

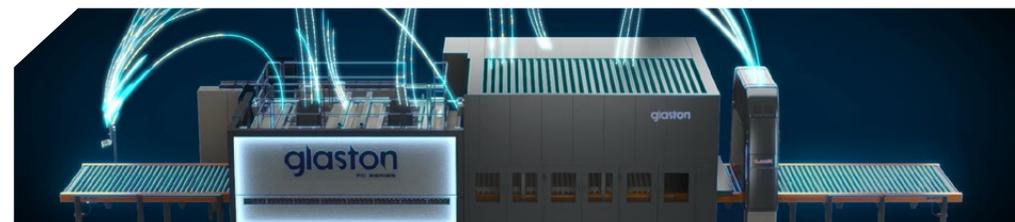
# Annual Review 2017



**glaston**

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## Glaston in brief

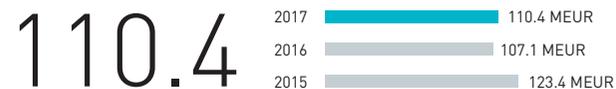
Glaston is a frontrunner in glass industry technologies and services, responding globally to the glass processing needs of the architectural, solar, appliance and automotive industries. Our operations are divided into the glass processing machines and services businesses. In our operations, we utilise emerging technologies that integrate intelligent 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 2017

## Net sales and operating profit

Glaston's net sales rose by 3% compared with 2016 and totalled EUR 110.4 (107.1) million in 2017. The comparable operating profit nearly doubled from the previous year, rising to EUR 5.4 (2.8) million.

## Net sales, MEUR



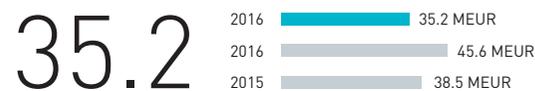
## Comparable operating profit, MEUR



## Order book

Glaston's orders received totalled EUR 103.7 (112.9) million in 2017. The order book stood at EUR 35.2 (45.6) million at the end of 2017.

## Order book, MEUR



## Research and development, MEUR

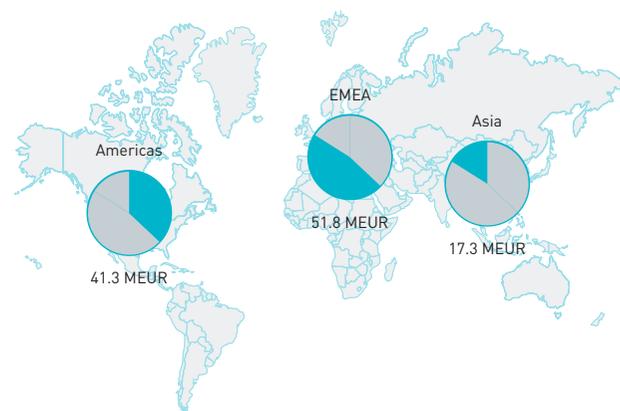
# 4.0

Research and development expenditure, excluding depreciation, totalled EUR 4.0 (3.0) million, i.e. 3.6 (2.8)% of net sales.

## Market areas

The EMEA area strengthened its position as Glaston's biggest market area. In North America, the market situation remained reasonably good. In South America, the market remained subdued. In the Asian market area, activity varied from region to region. In Southeast Asia and the Pacific area, development was favourable. The Chinese market remained quiet, but the first signs of a pick-up in construction were perceptible.

## Sales by geographical area



## Personnel at end of year

# 402

## President & CEO's Review

# A strong year behind us, new opportunities ahead

In 2017, after a long time, positive sentiment returned to the global economy with growth of around 3.7%. Good market conditions and growth in construction also strengthened Glaston's position. We grew, especially in the USA and Europe, where we managed to further strengthen our market position. Our core business was on a good level, and at the same time we made significant new openings. Our net sales grew by 3% to EUR 110.4 million. Our profitability also improved. The comparable operating profit rose to EUR 5.4 million. We can be particularly satisfied with the relative result growth, because in 2017 we also made significant investments in new technologies. These investments will bring us growth in the future.

### Core business grew favourably

Glaston's position in the market is strong. We are leading the way, particularly in flat tempering machines and their service

operations. We renewed our FC™ and RC™ tempering product lines in 2016, and they met with success during 2017. In addition, previously smaller areas in terms of net sales, such as laminating and glass bending, are on a growth track.

In the Services business we have grown well during the year, which is enhancing further our reputation as offering the best customer service in the industry. The successes of the Machines and Services businesses are strongly linked to each other: the better we serve our customers and maintain and update our machines, the more likely it is that customers will buy a machine from us again.

During 2017, the sale of the pre-processing business in USA and Canada was completed, which had a negative impact on the net sales of the Services business, but at the same time helped us focus on our operations as a frontrunner in heat treatment technology. New opportunities also arose in



2017. We closed a significant machine deal in China, the world's largest solar panel market. This opening is important to us. In solar panels, demand for increasingly thinner and optically higher quality glass is growing, and this gives Glaston an opportunity to bring its own quality expertise more strongly to the fore.

### North America and Europe continued to be strong

Of Glaston's market areas, North America and particularly Europe developed favourably. In Australia and New Zealand, market conditions were steady. In the North Africa area, interesting developments were again seen, and in the future new investments may

## “ In 2018, we will update our strategy – a changing world requires us to be agile and proactive.”

be in prospect which we believe will open up new opportunities for us.

On the other hand, previously strong areas for Glaston, such as the UK and Russia, were challenging markets. Particularly in the UK, Brexit has affected Glaston’s business. There were few business transactions in Russia, but at the end of 2017 a favourable change in the situation was perceptible. In Brazil, our operations continued to be challenging. The significance of South America in our business operations has clearly diminished.

### Building the foundation for growth through cooperation

During the last four years, the industry has advanced more rapidly than during the previous 40 years. This is due to digitalisation and the explosive growth of new technological applications. In our industry, smart glass is one example of these applications and, together with other top players in the sector, Glaston is currently developing it further. Glaston is a sought-after partner for innovations in the energy sector, architecture and the automotive business. Cooperative ventures will be one of the sector’s strongest

trends in the future, because new technologies require a wide range of expertise.

Success in a time of constant change has also required much internal work. In 2016, we updated our strategy and we selected quality, technology leadership and the industry’s best customer experience as priorities. In addition, we renewed our organisation and processes. We have continued this work during 2017. In 2018, we will update our strategy, because a changing world requires us to be agile and proactive.

In 2017, renewal and collaboration were also visible at the Glaston organized Glass Performance Days conference, in connection with which we organised for the first time the Step Change event for startups. With this event, we wanted to accelerate the development of the industry and the creation of innovations. Step Change was received with enthusiasm and it attracted companies from around the world.

### Digitalisation and customers’ future needs at the forefront of development

Glaston is perceived as a technology leader and our products are high quality. We also want to maintain this in the future and we

are accordingly investing in listening to our customers and our sector. Currently, in addition to digitalisation and quality, trends include increasingly larger glass sizes and capacity requirements, which is reflected in our development work.

In 2017, development of digital and IoT-based products were at the forefront of our R&D. With these, we can improve our products related to automation and preventive service. To find new business opportunities, we launched the Emerging Technologies unit at the beginning of 2017. The unit’s mission is to provide consulting and engineering services for new glass technology fields of the future, such as production of smart glass and energy glass windows and solar energy applications. The unit will also sell and service these new technology lines.

Our goal is that, in addition to high quality core products, we will also offer solutions of the future that customers are not yet even aware of. I strongly believe that our investment in product development and new opportunities will pay for itself.

### Bright and interesting years ahead

The good order intake of the second half of the year, growing markets and goal-oriented development work resulted in a steady 2017, which also creates positive expectations for 2018. I would like to thank our customers and partners, with whom we have grown and developed. Glaston’s success is based on our expert personnel, who have been hard pressed in the turmoil of recent years, but

who, even so, have done good work – many thanks for that.

In 2017, due to a change in our ownership base, Ahlström Capital rose to replace G. W. Sohlberg as our main shareholder. I thank G.W. Sohlberg for their highly committed and motivating ownership policy. They did not lose faith in difficult times, but gave their support to Glaston at such moments. Ahlström Capital will open up for us new opportunities and growth-related projects.

Glaston sets off into 2018 with positive expectations. Our core business is in good shape and on that foundation we can build stronger growth. Economic conditions and our solid market position will help drive this. Our Services business is the best in the industry, and through our customer understanding we are able to focus on exploiting future opportunities. We have new, exciting projects starting up. We are making good progress in changing our organisation internally and, in addition to our current expert personnel, we will need the new talent of the future. Our cooperation opportunities also appear to be extremely interesting. Our expertise and our potential in new technologies, such as in digitalisation combined with glass – one of the world’s finest materials – will create a bright future for Glaston.

### Arto Metsänen

CEO

## Megatrends and strategy

# Glaston fulfils even the most demanding customer needs with leading glass processing technologies

### Megatrends:

- Urbanisation
- Climate change
- Greater environmental awareness
- Increasing prosperity
- Digitalisation



### Increased use of glass driven by:

- Tightening safety regulations
- Increasing use of attractive and intelligent glass in buildings and vehicles
- Increasing energy-efficiency requirements
- Increasing use of solar energy
- Integrated glass displays

### Cornerstones of strategy:

Growth

Technology leadership

Industry's best customer experience

Expert, motivated personnel

Goods and components suppliers

Subcontractors and partners

### Glaston's solutions:

Innovative glass technology integrating intelligent, sustainable solutions

#### Technology

Flat tempering  
Bending and laminating  
Emerging technologies

#### Knowledge as a service

Services and spare parts  
Modernisation  
Consulting

### Fields of use:

- Architecture and construction
- Vehicles
- Interior design
- Solar energy

### Applications:

- Safety glass
- Intelligent glass
- Touch-screens
- Appliances
- Roofs, windows and façades
- Solar panels

There are trends in the society that impact Glaston's operations and the development of the entire glass industry. With regard to Glaston's operations, urbanisation, climate change, increased environmental awareness, growing prosperity, and digitalisation have been recognised as significant trends.

In addition, Glaston operations are impacted by changes in the use of glass, such as tightening safety regulations, increased use of glass both as a building material and in the automotive industry, growing energy-efficiency requirements, more extensive use of glass displays, and the expansion of solar energy. Around these requirements and trends, Glaston has built its strategy, the cornerstones of which are growth, technology leadership, the industry's best customer experience, and expert and motivated personnel. On these cornerstones, Glaston produces innovative glass technology, combining it with smart and responsible solutions.

## Glaston's operations

# Frontrunner in glass processing machines and services



Glaston's operations are divided into the Machines and Services business areas. Our products and services are mainly oriented towards the construction, appliance, automotive and solar energy industries.

Glaston's Machines business offers a wide, technologically advanced range of glass processing machines for flat tempering, bending, bending-tempering and laminating glass. The most significant product group consists of flat tempering machines. In 2017, net sales of the Machines business amounted to EUR 69.3 million. The Emerging Technologies unit, focusing on new technologies, was established in 2017 under the Machines business.

Glaston's Services business provides services for glass processing machines, machine upgrades and modernisations, spare parts, and the tools for glass pre-processing. The business area's remote monitoring and diagnostics services, as well as training and consulting, help customers improve the effi-

ciency of their processes. After the sale of the pre-processing business operations, mainly in 2015 and partly in 2017, the Services business' offering also includes a pre-processing network covering 17 countries. In 2017, the net sales of the Services business amounted to EUR 43.1 million.

### Growth in EMEA and North America

EMEA and North America remain Glaston's largest market areas and they developed favourably during 2017, due to the good performance of construction in North America and improved economic prospects in Europe. In Europe, order intake was steady. In Central and Southern Europe in particular, there was signs of recovery, but in some countries, such as the UK, there was a significant slowing of demand. In the Middle East market, activity continued at a good level. In North America, construction grew, which has created positive prospects and expectations for the market. In addition to large-scale

flat-tempering machines, demand is particularly high in laminating machines.

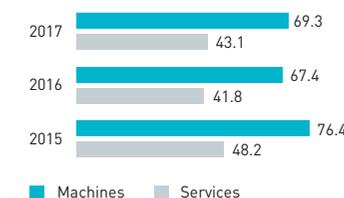
In the South American market, Glaston has a stable position but, particularly in Brazil, the situation continued to be challenging and the situation is expected to remain subdued.

In the Asian market area, development varied from region to region. In Southeast Asia, the market developed favourably. In services business, the situation in China was twofold: there is demand for basic services, but otherwise the market has been quiet. In China, demand for glass processing machines has picked up slightly from a low level.

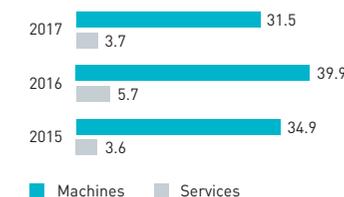
In the Asian market, a focus on quality is perceptible, which supports Glaston competitive advantage and development. In addition, the number of solar energy projects has steadily grown.

In the Australia and New Zealand area, more customers have modernised their machines, which is creating a positive

### Net sales by business area 2015-2017



### Order book by business area 2015-2017



competitive spiral. In services business, the situation in Australia and New Zealand was more subdued.

### Sales of tempering machines and service products in good shape

The Machines business organisation was restructured during 2017, which streamlined operations. In flat tempering, the trend towards significantly larger tempering furnaces continued. In lamination products, the renewed line solution was well received in the market. During 2017, the Machines business closed significant deals in the EMEA, Asia-Pacific and North American areas. One of the year's most important deals was the sale of a GlastonAir™ tempering machine to China. For Glaston, the deal was an important opening into the product's potentially most significant market, and it reinforces Glaston's vision for the use of increasingly thinner glass in solar panels. GlastonAir™ represents a new approach to heat treatment of glass, where in the tempering furnace the glass moves on a bed of air instead of rollers. Due to the air floatation technology, the thin glass is extremely uniform and optically the best possible quality.

The first deliveries of the renewed FC and RC Series™ tempering machines took place during 2017. With the deliveries, Glaston managed to increase further its lead in technology, because in addition to raising the degree of automation, improving end-product quality and increasing the machines' intelligence, a standard feature of these machines is the GlastonInsight service platform, which facilitates real-time monitoring of production.

There was growth in services business and particularly in demand for upgrade products. Launched as a laminating furnace upgrade solution, the ProL-zone easily and quickly replaces a laminating line's damaged or out-dated heating chamber. The product has been well received in the market. The product can also be installed on competitors' lines, and this was a new opening in modernisation.

In 2017, Glaston completed the sale of its pre-processing business in the USA and Canada, which had a negative impact on services business net sales. Due to the sale of the pre-processing business, Glaston will be able to fully develop and strengthen its position as a frontrunner in heat treatment technology.

### Focus on development and digitalisation

During 2017, Glaston focused on developing its products and the digitalisation of its services. In machines business, the digitalisation development themes were machine vision, analytics and proactive maintenance.

In services business, digitalisation is evident particularly in modernisations and in the product development of these services. The market showed great interest in new upgrade products that enable customers to monitor production in real-time and to digitalise their operations, even with their current machine stock.

Glaston's comprehensive digitalisation offering was supported by the glass industry startup event Step Change and the glass industry hackathon event Hack the Glass, which was held for the first time. Further information on the event can be found on page 16.

### In basic servicing, delivery reliability at highest ever level

In service work, Glaston's market position continued to be strong. High quality customer service in every market area is a foundation of Glaston's operations. During the year, the service network was strengthened further in Australia, for example.

The delivery reliability of basic service work was at a record level, which indicates that efforts to ensure operational effectiveness and efficiency succeeded. Spare parts and maintenance also developed favourably, and profitability improved. There was also a pick-up in sales of modernisation products, and during

2017 the largest single modernisation package ever was sold in the EMEA area.

### Higher quality requirements, digitalisation and capacity growth in prospect

Use of glass in buildings is growing and optical quality requirements for glass will be increasingly significant. As building safety regulations tighten, demand for laminating products will continue to grow. At the same time, capacity requirements and glass sizes are increasing, which is creating demand for still larger machines.

In addition, the opportunities presented by digitalisation, such as preventive maintenance and improved automation, are creating a new kind of demand where Glaston, as a frontrunner, has a strong position. Glaston's current product range is well suited to this demand, with solutions that improve customers' production efficiency and quality as well as making machines easier to use. The market will continue to show great interest in new products that enable customers to monitor and boost production in real-time and to digitalise their operations, even with their current machine stock.

The competitive situation in the market is expected to remain intense. Price competition is severe, particularly in the Asian market. Glaston's competitive advantages are quality, machine performance and customer service. A strong market position, broad product portfolio, strong customer relations and diverse development work will take operations forward in line with Glaston's strategy.

Glaston's competitive assets are quality, machine performance and customer service.



# Digitalisation at the forefront of product development

Glaston open-mindedly utilises new technology and the opportunities presented by digitalisation to develop products and make them better, more efficient and more reliable. Glaston brings to glass manufacturing new sensor, processing, interface and cloud service technologies. For machine users, this means ease of use and reliability. By utilising cloud services and the opportunities offered by IIoT (Industrial Internet of Things), Glaston helps its customers to use its machines as efficiently as possible. As a by-product of efficiency and reliability, optimised energy consumption is also achieved. For Glaston, the benefits brought by digitalisation include the utilisation of collected data in product development as well as in improving the efficiency and effectiveness of sales and services.

At the forefront of Glaston's product development are various services based on digitalisation, such as utilisation of analytics,

development of continuous monitoring, raising the degree of automation, and proactive maintenance. Digitalisation is also evident in the modernisation and upgrade products offered by Glaston, which enable customers to monitor production in real-time and even to digitalise their operations with their present machine stock. In 2017, the digital management and implementation of Glaston's own service business was expanded further to support the service agreement based machine stock, in particular.

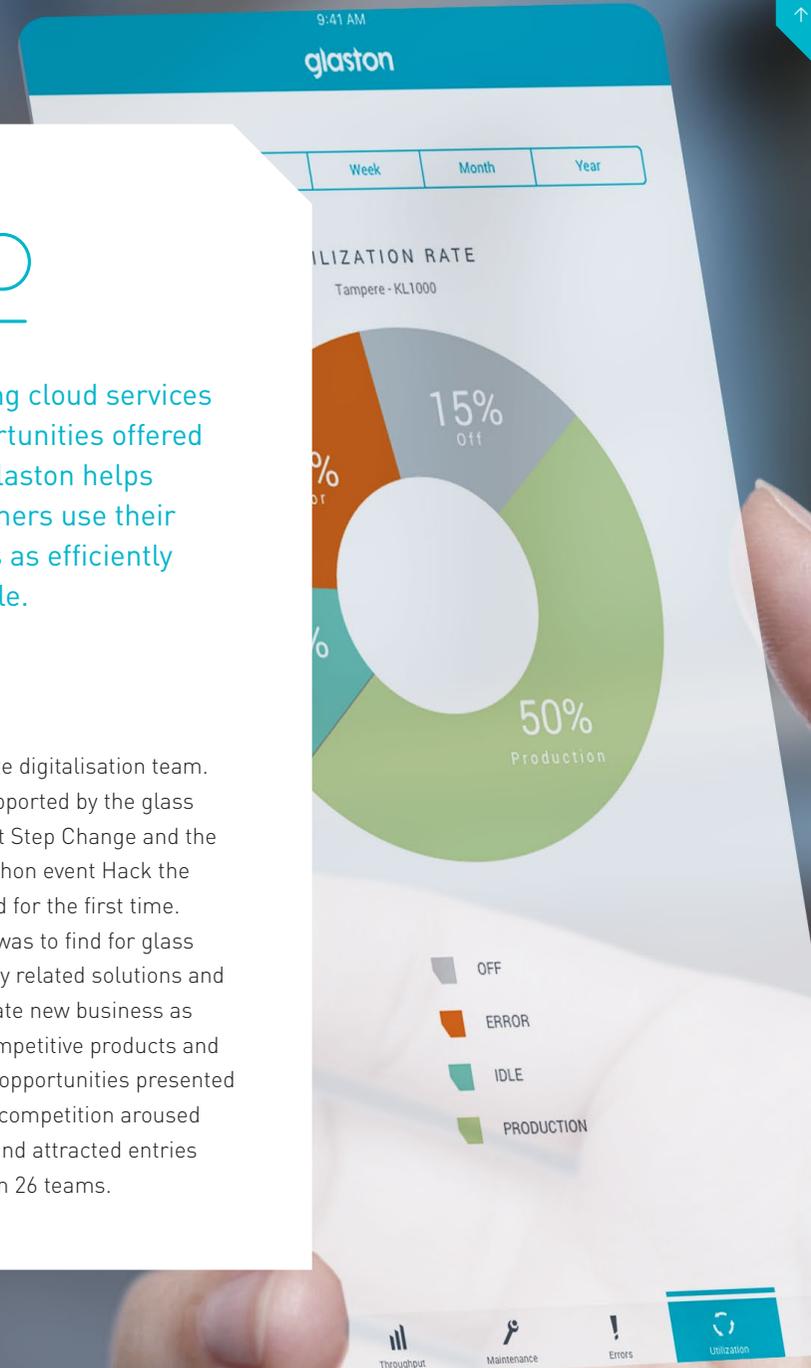
In 2017, Glaston developed its digitalisation related services in many ways and in doing so made significant development steps. For example, dozens of customers' machines were connected to Glaston's cloud service. Customer reporting will be further improved with the aid of data received from cloud services during the first half of 2018.

