Tero Telaranta	1,000	1,000
Antti Kaunonen[2]	10,000	-
Andreas Tallberg[3]	1,500,000	1,500,000
Claus von Bonsdorff[4]	172,600	172,600
Pekka Vauramo[5]	-	250,000
Kalle Reponen[6]	-	-

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.

[1] Member of the Board of Directors from 10 April 2018
[2] Member of the Board of Directors from 10 April 2018
[3] Member of the Board of Directors until 10 April 2018
[4] Member of the Board of Directors until 10 April 2018
[5] Member of the Board of Directors until 10 April 2018
[6] Member of the Board of Directors until 4 April 2017

Executive Management Group, share ownership

	Glaston shares	
	31 December 2018	31 December 2017
Arto Metsänen, CEO	1,750,000	1,750,000
Sasu Koivumäki	300,000	300,000
Juha Liettyä	250,000	250,000
Frank Chengdong Zhang	-	-
Taina Tirkkonen	75,000	75,000
Pekka Hytti	100,000	100,000
Artturi Mäki	12,531	12,531
Päivi Lindqvist	60,000	60,000

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Events after End of the Reporting Period

On 25 January 2019, Glaston announced that it had signed an agreement to acquire Bystronic Maschinen AG and Bystronic Lenhardt GmbH and subsidiaries ("Bystronic glass") with a value of EUR 68 million. The Swiss-German Bystronic glass provides high quality machinery, systems and services for glass processing worldwide, and its offering is highly complementary to Glaston's. Bystronic glass is currently part of the broadly diversified Swiss Conzzeta Group.

Glaston Corporation has secured committed debt financing for the transaction, subject to customary conditions, and committed equity financing, subject to Glaston's extraordinary general meeting (the "EGM") authorizing the Board of Directors to resolve on issuances of new shares. Glaston will convene the EGM to authorize the Board of Directors of Glaston to decide on (i) a directed share issue of approximately EUR 15 million to certain large shareholders of Glaston, who have committed to subscribe for such shares provided that certain conditions are met (the "Directed Share Issue") and, conditional upon the completion of the acquisition, (ii) a rights issue of approximately EUR 32 million (the "Rights Issue"). Glaston expects to convene the EGM to be held on or about 26 February 2019.

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Income Statement of the Parent Company (FAS)

		1 January – 31 December	
EUR thousand	Note	2018	2017
Net sales	2	**2,859**	**2,731**
Other operating income	3	2,773	5,382
Personnel expenses	4	-1,562	-1,751
Depreciation, amortization and impairment losses	5	-581	-621
Other operating expenses	6	-4,332	-5,848
Operating profit / loss		**-843**	**-106**
Net financial items	7	-626	-647
Profit /loss before appropriations and taxes		**-1,469**	**-753**
Appropriations	8	1,459	938
Income taxes	9	-15	-178
Profit / loss for the financial year		**-24**	**6**

Balance Sheet of the Parent Company (FAS)

		at 31 December	
EUR thousand	Note	2018	2017
Assets			
Non-current assets			
Intangible assets	10	1,135	1,480
Tangible assets	10	276	253
Subordinated loand receivable Group Companies	12,13	36,846	36,846
Investments	11,12	17,218	17,218
Non-current assets, total		**55,475**	**55,797**
Current assets			
Non-current receivables	13	3,574	3,413
Current receivables	13	25,747	28,921
Cash and bank		4,570	7,482
Current assets, total		**33,891**	**39,816**
Total assets		**89,366**	**95,613**

		at 31 December	
EUR thousand	Note	2018	2017
Equity and liabilities			
Equity			
Share capital		12,696	12,696
Share premium account		25,270	25,270
Reserve for invested unrestricted equity		41,059	42,987
Treasury shares		-3,308	-3,308
Retained earnings		-23,431	-23,437
Profit / loss for the financial year		-24	6
Total equity	14	**52,261**	**54,213**
Accumulated appropriations	15	**14**	**18**
Liabilities			
Non-current liabilities	16	5,250	7,371
Current liabilities	17	31,842	34,011
Total liabilities		**37,091**	**41,382**
Total equity and liabilities		**89,366**	**95,613**