The organisation was strengthened by recruiting new expertise, and Glaston



By utilising cloud services and opportunities offered by IIoT, Glaston helps its customers use their machines as efficiently as possible.

established a separate digitalisation team. Digitalisation was supported by the glass industry startup event Step Change and the glass industry hackathon event Hack the Glass, which was held for the first time. The aim of the event was to find for glass processing technology related solutions and services that will create new business as well as to develop competitive products and services utilising the opportunities presented by digitalisation. The competition aroused widespread interest and attracted entries from over 70 people in 26 teams.



## Responsibility in Glaston

# Responsibility the guiding principle of operations

Responsibility is part of Glaston's everyday way of operating, and the foundation for this is our operating guidelines, the Code of Conduct. We have divided responsibility in three themes, which are a responsible employer and partner, developing the customer experience, and leadership and taking the industry forward. Our responsibility themes are based on our strategy.

Responsibility does not come without cooperation. Our partners therefore have a key role in implementing our responsibility. Glaston requires that all of its employees and partners adhere in their work to high ethical principles. Glaston is committed to complying in full with the relevant national and international laws, provisions and generally accepted operating practices in all of its activities. In addition, in its everyday activities, Glaston is committed to combating bribery and corruption.

### Impact on society

Glaston has two kinds of effects on society:

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

Glaston is a global operator with a strong service organisation in different parts of the world, close to customers. Its presence close to customers as well as the market's best customer experience are Glaston's competitive assets, but this also gives an opportunity to exert influence and act responsibly on a local level. The Tampere and Tianjin factories, for example, provide jobs in their operating areas. Particularly in Tampere, there is active cooperation with higher educational institutions and students.

Glaston's own production operations have only a minor impact on the environment. As the technology leader in its industry, Glaston strives to promote sustainable development – both in terms of the products and services it offers to its customers and in its own operations. The Tampere production plant's certified ISO 14001 environmental management system forms the foundation for the management of Glaston's environmental issues. The largest environmental effects arising from Glaston's own activities come from the energy consumption of its properties and from transport. Energy audits have been made at the Tampere properties, and measures agreed to further reduce energy consumption.

## Distribution of economic impact



MEUR		2017	2016
Customers	Profits	110.4	107.1
Suppliers	Purchases, materials and services	78.3	68.1
Employees	Salaries, bonuses and other social costs	24.4	26.2
Financiers	Financial costs	0.8	1.0
Public sector	Income tax and other direct taxes	0.2	0.4
Investments to the development of business	R&D	4.0	3.0

MEUR	Purchases		R&D		Salaries		Taxes		Total	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Finland	52.8	43.9	3.9	2.1	12.8	12.8	0.2	0.0	69.7	58.8
Other EMEA	4.2	3.8	0.1	0.1	3.5	3.4	0.1	0.1	7.9	7.4
Americas	12.1	14.0	-0.2	0.7	4.7	6.0	0.0	0.3	16.6	21.0
Asia	9.2	6.3	0.2	0.2	3.4	3.9	0.0	0.0	12.7	10.5

## Environment

Effects on environment, Finland	2017	2016
Waste, t	133.4	100.8
Recycling %	85%	85%
Recovery, %	12%	11%
Landfill waste, %	3%	4%
Energy consumption, TJ	21.2	18.9
Water consumption, m <sup>3</sup>	4,500	3,327

**A responsible employer and partner**

# Skilled personnel

Glaston's strength is its skilled and motivated personnel, who enable us to deliver high-quality service and products to our customers. For this reason, we focus on managing expertise and working capacity, and on safeguarding occupational health and safety. We also provide our employees with an inspiring working environment, where there are opportunities to grow and learn and to be part of the continually developing glass industry of the future. In accordance with our principles, we adhere to equality and diversity.

**Leadership and strategic skills models developed**

During 2017, Glaston's human resources organisation implemented digitalisation development projects, which introduced, among other things, an information system encompassing all of the key HR processes as well as a dedicated eSkills online learning environment, providing training in Glaston's products, technology and processes.

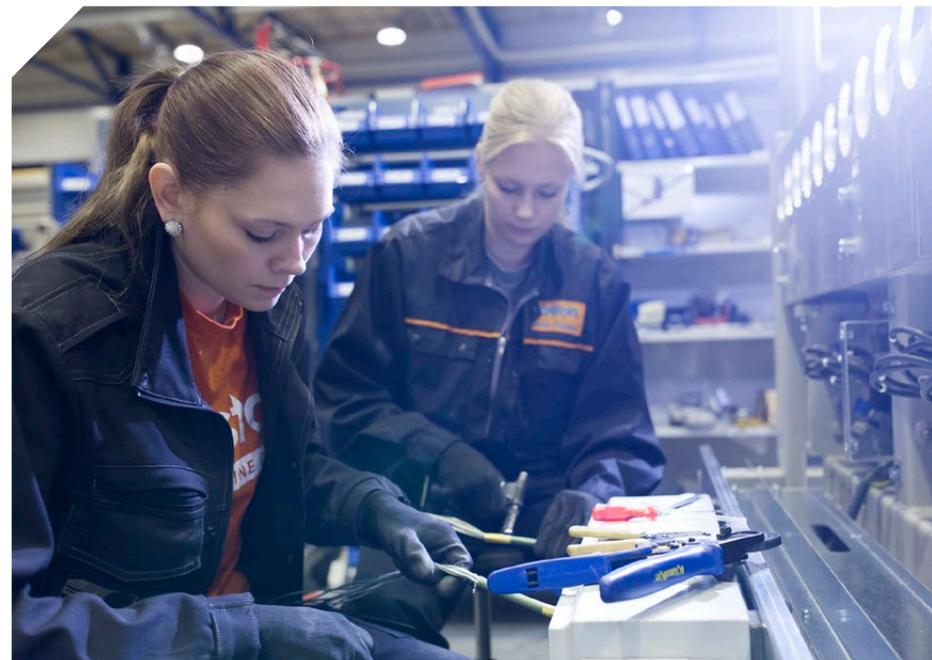
In connection with system reforms, Glaston also revised its leadership model, the objective of which is to create a concrete operating model to support the work of supervisors. Consistent leadership is also

aimed at supporting Glaston's culture. One area of focus has also been developing skills led from strategy. The goal is to better incorporate the strategy into the daily teamwork. In addition, during the year the Performance Dialogue process was developed and areas focusing on team dialogue and motivation added to it.

**Personnel rewarded for success**

As a rule, all of Glaston's personnel are covered by an annual bonus scheme and, in addition to this, 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. Anyone can propose another employee for a Glaston Award. Each year, on average, 20 awards are made. During 2017, Glaston Awards have been given for, among others things, excellent customer feedback, good project work and helping colleagues.

Occupational health care and skills development are arranged in all of Glaston's operating countries in accordance with local needs. In Finland, for example, Glaston's personnel are covered by extended health care provision. The percentage absence



through illness in Glaston has always been below the industry average. In addition, the early support model was introduced in the company before the statutory requirement to do so.

**Training offered flexibly online**

In Glaston, personnel training is mainly organised internally. In 2017, the areas of focus were sales and field service process expertise as well as negotiating and problem-solving skills. Through the new eSkills online learning environment, training related to Glaston's products and processes has been provided, as has application and working practice training related to digital competence.

Glaston has a low personnel turnover rate. We always aim to conclude open-ended employment contracts, with the exception of certain project assignments and substitute staff. Every year, we seek to employ summer workers and trainees. In 2017, summer workers accounted for one per cent of Glaston's entire workforce in Finland.

Glaston has responded to the company's development goals, such as the availability of personnel for travelling work and automation engineering, through a working time system that has succeeded in reconciling work, family and leisure. In addition, Glaston continually strives to develop its employer brand in order to attract the best staff.

## A responsible employer and partner

### Employees at the end of the year

	2017	2016	2015
Finland	168	162	164
Other EMEA	64	63	65
Asia	116	125	141
Americas	54	65	80
<b>Total</b>	<b>402</b>	<b>415</b>	<b>450</b>

### Fixed-term and part time employees

	2017	2016	2015
The share of fixed-term employees among all employees, %	2%	7%	4%
Finland, persons	10	25	16
Other countries, persons	-	2	1
<b>Total, persons</b>	<b>10</b>	<b>27</b>	<b>17</b>
The share of part time employees among all employees, %	2%	7%	2%
Finland, persons	6	12	8
Other countries, persons	4	16	3
<b>Total, persons</b>	<b>10</b>	<b>28</b>	<b>11</b>

### Age distribution

	2017	2016	2015
<20	1%	-	-
20-29	14%	12%	11%
30-39	18%	18%	24%
40-49	28%	30%	23%
50-60	31%	32%	33%
>60	8%	8%	8%

### Sickleave, Finland

	2017	2016	2015
Sickleave total	1,161	947	1,100
Per employee	3	2	2

### Training days and costs

	2017	2016	2015
Training days	378	380	144
Finland	110	196	133
Other countries	268	141	11
Training days per employee	1	1	0
Finland	1	1	1
Other countries	1	1	0
Training costs, €	78,851	100,559	42,914
Finland	30,767	54,821	37,200
Other countries	48,084	45,738	5,714
Training costs per employee, €	389	519	247
Finland	183	338	227
Other countries	205	181	20

A responsible employer and partner

# Versatile partner cooperation

Glaston carries out product development in close cooperation with its customers as well as partners such as research institutes, universities of technology and other higher educational institutions. Key partners include the Technology Research Centre of Finland VTT, the Tampere University of Technology and Business Finland. Glaston's goal is to be a reliable and responsible partner for many different stakeholders.

**Versatile cooperation with events and projects**

Events are one of Glaston's ways of engaging in relevant cooperation with its industry. The Glass Performance Days conference, organized by Glaston, was held in summer 2017 and, in connection with it, the glass industry's first startup event, Step Change. In the latter part of 2017, Glaston also arranged the glass industry's first hackathon event, Hack the Glass. The hackathon was part of Glaston's cooperation with educational institutions, which also includes factory visits and development projects conducted in cooperation with students. In addition, Glaston

actively offers summer work, diploma work and training positions, which are often also a channel to permanent work in Glaston.

**Regular supplier evaluations ensure quality**

A significant part of Glaston's partner cooperation is cooperation with business partners. Glaston's own production involves assembly work, which means that seamless supply chains and good supplier relations are essential. In accordance with its operating guidelines, Glaston acts fairly towards its suppliers, service providers and subcontractors. Glaston requires of its suppliers, service providers and subcontractors that they respect the principles outlined in the company operating guidelines, the Code of Conduct.

Glaston's Tampere plant had a total of around 350 suppliers in 2017. Every year, the factory conducts supplier evaluations, on the basis of which 40-50 key suppliers are selected. The evaluation process involves, among others, operational buyers, quality management personnel, the procurement



**Active purchases by operating country**

MEUR	2017	2016
Finland	44.7	41.6
China	3.5	2.7
Italy	3.6	5.4
US	6.0	6.1
Denmark	1.2	1.6
Others	19.3	10.6
<b>Total</b>	<b>78.3</b>	<b>68.1</b>

**Active suppliers by operating country <sup>1\*</sup>**

MEUR	2017	2016
Finland	792	731
China	138	132
Italy	222	200
US	225	215
Denmark	23	29
Others	155	145
<b>Total</b>	<b>1,555</b>	<b>1,452</b>

\*1 Products and services

manager and the factory director. Based on the evaluation, the factory selects around 10 suppliers, with whom it conducts an operational review and agrees possible development needs. In addition, as required, visits are made to suppliers, at which time cooperation between the supplier and Glaston is

also reviewed. New suppliers are assessed on a case-by-case basis throughout the year.

The Tianjin factory had a total of 128 suppliers in 2017. In accordance with the factory's operating model, around half of the suppliers are audited annually.

## Customer Experience Development

# The market's best customer experience

Glaston's objective is to deliver the market's best customer experience. Our passion is glass and all of its possibilities. This is reflected in everything we do. We are proud that we can help our customers achieve their goals by developing and providing them with modern technology. Taking account of customers' needs and seeing things through to the end play a key role in all of our activities.

### Our operations are based on the customer's needs

We are known in the market for taking care of our customers throughout the entire customer relationship. Our comprehensive service network is one of our most important competitive assets. We operate worldwide, but at the same time locally. We have sales and service units in different parts of the world – in 10 countries and 12 operating locations. We are close to our customers both linguistically and culturally.

Customer satisfaction is measured using surveys, and operations are developed based on the feedback received. A customer satisfaction survey is conducted at different

stages of a customer relationship, including the agreement, project preparation, installation and service stages.

### Products built to last

The glass processing machines are designed and built to withstand constant use at high utilisation rates. This has also been taken into consideration with respect to parts susceptible to wear and frequently changed components. Proactive and regular service and continually developed upgrade products extend the economic life of machines and boost the production process. The life cycle of Glaston's machines may be even 20 years or more.

The quality, reliability and energy-efficiency of Glaston's products is continually being developed. Glaston's factories in Finland, China and Italy are certified according to the ISO 9001 quality management system. This means, among other things, that the operating environment, stakeholders and risk management have been taken into account in all operations.



### Continuous work to improve customers' energy efficiency

Environmental problems and the debate on climate change have increased demand for products, including glass, that burden the environment less. The energy-saving potential of buildings is enormous, because in the EU area 86% of buildings' glass surfaces consist of out-dated and less energy-efficient single or double glazing. Changing these to energy-efficient window units could save approximately 100 million tonnes of carbon dioxide emissions per year.<sup>\*)</sup>

The glass processing industry has actively developed types of glass, which can be used to regulate effectively the need for heating and cooling in buildings. New glass applications, such as large laminated insulating glass units in construction, also enable better utilisation of daylight and more effective

sound insulation. New energy standards and tighter legislation in many countries are also encouraging use of more energy-efficient glass in both new and renovation construction.

The energy efficiency of glass processing machines is at the heart of Glaston's product development, for example the circulated air convection of the FC-series' flat-tempering machines. In addition to new, energy-efficient machines, customers have the possibility of upgrading their current old machines with these energy-efficient solutions.

<sup>\*)</sup> Source: Glass for Europe

## Leadership and taking the industry forward

# Technology leader taking the industry forward



Glaston is a frontrunner in its industry, and known for its technology leadership and high quality. Our technology leadership is based on continuous, customer-oriented product development, enabling us to consistently bring to the market more advanced technology to meet customers' changing needs. We also participate in all of our industry's most important associations and projects. In addition, we promote the development of the industry and its technologies in our own operations and with our partners.

### Energy efficiency and optical quality of glass at forefront of product development

Glaston's product development is guided by the development of solutions requiring deeper technological expertise and by the new business opportunities presented by digitalisation. The company's position is particularly strong in developing technologically demanding products. The most advanced glass processing machines developed by Glaston have risen to the status of standards in many countries. We hold patents for all of our key solutions. In 2017, product development expenditure was 3.6% of net sales.

The glass processing machines manufactured by Glaston are long-lasting. Our customers' end products continually require higher quality and more versatile features. Glass processing machines must be able to produce larger, smoother and thinner glass surfaces. The major expenditure items in customers' production are materials and energy. As a result of our 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. In addition, particular areas of focus for further development include the tempering process for large and thin low-emissivity glass as well as our laminating machines.

### Solar energy and smart glass meet the challenges of the future

Growing environmental awareness and increasingly visible signs of climate change are also having a major impact on the glass industry, and Glaston, as a frontrunner, takes this into account in its product development. The demand for solar energy is growing, and the glass used in solar cells and panels

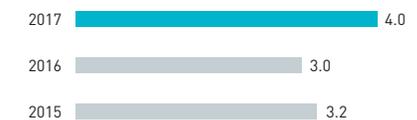
is subject to exacting quality requirements, for example with respect to glass thickness and curved surfaces. The Glaston-developed GlastonAir™, in which glass is transported and heated on a bed of air, meets these requirements very well. With GlastonAir™, it is possible to process 2.0 mm thick fully-tempered glass and 1.6 mm thick heat-strengthened glass that is extremely smooth and optically the best possible quality.

Emerging glass technologies and value-adding glass products, such as smart glass, are also making a strong entry into the market. Glaston's partner Heliotrope Technologies is developing for the market a new electrochromic smart glass technology that adjusts the thermal and light transmittance of glass precisely and quickly. Computer simulations show that the use of electrochromic windows nearly halves the electricity costs associated with the cooling of buildings.

### Active member in the preparation of industry standards

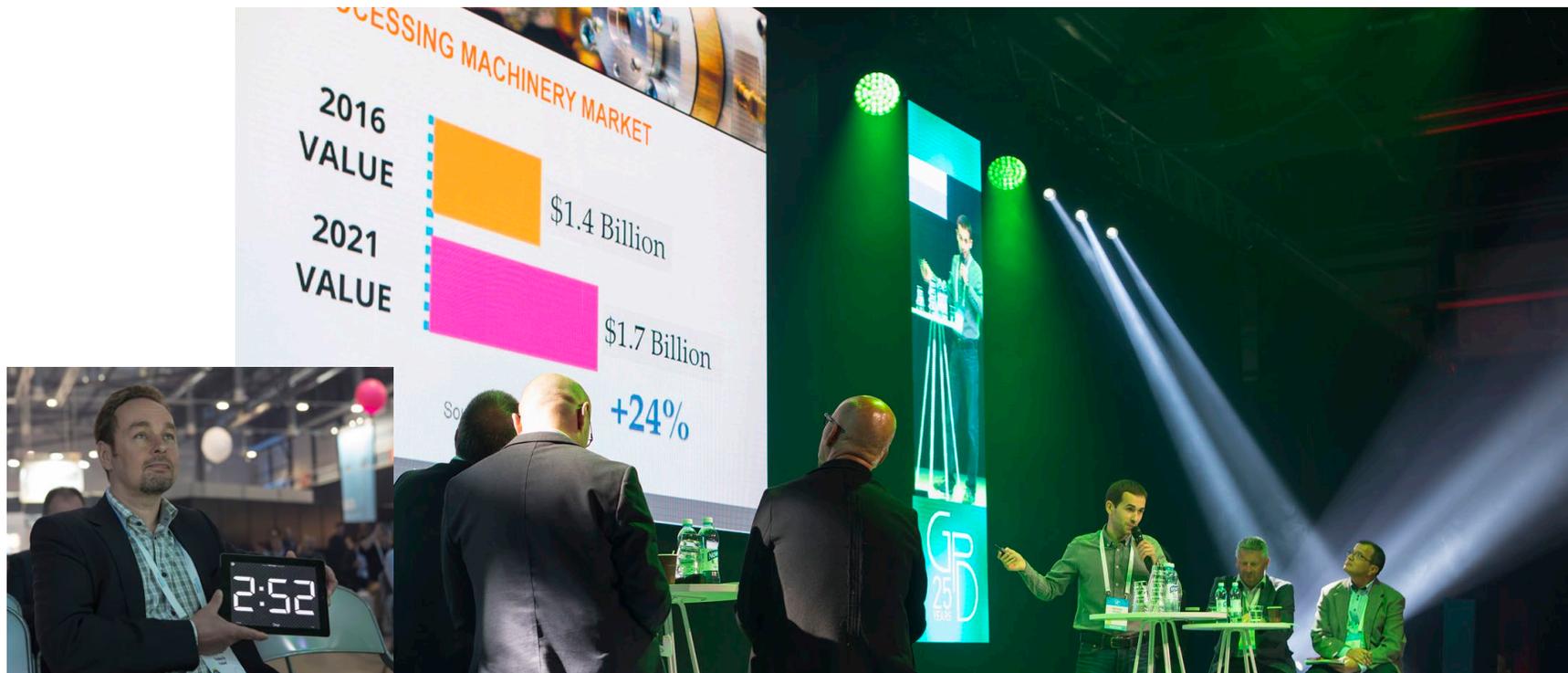
Glaston is an active member, authorised by the Finnish national working group, in glass

### Research and development expenditure, MEUR



industry committees of CEN (European Committee for Standardisation) and ISO (International Organisation for Standardisation) as well as in working groups preparing safety glass (tempered and laminated glass) standards. Through these, Glaston's representatives can influence the creation of industry standards and communicate through their experiences the needs and requirements that the standards should cover.

In addition, Glaston influences in international glass industry organisations. In the USA, this takes place via the Glass Association of North America (GANNA), in China via the China Glass Association, and in Brazil via ABRVIDRO.



## Glass Performance Days conference organised for 25 years

Since 1992, Glaston has organised the Glass Performance Days (GPD) expert conference, which brings together all the various stakeholders of the glass processing chain, ranging from glass processors and decision-makers to top experts. The conference is the glass industry's most prestigious and leading event, and it is held every other year in Tampere. In addition, smaller regional conferences are organised, for example in China.

The GPD's objective is to gather and disseminate the latest information among sector actors and to promote the

development of new areas of application and technological features. In addition to expert presentations, networking has always played a key role at the GPD conference. Over the years, more than 14,000 glass industry professionals and over 1,100 speakers have participated in the conference. There have been more than 3,200 presentations.

In 2017, the Glass Performance Days conference celebrated its 25th anniversary, and it was attended by more than 650 international experts. For the first time, a glass industry startup event, Step Change, was held in connec-

tion with the conference. The event was aimed at accelerating the development of the industry and matching investors with innovations. The Step Change programme aroused widespread interest, and a total of 34 startups from different parts of the world attended the event in Tampere. The participating startups covered a wide spectrum, all the way from nanocoatings to IoT and from smart glass to cloud services and solar cell technology.

# Smart glass and solar energy are the future

In accordance with its strategy, Glaston is actively seeking new business opportunities in emerging glass technologies. The potential for smart glass is huge and the glass market is expected to grow by 12–15% per year up to 2025. In 2016, the value of the smart glass market was approximately EUR 2,295 million (USD 2,806 million) and it is expected to more than triple by 2025<sup>\*)</sup>. Of the glass industry's segments, the growth of the smart glass market is clearly the highest.

As an expert in essential technology, at the beginning of 2017 Glaston established the Glaston Emerging Technologies unit, which provides consulting and engineering services for smart glass and energy glass window production as well as solar energy applications. The unit also sells and delivers the required production lines. Potential areas are solar energy solutions, smart glass and various aviation and automotive industry products.

In 2017, Glaston engaged in active discussions with a number of companies on the development and practical application of new glass technologies. Typically, these are pioneering companies in their own fields, operating in the global market. Through its technological expertise and extensive contact network, Glaston has in a short space of time achieved the status of a proactive, reliable partner for companies developing and commercialising intelligent glass inventions.

Glaston has been involved in a nanotechnology project in California since the latter part of 2015. Heliotope Technologies is developing for the market a new electrochromic intelligent glass technology that adjusts the thermal and light transmittance of glass precisely and quickly. An additional advantage over solutions already on the market is significantly lower production costs. During 2017, Heliotope focused on testing

## At the beginning of 2017 Glaston established the Emerging Technologies unit.

a prototype line and larger glass sizes as well as developing electrolyte materials. The prototype line was approved in December 2017. Planning of a pilot line for a European customer advanced towards the decision stage.

The smart glass market is global, and the companies pioneering smart glass applications are leading the development of the market. In 2017, demand was strongest in North America. The energy-saving potential of smart glass products as well as various investment subsidies and guarantees had a positive impact on demand.

<sup>\*)</sup> Source: Grand View Research.



# Corporate Governance Statement 2017

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](http://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](http://www.glaston.net/en/investors/Governance). The information is also included in the Annual Review 2017.

## 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 authorised representative. A shareholder may also have an assistant at a General Meeting.

### Annual General Meeting 2017

Glaston Corporation's Annual General Meeting was held in Helsinki on 4 April 2017. The meeting was attended by 62 shareholders, representing a total of 70% 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 General Meeting resolved that no dividend or return of capital be distributed for 2016. The Annual General Meeting authorised 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 authorisation covers a maximum of 20,000,000 shares. The authorisation is valid until 30 June 2018. All documents relating to the Annual General Meeting are available on the Company's website at the address [www.glaston.net](http://www.glaston.net).

### Extraordinary General Meeting 2017

An Extraordinary General Meeting was held in Helsinki on 21 September 2017. The meeting was attended by 33 shareholders, representing a total of 57% of the Company's voting rights. The Extraordinary General Meeting resolved the number of Members of the Board of Directors to be eight. Furthermore, the meeting resolved that Tero Telaranta be elected as a new Member of the Board of Directors until the closing of the Annual General Meeting 2018.

### 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. In addition, education, age and gender are also taken into account. The Board of Directors should include both genders.

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 organisational 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. This evaluation may be performed by the Board itself or by an external evaluator.

Meetings of the Board of Directors are held as a rule in the Company's head office in Helsinki. The Board of Directors also endeavours 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 2017

At the Annual General Meeting, held on 4 April 2017, the Members of the Board of Directors, Andreas Tallberg, Teuvo Salminen, Claus von Bonsdorff, Sarlotta Narjus, Pekka Vauramo and Anu Hämäläinen, were re-elected for a term of office ending at the closing of the next Annual General Meeting. In addition, it was resolved that Kai Mäenpää M.Sc.(Eng.) be elected as a new Member of the Board of Directors for the same term of office. Kalle Reponen's membership of the Board of Directors ended on 4 April 2017. Kalle Reponen served as Member of the Board of Directors 2 April 2014–4 April 2017.

At the Extraordinary General Meeting, held on 21 September 2017, it was resolved that Tero Telaranta M.Sc.(Eng.) M.Sc.(Econ.) be elected to the Board of Directors for a term of office ending at the closing of the Annual General Meeting 2018.

Andreas Tallberg has served as Chairman of the Board, and Teuvo Salminen as Deputy Chairman.

The Board of Directors' work focused on monitoring the Company's strategy as well as on strengthening the Company's growth

potential and mapping growth opportunities in, for example, the field of emerging technologies. Projects related to digitalisation of operations and automation of machines were also an area of focus. In addition, the Board 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 Board's eight members are, in principle, independent of the Company. Chairman of the Board Andreas Tallberg, CEO of Oy G.W. Sohlberg Ab, was until 21 June 2017 dependent on a significant shareholder of the Company (Oy G.W. Sohlberg Ab's ownership was 17.5% until 21 June 2017). Tero Telaranta, elected to the Board of Directors at an Extraordinary General Meeting, is dependent on a significant shareholder of the Company, AC Invest Eight B.V., whose ownership has been 17.5% since 21 June 2017.

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

The shareholdings of Members of the Board of Directors also include shares of Glaston Corporation owned by companies controlled by the person in question.



**ANDREAS TALLBERG**, b. 1963, M.Sc.(Econ.)  
Chairman of the Board since 2007.  
Independent of the Company. Since 21 June 2017, independent of significant shareholders.  
**Share ownership on 31.12.2017:** 1,500,000 shares.  
**Main occupation:** Oy G.W.Sohlberg Ab, CEO  
**Primary work experience:**  
EQT, Senior Partner, 1997–2006  
MacAndrews & Forbes International, President, 1992–1995  
Amer Group, Director, Business Development, 1987–1991  
**Key positions of trust:**  
Detection Technology Oy, Chairman of the Board, since 2007  
Wulff Group Plc, Member of the Board, since 2012  
Nissala Oy, Chairman of the Board, since 1999  
Toolmakers Oy, Chairman of the Board, since 2011  
Rothschild Nordic AB, Member of the Board, since 2017  
Capman Plc, Chairman of the Board, since 2017



**CLAUS VON BONSDORFF**, b. 1967, M.Sc.(Eng.), M.Sc.(Econ.)  
Member of the Board since 2006. Independent of the Company and of significant shareholders.  
**Share ownership on 31.12.2017:** 172,600 shares.  
**Main occupation:** Nokia, Networks, Customer Operations, Head of Strategy and Business Development  
**Primary work experience:**  
Nokia Plc, Expert and management positions, since 1994  
**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 31.12.2017:** 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



**KAI MÄENPÄÄ**, b. 1960, M.Sc.(Eng.)  
Member of the Board since 2017. Independent of the Company and of significant shareholders.  
**Share ownership on 31.12.2017:** 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 31.12.2017:** no shares

**Main occupation:** SARC Architects Ltd, CEO

**Key positions of trust:**

no other positions of trust



**TEUVO SALMINEN**, b. 1954, M.Sc.(Econ.), APA Member of the Board since 2010, Deputy Chairman of the Board, since 2014. Independent of the Company and of significant shareholders.

**Share ownership on 31.12.2017:** 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 Member 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



**TERO TELARANTA**, b. 1971, M.Sc.(Eng.), M.Sc.(Econ.), Member of the Board since 21 September 2017. Independent of the company, dependent on a significant shareholder.

**Share ownership on 31.12.2017:** 1,000 shares.

**Main occupation:** Ahlström Capital, Director, Industrial Investments

**Primary work experience:**

Corob Group, 2013–2015, CEO  
CPS Color Group, EVP, 2012–2013, Equipment Division (Corob)  
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



**PEKKA VAURAMO**, b. 1957, M.Sc.(Mining) Member of the Board since 2011. Independent of the Company and of significant shareholders.

**Share ownership on 31.12.2017:** 250,000 shares.

**Main occupation:** Finnair Plc, President & CEO

**Primary work experience:**

Cargotec Corporation, 2007–2013:  
MacGregor, Chief Operating Officer, 2012–2013  
Cargotec Corporation, Chief Operating Officer, Deputy to CEO, 2007–2012  
Employed by Sandvik 1985–2007:  
President of the Underground Hard Rock Mining Division of Sandvik Mining and Construction (SMC) and Member of the SMC Management Team, Sandvik Country Manager in Finland 2005–2007, President of TORO Loaders Division of SMC, 2003–2005, President of Drills Division of SMC, 2001–2003

**Key positions of trust:**

Boliden Group, Member of the Board, since 2016  
Ilmarinen Mutual Pension Insurance Company, Member of the Board, since 2016  
The Finnish Fair Corporation,  
Member of the Supervisory Board, since 2015  
IS Mäkinen Oy, Member of the Board, since 2004  
Service Sector Employers (Palta),  
Member of the Board, since 2014  
Confederation of Finnish Industries,  
Member of the Board, since 2017

**KALLE REPONEN**, b. 1965, M.Sc.(Econ.) - Member of the Board since 2014. Independent of the Company and of significant shareholders.

**Share ownership on 4 April 2017:** no shares

**Main occupation:** Independent Consultant, Professional Board Member

**Primary work experience:**

Metso Corporation, Senior Vice President, Strategy and M&A, Member of Executive Team, 2006–2013

MCF Corporate Finance GmbH, Partner, 2003–2006

Nordea Corporate Finance, Director, 2000–2003

Metra Corporation, Business Development Director, 1999–2000

Wärtsilä, various managerial positions, 1995–2000

**Key positions of trust:**

Robit Plc, Member of the Board, since 2013

Montisera Oy, Chairman of the Board, since 2014

Koskitukki Oy, Member of the Board, since 2014

Premix Oy, Member of the Board, since 2014

**Attendance at meetings of the Board**

In 2017 Glaston's Board of Directors held 13 meetings, of which 2 were via a telephone conference. The attendance of Members of the Board at the meetings was 99%.

**Committees of the Board of Directors**

The Company has no 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.

**Nomination Board**

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

### Nomination Board 2017

Based on the ownership situation on 1 September 2017, the following were selected as members of Glaston's Nomination Board: Thomas Ahlström (AC Invest Eight B.V.), Jaakko Kurikka (Hymy Lahtinen Oy), Kalle Saariaho (OP-Finland Small Firms) and Stefan Björkman (Etera Mutual Pension Insurance Company). Andreas Tallberg, Chairman of the Company's Board of Directors, served as an advisory member of the Nomination Board.

In its organising meeting held on 16 October 2017, the Nomination Board elected Thomas Ahlström from among its members to be Chairman. The Board met three (3) times during 2017 and the average attendance of members was 75%. 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 and 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 2017

Juha Liettyä, Senior Vice President, Americas and Member of the Executive Management Group, was appointed Senior Vice President, Glaston Emerging Technologies as of 2 January 2017. He is based Florida, USA.

The Executive Management Group convened nine (9) times in 2017.

The Extended Management Group included, in addition to members of the Executive Management Group mentioned above, Moreno Magon, Vice President Sales & Services, South America; Scott Steffy, Vice President Sales & Services, North America; Marko Pantti, Finance Director, Machines; and Heikki Halonen, Finance Director, Asia. The Extended Management Group met three (3) times during 2017.

### 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 decentralised 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 organisation, which maintains operating guidelines and standards relating to financial reporting and is responsible for internal communication relating to them. The Group's Financial Management organisation also supervises compliance with these guidelines and standards. The Company has no separate internal auditing organisation. The Group's Financial Management organisation 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 organisation. 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 39. The management and organisation of the Group's financial risks are presented in more detail in Note 3 of the consolidated financial statements on page 57.

### Insider administration

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

In accordance with the 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.

Currently, 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 Director is responsible for maintaining the list of insiders and for overseeing the restriction on trading and duty to declare.

### Auditing

The Company has one Auditor, which must be an auditing firm authorised 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 2017

At the 2017 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 2017 the Group's auditing costs totalled approximately EUR 253,000, of which Ernst & Young received approximately EUR 234,000. Ernst & Young Oy's auditing expenses for the audit for financial year 2017 totalled approximately EUR 223,000. In addition, auditing units belonging to Ernst & Young have provided other advice to Group companies to a value of EUR 32,000.

### Related-party transactions

Glaston Group's related parties include the parent of the Group (Glaston Corporation), 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.

Members of the Board of Directors and the Group's Executive Management Group, the President & CEO and their family members are also considered to be related parties.

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.

## Information on the Members of the Executive Management Group



**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 31.12.2017:** 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 31.12.2017:** 300,000 shares.  
**Primary work experience:**  
 Glaston Corporation, 2012–2016, Chief Financial Officer  
 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 31.12.2017:** 75,000 shares.  
**Primary work experience:**  
 Metso Minerals Oy, Legal Counsel, 2008–2011  
 Cargotec Corporation, Legal Counsel, 2006–2008



**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 31.12.2017:** 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 31.12.2017:** 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



**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 31.12.2017:** 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 Segment, 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



**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 31.12.2017:** 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



**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 31.12.2017:** no shares.

**Primary work experience:**

GE 2005–2008:  
GE Motors & Controls, General Manager, Asia, 2005–2008  
GE Lighting Systems, Product Line Director, 2005–2008

# Information for shareholders

## Annual General Meeting

The Annual General Meeting of Glaston Corporation will be held on Tuesday 10 April 2018 at 3p.m. in Rake-sali, Erottajankatu 4 C, 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, 27 March 2018, 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 5 April 2018 via one of the following options:

- On the Glaston Corporation website at [www.glaston.net](http://www.glaston.net);
- By e-mail to [agneta.selroos@glaston.net](mailto: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 share-

holder'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 2017, a return of capital of EUR 0.01 per share be paid. 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, 12 April 2018. The Board of Directors proposes to the Annual General Meeting that the return of capital be paid on 26 April 2018.

## 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 2018

- Financial Statements review 2017, on Thursday, 8 February 2018
- Interim report January–March 2018, on Monday, 23 April 2018
- Half year financial report January–June 2018, on Thursday, 9 August 2018
- Interim report January–September 2018, on Wednesday, 31 October 2018

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](http://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](mailto: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/](http://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](http://www.euroclear.fi) > Osoitteenmuutos.

Further information on Glaston  
Agneta Selroos  
Communications Director  
Tel. +358 (0)10 500 6105  
E-mail: [agneta.selroos@glaston.net](mailto:agneta.selroos@glaston.net).



# 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 classified as held for sale)

### Net interest-bearing debt

Interest-bearing liabilities (includes interest-bearing liabilities classified as held for sale) - cash and cash equivalents

### Financial expenses

Interest expenses of financial liabilities + fees of financing arrangements + foreign currency differences of financial liabilities (total of continuing and discontinued operations)

### Equity ratio, %

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

### Gearing, %

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

### Net gearing, %

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

### Return on capital employed, % (ROCE)

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

### Return on equity, % (ROE)

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

## 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.

# Report of the Board of Directors for 2017

## Operating environment

In 2017, the glass processing market made a slow start, and the first quarter was quiet. In the second quarter, the market picked up and gradually improved throughout the rest of the year. The EMEA area strengthened its position as Glaston's biggest market area. In North America, the market situation remained reasonably good. The South American market remained subdued. In the Asian market area, activity varied from region to region. In Southeast Asia and the Pacific area development was favourable. The Chinese market remained quiet, but the first signs of a pick-up in construction were perceptible.

## Machines

In the Machines business, there was a slow start to the year. Activity in the market increased, however, as the year progressed. In the EMEA area, market activity was on a good level throughout the year, and machine orders were received at a steady rate. The EMEA area strengthened its position as the biggest market area for Glaston's Machines business. Despite the high activity, customers' decision-making was slow in many countries and some deals were postponed to later date. In Central Europe, demand strengthened, and orders were received from, among other countries, France,

Belgium, Austria and Germany. In the UK, the market weakened markedly during the year. In Eastern Europe, investment decisions continued to be impacted by the slow advance of decision-making on investments supported by the EU. After a quieter period, there were signs of a pick-up in Russia. In Southern Europe, Glaston's strongest markets were in Portugal and Spain. The Middle East market was active in the first half of the year, after which activity declined to some extent. For the full year, the order level in the EMEA area was highest in Saudi Arabia.

In the North American market, demand remained at a relatively good level throughout the year. In addition to the FC™ product series, customers were interested in laminating lines as, due to tightening building regulations, the market for laminated glass is expected to grow in the USA. Competition in the market continued to be intense. The South American market remained quiet, and customers' interest was directed mainly at smaller machines.

In the Asian market area, development varied from region to region. The tempering machine markets in Australia and New Zealand remained active, and Glaston maintained its strong position. In Southeast Asia, the machine market developed positively in Thailand, the Philippines and Indonesia. High end-product quality and low emissivity

(Low-E) glass were of particular interest to customers. The first signs of a recovery in construction were evident in China, and demand for glass processing machines picked up slightly. Activity of solar energy projects grew steadily during the year. In September, Glaston closed a deal for the delivery to China of a GlastonAir™ tempering line, which is particularly suited to manufacturing of glass for thin solar panels.

Flat tempering machines were still the Machines business area's most significant product group. The trend towards significantly larger furnaces continued. The first deliveries for the renewed FC™ product series were made in the middle of the year. The main focus of upgrades was on raising the degree of automation as well as further improving the optical quality of glass. With the deliveries, Glaston managed to extend further its technological lead over its competitors. The renewed ProL™ laminating line was well received in the market, and deals for laminating machines were closed in both the EMEA area and North America.

## Emerging Technologies

A frontrunner in its field, Glaston established in January 2017 the Glaston Emerging Technologies unit, which offers consulting and engineering services for smart glass and energy glass window production as well as

solar energy applications. The unit also sells and delivers the required production lines. Around 25 experts from Glaston participated in the unit's projects during the year. The unit directly employed four people. Glaston's investment in the Californian nanotechnology company Heliotrope Technologies at the end of 2015 is part of the Emerging Technologies unit's activities.

Heliotrope Technologies is developing for the market a new electrochromic smart glass technology, which gives end-users the opportunity of regulating, for example, the heat and light transmittance of glass in a building or vehicle, precisely and quickly. A further advantage over solutions already on the market is significantly lower production costs. During 2017, the nanotechnology project focused on testing a prototype line and larger glass sizes, and on developing the electrochromic material. In August, Glaston delivered to Heliotrope Technologies for installation into the prototype line a device enabling the processing of larger glass sizes. In the latter part of the year, good test results were achieved with the prototype line in terms of flexibility and glass size, and the line was approved on a preliminary basis in December 2017.

In December, a number of customer presentations were held at Heliotrope. The functionality of the prototype line, in particular, attracted the praise of potential

customers. The engineering of a pilot line for delivery to Europe proceeded towards the decision stage, and the factory layout and machine configuration of the line were specified.

In addition to the Heliotrope project, Glaston held active discussions with a number of companies on developing new glass technologies and their practical application. Glaston's role in possible future projects may include, for example, advanced glass coatings for automotive and aviation industry products or the development and assembly of production lines for glass-related solar energy applications. Offers relating to equipment and development cooperation have been made to a number of partners. Due to its strong technological expertise, Glaston is able to respond to even the most challenging development requests.

### Services

In 2017, cautiously positive development was perceptible in the Services business market. Glaston's position in the market continued to be strong. After a quiet first quarter, the market for modernisation products picked up, and good development continued throughout the year. During the year, the largest ever individual modernisation package was sold to a customer operating in the EMEA area. Spare parts and service work developed positively. The development of the tools product group was good, and sales of tools began to grow cautiously.

The EMEA area and North America were still the strongest areas for the Services

business. In these areas, orders received for maintenance services grew strongly. In the EMEA area, growth was 13% and in North America 19% compared with the previous year. A promising pick-up was seen in Russian business. In the UK, economic uncertainty cooled willingness to invest.

In the Asian market area, development varied. In China, demand for maintenance services continued to be good, but otherwise the market was relatively quiet. In Australia, Glaston strengthened its services organisation and in the latter part of the year an agreement on a modernisation delivery was closed with an Australian customer.

In February, Glaston initiated negotiations on the sale of pre-processing business operations in the USA and Canada, and the negotiations were finalised in May. This contributed to a permanent reduction in the company's net sales from July 2017 onwards, and it impacts comparisons with previous years. In 2016, net sales of the pre-processing machine business in the USA and Canada were approximately EUR 4.9 million.

Glaston continues to be a reseller of Bavelloni pre-processing machines in Mexico, Brazil and Singapore. In the future, this business will decline further in significance.

### Orders received and order book

Glaston's orders received declined in January-December, particularly due to the weak first quarter, by 8% (-5% taking the sale of the pre-processing machine business into account) compared with the previous year and totalled EUR 103.7 (112.9) million.

However, order intake grew during the year in every quarter compared with the previous quarter, and the fourth quarter grew 8% compared to the third quarter. Despite the good market activity, customers' decision-making remained slow in certain areas and some deals were also postponed to a later date.

Glaston's order book at the end of 2017 stood at EUR 35.2 (45.6) million, i.e. 23% below the previous year's level. When the sold pre-processing machine business is eliminated from the comparison data, the decline was 21%. The Machines business order book fell by 21% to EUR 31.5 (39.9) million. The Services business order book fell by 36% to EUR 3.7 (5.7) million.

### Net sales

Glaston's full-year net sales rose by 3% compared with 2016 and totalled EUR 110.4 (107.1) million. Net sales grew by 5%, when the sold pre-processing machine business

is eliminated from the comparison data. The net sales of the Machines business grew by 3% to EUR 69.3 (67.4) million. The net sales of the Services business grew by 3% to EUR 43.1 (41.8) million. Growth was 9%, when the sold pre-processing machine business is eliminated from the comparison data.

The good development of the EMEA area continued in the final quarter of the year, and at year-end the EMEA area was the largest of the sales areas. The net sales of the EMEA area grew 22% compared with 2016 and totalled EUR 51.8 (42.4) million. In the Asian market area, the number of machine deliveries was still on a downward trend. Net sales fell by 18% compared with the previous year and totalled EUR 17.3 (21.0) million. In the Americas area, net sales were at nearly the previous year's level: EUR 41.3 (43.7) million, and if the sale of the pre-processing machines business is taken into account the decline was 1%.