Parent Company Cash Flow Statement (FAS)

EUR thousand	2018	2017
Cash flow from operating activities		
Profit / loss for the financial period	-24	6
Adjustments:		
Income taxes for the period	15	178
Deferred taxes	-3	12
Group contribution	-1,456	-950
Financial income and expenses	626	647
Depreciation, amortization and impairment	581	621
Proceeds from disposal of tangible and intangible assets	-	15
Proceeds from disposal of investments	-	240
Other adjustments	21	1,924
Cash flow before change in net working capital	-241	2,694
Change in net working capital		
Change in current interest-free receivables	2,817	-3,460
Change in current interest-free liabilities	-3,999	-54
Cash flow from operating activities before financial items and taxes	-1,424	-819
Interests paid and payments made for other financial items and income taxes		
Interests and other financial expenses paid	-987	-331
Dividends received	3	2
Interest received	396	97
Income taxes paid	-184	-
Cash flow from operating activities before extraordinary items	-2,196	-1,051
Cash flow from operating activities	**-2,196**	**-1,051**

EUR thousand	2018	2017
Cash flow from investing activities		
Investments in tangible and intangible assets	-259	-172
Proceeds from disposal of tangible and intangible assets	-	2,834
Cash flow from investing activities	**-259**	**2,661**
Cash flow from financing activities		
Drawn-down of non-current loans	-	4,000
Change in current intra-group receivables	1,592	916
Drawn-down of current loans	9,000	2,000
Repayments of current loans	-9,121	-10,250
Return of capital	-1,928	-
Cash flow from financing activities	**-457**	**-3,334**
Change in cash and cash equivalents	**-2,912**	**-1,724**
Cash and cash equivalents at the beginning of the period	7,482	9,206
Cash and cash equivalents at the end of the period	4,570	7,482
Change in cash and cash equivalents	**-2,912**	**-1,724**

Summary of Significant Accounting Policies

Glaston Corporation is a public limited liability company organized under the laws of 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.

Pension Arrangements

Glaston Corporation has a pension arrangement, which is classified as a defined benefit plan in the IFRS financial statements. The obligation arising from this pension as well as the pension expense differ from the obligation and expense recognized in the consolidated financial statements.

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

The parent's appropriations consist of group contributions received from and given to subsidiaries.

Untaxed Reserves

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.

Net Sales

EUR thousand	2018	2017
Net sales by business		
Manufacturing industry	2,859	2,731
Net sales by country by destination		
Finland	2,359	2,327
Americas	449	329
Asia	51	75
Total	**2,859**	**2,731**

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

Other Operating Income

EUR thousand	2018	2017
Charges from group companies	2,773	5,382
Other operating income, total	**2,773**	**5,382**

Personnel Expenses

EUR thousand	2018	2017
Salaries and fees	**-1,226**	-1,351
Pension expenses	**-315**	-374
Other personnel expenses	**-21**	-27
Total	**-1,562**	**-1,751**
Salaries and remuneration paid to members of the Board of Directors and Managing Director	-719	-642
The members of the Board of Directors are covered by voluntary pension insurance accrued from board membership fees. The value of the pension insurance corresponds to the Finnish TyEL pension.		
Employees during financial year, average		
White collar	9	9
Total	**9**	**9**

Depreciation, Amortization and Impairment Losses

EUR thousand	2018	2017
Depreciation and amortization according to plan		
Intangible assets		
Intangible rights	-422	-438
Other capitalized expenditure	-23	-37
Tangible assets		
Machinery and equipment	-136	-146
Total depreciation and amortization according to plan	**-581**	**-621**
Total depreciation and amortization according to plan and impairment losses	**-581**	**-621**