Order book, EUR million	31.12.2017	31.12.2016	31.12.2015
Machines	31.5	39.9	34.9
Services	3.7	5.7	3.6
<b>Total</b>	<b>35.2</b>	<b>45.6</b>	<b>38.5</b>

Net sales, EUR million	2017	2016	2015
Machines	69.3	67.4	76.4
Services	43.1	41.8	48.2
Other and internal sales	-2.0	-2.0	-1.3
<b>Total</b>	<b>110.4</b>	<b>107.1</b>	<b>123.4</b>

## Operating result and profitability

The full-year comparable operating profit was EUR 5.4 (2.8) million, i.e. 4.8 (2.6)% of net sales. In addition to increased net sales, the good development of the operating profit was impacted by better gross margin and slightly lower fixed costs. Items affecting comparability totalling EUR 0.4 (0.5) million were recognised during the year. These related to the sale of the pre-processing machine business in the USA and Canada, real

estate divestment and to the restructuring of operations in Brazil.

Glaston's operating profit in January–December was EUR 5.0 (2.3) million. Financial income and expenses were EUR -0.9 (-0.7) million. The result before taxes was EUR 4.1 (1.6) million. The result for the review period was EUR 2.9 (1.0) million. January–December earnings per share were EUR 0.015 (0.005).

Comparable operating profit, EUR million	2017	2016	2015
<b>EBIT</b>	5.0	2.3	6.6
Items affecting comparability	0.4	0.5	0.6
Comparable operating profit	5.4	2.8	6.1
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Operating profit, EUR million	5.0	2.3	6.6
Operating profit, % of net sales	4.5	2.1	5.4
Profit/loss for the year attributable to owners of the parent, EUR million	2.9	1.0	-13.8
Profit/loss for the year attributable to owners of the parent, % of net sales	2.6	1.0	-11.2
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Earnings per share, Continuing Operations, EUR	0.015	0.005	0.001
Earnings per share, Discontinued Operations, EUR	-	-	-0.072
Earnings per share, basic and diluted, EUR	0.015	0.005	-0.071
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Return on capital employed (ROCE), %	9.8	4.6	-13.8
Return on equity, %	7.9	2.8	-31.5

## Financial position, cash flow and financing

Glaston's cash flow from operating activities, before the change in working capital, was EUR 8.4 (5.3) million in January–December. The negative cash flow in the first third quarter's turned to positive in the final quarter due to a good result and a decline in working capital. The change in working capital for the full year was EUR -8.2 (8.2) million. Cash flow from investments was EUR -2.1 (-3.8) million and cash flow from financing activities was EUR -2.8 (1.4) million.

During the final quarter, Glaston's cash and cash equivalents grew by EUR 4.8 million and totalled EUR 12.4 (17.4) million. Debt was reduced in the final quarter by EUR 3.1 million. Net interest-bearing debt totalled EUR 0.9 (-0.6) million and net gearing was 2.3 (-1.7)%.

At the end of the financial year, the consolidated asset total was EUR 95.6 (101.1) million. The equity attributable to the owners of the parent was EUR 37.8 (35.6) million. Equity per share was EUR 0.20 (0.18). The return on equity in the reporting period was 7.9 (2.8)% and return on capital employed was 9.8 (4.6)%.

	2017	2016	2015
Equity ratio, %	45.2	43.2	43.9
Gearing, %	34.9	46.7	36.7
Net gearing, %	2.3	-1.7	20.2
Interest-bearing net debt, EUR million	0.9	-0.6	7.4

## Financing agreement

In June, Glaston agreed on the extension of its long-term financing agreement by three years. The financing agreement consists of a EUR 10.0 million long-term loan as well as a EUR 25.0 million revolving credit facility, which can be used for short-term financing and guarantees. In connection with the extension of the financing agreement, a long-term loan of EUR 3.9 million was drawn and short-term financing amounting to EUR 5.5 million was repaid.

In September, Glaston raised a EUR 2.0 million research and development loan granted by Tekes, the Finnish Funding Agency for Innovation. The loan will be directed at the smart glass project of Glaston and Heliotope Technologies Inc. The loan period is 8 years. The project is part of Tekes' Smart City programme.

## Investments in product development, digitalisation and emerging technologies

In line with its growth strategy, Glaston is increasing its investment in product development and emerging technologies. The investments are aimed at increasing differentiation from competitors, creating new

earnings models and expanding into new product areas. At the heart of product development is digitalisation, which facilitates the shift towards automatic glass processing. The glass industry's emerging technologies are focused on reducing or completely removing buildings' energy consumption and on enabling disruptive technologies related to mobility and transport. Overall, these investments amounted to EUR 4.4 (3.5) million in 2017.

In 2017 research and product development expenditure, excluding depreciation, totalled EUR 4.0 (3.0) million, of which EUR 1.4 (1.4) million was capitalised. Research and product development expenditure amounted to 3.6 (2.8)% of net sales.

Digitalisation, automation and industrial internet utilisation were at the heart of Glaston's product development. To accelerate the development of digital solutions, Glaston recruited new expertise and established a dedicated digitalisation team. During the year, major steps forward were made in digitalisation and industrial internet projects, and dozens of customers' machines were connected to Glaston's cloud services.

The energy saving and energy consumption of tempering machines have been important drivers of Glaston's product development. This work has yielded results, as a comprehensive analysis made in the autumn showed, for example, that in the low-emissivity glass tempering process, energy consumption has decreased by an average of 30% over the past 10 years.

Development in the field of energy efficiency also continued in 2017. In the further development of the GlastonAir™ technology, the main emphasis was on the more energy-efficient tempering of larger, 2 mm-thick glass. In oscillating tempering machines, the focus was on optimising the highly demanding tempering process of large and thin low-emissivity glass.

To minimise the anisotropy phenomenon, efforts to productise a new online measurement system continued. The ProL™ flat-laminating line was further developed to ensure the product's breakthrough in the growing lamination product segment. The furnace convection heating solution for the ProL™ laminating line enables accurate and optimised heat transfer, creating a high-quality end-product and increasing the line's performance capacity by up to 100% compared with traditional infrared heating.

Glaston's product development with the Californian nanotechnology company Heliotope Technologies continued. In 2017, a project team of around four people from Finland participated in the project. The nanotechnology project proceeded according to plan during the year: a prototype line was approved on a preliminary basis at the end of the year, and engineering of a pilot line advanced towards the decision stage. The Emerging Technologies unit had a negative impact of EUR 0.4 (0.5) million on the Group's result in 2017.

## Research and development expenditure

EUR million	2017	2016	2015
Research and development expenditure, continuing operations	4,0	3,0	3,2
Research and development expenditure, continuing operations, % of net sales	3.6%	2.8%	2.6%
Research and development expenditure, discontinued operations	-	-	0,2
<b>Total</b>	<b>4,0</b>	<b>3,0</b>	<b>3,5</b>
Capitalized development costs during the reporting period	-1,4	-1,4	-1,3
Amortization, impairment losses and reversals of impairment losses of capitalized development costs during the reporting period, net	1,2	1,0	1,7
<b>Research and development expenditure, total</b>	<b>3,8</b>	<b>2,5</b>	<b>3,9</b>

## Environment

For Glaston, environmental responsibility means developing and providing energy-efficient solutions for its customers and minimising the environmental impacts of its own activities. The environmental impact of Glaston's own production operations is very limited. The most significant environmental effects arise from the life-cycle energy consumption of the machines manufactured by the company. Energy efficiency and its development have a key role in product development, in terms of both glass processing machines and end products. Glaston works actively to promote opportunities to use glass in energy-efficient construction and in utilisation of solar energy.

The glass processing machines manufactured by Glaston are long-lasting. The ma-

chines are designed and built to withstand constant use at high production capacities. With proactive and regular maintenance, the service lives of machines can be extended. The upgrade products offered by Glaston also contribute to extending the service lives of machines and reducing energy consumption in glass processing. Particular attention is also paid to the recyclability of machine materials, especially with respect to components that are susceptible to wear and often changed.

The ISO 9001 international quality management system is certified at both the Tampere and Tianjin production plants and serves as a reference framework for Glaston's responsible operations. The operating environment, stakeholders and risk man-

agement, for example, are accordingly taken into account in all activities. The Tampere production plant's certified ISO 14001 environmental management system forms the foundation for the management of Glaston's environmental issues.

### Capital expenditure, depreciation and amortisation

Glaston's gross capital expenditure totalled EUR 2.3 (3.9) million. The most significant investments in 2017 related to product development.

During 2017, depreciation and amortisation on property, plant and equipment, and intangible assets totalled EUR 3.0 (2.7) million.

### Changes in the company's management

Juha Liettyä, Senior Vice President, Americas and Member of the Executive Management Group, was appointed Senior Vice President, Glaston Emerging Technologies as of 2 January 2017.

### Organisation and employees

In 2017, the most significant development project of Glaston's human resources organisation related to the introduction of an information system covering all personnel and all key human resources processes. In addition, a dedicated eSkills online learning environment was constructed, providing training on Glaston's products, technology and processes. In connection with system reforms, Glaston also revised its leadership model, the objective of which is to create concrete ways or working to support the work of line managers.

During the year, Glaston's performance appraisal model, the Performance Dialogue process, was developed, and subareas focusing on team interaction and motivation added to it.

Personnel training was arranged mostly internally and the areas of focus were sales and field service process expertise as well as negotiating and problem-solving skills. The eSkills online training environment provided

training on Glaston's products and processes.

Negotiations initiated in February on the sale of the pre-processing machines business in the USA and Canada to the Italian company Bavelloni SpA were completed in May. The sale had no impact on sales and maintenance of heat treatment machines in the USA. Glaston continues to be a reseller of Bavelloni pre-processing machines in Mexico, Brazil and Singapore.

Glaston had a total of 402 (415) employees on 31 December 2017. Of the Group's employees, 42% worked in Finland and 16% elsewhere in the EMEA area, 29% in Asia and 13% in the Americas. The average number of employees was 409 (437).

### Share-based incentive plans

On 18 January 2017, Glaston's Board of Directors decided on a new period in the share-based incentive plan for the Group's key personnel that began in 2014. The incentive plan is part of the long-term incentive and commitment scheme for the senior

management of the Group and its subsidiaries, and it is linked to the development of Glaston's share price.

The new period covers 2017–2019, and any rewards from the plan will be paid in spring 2020. The incentive plan launched in 2017 covers 18 key Glaston personnel.

In January 2016, Glaston's Board of Directors decided on a period for the same plan covering 2016–2018. The plan covers 16 key personnel, and any rewards from the plan will be paid in spring 2019.

Rewards for the incentive scheme period 2015–2017 will be paid in spring 2018. The plan covered 29 people. The rewards payable from the plan total EUR 0.1 million.

The first period of the incentive plan covered 2014–2016. No rewards have been paid from the plan.

### Decisions of the Annual General Meeting

The Annual General Meeting of Glaston Corporation was held in Helsinki on 4 April 2017.

EUR million	2017	2016	2015
Gross capital expenditure, Continuing Operations	2.3	3.9	7.0
Gross capital expenditure, Discontinued Operations	-	-	0.3
Gross capital expenditure, total	2.3	3.9	7.2
Gross capital expenditure, Continuing Operations, % Continuing Operations' net sales	2.1	3.6	5.6
Depreciation and amortisation, Continuing Operations	3.0	2.7	3.4

	2017	2016	2015
Salaries and bonuses	24.419	25.947	28.459
Employees at end of year	402	415	450
Average number of employees	409	437	494

## Financial statements

The Annual General Meeting adopted the financial statements and consolidated financial statements for the financial year 1 January – 31 December 2016 and discharged the Members of the Board of Directors and the President & CEO from liability for the financial year 1 January – 31 December 2016.

## Board of Directors

The number of the Members of the Board of Directors was resolved to be seven. At the Annual General Meeting, current Members of the Board Andreas Tallberg, Teuvo Salminen, Claus von Bonsdorff, Anu Hämäläinen, Sarlotta Narjus and Pekka Vauramo were re-elected for a term of office ending at the closing of the next Annual General Meeting. In addition, it was resolved that Kai Mäenpää M.Sc.(Eng.) be elected as a new Member of the Board of Directors for the same term of office.

The Annual General Meeting resolved that the annual remuneration payable to Members of the Board of Directors would remain as follows: the Chairman of the Board will be paid EUR 40,000, the Deputy Chairman EUR 30,000 and the other Members of the Board EUR 20,000.

After the Annual General Meeting, the Board of Directors held an organising meeting, at which it elected Andreas Tallberg as Chairman of the Board and Teuvo Salminen as Deputy Chairman of the Board.

## Auditor

The Annual General Meeting elected Authorised Public Accounting firm Ernst & Young Oy as the company's auditor, with Authorised Public Accountant Kristina Sandin as the main responsible auditor.

## Board authorisations

The Annual General Meeting authorised 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 authorisation covers a maximum of 20,000,000 shares. The authorisation does not exclude the Board of Directors' right to decide on a directed issue. It was proposed that the authorisation 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 authorised 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 authorisation is valid until 30 June 2018 and it invalidates earlier authorisations.

The Board of Directors did not exercise its authorisation in 2017.

## Decisions of the Extraordinary Meeting of Shareholders

An Extraordinary General Meeting of Glaston Corporation was held in Helsinki on 21 September 2017. The Extraordinary General Meeting resolved the number of Members of the Board of Directors to be eight. Furthermore, the meeting resolved that Tero Telaranta be elected as a new Member of the Board of Directors until the closing of the Annual General Meeting 2018.

## Nomination Board

Glaston Corporation's Nomination Board consists of the representatives of the four largest shareholders entered in the company's shareholder register on the first working day of September. In addition, the Chairman of the Glaston Corporation's Board of Directors serves as an advisory member of the Nomination Board.

Based on the ownership situation on 1 September 2017, the following were selected as members of Glaston's Nomination Board: Thomas Ahlström (AC Invest Eight B.V.), Jaakko Kurikka (Hymy Lahtinen Oy), Kalle Saariaho (OP-Finland Small Firms) and Stefan Björkman (Etera Mutual Pension Insurance Company). In its organising meeting held on 16 October 2017, the Nomination Board elected Thomas Ahlström from among

its members to be Chairman.

## Shares and share prices

Glaston Corporation's share capital on 31 December 2017 was EUR 12.7 million and the number of issued shares totalled 193,708,336. The company has one series of share. At the end of the year, 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.

During 2017, approximately 60.8 (31.9) million of Glaston's shares were traded on NASDAQ Helsinki Ltd, i.e. approximately 32 (17)% of the average number of registered shares. In the review period, the lowest price paid for a share was EUR 0.39 (0.33) and the highest price EUR 0.56 (0.51). The volume-weighted average price of shares traded in January-December was EUR 0.42 (0.38). The closing price on 30 December 2017 was EUR 0.47 (0.40).

On 31 December 2017, Glaston's market value, excluding treasury shares, was EUR 90.3 (77.2) million. The equity per share attributable to the owners of the parent was EUR 2.39 (2.17).

## Shareholders

At the end of the financial year, Glaston had 5,568 shareholders (5,748). At the end of the review period, 19.5% of Glaston's shares were in foreign ownership. Glaston Corporation's largest shareholders on 31 December 2017, the distribution of share ownership by number of shares, and the distribution of ownership by shareholder group are presented in Note 4 of the consolidated financial statements.

Glaston's largest shareholders changed on 21 June 2017, when Oy G.W.Sohlberg Ab sold its entire shareholding, a total of 17.17%. On the same day, the company's

largest shareholder became Ahlström Capital Oy, with a 17.52% shareholding.

Glaston Corporation is unaware of any shareholder agreements or arrangements relating to share ownership or the exercise of votes.

## Flagging notifications

During 2017, Glaston was informed of the following changes in ownership:

15 June 2017: Etera Mutual Pension Insurance Company's holding of all shares and votes in Glaston Corporation had fallen below 10%.

16 June 2017: OP-Rahastoyhtiö Oy's notification that OP-Suomi Pieniyhtiöt Fund's holding of shares and votes in Glaston Corporation had exceeded 5%.

21 June 2017: Oy G.W.Sohlberg Ab's holding of all shares and votes in Glaston Corporation had fallen to 0%.

21 June 2017: Ahlström Capital Oy's notification that AC Invest Eight B.V.'s holding of shares and votes in Glaston Corporation has exceeded 15%.

## Information pursuant of Ministry of Finance Ordinance 153/2007 not presented in other sections of the financial statements

According to the Articles of Association of Glaston Corporation, a shareholder whose proportion of all the company's shares or votes conferred by the shares – either alone or together with other shareholders as defined hereinafter – reaches or exceeds 33 1/3% or 50%, is obligated on the demand of the other shareholders to redeem their shares. This redemption obligation does not affect a shareholder who can show that the shareholding or voting rights limit entailing the redemption obligation was reached or exceeded before the relevant provision of the Articles of Association was entered in the Trade Register.

Glaston Corporation is not a party to arrangements by which financial rights connected with shares or the management of securities are separated from each other.

According to the Articles of Association of Glaston Corporation, a General Meeting of Shareholders elects the Board of Directors.

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. The Board of Directors appoints and dismisses the President & CEO. The Board of Directors has no special agreements with the company relating to compensation when the Board of Directors resigns or is dismissed or its function otherwise terminates as a result of a public tender offer. The President & CEO has a special agreement relating to compensation in the event that more than 50% of the company's shares is transferred to a new owner in connection with a merger or acquisition. The terms and conditions of the President & CEO's employment contract are presented in more detail in Note 30 to the consolidated financial statements.

The Articles of Association of Glaston Corporation contain no special provisions on the amendment of the Articles of Association.

## Related party loans

At the end of the review period, Glaston had no related party loans.

## Corporate Governance Statement

Glaston's Corporate Governance Statement is issued separately in the Annual Report.

## Separate financial statements of the parent company

The separate financial statements of Glaston Corporation have been prepared according to the Finnish Accounting Act, the Accounting

## Per share data

	2017	2016	2015
Equity per share attributable to owners of the parent, EUR	0.20	0.18	0.19
Return of capital/share, EUR <sup>1</sup> *	0.01	-	0.01
Return of capital yield, % <sup>1</sup> *	2.1	-	2.0
Price / earnings (P/E) ratio	30.7	75.3	-7.0
Price / equity attributable to owners of the parent per share	2.39	2.17	2.64
Share price at end of year, EUR	0.47	0.40	0.50
Market capitalisation, end of year, EUR million	90.3	77.2	96.5
Share turnover (1,000 shares)	60,779	31,898	63,607
Share turnover, % of average number of shares	31.5	16.5	32.7
Number of shares at end of the year	193,708,336	193,708,336	193,708,336
Average number of shares, excluding treasury shares	192,919,754	192,919,754	192,919,754

\*<sup>1</sup>) Board of Directors' proposal to AGM

Ordinance and other laws and regulations relating to financial statements. The consolidated financial statements of Glaston Group have been prepared in compliance with the International Financial Reporting Standards (IFRS).

Glaston Corporation's net sales in the financial period were EUR 2.73 (2.97) million and the operating profit was a loss of EUR 0.1 (0.8 loss) million. Glaston's net financial expenses were EUR -0.6 (-7.4) million. The result for the financial year was EUR 0.0 (5.7 loss) million.

The parent company had an average 9 (10) employees in the financial period and 9 (10) employees at the end of the year.

### Risks and risk management

Glaston operates globally, and changes in the development of the world econo-

my 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. The general increase in uncertainty may reduce willingness to invest and thereby negatively impact Glaston's order intake, net sales and earnings.

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 new technologies. The unit invests in new, early-stage technologies whose viability on a commercial scale is uncertain.

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. 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 payment terms and thus affect the Group's earnings and cash flow.

Glaston's most significant operational risks include management and possible quality problems related to large 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. Following a number of efficiency programmes, 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, digitalisation 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 emphasised.

The Glaston Group includes a number of units whose financial development has been unsatisfactory in recent years. Failure or delay in turning around these units may have a negative impact on the Group's earnings and cash flow.

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 recognise 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.

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.

Parent company information, EUR million	2017	2016	2015
Net sales	2.7	3.0	3.3
Operating profit	-0.1	-0.8	-6.0
Result before taxes and appropriations	-0.8	-8.2	-32.7
Income taxes for the financial year	-0.2	0.0	0.0
Result for the financial year	0.0	-5.7	-22.6
Balance sheet total	95.6	99.7	104.9
Shareholders' equity	54.2	54.2	61.8
Salaries and bonuses	1.4	1.2	1.7
Average number of employees	9	10	11

The parent company has no branches. The company has not granted related party loans other than to Group undertakings.

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

### Events after the closing date

On 2 January 2018, Glaston received a flagging notification, according to which Ilmarinen Mutual Pension Insurance Company owns 7.15% of all of the shares and votes of Glaston Corporation.

Following a decline in local demand, Glaston made a decision in January to discontinue the production operations of its Chinese joint venture Glaston Tools (Sanhe) Co., Ltd. The factory's operations will end during the first quarter of 2018. Glaston owns 70% of the joint venture, and its net sales were EUR 0.7 million in 2017.

On 31 January 2018, Glaston's Nomination Board made its proposal to the Annual General Meeting on the composition and remuneration of the Board of Directors. The Nomination Board proposes that the number of Members of the Board of Directors be seven, and that Antti Kaunonen and Sebastian Bondestam be elected as new members. As, according to the Company's Articles of Association, the Board of Directors elects from among its members a Chairman and Deputy Chairman, the Nomination Board recommends that the Board of Directors elect from among its members Teuvo Salminen as Chairman and Sebastian Bondestam as Deputy Chairman. The Nomination Board proposes that the annual remuneration of the Members of the Board of Directors be

increased by 15% and that accordingly the Chairman be paid EUR 46,000, the Deputy Chairman EUR 34,500 and the other Members of the Board EUR 23,000.

### Uncertainties and risks 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 has taken into account in its forecasts for the near future the development outlook for 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.

The Group's net sales are affected most by the level and timing of order intake as well as the geographical and product mix of orders. In terms of earnings, there is also uncertainty in meeting the planned delivery times and costs of customer projects. For Glaston, North America is a significant market, as a result of which a significant weakening of the US dollar would have an impact on the company's net sales, profit and, depending on the market willingness to invest, possibly also on future order intake.

### Outlook

The development of the glass processing market gradually improved during 2017, and

Glaston expects the positive development to continue in the current year. The strong growth expectations for the world economy support this view. Customers continue to take time over their investment decisions, which may cause delays in orders and fluctuations in quarterly order intake.

Although the order book at the end of 2017 was lower than the previous year, the good order intake of the second half of the year and positive market development create good conditions for profitable growth in 2018. We expect the full-year comparable operating profit to improve from 2017. (Full-year 2017 comparable operating profit was EUR 5.4 million.)

### Board of Directors' proposal on the distribution of profits

The distributable funds of Glaston Corporation are EUR 16,247,313, of which EUR 6,150 represents the profit 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 10 April 2018, that the profit for the financial year 2017 be added to retained earnings and that no dividend be distributed.

The Board of Directors proposes to the Annual General Meeting that, based on the balance sheet adopted for 2017, a return of capital of EUR 0.01 per share be paid. Capital will be repaid from the reserve for invested unrestricted equity. Capital will be repaid to shareholders who are registered in the com-

pany's register of shareholders, maintained by Euroclear Finland Ltd, on the record date for payment, 12 April 2018. The Board of Directors proposes to the Annual General Meeting that the return of capital be paid on 26 April 2018.

On the day that the proposal for the distribution of assets was made, the number of shares entitling to a return of capital was 192,919,754, which means that the total amount of the return of capital would be EUR 1,929,198.

Helsinki, 8 February 2018  
Glaston Corporation  
Board of Directors

# Consolidated Financial Statements



# Consolidated Statement of Financial Position

EUR thousand	Note	at 31 December		EUR thousand	Note	at 31 December	
		2017	2016			2017	2016
<b>Assets</b>				<b>Equity and liabilities</b>			
<b>Non-current assets</b>				<b>Equity</b>			
Goodwill	12,14	30,551	30,551	Share capital		12,696	12,696
Intangible assets	14	6,524	6,888	Share premium account		25,270	25,270
Property, plant and equipment		8,415	9,211	Other restricted equity reserves		70	75
Available-for-sale financial assets	17	2,999	3,230	Reserve for invested unrestricted equity		41,556	41,556
Loan receivables	19	450	863	Treasury shares	4	-3,308	-3,308
Deferred tax assets	11	1,011	2,165	Fair value reserve		149	103
<b>Total non-current assets</b>		<b>49,951</b>	<b>52,908</b>	Other unrestricted equity reserves		53	53
<b>Current assets</b>				Retained earnings and exchange differences		-41,646	-41,861
Inventories	18	9,887	11,898	Net result attributable to owners of the parent		2,938	1,025
Assets for current tax	11	136	182	<b>Attributable to owners of the parent</b>		<b>37,778</b>	<b>35,608</b>
Trade and other receivables	19	23,239	18,691	Non-controlling interest		228	280
Cash and cash equivalents				<b>Total equity</b>		<b>38,005</b>	<b>35,888</b>
Cash		12,386	17,374	<b>Non-current liabilities</b>			
<b>Total current assets</b>		<b>45,648</b>	<b>48,145</b>	Non-current interest-bearing liabilities	22	10,613	6,869
<b>Total assets</b>		<b>95,599</b>	<b>101,053</b>	Non-current provisions	23	1,560	1,377
				Deferred tax liabilities	11	326	358
				Defined benefit pension and other defined long-term employee benefit liabilities	21	493	493
				<b>Total non-current liabilities</b>		<b>12,993</b>	<b>9,097</b>
				<b>Current liabilities</b>			
				Current interest-bearing liabilities	22	2,644	9,878
				Current provisions	23	2,382	2,656
				Trade payables and other current interest-free liabilities	24	39,358	43,470
				Liabilities for current tax	11	218	64
				<b>Total current liabilities</b>		<b>44,601</b>	<b>56,068</b>
				<b>Total liabilities</b>		<b>57,593</b>	<b>65,165</b>
				<b>Total equity and liabilities</b>		<b>95,599</b>	<b>101,053</b>

# Consolidated Statement of Profit or Loss

EUR thousand	Liitetieto	1 January - 31 December	
		2017	2016
<b>Net sales</b>	5	<b>110,407</b>	<b>107,141</b>
Other operating income	7	1,703	1,069
Changes in inventories of finished goods and work in process	18	-1,802	-5,925
Own work capitalized		1,152	225
Materials	8	-51,384	-44,350
Personnel expenses	9	-24,419	-25,947
Other operating expenses	8	-27,689	-27,304
Depreciation, amortization and impairment charges	12	-2,991	-2,653
<b>Operating result</b>		<b>4,977</b>	<b>2,257</b>
Financial income	10	244	207
Financial expenses	10	-1,096	-878
Net financial expenses		-852	-671
<b>Profit / loss before income taxes</b>		<b>4,125</b>	<b>1,585</b>
Income tax expense	11	-1,223	-574
<b>Profit / loss for the year</b>		<b>2,902</b>	<b>1,011</b>
Attributable to non-controlling interest		-36	-14
<b>Attributable to owners of the parent</b>		<b>2,938</b>	<b>1,025</b>
Total		2,902	1,011
Net result attributable to owners of the parent, EUR thousand		2,938	1,025
Average number of shares (1,000 shares)		192,920	192,920
<b>Earnings per share (EPS), EUR, basic and diluted</b>		<b>0.02</b>	<b>0.01</b>

# Consolidated Statement of Comprehensive Income

EUR thousand	1 January - 31 December	
	2017	2016
<b>Profit / loss for the period</b>	<b>2,902</b>	<b>1,011</b>
<b>Other comprehensive income that will be reclassified subsequently to profit or loss:</b>		
Exchange differences on translating foreign operations	-797	42
Fair value changes of available-for-sale assets	9	-18
Cash flow hedges	39	-
Income tax on other comprehensive income	-2	4
Total	<b>-751</b>	<b>27</b>
<b>Other comprehensive income that will not be reclassified subsequently to profit or loss:</b>		
Exchange differences on actuarial gains and losses arising from defined benefit plans	4	-1
Actuarial gains and losses arising from defined benefit plans	-38	-19
Total	<b>-34</b>	<b>-20</b>
<b>Other comprehensive income for the reporting period, net of tax</b>	<b>-785</b>	<b>7</b>
<b>Total comprehensive income for the reporting period</b>	<b>2,117</b>	<b>1,018</b>
<b>Attributable to:</b>		
Owners of the parent	2,170	1,043
Non-controlling interest	-53	-25
<b>Total comprehensive income for the reporting period</b>	<b>2,117</b>	<b>1,018</b>

# Consolidated Statement of Changes in Equity

EUR thousand		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
2016	Note										
<b>Equity 1 January</b>		<b>12,696</b>	<b>25,270</b>	<b>43,484</b>	<b>-3,308</b>	<b>248</b>	<b>-47,082</b>	<b>5,186</b>	<b>36,493</b>	<b>305</b>	<b>36,798</b>
Total comprehensive income for the year	20	-	-	-	-	-17	1,005	55	1,043	-25	1,018
Change in non-controlling interest		-	-	-	-	-	-	-	-	-	-
Return of capital		-	-	-1,928	-	-	-	-	-1,928	-	-1,928
<b>Equity 31 December</b>		<b>12,696</b>	<b>25,270</b>	<b>41,556</b>	<b>-3,308</b>	<b>230</b>	<b>-46,077</b>	<b>5,241</b>	<b>35,608</b>	<b>280</b>	<b>35,888</b>

2017											
<b>Equity 1 January</b>		<b>12,696</b>	<b>25,270</b>	<b>41,556</b>	<b>-3,308</b>	<b>230</b>	<b>-46,077</b>	<b>5,241</b>	<b>35,608</b>	<b>280</b>	<b>35,888</b>
Total comprehensive income for the year	20	-	-	-	-	42	2,904	-776	2,170	-53	2,117
Change in non-controlling interest		-	-	-	-	-	-	-	-	-	-
Return of capital		-	-	-	-	-	-	-	-	-	-
<b>Equity 31 December</b>		<b>12,696</b>	<b>25,270</b>	<b>41,556</b>	<b>-3,308</b>	<b>272</b>	<b>-43,172</b>	<b>4,465</b>	<b>37,778</b>	<b>228</b>	<b>38,005</b>

## Distributable equity of the parent (FAS)

EUR thousand	2017	2016
Reserve for invested unrestricted equity	42,987	42,987
Treasury shares	-3,308	-3,308
Retained earnings	-23,437	-17,773
Net profit / loss for the period	6	-5,664
<b>Total</b>	<b>16,247</b>	<b>16,241</b>

Return of capital per share EUR <sup>1</sup>\* 0.01 -

\*<sup>1</sup> The Board of Directors' proposal to the Annual General Meeting.

# Consolidated Statement of Cash Flows

EUR thousand	1 January – 31 December		EUR thousand	1 January – 31 December	
	2017	2016		2017	2016
<b>Cash flows from operating activities</b>			<b>Cash flows from financing activities</b>		
Net result attributable to owners of the parent	2,938	1,025	Draw-down of non-current loans	6,025	3,201
Adjustments to net result attributable to owners of the parent <sup>(*)</sup>	2,951	2,845	Repayments of non-current loans	-660	-2
Depreciation, amortization and impairment	2,991	2,653	Change in current loan receivables (decrease +, increase -)	385	331
Interest received	238	214	Draw-down of current loans	2,000	2,301
Interest paid	-414	-611	Repayments of current loans	-10,549	-2,500
Dividends received	7	7	Return of capital	-	-1,928
Other financing items	-360	-316	<b>Cash flows from financing activities</b>	<b>-2,799</b>	<b>1,403</b>
Income taxes paid	14	-565	<b>Effect of exchange rate fluctuations</b>	<b>-245</b>	<b>311</b>
<b>Cash flows from operating activities before change in net working capital</b>	<b>8,365</b>	<b>5,252</b>	<b>Net increase (- decrease) in cash and cash equivalents</b>	<b>-4,987</b>	<b>11,308</b>
<b>Change in net working capital</b>			Cash and cash equivalents at end of period	12,386	17,374
Change in inventories	1,280	5,036	Cash and cash equivalents at beginning of period	17,374	6,066
Change in current receivables	-4,948	4,564	<b>Net increase (- decrease) in cash and cash equivalents</b>	<b>-4,987</b>	<b>11,308</b>
Change in interest-free current liabilities	-4,580	-1,412			
<b>Change in net working capital, total</b>	<b>-8,248</b>	<b>8,188</b>			
<b>Cash flows from operating activities</b>	<b>117</b>	<b>13,440</b>			
<b>Cash flows from investing activities</b>					
Capital expenditure in property, plant and equipment and intangible assets	-2,281	-3,919			
Proceeds from sale of property, plant and equipment and intangible assets	220	72			
<b>Cash flows from investing activities</b>	<b>-2,061</b>	<b>-3,846</b>			
<b>Cash flow before financing</b>	<b>-1,944</b>	<b>9,594</b>			

\*1) Non-cash flow items included in net result attributable to owners of the parent (e.g. gains / losses on the sale of non-current assets).

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

# Per Share Data

	2017	2016	2015
Earnings per share, EUR, continuing operations	0.015	0.005	0.001
Earnings per share, EUR, discontinued operations	-	-	-0.072
Earnings per share, EUR, basic and diluted	0.015	0.005	-0.071
Return of capital per share, EUR <sup>1*</sup>	0.01	-	0.01
Return of capital ratio, % <sup>1*</sup>	65.7%	-	-
Return of capital yield <sup>1*</sup>	2.1%	-	2.0%
Equity attributable to owners of the parent per share, EUR	0.20	0.18	0.19
Price per earnings per share (P/E) ratio	30.7	75.3	-7.0
Price per equity attributable to owners of the parent per share	2.39	2.17	2.64
Capital repayment, EUR million <sup>1*</sup>	1.9	-	1.9
Number of shares at the end of the year	193,708,336	193,708,336	193,708,336
Number of shares at the end of the year, treasury shares excluded	192,919,754	192,919,754	192,919,754
Number of shares, average, treasury shares excluded	192,919,754	192,919,754	192,919,754

	2017	2016	2015
<b>Share price and turnover</b>			
Share price, year high, EUR	0.56	0.51	0.60
Share price, year low, EUR	0.39	0.33	0.37
Share price, volume-weighted year average, EUR	0.42	0.38	0.50
Share price, end of year, EUR	0.47	0.40	0.50
Number of shares traded (1,000)	60,779	31,898	63,067
% of average number of registered shares	31.5%	16.5%	32.7%
Market capitalization, end of year, EUR million	90.3	77.2	96.5

\*<sup>1</sup> The Board of Directors' proposal to the Annual General Meeting.

# Definitions of Key Ratios

## Per share data

### Earnings per share (EPS), continuing operations

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

### Earnings per share (EPS), discontinued operations

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

### Earnings per share (EPS)

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

### Dividend per share <sup>1\*</sup>

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

### Dividend payout ratio <sup>1\*</sup>

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

### Dividend yield <sup>1\*</sup>

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

### 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

<sup>1\*</sup> Definitions are also applied with return of capital

# 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 the NASDAQ Helsinki Ltd. Small Cap in Helsinki, Finland. Glaston Corporation is the parent of Glaston Group and its registered office is at Lönnrotinkatu 11, 00120 Helsinki, Finland.

Glaston Group is an international glass technology company. Glaston is one of the leading manufacturers of glass processing machines globally. Its product range and service network are the most extensive in the industry. The operations of the Glaston Group are organized in one reportable segment, which are Machines and Services. Supporting activities include head office operations.

The Board of Directors of Glaston Corporation has in its meeting on 8 February 2018, 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 conven-

tion 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 2017, the Group will adopt the following published standards, interpretations and changes to existing standards and interpretations in its 2018 financial statements or later.

### IFRS 15 Revenue from Contracts with Customers

(to be applied for the reporting periods beginning on 1 January 2018 )

IFRS 15 establishes a five-step model for the recognition of sales revenue arising from contracts with customers. Revenue is recognised in an amount that reflects the consideration to which the entity expects to be entitled in exchange for goods delivered or services rendered. The disclosure requirements are extended from the present.

When the terms of the over time revenue recognition are satisfied in accordance with

the principles of the new standard, Glaston will recognise the revenue from tailor-made glass processing deliveries over time. As a recognition practice, Glaston will apply the cost-to-cost method, i.e. the share of accumulated project costs compared to total estimated costs will be used as the degree of completion (progress towards the performance obligation under IFRS 15.39). Revenue recognition will take place over time as costs accumulate and are recognised for the project. Revenue recognition according to degree of completion will bring forward the timing of revenue recognition, and revenue recognition will be distributed over the entire period of a project more evenly than at present. In the balance sheet, the change will reduce the amount of works in progress in inventories. For the tailor-made glass processing deliveries that do not satisfy the terms of the over time revenue recognition, the revenue is recognized when the machine has been taken into use by the customer.

Glaston will apply the network standard in full retrospectively from 1 January 2018, and will prepare a restated income statement and balance sheet for 2017.

### IFRS 9 Financial Instruments

(to be applied for the reporting periods beginning on 1 January 2018 )

IFRS 9 includes new guidance on the classification and measurement of financial assets, including a new expected credit loss model for calculating impairment on financial assets as well as new general hedge accounting requirements.

Under IFRS 9, financial assets are classified into three measurement categories: amortised cost, fair value through other comprehensive income items and fair value through profit and loss. The category is determined at original recognition. Glaston will apply the new standard on 1 January 2018.

The amendment of the standard does not affect the classification of the Group's financial assets. The standard changes the calculation of impairment on the Group's current receivables and the amount of credit loss provision, but the change has no significant impact on the consolidated financial statements.

### IFRS 16 Leases

(to be applied for the reporting periods beginning on 1 January 2019 or later)

IFRS 16 replaces the existing guidance IAS 17 Leases. Under IFRS 16, all lease contracts over 12 months in length are recognised in the lessee's balance sheet. The lessee recognises in the balance sheet 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. From the lessor's perspective, reporting will remain the same

as at present under the existing standard, i.e. leases are still divided into finance leases and other leases.

The new lease standard will have an impact on the Company's income statement, balance sheet and key figures. Under the new standard, Glaston will recognise in the balance sheet assets and liabilities covered by current premises and vehicle leases. In the income statement, 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 calculate the effects of the new standard during the next 12 months and will apply the new standard on the required application date.

Management estimates that the other published new IFRSs, IFRIC interpretations and changes to existing standards and interpretation will have no material affect on Glaston 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 available-for-sale financial assets and presented in the statement of financial position at fair value, 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, the income statements, 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 income statements, 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

Financial assets and liabilities of Glaston have been classified as financial assets and liabilities at fair value through profit or loss, loans and receivables, available-for-sale financial assets and financial liabilities measured at amortized cost.

A financial asset is derecognized from the statement of financial position when Glaston's contractual rights to the cash flows from the financial asset expire or the financial asset is transferred to an external party and the transfer fulfils the asset derecognition criteria of IAS 39.

A financial liability or a part of a financial liability is removed from the statement of financial position when the liability is extinguished, i.e. when the obligation specified in the contract is discharged or cancelled or expired.

### Derivative Financial Instruments at Fair Value through Profit or Loss and Hedge Accounting

Derivative contracts are entered in the balance sheet 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 criteria are financial assets and liabilities acquired for trading and entered at fair value through profit and loss, and whose

changes of value are recognised immediately through profit and loss. At the end of reporting period 2017, Glaston had open foreign exchange forward contracts. At the end of reporting period 2016, Glaston had electricity forward contracts.

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 effectiveness of the hedging relationship is tested regularly and the effective portion is recognised, against the change in the fair value of the hedged item, in translation differences in equity, or in the revaluation reserve. The ineffective portion is recognised either in financial items or in other operating income and expenses, depending on its nature.

If the hedging accounting criteria are met, cash flow hedge accounting under IAS 39 is applied with respect to foreign exchange derivatives. During the reporting period 2017, hedge accounting was used to hedge accounts receivable from projects. In 2016, hedge accounting was not used. If the hedge accounting criteria are not met, the result of hedging instruments when hedging a commercial foreign exchange risk are recognised in profit and loss within other operating income or expenses.

Derivative instruments are included in the balance sheet in current assets and liabilities. Trade date accounting is used in recognising sales and purchases of derivatives.

### Other Assets and Liabilities at Fair Value through Profit or Loss

Other assets and liabilities at fair value through profit or loss can include mainly Glaston's current investments, which are classified as held for trading, i.e. which have been acquired or incurred principally for the purpose of selling them in the near future. Other assets and liabilities at fair value through profit or loss are included in current assets or liabilities in the statement of financial position.

Fair values of other financial assets and liabilities at fair value through profit or loss are estimated to approximate their carrying amounts because of their short maturities. Trade date accounting is used in recognizing purchases and sales of other assets and liabilities at fair value through profit or loss.

### Loans and Receivables

Loans and receivables are assets which are not included in derivative assets. Loans and 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.

Loans and receivables include loan receivables, trade receivables, other receivables and cash. 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. Estimate made for doubtful receivables is based on a periodic review of all outstanding amounts. For example payment defaults or late payments are considered as indications of impairment of the receivable. 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. Estimate made for doubtful receivables is based on a review of all outstanding amounts at the end of the reporting period. For example payment defaults or late payments are considered as indications of impairment of the receiv-

able. 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.

#### **Available-for-sale Financial Assets**

Available-for-sale financial assets are assets not classified as derivative assets, assets at fair value through profit or loss or loans and receivables.

Glaston has classified other shares than shares in associates as available-for-sale financial assets.

Glaston records changes in fair value of available-for-sale assets as other comprehensive income net of tax, and they are included in the fair value reserve in equity until the assets are disposed of, at which time changes in fair value are reclassified from equity into profit or loss items.

Listed investments are measured at the market price at the end of the reporting period. Investments, for which fair values cannot be measured reliably, such as unlisted equities, are reported at cost or at cost less impairment. If the available-for-sale asset is impaired, impairment loss is recognized immediately in profit or loss.

Trade date accounting is used in recognizing purchases and sales of available-for-sale financial assets.

Available-for-sale assets 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 2017 and 2016 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 is recognized after the risks and rewards of ownership of the goods have been transferred to the buyer. Normally, revenue recognition takes place at the date of the delivery in accordance with the delivery terms. Revenue from services rendered and repair work made is recognized in profit or loss when the service has been rendered or the work has been finished.

Revenue from tailor-made glass processing machine deliveries is recognized based on a milestone method with two milestones. Revenue from a glass processing machine is recognized when the machine delivery leaves the manufacturing plant and the revenue from the installation is recognized when the machine has been installed and is taken into use by the customer. The portion of the total estimated costs of the project, allocated to the revenue recognized, is recognized in profit or loss simultaneously with the revenue recognition. Costs which are 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 29 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, measuring available-for-sale assets 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 balance sheet if its cost can be measured reliably and it is probable that the expected future eco-

conomic 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 2017 or 2016 Glaston did not have any qualifying assets.

### 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 labour 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 2017 or 2016 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 income statement. 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 income statement 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 realisable value. Cost is determined on a first in first out (FIFO) basis, or alternatively, weighted average cost. Net realisable

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 labour, 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 realisable 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

In June 2015, Glaston Corporation completed the sale of the pre-processing machines business and reorganized its business and reporting structure. As a result of the sale, Glaston re-evaluated its reporting segments and, as of 1 July 2015, combined the operating segments, Machines and Services, into a single reporting segment. The remaining 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 Judgements

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

Dividends and/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.