Other Operating Expenses

EUR thousand	2018	2017
Rents	-127	-161
Information and communications technology expenses	-2,727	-2,462
Travel expenses	-111	-132
Losses on disposals of assets	-	-255
Credit losses	-26	-
Intra-group credit loss	-	-1,937
Other expenses	-1,342	-901
Other operating expenses, total	**-4,332**	**-5,848**
Fees paid to auditors		
Fees paid to principal auditors for audit	-64	-62
Fees paid to principal auditors for other services	-66	-4
Total	**-130**	**-66**

Net Financial Items

EUR thousand	2018	2017
Dividend income		
From external parties	3	2
Dividend income, total	**3**	**2**
Interest and other financial income		
From group companies	560	278
From external parties	201	681
Interest and other financial income	**761**	**960**
Interest and other financial income, total	**764**	**962**
Interest and other financial expenses		
To group companies	-307	-231
To external parties	-1,083	-1,379
Interest and other financial expenses, total	**-1,390**	**-1,610**
Net financial items, total	**-626**	**-647**
Other financial income and expenses include foreign exchange gains and losses (net)	121	54

Appropriations

EUR thousand	2018	2017
Received group contributions	1,456	950
Difference between depreciation and amortization according to plan and depreciation and amortization in taxation	3	-12
Total	**1,459**	**938**

Income Taxes

EUR thousand	2018	2017
Income taxes for operations	-15	-178
Total	**-15**	**-178**

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Fixed Assets

Intangible assets EUR thousand	Intangible rights	Other capitalized expenditure	Advance payments and investments in progress	Total
Acquisition cost 1 January, 2018	4,999	630	59	5,688
Additions	-	-	100	100
Reclassifications	108	-	-108	-
Acquisition cost 31 December, 2018	**5,107**	**630**	**50**	**5,788**
Accumulated amortizations and impairment losses 1 January, 2018	-3,648	-560	-	-4,208
Amortization of the period	-422	-23	-	-445
Accumulated amortizations and impairment losses 31 December, 2018	**-4,070**	**-583**	**-**	**-4,653**
Carrying amount at 31 December, 2018	**1,038**	**47**	**50**	**1,135**
Carrying amount at 31 December, 2017	1,351	70	59	1,480

Tangible assets EUR thousand	Machinery and equipment	Other tangible assets	Advance payments and investments in progress	Total
Acquisition cost 1 January, 2018	971	-29	-0	942
Additions	159	-	-	159
Acquisition cost 31 December, 2018	**1,130**	**-29**	**-0**	**1,101**
Accumulated depreciations and impairment losses 1 January, 2018	-728	39	-	-689
Depreciation for the period	-136	-	-	-136
Accumulated depreciations and impairment losses 31 December, 2018	**-864**	**39**	**-**	**-825**
Carrying amount 31 December, 2018	**266**	**10**	**-0**	**276**
Carrying amount at 31 December, 2017	243	10	-0	253

Notes to parent company financial statements (FAS) / Note 11

Investments

EUR thousand	Shares Group companies	Shares Others	Subordinated loan receivable Group companies	Total
Carrying amount at 1 January, 2018	17,204	14	36,846	54,064
Carrying amount at 31 December, 2018	**17,204**	**14**	**36,846**	**54,064**

Notes to parent company financial statements (FAS) / Note 12

Shares and holdings owned by the Parent

Subsidiary shares

EUR thousand	Ownership %	Number of shares	Nominal value	Carrying amount
Uniglass Engineering Oy, Tampere, Finland	100%	20,000	400	2,351
Glaston Services Ltd. Oy, Tampere, Finland	100%	1,800,000	3,600	14,853
Total				**17,204**
Other				
Other shares and holdings				14
Total				**14**