When calculating diluted earnings per share, the net result attributable to owners of the parent is adjusted with the effect on profit or loss of the convertible bond and the weighted share-issue adjusted average number of shares outstanding during the

year is adjusted by the effect of the convertible bond on the number of shares.

Earnings per share arising from continuing and discontinued operations are presented separately.

### 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 and tools. 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.

# Critical Accounting Estimates and Judgements

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 that can have an effect on the result of the reporting period. At the end of the reporting period of 2017, Glaston had EUR 4.5 (4.4) million capitalized development expenditure on its balance sheet.

Measurement of inventories and trade and loan receivables includes some management estimates. Inventories are measured at lower of cost and net realisable value. Net realisable 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 realisable 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, pay-

ment 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 9.9 (11.9) million, the carrying amount trade receivables was EUR 18.9 (16.2) million and the carrying amount of loan receivables was EUR 1.9 (1.1) 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 totalling EUR 1.0 (2.2) million and deferred tax liabilities totalling EUR 0.3 (0.4) 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 totalling EUR 3.6 (3.8) 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.

# 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 functional currency.

The invoicing currency for a large proportion of the Group's deliveries is the euro, which is also the Group's functional 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 33 per cent of the net sales of Continuing Operations in 2017 (40 per cent). The Euro and US dollar together accounted for approximately 92 per cent of the invoicing of Continuing Operations in 2017 (87 per cent).

The Group did not have major foreign currency denominated loans at 31 December 2016. 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 functional currency of the Group.

The objective for foreign exchange risk management is to safeguard the results of Group companies from unexpected currency fluctuations. Possible hedging of foreign exchange risk is conducted in accordance with the Treasury Policy, and Group companies are responsible for reporting their respective foreign currency items. In 2017, large USD-denominated orders as well as, in accordance with the Treasury Policy, a proportion of orders to be fulfilled with high probability over the next 18 months were hedged using foreign exchange forward contracts.

Glaston applied hedge accounting as defined by IAS 39 in 2017. 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 2017. The analysis takes into consideration the impact of foreign exchange derivatives, if such instruments have been used, which offsets the effects of changes in foreign exchange rates.

In the table below, the effect of the main currencies on consolidated result before taxes has been analysed. Only risks that are related to financial instruments are included in the analysis.

EUR thousand	Gross position	Change in currency rate	
		-10 per cent	+ 10 per cent
USD/EUR	4,367	485	-397
BRL/EUR	-569	-63	52
CNY/EUR	-2,510	-279	228
GBP/EUR	-267	-30	24
	1 021		

### Interest Rate Risk

Possible changes in market interest rates present a risk that will affect the result of the Group. The objective of interest risk management is to minimise, if necessary, the effect of interest rate fluctuations on the Group's annual result.

As a measure of the management of interest rate risk, the impact of a one percentage point change in market interest rates on the Group's interest expenses over the next 12-month period has been used. At the end of 2017, this impact was EUR 90,000 and at the end of 2016 EUR 133,000. The decrease is due to a reduction in the loan capital compared with the previous year.

On 31 December 2017, the Group's interest-bearing net debt mainly consisted of loans agreed with lenders in the financing agreement signed in 2017 as well as a TyEL loan withdrawn during 2016.

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 2017 is EUR -0.09 / +0.05 (2016, -0.13 / +0.07) 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 2017, 17.0 (39.0) 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.

### 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 of Continuing Operations on 31 December 2017, was EUR 18.9 million (EUR 16.2 million).

Ageing analysis and changes in allowance account of trade receivables are presented in Note 19 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.

### Committed credit facilities

EUR million	In use	Unused	Total
Committed credit facilities 31.12.2017	6.9	18.1	25.0
Committed credit facilities 31.12.2016	13.8	8.2	22.0

### Maturity analysis of financial liabilities 31 December 2017

EUR thousand

Maturity of financial liabilities	Carrying amount	Contractual cash flows	Maturing in		
			< 12 months	1-2 years	> 2 years
Financial liabilities					
Credit facilities	2,644	2,662	2,662	-	-
Other interest-bearing loans	10,613	11,516	184	3,012	8,320
Trade payables	11,160	11,160	11,160	-	-

### Maturity analysis of financial liabilities 31 December 2016

EUR thousand

Maturity of financial liabilities	Carrying amount	Contractual cash flows	Maturing in		
			< 12 months	1-2 years	> 2 years
Financial liabilities					
Credit facilities	9,801	9,874	9,874	-	-
Other interest-bearing loans	6,947	7,259	78	5,248	1,934
Trade payables	10,033	10,033	10,033	-	-
Forward contracts					
- inflow	331	331	331	-	-
- outflow	359	359	359	-	-

Maturity of rental obligations is presented in Note 27 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.

EUR thousand	31 December, 2017	31 December, 2016
<b>Interest-bearing net debt</b>		
Non-current interest-bearing liabilities	10,613	6,869
Current interest-bearing liabilities	2,644	9,878
Cash and cash equivalents	-12,386	-17,374
<b>Total</b>	<b>870</b>	<b>-626</b>
<b>Equity</b>		
Attributable to owners of the parent	37,778	35,608
Non-controlling interest	228	280
<b>Total</b>	<b>38,005</b>	<b>35,888</b>
Total assets	95,599	101,053
Advances received	-11,552	-17,981
<b>Total</b>	<b>84,047</b>	<b>83,072</b>
Equity ratio, %	45.2%	43.2%
Net gearing, %	2.3%	-1.7%

The consolidated equity and thus the capital structure is decreased by dividends 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 193,708,336 (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 2017 and 2016, 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.

## Share Trading

During 2017, the highest price of the Glaston share was EUR 0.56 (0.51) and the lowest price EUR 0.39 (0.33). The average volume-weighted share price was EUR 0.42 (0.38).

At the end of 2017, the share price stood

at EUR 0.47 (0.40). The turnover of the share in NASDAQ Helsinki Ltd. in 2017 was 60,778,743 (31,898,450) shares and in euro-terms EUR 26.3 (12.1) million. Number of shares traded was 31.9 (16.5) per cent of the average share stock. Market capitalization at the end of 2017 was approximately EUR 90.3 (77.2) million.

## Notifications as per Section 5 of Chapter 9 of the Securities Market Act

On 21 June 2017 Glaston Corporation received a notification pursuant to chapter 9, section 5 of the Securities Market Act from Ahlström Capital Oy, according to which AC Invest Eight B.V.'s ownership of shares and votes in Glaston Corporation had exceeded 15% following an acquisition of shares on 21 June 2017.

On 21 June 2017 Glaston Corporation received a notification pursuant to chapter 9, section 5 of the Securities Market Act from Oy G.W.Sohlberg Ab, according to which the ownership of shares and votes in Glaston Corporation had fallen to 0% following a disposal of shares on 21 June 2017.

On 16 June 2017 Glaston Corporation received a notification pursuant to chapter 9, section 5 of the Securities Market Act from OP-Rahastoyhtiö Oy, according to which OP-Suomi Pieniyhtiöt Fund's ownership of shares and votes in Glaston Corporation

has exceeded 5% following an acquisition of shares on 15 June 2017.

On 15 June 2017 Glaston Corporation received a notification pursuant to chapter 9, section 5 of the Securities Market Act from Etera Mutual Pension Insurance Company, according to which the ownership of shares and votes in Glaston Corporation had fallen below 10% following a disposal of shares on 15 June 2017. Etera Mutual Pension Insurance Company holds 7.15% of all shares and votes in Glaston.

## Authorizations of the Board of Directors

The Annual General Meeting of Glaston Corporation was held on 4 April 2017 in Helsinki. The General Meeting authorised the Board of Directors to decide on the issuance of shares as well as the issuance of options and other rights entitling to shares. The authorisation consists of up to 20,000,000 shares in the aggregate.

The authorisation does not exclude the Board of Directors' right to decide on a directed issue. The authorisation was proposed to be used for material arrangements from the company's point of view, such as financing or implementing business arrangements or investments or for other such purposes determined by the Board of Directors in which case a weighty financial reason for issuing shares, options or other

rights and possibly directing a share issue would exist.

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

The Board of Directors is authorised 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 subscription price or allocation of shares, option or other rights free of charge or that the subscription price may be paid besides in cash also by other assets either partially or entirely.

The authorisation is effective until 30 June 2018. The authorisation supersedes earlier authorisations.

<b>Number of shares and treasury shares</b>	<b>2017</b>	<b>2016</b>
<b>Number of shares (registered)</b>		
Number of shares 1 January	193,708,336	193,708,336
Number of shares 31 December	193,708,336	193,708,336
Treasury shares 31 December	-788,582	-788,582
<b>Number of shares 31 December, excluding treasury shares</b>	<b>192,919,754</b>	<b>192,919,754</b>
<b>Average number of shares 31 December, excluding treasury shares.</b>	<b>192,919,754</b>	<b>192,919,754</b>
<b>Acquisition and disposal of treasury shares</b>		
Treasury shares 1 January, shares	788,582	788,582
<b>Treasury shares 31 December, shares</b>	<b>788,582</b>	<b>788,582</b>
Treasury shares 1 January, EUR thousand	3,308	3,308
<b>Treasury shares 31 December, EUR thousand</b>	<b>3,308</b>	<b>3,308</b>

<b>Equity attributable to owners of the parent per share</b>	<b>2017</b>	<b>2016</b>
Equity attributable to owners of the parent, EUR thousand	37,778	35,608
Number of shares	192,919,754	192,919,754
<b>Equity attributable to owners of the parent per share, EUR</b>	<b>0.20</b>	<b>0.18</b>
<b>Distribution of profit</b>		
Return of capital per share, EUR <sup>*)</sup>	0.01	-

<sup>\*)</sup> The Board of Directors' proposal to the Annual General Meeting.

#### **Share-based incentive plan and management's shareholding**

The share-based incentive plan is presented in detail in Note 29. The Board of Directors' and Executive Management Group's share ownership is presented in detail in Note 30.

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.

## Largest shareholders 31 December 2017

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 Etera Mutual Pension Insurance Company	13,843,878	7.1%
4 OP-Finland Small Firms Fund	13,828,503	7.1%
5 Varma Mutual Pension Insurance Company	12,786,643	6.6%
6 Evli Finnish Small Cap Fund	9,467,361	4.9%
7 Hulkko Juha Olavi	4,000,000	2.1%
8 Päivikki and Sakari Sohlberg Foundation	3,965,600	2.0%
9 Oy Investsum Ab	3,358,000	1.7%
10 Kirkon Eläkerahasto	3,142,600	1.6%
11 Danske Invest Finnish Small Cap Fund	2,500,000	1.3%
12 Sijoitusrahasto Taaleritehdas Mikro Markka	2,375,600	1.2%
13 Säästöpankki Pienyhtiöt	2,307,860	1.2%
14 Sumelius-Fogelholm Birgitta	1,944,734	1.0%
15 Sumelius Bjarne Henning	1,801,504	0.9%
16 Metsänen Arto Juhani	1,750,000	0.9%
17 Von Christierson Charlie	1,600,000	0.8%
18 Oy Nissala Ab	1,500,000	0.8%
19 Sumelius Christer	1,255,076	0.6%
20 Sumelius-Koljonen Barbro	1,235,988	0.6%
<b>20 largest shareholders total</b>	<b>139,994,789</b>	<b>72.3%</b>
Nominee registered	1,592,347	0.8%
Other shares	52,121,200	26.9%
<b>Total</b>	<b>193,708,336</b>	<b>100.0%</b>
Treasury shares	-788,582	0.4%
<b>Total excluding treasury shares</b>	<b>192,919,754</b>	<b>99.6%</b>

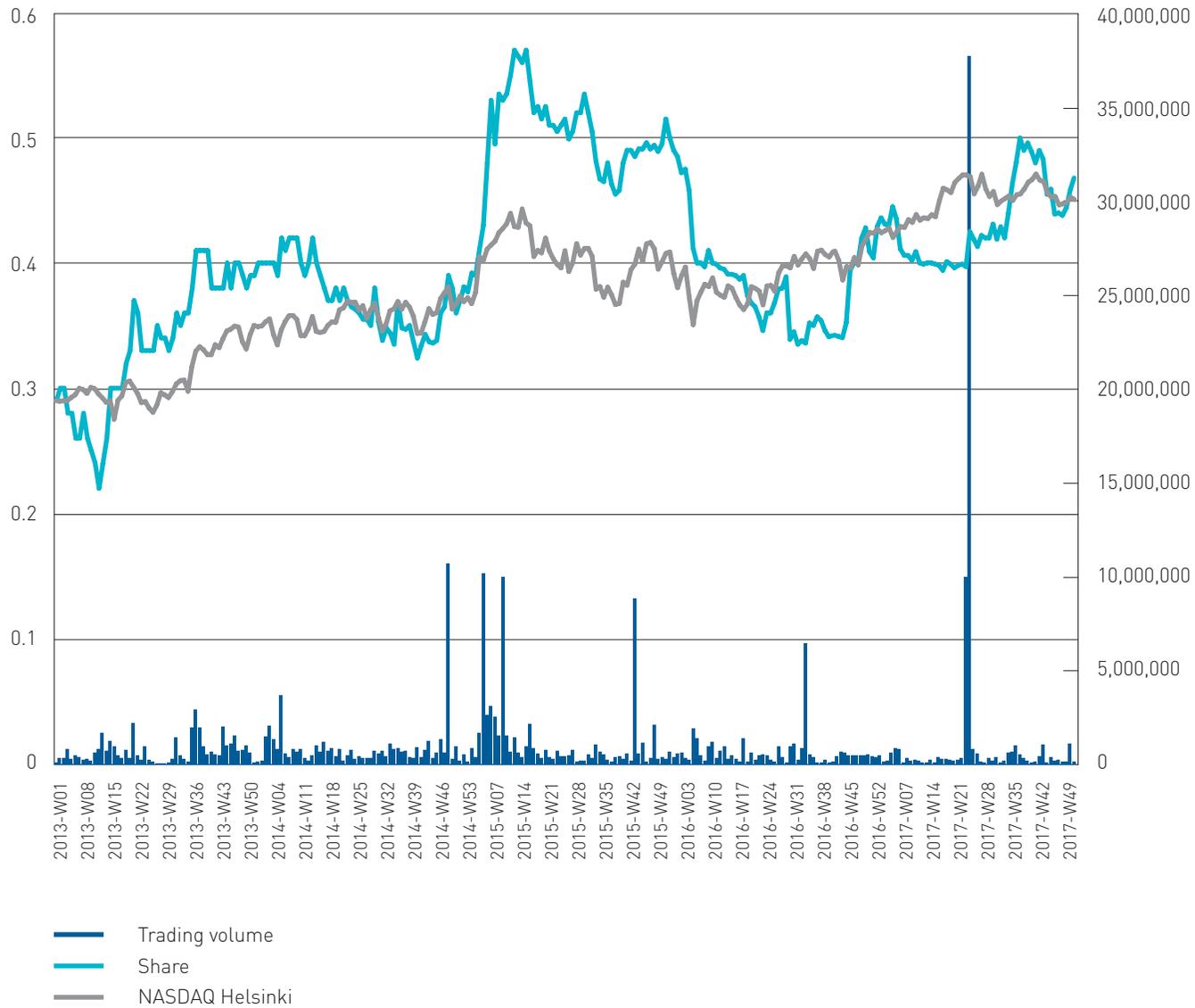
## Ownership distribution 31 December 2017

	Shares total	% of shares and votes
Households	52,708,074	27.2%
Public sector institutions	29,793,121	15.4%
Financial and insurance institutions	27,670,634	14.3%
Corporations	39,623,781	20.5%
Non-profit institutions	4,423,280	2.3%
Foreign countries	37,821,899	19.5%
<b>Total</b>	<b>192,040,789</b>	<b>99.1%</b>
Nominee registered	1,592,347	0.8%
<b>Total</b>	<b>193,633,136</b>	<b>100.0%</b>
Common Accounts	75,200	0.0%
<b>Total</b>	<b>193,708,336</b>	<b>100.0%</b>

## Shareholders by share ownership 31 December 2017

Number of shares	Number of shareholders	% of shareholders	Shares total	% of shares and votes
1-100	473	8.5%	27,463	0.0%
101-1000	2,222	39.9%	1,222,479	0.6%
1 001-10 000	2,209	39.7%	8,479,796	4.4%
10 001-100 000	550	9.9%	16,505,793	8.5%
10 0001-99 999 999	114	2.0%	167,397,605	86.4%
<b>Total</b>	<b>5,568</b>	<b>100.0%</b>	<b>193,633,136</b>	<b>100.0%</b>
Common accounts			75,200	0.0%
<b>Number of shares issues</b>			<b>193,708,336</b>	<b>100.0%</b>

### Share price development and trading volume



# Segment Information

As of 1 July 2015, Glaston has one reportable segment that consists of two operating segments, Machines and Services. These previously separately reported segments 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. As of 1 July 2015, the remaining 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.

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.

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.

## Reportable segment

EUR thousand

2017	Machines	Services	Unallocated and Total eliminations and		Total
			segment	adjustments	
External net sales	69,045	40,637	109,683	725	110,407
Internal net sales	250	2,435	2,686	-2,686	-
<b>Total net sales</b>	<b>69,295</b>	<b>43,073</b>	<b>112,368</b>	<b>-1,961</b>	<b>110,407</b>
<b>Comparable operating result of the segment</b>					<b>5,352</b>
Items affecting comparability					-375
<b>Operating result</b>					<b>4,977</b>
Financial items					-852
Income taxes					-1,223
Profit / loss for the year, discontinued operations					-
<b>Result for the reporting period</b>					<b>2,902</b>
Segment assets					78,263
Other assets					17,336
<b>Total assets</b>					<b>95,599</b>
Segment liabilities					43,786
Other liabilities					13,808
<b>Total liabilities</b>					<b>57,593</b>
<b>Operative net working capital</b>					<b>34,477</b>

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

2016	Machines	Services	Total segment	Unallocated and eliminations and adjustments	Total
External net sales	66,957	40,033	106,989	151	107,141
Internal net sales	423	1,729	2,153	-2,153	-
<b>Total net sales</b>	<b>67,380</b>	<b>41,762</b>	<b>109,142</b>	<b>-2,002</b>	<b>107,141</b>
<b>Comparable operating result of the segments</b>					<b>2,762</b>
Items affecting comparability					-504
<b>Operating result</b>					<b>2,258</b>
Financial items					-671
Income taxes					-574
Profit / loss for the year, discontinued operations					-
<b>Result for the reporting period</b>					<b>1,013</b>
Segment assets					76,848
Other assets					24,205
<b>Total assets</b>					<b>101,053</b>
Segment liabilities					47,985
Other liabilities					17,180
<b>Total liabilities</b>					<b>65,165</b>
<b>Operative net working capital</b>					<b>28,863</b>

The items affecting comparability of January-December 2016, in total EUR 0,5 million negative, consist of personnel and other costs related to business restructuring in China and Brazil.

#### Non-cash income and expenses included in operating result <sup>1</sup>\*

	2017	2016
Segment total	-2,061	-3,668
Unallocated	1	0
<b>Total non-cash expenses and income</b>	<b>-2,060</b>	<b>-3,668</b>

\*<sup>1</sup>) Excluding impairment.

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.

Non-cash income and expenses in 2016 included the following items: impairment losses of trade receivables EUR -0.6 million, impairment losses of inventory EUR -0.6 million, changes in provisions EUR -2.4 million.

## Orders received and order book

EUR million	2017	2016
<b>Orders received</b>		
Machines	63.8	72.3
Services	39.9	40.6
<b>Total</b>	<b>103.7</b>	<b>112.9</b>
<b>Order book</b>		
Machines	31.5	39.9
Services	3.7	5.7
<b>Total</b>	<b>35.2</b>	<b>45.6</b>
<b>Personnel</b>		
<b>Number of personnel at the end of the year</b>	<b>402</b>	<b>415</b>
<b>Number of personnel at the end of the year by geographical location</b>		
Finland	168	162
Other EMEA <sup>1*</sup>	64	63
Americas <sup>1*</sup>	54	65
Asia <sup>1*</sup>	116	125
<b>Total number of personnel</b>	<b>402</b>	<b>415</b>

## Entity-wide disclosures

EUR million	2017	2016
<b>Net sales by product groups</b>		
Goods sold	105,146	102,559
Services rendered	5,261	4,582
<b>Total</b>	<b>110,407</b>	<b>107,141</b>
<b>Net sales by country by destination</b>		
Finland	1,180	619
Other EMEA <sup>1*</sup>	50,617	41,806
Americas <sup>1*</sup>	41,296	43,711
Asia <sup>*</sup>	17,314	21,005
<b>Total</b>	<b>110,407</b>	<b>107,141</b>
<b>Property, plant and equipment and intangible assets by geographical location (goodwill excluded)</b>		
Finland	9,883	10,130
Other EMEA <sup>1*</sup>	262	290
Americas <sup>1*</sup>	221	308
Asia <sup>1*</sup>	4,573	5,370
<b>Total property, plant and equipment and intangible assets, goodwill excluded</b>	<b>14,939</b>	<b>16,098</b>

<sup>1)</sup> EMEA = Europe, the Middle East and Africa

Americas = North, Central and South America

Asia = China and the rest of the Asia-Pacific area

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

## Construction Contracts

### Construction Contracts

EUR thousand	2017	2016
Total revenue from construction contracts included in net sales during the reporting period	67,803	69,018
Construction contracts in progress at the end of reporting period: revenue recognized during the reporting period and previous reporting periods	54,219	38,998

Gross amounts due from / to customers	Gross amount due from customers as an asset	Gross amount due to customers as a liability	Carrying amount, net
2017			
Projects where recognized revenue exceeds advances received	44,782	34,032	10,750
Projects where advances received exceed recognized revenue	45	10,798	10,753
Gross amounts due from / to customers	44,827	44,831	

### 2016

Projects where recognized revenue exceeds advances received	44,307	35,208	9,100
Projects where advances received exceed recognized revenue	64	16,529	16,465
Gross amounts due from / to customers	44,372	51,737	

Projects where recognized revenue exceeds advances received: net carrying amount is included in trade receivables (Note 19).