Receivables

EUR thousand	2018	2017
Non-current receivables		
Receivables from group companies		
Loan receivables	3,574	3,413
Total	3,574	3,413
Non-current receivables, total	**3,574**	**3,413**
Current receivables		
Receivables from external parties		
Trade receivables	12	-
Other receivables	33	33
Prepaid expenses and accrued income	356	489
Total	401	522
Receivables from group companies		
Trade receivables	4,944	7,914
Loan receivables	18,892	19,534
Group Contribution receivables	1,456	950
Prepaid expenses and accrued income	54	-
Total	25,346	28,399
Current receivables, total	**25,747**	**28,921**
Prepaid expenses and accrued income		
Financial items	151	351
Other	302	106
Prepaid expenses and accrued income, total	**410**	**489**

Equity

EUR thousand	2018	2017
Share capital 1 January	12,696	12,696
Share capital 31 December	12,696	12,696
Share premium account 1 January	25,270	25,270
Share premium account 31 December	25,270	25,270
Reserve for invested unrestricted equity 1 January	42,987	42,987
Capital repayment	-1,928	-
Reserve for invested unrestricted equity 31 December	41,059	42,987
Treasury shares 1 January	-3,308	-3,308
Treasury shares 31 December	-3,308	-3,308
Retained earnings 1 January	-23,431	-23,437
Retained earnings 31 December	-23,431	-23,437
Profit / loss for the financial year	-24	6
Equity at 31 December	**52,261**	**54,213**
Distributable funds at 31 December		
Reserve for invested unrestricted equity	41,059	42,987
Treasury shares	-3,308	-3,308
Retained earnings	-23,431	-23,437
Profit / loss for the financial year	-24	6
Distributable funds	**14,295**	**16,247**

Notes to parent company financial statements (FAS) / Note 15

Accumulated Appropriations

EUR thousand	2018	2017
Accumulated depreciation difference 1 January	18	6
Increase (+) / decrease (-)	-3	12
Accumulated depreciation difference 31 December	**14**	**18**

Notes to parent company financial statements (FAS) / Note 16

Non-current Liabilities

EUR thousand	2018	2017
Liabilities to external parties		
Loans from financial institutions	5,243	7,364
Other liabilities	7	8
Liabilities to external parties, total	5,250	7,371
Non-current liabilities, total	**5,250**	**7,371**

Notes to parent company financial statements (FAS) / Note 17

Current Liabilities

EUR thousand	2018	2017
Liabilities to external parties		
Loans from financial institutions	4,121	2,121
Trade payables	431	257
Other liabilities	214	629
Accrued expenses and deferred income	512	531
Liabilities to external parties, total	5,279	3,538
Liabilities to group companies		
Other interest-bearing liabilities	26,533	30,469
Trade payables	8	3
Accrued expenses and deferred income	21	-
Liabilities to group companies, total	26 562	30,472
Current liabilities, total	**31,842**	**34,011**
Accrued expenses and deferred income		
Salary and other personnel expense accruals	233	274
Interests	26	27
Income taxes	9	178
Other	265	51
Accrued expenses and deferred income, total	**533**	**531**

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Contingent Liabilities

EUR thousand	2018	2017
Leasing liabilities		
Maturity within one year	18	7
Maturity later than one year	22	-
Total	**40**	**7**

The leasing agreements have normal terms.

Other rental liabilities		
Maturity within one year	93	93
Maturity later than one year	189	272
Total	**282**	**365**
Pledges		
On behalf of group companies	4,652	7,590
Loans secured with pledged assets and mortgages		
Loans from financial institutions	7,000	9,000
Liens on chattel		
On own behalf	50,000	50,000
Carrying amount of pledged securities	17,204	17,204

Mortgages, liens on chattel and pledged assets are given on own and other group companies behalf.

Board of Director's Proposal for Distribution of Profits

The distributable funds of Glaston Corporation, are EUR 14,294,804 of which EUR 24,344 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 2019 that the loss for the financial year 2018 be placed in retained earnings and no dividend be paid.

The Board of Directors proposes to the Annual General Meeting that, subject to the decision by the Extraordinary General Meeting, based on the balance sheet to be adopted for financial period 2018, a return of capital of a total of EUR 1,157,067 be distributed, i.e. EUR 0.006 per share before the reverse share split to be approved by an Extraordinary General Meeting to be held on 26 February, which is equivalent to approximately EUR 0.03 per share after the reverse share split proposed by the Board of Directors.

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, 8 April 2019. The Board of Directors proposes to the Annual General Meeting that the return of capital be paid on 25 April 2019.

The number of shares entitled to a return of capital on the date of the proposal on the distribution of profits is 192,844,554, corresponding to a total return of capital of EUR 1,157,067.

EUR 13,137,737 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, 12 February 2019

Teuvo Salminen
Chairman of the Board

Sebastian Bondestam
Deputy Chairman of the Board

Anu Hämäläinen

Sarlotta Narjus

Kai Mäenpää

Antti Kaunonen

Tero Telaranta

Arto Metsänen
CEO

Auditor’s report

(Translation of the Finnish original)

To the Annual General Meeting of Glaston Corporation

Report on the Audit of Financial Statements

Opinion

We have audited the financial statements of Glaston Corporation (business identity code 1651585-0) for the year ended 31 December, 2018. 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 as well as its financial performance and its 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 Board of Directors.

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 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 8 to the consolidated financial statements and note 6 to the parent company financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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.

We have fulfilled the responsibilities described in the Auditor’s responsibilities for the audit of the financial statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial statements.

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.

Key Audit Matter	How our audit addressed the Key Audit Matter
Revenue recognition of tailor-made glass processing machines We refer to the Summary of significant accounting policies, Critical accounting estimates and judgments and Note 6 (Construction contracts) Glaston recognized revenue from tailor-made glass processing machine deliveries over time (percentage of completion). Net sales for the reporting period includes 71 million euros revenue recognized over time, 70 % of total net sales (2017: 68 million euros or 61% of net sales). The percentage of completion is determined based on the cost-to-cost method, where accumulated costs for the machines are compared with estimated total costs. The percentage of completion method involves the use of significant management judgment related to estimated costs of the machines and assessing the stage of completion, due to which is a key audit matter. Revenue recognition from tailor-made glass processing machines was also a significant risk of material misstatement referred to in EU Regulation No 537/2014, point (c) of Article 10(2).	Our audit procedures to address the risk of material misstatement in respect of revenue recognition of tailor-made glass processing machines included among other things: • Assessing the Group's accounting policies over revenue recognition of tailor-made glass processing machines; • Gaining an understanding of the percentage of completion revenue recognition process; • Examination of the project documentation and testing the percentage of completion -calculations; • Analytical procedures throughout the audit period; • Assessing management's estimates based on an examination of the project documentation, and discussion on the status of projects under construction with finance and project managers of the Company; and . • Assessing the Group's disclosures in respect of revenue recognition.
Valuation of goodwill We refer to the Summary of significant accounting policies, Critical accounting estimates and judgments and Notes 12 (Depreciation, Amortization and Impairment of Assets) and 13 (Intangible Assets) As of balance sheet date December 31, 2018, the value of goodwill amounted to 31 million euros representing 34 % of the total assets and 84 % of equity (2017: 31 million euros, 32% of the total assets and 80% of equity). This annual impairment test was significant to our audit because • The assessment process is complex and judgmental; • It is based on assumptions relating to market or economic conditions; and • Because of the significance of the goodwill to the financial statements. The recoverable amount of a cash generating unit is based on value-in-use calculations, the outcome of which could vary significantly if different assumptions were applied. There are a number of assumptions used to determine the value in use, including the revenue growth, the operating margin and the discount rate applied. Changes in the above-mentioned assumptions may result in an impairment of goodwill.	Our audit procedures included, among others, assessing the assumptions and methodologies used by the Group. A valuation specialist assisted us in evaluating the assumptions relating to the weighted average cost of capital. We focused on the sensitivity in the available headroom by Cash Generating Unit and whether any reasonably possible change in assumptions could cause the carry amount to exceed its recoverable amount. We also assessed the historical accuracy of managements' estimates. We assessed the adequacy of the Group's disclosures in note 12 in the financial statements about the assumptions to which the outcome of the impairment tests were more sensitive.