Projects where advances received exceed recognized revenue: net carrying amount is included in advances received (Note 24).

## Other Operating Income

### Other Operating Income

EUR thousand	2017	2016
Capital gains on sale of property, plant and equipment	413	5
Rents	951	785
Government grants	26	139
Insurance compensation	7	4
Other income	305	135
<b>Other operating income total</b>	<b>1,703</b>	<b>1,069</b>

Government grants are essentially related to regional headquarter compensation.

# Materials and Other Operating Expenses

EUR thousand	2017	2016
Materials		
Materials and supplies, purchases during the period	-51,770	-44,810
Change in inventories of materials and supplies	386	460
<b>Total materials</b>	<b>-51,384</b>	<b>-44,350</b>
Other operating expenses		
Leases	-2,816	-2,845
Losses on sale of property, plant and equipment	-97	-15
Losses from sale of investment	-240	-0
Subcontracting and maintenance	-3,827	-3,634
Commissions	-2,035	-1,555
Freight expenses	-3,118	-3,198
Travel expenses	-4,133	-4,604
External services, not production related	-1,934	-2,488
IT, internet and phone	-2,640	-3,265
Electricity, heating	-1,064	-1,027
Marketing expenses	-1,083	-1,240
Other expenses	-4,702	-3,433
<b>Total other operating expenses</b>	<b>-27,689</b>	<b>-27,304</b>
Fees for professional services rendered by principal auditors		
Auditing, EY	-228	-265
Auditing, other auditing companies	-24	-19
Tax advisory, other auditing companies	-29	-
Other services, EY	-4	-19
<b>Total</b>	<b>-286</b>	<b>-303</b>

The principal auditor of Glaston Group during the financial years of 2017 and 2016 has been Ernst & Young.

tuhatta euroa	2017	2016
Principal auditor's audit fees of the audit of the financial year Ernst & Young	-223	-233
Research and development costs		
Recognized in profit or loss	-2,598	-1,587
Amortization, impairment losses and reversals of impairment losses of capitalized development costs during the reporting period, net	-1,250	-962
<b>Total</b>	<b>-3,848</b>	<b>-2,550</b>
As a percentage of net sales	3,5%	2,4%
Capitalized development costs during the reporting period	1,379	1,416
<b>Capitalized development costs during the reporting period, total</b>	<b>1,379</b>	<b>1,416</b>

# Employee Benefits and Number of Personnel

EUR thousand	2017	2016
Employee benefits		
Wages and salaries	19,247	20,036
Pension expenses	2,586	2,585
Other personnel expenses	2,576	3,317
Other post-employment benefits	10	9
<b>Total personnel expenses</b>	<b>24,419</b>	<b>25,947</b>

Share-based incentive plans are described in more detail in Note 29 to the consolidated financial statements.

Pension expenses		
Defined benefit plans	-8	-4
Defined contribution plans	2,594	2,589
<b>Total pension expenses</b>	<b>2,586</b>	<b>2,585</b>

Pension benefits are presented in more detail in Note 21 to the consolidated financial statements.

Number of personnel		
Number of personnel, average	409	437
Personnel in Finland, end of the period	168	162
Personnel outside Finland, end of the period	234	253
<b>Total</b>	<b>402</b>	<b>415</b>
<b>Personnel, at the end of the period</b>	<b>402</b>	<b>415</b>

# Financial Income and Expenses

EUR thousand	2017	2016
Recognized in profit or loss		
<b>Interest income</b>		
Interest income on loans and receivables	237	200
Other interest income	-	0
Total interest income	237	200
<b>Dividend income</b>		
Dividend income on available-for-sale financial assets	7	7
<b>Interest expenses</b>		
Interest expenses on financial liabilities measured at amortized cost	-410	-621
Other interest expenses	-1	-0
Total interest expenses	-411	-621
<b>Other financial expenses</b>		
On financial liabilities measured at amortized cost	-287	-189
On bank fees	-108	-113
Currency derivatives financial	6	-
Other financial expenses	-6	-57
Total other financial expenses	-394	-359
<b>Foreign exchange differences, net</b>		
On financial liabilities measured at amortized cost	-65	2,234
On loans and receivables	-748	439
Other foreign exchange gains and losses	522	-2,571
Total foreign exchange differences	-291	102
<b>Total financial income and expenses in financial items</b>	<b>-852</b>	<b>-671</b>

EUR thousand	2017	2016
<b>Net foreign exchange differences in operating result</b>		
Net sales	166	-264
Purchases	-390	-77
Other operating expenses	-54	305
<b>Total</b>	<b>-279</b>	<b>-36</b>
Derivatives recognized in profit or loss		
<b>Currency derivatives, hedge accounting</b>		
Realized currency derivatives recognized in net sales	249	-
Unrealized currency derivatives recognized in net sales	-	-
<b>Total</b>	<b>249</b>	<b>-</b>
<b>Electricity derivatives, non-hedge accounting</b>		
Realized electricity derivatives recognized in operating expenses	27	95
Unrealized electricity derivatives recognized in operating expenses	-	-28
<b>Total</b>	<b>27</b>	<b>67</b>
Recognized in other comprehensive income		
Fair value changes of available-for-sale financial assets	9	-18
<b>Total in other comprehensive income</b>	<b>9</b>	<b>-18</b>

Borrowing costs were not capitalized in Glaston Group in 2017 or 2016 as Glaston has not had any qualifying assets as defined in IAS 23 Borrowing Costs.

Impairment losses on trade receivables are presented in Note 19.

Impairment losses of loan receivables

In 2017 or in 2016, no impairment loss of loan receivables was recognized.

# Income Taxes

EUR thousand	2017	2016
Income tax charge in income statement		
Current income tax charge	-371	-238
Adjustments in respect of current income tax of previous years	186	-59
Deferred tax charge	-1,015	-198
Other	-22	-79
<b>Total income tax charge</b>	<b>-1,223</b>	<b>-574</b>
Income taxes recognized in other comprehensive income and in equity		
Deferred taxes		
Available-for-sale assets, fair value changes recognized in other comprehensive income	-2	4
Total deferred taxes recognized in other comprehensive income and equity	-2	4
<b>Total taxes recognized in other comprehensive income and in equity</b>	<b>-2</b>	<b>4</b>

EUR thousand	2017	2016
Reconciliation of income tax expense calculated at statutory tax rates with income tax expense in the income statement		
Profit before taxes	4,125	1,585
Tax at the tax rate applicable to the parent	-825	-317
Difference due to different tax rates of foreign subsidiaries	-234	-135
Tax exempt income and non-deductible expenses	931	-436
Effect of changes in tax rates and tax laws	-238	-
Losses, where no deferred tax benefit is recognized	-1,088	60
Deferred taxes recognized during the reporting period in respect of previous years' temporary differences	-294	23
Withholding taxes and adjustments in respect of current income tax of previous periods	164	-138
Use of losses, where no deferred tax asset was recognized	361	311
Effect of taxes not based on taxable income	-	58
<b>Income taxes in the income statement</b>	<b>-1,223</b>	<b>-574</b>
<b>Effective tax rate</b>	<b>-30%</b>	<b>-36%</b>

The Group companies have tax losses totalling EUR 36.0 (37.9) 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. When preparing 2017 financial statements, the management has estimated that Glaston is able to utilize the unused tax losses for which deferred tax asset has been recognized. In addition, 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 2017 or 2016 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. Deferred tax liability of undistributed earnings of associates has also not been recognized.

	<b>2017</b>	<b>2016</b>
Tax assets and tax liabilities		
Deferred tax assets	1,011	2,165
Assets for current tax	136	182
Deferred tax liabilities	326	358
Liabilities for current tax	218	64

## Reconciliation of deferred tax assets and deferred tax liabilities 2017

<b>Deferred tax assets</b>	<b>1 January</b>	<b>Exchange difference</b>	<b>Change in income statement (- tax expense)</b>	<b>Recognized in other comprehensive income</b>	<b>31 December</b>
Unrealized internal profits, inventory	204	-	-11	-	193
Unrealized internal profits, property, plant and equipment and intangible assets	-0	-	-	-	-0
Confirmed tax losses carried forward <sup>l*</sup>	1,085	-	-632	-	453
Share-based payments	-	-	-	-	-
Other temporary differences	876	-	-511	-	365
<b>Deferred tax assets in statement of financial position</b>	<b>2,165</b>	<b>-</b>	<b>-1,154</b>	<b>-</b>	<b>1,011</b>

\*l) 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.

<b>Deferred tax liabilities</b>	<b>1 January</b>	<b>Exchange difference</b>	<b>Change in income statement (+ tax expense)</b>	<b>Recognized in other comprehensive income</b>	<b>31 December</b>
Untaxed reserves	-401	-	-34	-	-435
Defined benefit employee benefits	14	-	2	-	17
Available-for-sale financial assets at fair value	30	-	-	2	32
Share-based payments	-0	-	-	-	-0
Other temporary differences	714	-	-3	-	711
<b>Deferred tax liabilities in statement of financial position</b>	<b>358</b>	<b>-</b>	<b>-33</b>	<b>2</b>	<b>326</b>

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

Change in deferred taxes in income statement, continuing operations (- tax expense)	-1,015
<b>Total change in deferred taxes in income statement (- tax expense)</b>	<b>-1,015</b>

## Reconciliation of deferred tax assets and deferred tax liabilities 2016

Deferred tax assets	1 January	Exchange difference	Change in income statement (- tax expense)	Recognized in other comprehensive income	31 December
Unrealized internal profits, inventory	261	-	-58	-	203
Unrealized internal profits, property, plant and equipment and intangible assets	-0	-	-	-	-0
Confirmed tax losses carried forward <sup>*)</sup>	1,292	-	-207	-	1,085
Share-based payments	45	-	-45	-	-
Other temporary differences	820	-	56	-	876
<b>Deferred tax assets in statement of financial position</b>	<b>2,419</b>	<b>-</b>	<b>-254</b>	<b>-</b>	<b>2,165</b>

<sup>\*)</sup> 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 January	Exchange difference	Change in income statement (+ tax expense)	Recognized in other comprehensive income	31 December
Untaxed reserves	-339	-	-62	-	-401
Defined benefit employee benefits	15	-	-	-	15
Available-for-sale financial assets at fair value	36	-	-	-4	32
Share-based payments	-0	-	-	-	-0
Other temporary differences	709	-	3	-	712
<b>Deferred tax liabilities in statement of financial position</b>	<b>421</b>	<b>-</b>	<b>-59</b>	<b>-4</b>	<b>358</b>

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

Change in deferred taxes in income statement, continuing operations (- tax expense)	-198
<b>Total change in deferred taxes in income statement (- tax expense)</b>	<b>-198</b>

# Depreciation, Amortization and Impairment of Assets

EUR thousand	2017	2016
Depreciation and amortization		
Intangible assets		
Intangible rights	596	571
Capitalized development expenditure	1,250	962
Property, plant and equipment		
Buildings and constructions	379	344
Machinery and equipment	627	645
Other tangible assets	139	130
<b>Total depreciation and amortization</b>	<b>2,991</b>	<b>2,653</b>
Impairment losses		
Intangible assets		
Intangible rights	-	-
<b>Total impairment losses</b>	<b>-</b>	<b>-</b>
<b>Total depreciation, amortization and impairment</b>	<b>2,991</b>	<b>2,653</b>

## 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 also always performed when there is indication that the recoverable amount of an asset or

cash generating unit is lower than its carrying amount.

As a result of the sale of the pre-processing machine business, Glaston's remaining business operations will be reported as a single segment. 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 will move over to other areas, such as Asia or other emerging markets, this growth has 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 a 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 account in determining the discount

rate as well as Glaston's cost of debt.

There are no major 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 geographical 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 2017	Machines/ Heat Treatment	Services
Pre-tax discount rate	11.3%	12.0%
Long-term growth rate	2.0%	2.0%

The most significant assumptions used in value in use calculations in 2016	Machines/ Heat Treatment	Services
Pre-tax discount rate	11.9%	13.1%
Long-term growth rate	2.0%	2.0%

### Impairment testing of goodwill

**Goodwill** EUR million

Cash generating unit	1 January, 2017	Impairment loss	Reclassification to discontinued operations	31 December, 2017
Machines				
Heat Treatment	4.1	-	-	4.1
Services	26.5	-	-	26.5
<b>Total</b>	<b>30.6</b>	<b>-</b>	<b>-</b>	<b>30.6</b>

Cash generating unit	1 January, 2016	Impairment loss	Reclassification to discontinued operations	31 December, 2016
Machines				
Heat Treatment	4.1	-	-	4.1
Services	26.5	-	-	26.5
<b>Total</b>	<b>30.6</b>	<b>-</b>	<b>-</b>	<b>30.6</b>

### 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 page 78.

The recoverable amounts of these cash generating units exceed their carrying amounts by 65 per cent in the Services business and by 295 per cent in the Machines/ Heat Treatment business.

A change in an assumption which, other things being equal, would cause the recoverable amount to equal the carrying amount:

# Discontinued Operations and Assets and Liabilities of Disposal Groups Classified as Held for Sale

In 2017 or in 2016 Glaston had no discontinued operations

Post-tax discount rate <sup>(*)</sup>	Value assigned to the assumption	Value Change
Services	9.6%	15.7%
Heat Treatment	9.3%	33.6%

Long-term growth rate <sup>(*)</sup>	Value assigned to the assumption	Value Change
Services	2.0%	-8.3%
Heat Treatment <sup>(**)</sup>	2.0%	-

<sup>(\*)</sup> 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.

<sup>(\*\*)</sup> The long term growth rate does not have an impact on the test, the recoverable amount exceeds the carrying value in the reporting period.

The costs of Machines/ Heat Treatment business are estimated to be 90 per cent of the estimated net sales during the testing period. Should the costs be 5 percentage points higher, the recoverable amount, other things being equal, would equal the carrying amount.

The costs of Services business are estimated to be 84 per cent of the estimated net sales during the testing period. Should the costs be 7 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 2017 or in 2016 Glaston had no impairment losses.

# 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	Capitalized development expenditure	Intangible rights	Goodwill	Other capitalized expenditure	Advances paid	Total
<b>2017</b>						
Acquisition cost at beginning of year	19,424	4,341	24,291	503	1,334	49,892
Other increases	426	110	-	-	1,050	1,585
Decreases	-	-329	-	-	-	-329
Reclassifications and other changes	1,535	231	-	-	-1,766	-
Exchange differences	-43	-63	-	-	-5	-111
<b>Acquisition cost at end of year</b>	<b>21,340</b>	<b>4,290</b>	<b>24,291</b>	<b>503</b>	<b>614</b>	<b>51,038</b>
Accumulated amortization and impairment at beginning of year	-16,163	-2,048	6,260	-503	-	-12,453
Accumulated amortization relating to decreases and transfers	-	253	-	-	-	253
Amortization during the reporting period	-1,250	-596	-	-	-	-1,846
Reclassifications and other changes	-	-0	-	-	-	-0
Exchange differences	27	57	-	-	-	85
<b>Accumulated amortization and impairment at end of year</b>	<b>-17,386</b>	<b>-2,335</b>	<b>6,260</b>	<b>-503</b>	<b>-</b>	<b>-13,962</b>
<b>Carrying amount at end of year</b>	<b>3,954</b>	<b>1,955</b>	<b>30,551</b>	<b>0</b>	<b>614</b>	<b>37,076</b>
<b>2016</b>						
Acquisition cost at beginning of year	17,733	4,646	24,291	503	2,164	49,337
Other increases	222	57	-	-	1,901	2,180
Decreases	-0	-1,610	-	-	-48	-1,657
Reclassifications and other changes	1,483	1,190	-	-	-2,676	-2
Exchange differences	-16	58	-	-	-7	35
<b>Acquisition cost at end of year</b>	<b>19,423</b>	<b>4,341</b>	<b>24,291</b>	<b>503</b>	<b>1,334</b>	<b>49,892</b>
Accumulated amortization and impairment at beginning of year	-15,206	-3,025	6,260	-503	-	-12,474
Accumulated amortization relating to decreases and transfers	-0	1,610	-	-	-	1,610
Amortization during the reporting period	-962	-571	0	-	-	-1,534
Exchange differences	5	-61	-	-	-	-56
<b>Accumulated amortization and impairment at end of year</b>	<b>-16,163</b>	<b>-2,047</b>	<b>6,260</b>	<b>-503</b>	<b>-</b>	<b>-12,452</b>
<b>Carrying amount at end of year</b>	<b>3,259</b>	<b>2,295</b>	<b>30,551</b>	<b>0</b>	<b>1,334</b>	<b>37,440</b>

# Property, Plant and Equipment

Glaston has given liens on chattel as security for liabilities. These are presented in Note 27. At the end of 2017 and 2016 Glaston did not have any pledged property, plant and equipment or intangible assets as security for liabilities.

At the end of 2017 Glaston had not contractual commitments for the acquisition of property, plant and equipment ( 0.0 million).

In 2017 or 2016, 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	Land and water areas	Buildings and construc- tions	Investment property	Machinery and equipment	Other tangible assets	Advances paid and assets under construction	Total
<b>2017</b>							
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
<b>Acquisition cost at end of year</b>	<b>474</b>	<b>4,784</b>	<b>2,606</b>	<b>1,716</b>	<b>339</b>	<b>684</b>	<b>10,602</b>
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
<b>Accumulated depreciation and impairment at end of year</b>	<b>-</b>	<b>-2,652</b>	<b>-243</b>	<b>506</b>	<b>203</b>	<b>-</b>	<b>-2,187</b>
<b>Carrying amount at end of year</b>	<b>474</b>	<b>2,131</b>	<b>2,363</b>	<b>2,222</b>	<b>541</b>	<b>684</b>	<b>8,415</b>
<b>2016</b>							
Acquisition cost at beginning of year	474	5,118		1,633	412	2,145	9,783
Other increases	-	17	908	169	24	589	1,708
Decreases	-	-	-	-206	-	-	-206
Reclassifications and other changes	-	39	1,870	188	-164	-1,933	-0
Exchange differences	-	-152	-	78	-1	-62	-137
<b>Acquisition cost at end of year</b>	<b>474</b>	<b>5,022</b>	<b>2,778</b>	<b>1,862</b>	<b>272</b>	<b>739</b>	<b>11,147</b>
Accumulated depreciation and impairment at beginning of year	-	-2,371	-	1,095	271	-	-1,005
Accumulated depreciation relating to decreases and transfers	-	-	-	171	0	-	172
Depreciation during the reporting period	-	-344	-	-645	-130	-	-1,119
Reclassifications and other changes	-	97	-115	-114	132	-	-0
Exchange differences	-	69	-	-53	1	-	16
<b>Accumulated depreciation and impairment at end of year</b>	<b>-</b>	<b>-2,548</b>	<b>-115</b>	<b>454</b>	<b>273</b>	<b>-</b>	<b>-1,937</b>
<b>Carrying amount at end of year</b>	<b>474</b>	<b>2,473</b>	<b>2,663</b>	<b>2,316</b>	<b>545</b>	<b>739</b>	<b>9,211</b>
Carrying amount of machinery and equipment used in production 31 December, 2017		1,719					
Carrying amount of machinery and equipment used in production 31 December, 2016		1,619					

## 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.

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	2017	2016
Non-current asset	136	184
Current assets	760	905
Long-term liabilities	758	934
Short-term liabilities	137	156
Turnover	677	798
Expenses	-797	-844
Profit / Loss for the period	-120	-47
Profit / Loss attributable to parent company shareholders	-84	-33
Profit / Loss attributable to non-controlling interest	-36	-14
Net cash flow from operating activities	-68	-23
Net cash flow from investing activities	11	-15

## Other investments

Glaston has classified its non-current investments as available-for-sale shares and other available-for-sale investments. Glaston recognizes fair value changes of these investments in other comprehensive income and they are included in the fair value reserve in equity until the assets are disposed, at which time the cumulative gain or loss is

reclassified to profit or loss as an reclassification item. Certain unlisted equities and investments, for which fair values can not be measured reliably, are recognized and measured at cost or at cost less impairment.

Impairment losses of available-for-sale financial assets are recognized in the income statement in financial items.

### Available-for-sale Financial Assets

EUR thousand

2017	Available-for-sale shares
Carrying amount 1 January	3,231
Additions	-
Disposals	-240
Reclassifications	-
Impairments	-
Fair value changes recognized in other comprehensive income	8
Reclassification to assets held for sale	-
<b>Carrying amount 31 December</b>	<b>2,999</b>
2016	Available-for-sale shares
Carrying amount 1 January	3,249
Additions	-
Disposals	-
Reclassifications	-
Impairments	-
Fair value changes recognized in other comprehensive income	-18
Reclassification to assets held for sale	-
<b>Carrying amount 31 December</b>	<b>3,231</b>

# Inventories

## Inventories

EUR thousand	2017	2016
Materials and supplies	3,346	3,072
Work in process	3,502	4,145
Finished goods	2,761	4,409
Advances paid	277	271
<b>Total</b>	<b>9,887</b>	<b>11,898</b>
Impairment losses of inventory during the period	-741	-647
Reversals of impairment losses of inventory during the period	9	27
<b>Total</b>	<b>-731</b>	<b>-620</b>

# 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.

Receivables falling due after 12 months have been discounted.