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 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 Financial Statements

Our objectives are to obtain reasonable assurance on 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 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 13 April 2010, and our appointment represents a total period of uninterrupted engagement of 9 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 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.

Helsinki February 12, 2019

Ernst & Young Oy
Authorized Public Accountant Firm

Kristina Sandin
Authorized Public Accountant

Information for Shareholders

Annual General Meeting
The Annual General Meeting of Glaston Corporation will be held on Thursday 4 April 2019 at 3p.m. in Hotel Clarion Helsinki, Tyynenmerenkatu 2, Helsinki, Finland. The reception of persons registered for the meeting will commence at 2 p.m.

The Annual General Meeting may be attended by shareholders who, on the record date of the AGM, 25 March 2019, are registered in the shareholders' register held by Euroclear Finland.

A shareholder whose shares are entered into his/her personal Finnish book-entry account is registered in the company's register of shareholders.

Shareholders who wish to attend the AGM should register with the company by 10 a.m. on 1 April 2019 via one of the following options:

- On the Glaston Corporation website at www.glaston.net;
- By e-mail to agneta.selroos@glaston.net;
- By telephone on +358 (0)10 500 6105;
- In writing to the following address: Glaston Corporation, Lönnrotinkatu 11, FI-00120 Helsinki, Finland.

Registrations must be made before the end of the registration period. A proxy entitling the authorised person to exercise the shareholder's voting rights at the meeting should be submitted to the company within the registration period.

Proposal on the distribution of profits
The Board of Directors proposes to the Annual General Meeting that, based on the balance sheet adopted for 2018, a return of capital of EUR 1 157 067 i.e. 0.03 per share be paid. The return of capital will be repaid from the reserve for invested unrestricted equity. Capital will be repaid to shareholders who are registered in the company's register of shareholders, maintained by Euroclear Finland Ltd, on the record date for payment, 8 April 2019. The Board of Directors proposes to the Annual General Meeting that the return of capital be paid on 25 April 2019.

Dividend policy
The objective is to distribute annually a dividend or return of capital amounting to 30-50% of the company's comparable earnings per share.

The amounts and dates of payment of any future dividends or returns of capital will be influenced by, among other things, the company's financial position and future outlook. In addition, the dividend policy takes into account growth targets in line with strategy as well as financing requirements for growth.

Glaston Corporation's financial reporting in 2019

- Financial Statements review 2018, on Tuesday, 12 February 2019
- Interim report January-March 2019, on Monday, 29 April 2019
- Half year financial report January-June 2019, on Thursday, 8 August 2019
- Interim report January-September 2019, on Monday, 28 October 2019

Glaston publishes its financial reports and stock exchange releases in Finnish and English, and they are also available on the company's website at www.glaston.net.

A press conference for analysts and media will be held on the date of publication of each interim report, at a time to be announced later.

Glaston observes a silent period of 30 days prior to the announcements of financial results. During this time, the company's representatives do not meet investors or analysts or provide comments on the company's financial position.

Ordering reports and releases
To order Glaston's annual reports, call +358 (0)10 500 500 or send an e-mail to info@glaston.net. Glaston Corporation's releases can be subscribed to via e-mail. When releases are published, they are automatically sent by e-mail to those who have registered with the service on the company's website at www.glaston.net/glaston_newsroom/

Changes of address
In the event of a change of address, Glaston's shareholders are asked to notify the bank at which they have a book-entry account. Shareholders registered with Euroclear Finland are asked to send a written notice of a change of address to the following address:

Euroclear Finland Oy
P.O. Box 1110
FI-00101 Helsinki, Finland

The notice of change must include the shareholder's name, number of book-entry account or date of birth, as well as the old and new address. A change of address can also be made by filling in a Finnish-language electronic form at www.euroclear.fi > Osoitteenmuutos.

Further information on Glaston
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Email: josephine.mickwitz@glaston.net

glaston