Prepaid expenses and accrued income related to derivative instruments are disclosed in more detail in Note 26.

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 2017, no impairment losses were recognized.

Trade receivables related to construction contracts in progress, EUR 10.8 (9.1) million, are described in more detail in Note 6.

## Receivables

EUR thousand	2017	2016
Trade receivables	18,945	16,048
Trade receivables, falling due after 12 months	-	151
<b>Total trade receivables</b>	<b>18,945</b>	<b>16,199</b>
Finance leasing receivables	890	-
Finance leasing receivables, falling due after 12 months	811	-
Prepaid expenses and accrued income	925	822
Prepaid expenses and accrued income, falling due after 12 months	144	157
Other receivables	1,929	1,093
Other receivables, falling due after 12 months	992	139
Current loan receivables	304	281
Non-current loan receivables <sup>*)</sup>	450	863
<b>Total receivables</b>	<b>25,389</b>	<b>19,554</b>

<sup>\*)</sup> In non-current assets

Ageing analysis of trade receivables at 31 December

	Carrying amount of trade receivables after recognizing allowance account	Past due				
		Not past due	< 30 days	31-180 days	181-360 days	> 360 days
<b>2017</b>	18,945	13,640	2,785	2,082	254	185
<b>2016</b>	16,199	12,043	1,614	2,220	241	81

Allowance account of trade receivables is used when an estimate of impairment losses arising from trade receivables is recognized. 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 allow-

ance 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 the payment history of the customers.

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.

Also the trade receivables past due are individually analyzed. 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 gross amount of impaired trade receivables at the end of the reporting period was EUR 2.2 (1.9) million, and an impairment loss of these receivables was EUR 1.8 (1.6) million.

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

EUR thousand

	2017
<b>Allowance account 1 January, 2016</b>	<b>3,582</b>
Exchange difference	81
Charge for the year	1,765
Utilized	-2,655
Unused amounts reversed	-1,152
<b>Allowance account 31 December, 2016</b>	<b>1,621</b>
Exchange difference	-87
Charge for the year	903
Utilized	-115
Unused amounts reversed	-568
<b>Allowance account 31 December, 2017</b>	<b>1,754</b>

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

<b>2017</b>	347
<b>2016</b>	601

### Finance lease receivables

	2017		2016	
	Minimum lease receivables	Unearned finance income	Minimum lease receivables	Unearned finance income
Finance lease receivables are due as follows				
No later than 1 year	79	29	-	-
Later than 1 year and no later than 5 years	239	67	-	-
Later than 5 years	572	60	-	-
<b>Total finance lease receivables</b>	<b>890</b>	<b>156</b>	<b>-</b>	<b>-</b>
<b>Present value of minimum lease receivables</b>	<b>903</b>		<b>-</b>	

# Total Comprehensive Income Included in Equity

2017 EUR thousand	Other restricted equity reserves	Fair value reserve	Retained earnings	Cumulative exchange difference	Non-controlling interest	Total
<b>Total other comprehensive income</b>						
Total exchange differences on translating foreign operations	-4	-	4	-776	-17	-794
Change in actuarial gains and losses	-	-	-38	-	-	-38
Available-for-sale financial assets, fair value changes	-	9	-	-	-	9
Hedging		39				39
Income taxes on fair value changes of available-for-sale financial assets	-	-2	-	-	-	-2
<b>Other comprehensive income</b>	<b>-4</b>	<b>46</b>	<b>-34</b>	<b>-776</b>	<b>-17</b>	<b>-785</b>
<b>Gain</b>	<b>-</b>	<b>-</b>	<b>2,938</b>	<b>-</b>	<b>-36</b>	<b>2,902</b>
<b>Total comprehensive income</b>	<b>-4</b>	<b>46</b>	<b>2,904</b>	<b>-776</b>	<b>-53</b>	<b>2,117</b>
<b>2016</b>						
<b>Total other comprehensive income</b>						
Total exchange differences on translating foreign operations	-3	-	-1	55	-11	41
Change in actuarial gains and losses	-	-	-19	-	-	-19
Available-for-sale financial assets, fair value changes	-	-18	-	-	-	-18
Income taxes on fair value changes of available-for-sale financial assets	-	-3	-	-	-	-3
<b>Other comprehensive income</b>	<b>-3</b>	<b>-21</b>	<b>-20</b>	<b>55</b>	<b>-11</b>	<b>1</b>
<b>Loss</b>	<b>-</b>	<b>-</b>	<b>1,025</b>	<b>-</b>	<b>-14</b>	<b>1,011</b>
<b>Total comprehensive income</b>	<b>-3</b>	<b>-21</b>	<b>1,005</b>	<b>55</b>	<b>-25</b>	<b>1,012</b>

# 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 2.6 (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 Italy and Mexico.

EUR thousand	2017	2016
Amounts in the statement of financial position relating to Finnish defined benefit pension plans		
Fair value of plan assets	-	-
Present value of unfunded obligations	8	8
Total deficit of defined benefit pension plans	-	-
<b>Difference</b>	<b>8</b>	<b>8</b>
Amounts in the statement of financial position		
Liabilities	8	8
Assets	-	-
<b>Net liability (asset -)</b>	<b>8</b>	<b>8</b>
Amounts in the statement of financial position relating to other long-term employee benefits		
Fair value of plan assets	-	-
Present value of unfunded obligations	485	476
Total deficit of defined benefit pension plans	-	-
<b>Difference</b>	<b>485</b>	<b>476</b>
Amounts in the statement of financial position		
Liabilities	485	476
Assets	-	-
<b>Net liability (asset -)</b>	<b>485</b>	<b>476</b>

Changes of Finnish defined benefit pension	Present value of obligation	Fair value on plan assets	Total		Present value of obligation	Fair value on plan assets	Total
1 January, 2016	14	-	14	1 January, 2017	8	-	8
Current service cost	-	-	-	Current service cost	-	-	-
Interest expense / income	-1	-	-1	Interest expense / income	-	-	-
Past service cost	-	-	-	Past service cost	-	-	-
<b>Total</b>	<b>13</b>	<b>-</b>	<b>13</b>	<b>Total</b>	<b>8</b>	<b>-</b>	<b>8</b>
<b>Remeasurements</b>				<b>Remeasurements</b>			
Return on plan assets excluding amounts included in interest expense / income	-	-	-	Return on plan assets excluding amounts included in interest expense / income	-	-	-
Gain (-) / loss (+) from change in financial assumptions	-	-	-	Gain (-) / loss (+) from change in financial assumptions	-	-	-
Experience gain (-) / loss (+)	-	-	-	Experience gain (-) / loss (+)	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>
Exchange differences	-	-	-	Exchange differences	-	-	-
Contributions:				Contributions:			
Employers (+)	-	3	3	Employers (+)	-	-	-
Plan participants (+)	-	-	-	Plan participants (+)	-	-	-
Benefit payments (-)	-5	-3	-8	Benefit payments (-)	-1	-	-1
<b>31 December, 2016</b>	<b>8</b>	<b>-</b>	<b>8</b>	<b>31 December, 2017</b>	<b>8</b>	<b>-</b>	<b>8</b>

Changes of other long-term employee benefit plans

	Present value of obligation	Fair value on plan assets	Total
1 January, 2016	448	-	448
Divestments of subsidiaries	-	-	-
Current service cost	6	-	6
Interest expense / income	5	-	5
Past service cost	-	-	-
<b>Total</b>	<b>459</b>	<b>-</b>	<b>459</b>
<b>Remeasurements</b>			
Return on plan assets excluding amounts included in interest expense / income	-	-	-
Gain (-) / loss (+) from change in financial assumptions	16	-	16
Experience gain (-) / loss (+)	-	-	-
<b>Total</b>	<b>16</b>	<b>-</b>	<b>16</b>
Exchange differences	4	-	4
Contributions:			
Employers (+)	-	-	-
Plan participants (+)	-	-	-
Benefit payments (-)	-3	-	-3
<b>31 December, 2016</b>	<b>476</b>	<b>-</b>	<b>476</b>

	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	-	-	-
<b>Total</b>	<b>487</b>	<b>-</b>	<b>487</b>
<b>Remeasurements</b>			
Return on plan assets excluding amounts included in interest expense / income	-	-	-
Gain (-) / loss (+) from change in financial assumptions	9	-	9
Experience gain (-) / loss (+)	-	-	-
<b>Total</b>	<b>9</b>	<b>-</b>	<b>9</b>
Exchange differences	-19	-	-19
Contributions:			
Employers (+)	-	-	-
Plan participants (+)	-	-	-
Benefit payments (-)	-	-	-
<b>31 December, 2017</b>	<b>477</b>	<b>-</b>	<b>477</b>

The Group expects to contribute EUR 27.6 thousand to its other long-term employee benefit plans in 2017.

Actuarial assumptions	2017		2016	
	Finnish defined pension plans	Other plans	Finnish defined pension plans	Other plans
Discount rate, %	1.00%	1.66%–7.40%	1.00%	1.83%–6.70%
Future salary increase, %	-	5.50%	-	5.50%
Future pension increases, %	1.85%	-	1.85%	-
Inflation, %	1.60%	1.50%–3.91%	1.60%	1.50%–5.50%
Expected remaining service period, years	-	10	-	11

There are no plan assets.

Amounts for the current and previous periods, defined benefit pensions	2017	2016	2015	2014
Defined benefit pension obligation	8	8	14	15
Plan assets	-	-	-	-
<b>Surplus / deficit (-)</b>	<b>-8</b>	<b>-8</b>	<b>-14</b>	<b>-15</b>
Experience adjustments on plan liabilities (gain -)	-	-	-	3
Amounts for the current and previous periods, other long-term employee benefit plans				
Defined benefit obligation	485	476	448	1,598
Plan assets	-	-	-	-
<b>Surplus / deficit (-)</b>	<b>-485</b>	<b>-476</b>	<b>-448</b>	<b>-1,598</b>
Experience adjustments on plan liabilities (gain -)	-	-	-	219

# Interest-bearing Liabilities

EUR thousand	2017	2016
<b>Non-current interest-bearing liabilities</b>		
Loans from financial institutions	10,613	6,869
Other non-current liabilities	-	-
<b>Total non-current interest-bearing liabilities</b>	<b>10,613</b>	<b>6,869</b>
<b>Maturity of non-current interest-bearing liabilities</b>		
2019 (2018)	2,644	5,020
2020 (2019)	5,333	573
2021 (2020)	640	644
2022 (2021) or later	1,997	633
<b>Total</b>	<b>10,613</b>	<b>6,869</b>
<b>Non-current liabilities by currency</b>		
EUR	10,613	6,868
Other currencies	-	1
<b>Total</b>	<b>10,613</b>	<b>6,869</b>

Group's funding is mainly organized by using the Facilities 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	2017	2016
<b>Current interest-bearing liabilities</b>		
Loans from financial institutions	2,644	9,878
Other current interest-bearing liabilities	-	-
<b>Total current interest-bearing liabilities</b>	<b>2,644</b>	<b>9,878</b>
<b>Interest-bearing net liabilities</b>		
Non-current interest-bearing liabilities	10,613	6,869
Current interest-bearing liabilities	2,644	9,878
Cash	-12,386	-17,374
<b>Total</b>	<b>870</b>	<b>-626</b>

	1.1.2017	Cash flow	Effective rate and Exchange differences	Re-classification	31.12.2017
Non-current interest-bearing liabilities	6,869	3,911	-307	140	10,613
Current interest-bearing liabilities	9,878	-7,095	-	-140	2,644
<b>Total</b>	<b>16,747</b>	<b>-3,184</b>	<b>-307</b>	<b>-</b>	<b>13,257</b>

# Provisions

## Non-current provisions

2017	Warranty provision	Other provisions	Total
Carrying amount 1 January	1,377	-	1,377
Reclassification	-1,470	-	-1,470
Increase in provisions	1,654	-	1,654
<b>Carrying amount 31 December</b>	<b>1,560</b>	<b>-</b>	<b>1,560</b>

2016			
Carrying amount 1 January	1,158	9	1,167
Reclassification	-1,195	-9	-1,204
Increase in provisions	1,414	-	1,414
<b>Carrying amount 31 December</b>	<b>1,377</b>	<b>-</b>	<b>1,377</b>

### 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 if 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.

## Current provisions

2017	Warranty provision	Restructuring provision	Other provisions	Total
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
<b>Carrying amount 31 December</b>	<b>2,074</b>	<b>192</b>	<b>116</b>	<b>2,382</b>

### 2016

Carrying amount 1 January	2,318	42	153	2,514
Exchange difference	20	11	18	48
Reclassification	1,195	-	-	1,195
Increase in provisions	1,552	89	14	1,655
Provisions used during the period	-2,123	-	-11	-2,134
Provisions released during the period	-585	-37	-	-622
<b>Carrying amount 31 December</b>	<b>2,377</b>	<b>105</b>	<b>174</b>	<b>2,656</b>

# Interest-free Liabilities

EUR thousand	2017	2016
Current interest-free liabilities		
Trade payables	11,160	10,033
Advances received <sup>1</sup> *	11,552	17,981
Accrued expenses and deferred income	14,426	13,342
Other current interest-free liabilities	2,220	2,114
<b>Total current interest-free liabilities</b>	<b>39,358</b>	<b>43,470</b>

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.

\*<sup>1</sup> Advances received include EUR 10.8 (16.5) million advances received from construction contracts in progress. These are described in more detail in Note 6.

# Financial Assets and Liabilities

EUR thousand 31 December, 2017	Note	Assets available- for-sale <sup>(*)</sup>	Financial assets and liabilities at fair value through profit and loss <sup>(*)</sup>	Loans and receivables	Financial liabilities at amortized cost	Total carrying amounts	Total fair value
Cash	3	-	-	12,386	-	12,386	
Trade receivables	19	-	-	18,945	-	18,945	
Other interest-free receivables	19	-	-	1,929	-	1,929	
Receivables related to financial liabilities		-	-	-	44	44	
Current loan receivables	19	-	-	304	-	304	
Other non-current interest-free receivables	19	-	-	992	-	992	
Non-current loan receivables	19	-	-	450	-	450	
Derivatives		-	40	-	-	40	
Available-for-sale shares	17	2,999	-	-	-	2,999	
Non-current interest-bearing liabilities	22	-	-	-	-10,613	-10,613	-10,207
Current interest-bearing liabilities	22	-	-	-	-2,644	-2,644	-2,610
Trade payables	24	-	-	-	-11,160	-11,160	
Other current interest-free liabilities	24	-	-	-	-2,220	-2,220	
<b>Total</b>		<b>2,999</b>	<b>40</b>	<b>35,007</b>	<b>-26,593</b>	<b>11,454</b>	<b>-12,817</b>

EUR thousand 31 December, 2016	Note	Assets available-for sale <sup>(*)</sup>	Financial assets and liabilities at fair value through profit and loss <sup>(*)</sup>	Loans and receivables	Financial liabilities at amortized cost	Total carrying amounts	Total fair value
Cash	3	-	-	17,374	-	17,374	
Trade receivables	19	-	-	16,199	-	16,199	
Other interest-free receivables	19	-	-	1,093	-	1,093	
Receivables related to financial liabilities		-	-	-	103	103	
Current loan receivables	19	-	-	281	-	281	
Other non-current interest-free receivables	19	-	-	139	-	139	
Non-current loan receivables	19	-	-	863	-	863	
Available-for-sale shares	17	3,231	-	-	-	3,231	
Non-current interest-bearing liabilities	22	-	-	-	-6,869	-6,869	-6,527
Current interest-bearing liabilities	22	-	-	-	-9,878	-9,878	-9,751
Trade payables	24	-	-	-	-10,033	-10,033	
Other current interest-free liabilities	24	-	-	-	-2,114	-2,114	
Derivatives	26	-	-28	-	-	-28	-28
<b>Total</b>		<b>3,231</b>	<b>-28</b>	<b>35,948</b>	<b>-28,792</b>	<b>10,359</b>	<b>-16,306</b>

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

Fair value measurement hierarchy <sup>(\*)</sup>

	31.12.2017				31.12.2016			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
<b>Assets</b>								
Available-for-sale shares	157	-	8	<b>165</b>	149	-	248	<b>396</b>
Other long-term investments	-	-	2,834	<b>2,834</b>	-	-	2,834	<b>2,834</b>
Commodity derivatives	-	-	-	-	-	-	-	-
Currency forward contracts	-	39	-	<b>39</b>	-	-	-	-
<b>Total</b>	<b>157</b>	<b>39</b>	<b>2,842</b>	<b>3,038</b>	<b>149</b>	<b>-</b>	<b>3,082</b>	<b>3,230</b>
<b>Liabilities</b>								
Financial liabilities	-	-12,817	-	<b>-12,817</b>	-	-16,278	-	<b>-16,278</b>
Commodity derivatives	-	-	-	-	-	-28	-	<b>-28</b>
Currency forward contracts	-	-	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-12,817</b>	<b>-</b>	<b>-12,817</b>	<b>-</b>	<b>-16,306</b>	<b>-</b>	<b>-16,306</b>

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

	2017	2016
1 January	3,082	3,082
Additions	-	-
Disposals	-240	-
Impairment losses	-	-
Reclassification	-	-
<b>31 December</b>	<b>2,842</b>	<b>3,082</b>

# Derivative Instruments

Since 2017, Glaston has hedged 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 IAS 39 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.

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

EUR thousand	2017		2016	
	Nominal value	Fair value	Nominal value	Fair value
<b>Electricity derivatives</b>				
Forward contracts	-	-	359	-28
Currency forwards	4,870	39	-	-

EUR thousand	2017	2016
<b>Derivative instruments in the income statement</b>		
Items included in net sales	249	-
Items included in operating expenses	27	67
Financial items	6	-
<b>Derivative instruments in the statement of financial position, receivables and liabilities</b>		
<b>Accrued expenses and deferred income</b>		
Electricity derivatives	-	28
Currency forwards	-	-
<b>Prepaid expenses and accrued income</b>		
Currency forwards	40	-

# Contingencies

EUR thousand	2017	2016
Loans secured with mortgages or pledges		
Loans from financial institutions	8,689	13,621
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	-	-
<b>Total loans secured with mortgages, liens on chattel and pledged assets</b>	<b>8,689</b>	<b>13,621</b>
<b>Total mortgages, liens on chattel and pledged assets</b>	<b>166,941</b>	<b>166,941</b>
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
<b>Total</b>	<b>166,941</b>	<b>166,941</b>
Guarantees		
On behalf of own commitments	10,026	11,221
On behalf of others	234	251
Repurchase obligation	-	276
<b>Total</b>	<b>10,260</b>	<b>11,749</b>
<b>Total contingent liabilities</b>	<b>177,201</b>	<b>178,690</b>

## 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	2017	2016
<b>Minimum future payments of operating lease commitments</b>		
Maturity within one year	2,093	2,441
Maturity later than one year and not later than five years	6,131	6,637
Maturity later than five years	4,603	5,686
<b>Total minimum future payments of operating lease commitments</b>	<b>12,827</b>	<b>14,764</b>

## 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	2017	2016
<b>Minimum future payments of operating leases</b>		
Maturity within one year	802	987
Maturity later than one year and not later than five years	2,849	4,432
Maturity later than five years	681	1,016
<b>Total minimum future payments of operating leases</b>	<b>4,332</b>	<b>6,435</b>

## 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.

# 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. <sup>1*</sup>	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%	
Glaston Tools s.r.l.	Bregnano	Italy	100%	

\*1) For the year ending 31 December 2017, Glaston UK Ltd. was entitled to exemption from audit under section 479A of the UK Companies Act 2006.

## 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.

## Changes in subsidiaries in 2016

Tamglass Project Development Oy was liquidated in February 2016.

# 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 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 will be paid in spring 2018. The incentive plan for 2015 covered 29 key persons of Glaston.

### Share-based incentive plan 2014

On 21 January 2014, Glaston's Board of Directors approved a new 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 2014–2016 and ended 31 December 2016. Remuneration wasn't paid. 30 key persons of Glaston were part of the incentive plan at the end of 2016.

<b>Basic information of the share-based plans</b>	<b>2017-2019</b>	<b>2016-2018</b>	<b>2015-2017</b>	<b>2014-2016</b>
Grant date	18 January, 2017	19 January, 2016	27 January, 2015	21 January, 2014
Nature of the plan	Cash	Cash	Cash	Cash
Target group	Key personnel	Key personnel	Key personnel	Key personnel
Maximum amount of cash	1,740,000	1,730,000	1,859,600	2,024,000
Total amount of cash at the end of the performance period, EUR thousand	-	-	119	-
Performance period begins	1 January, 2017	1 January, 2016	1 January, 2015	1 January, 2014
Performance period ends	31 December, 2019	31 December, 2018	31 December, 2017	31 December, 2016
End of restriction period/ payment	1 April 2020	1 April 2019	1 April 2018	1 April 2017
Vesting conditions	Share price Service period	Share price Service period	Share price Service period	Share price Service period
Maximum contractual life, years	3	3	3	3
Remaining contractual life, years	2	1	0	0
Number of persons involved 31 December 2017	18	16	29	30

<b>Effect on the profit or loss for the period and on financial position</b>	<b>2017</b>	<b>2016</b>
Effect on the result of the reporting period, EUR thousand	119	-225

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.

## 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 16 to the consolidated financial statements.

Total accrual based remuneration of the Board of Directors and the Executive Management Group was EUR 2,092 (1,535) thousand.

### Remuneration of the Executive Management Group, accrual based

EUR	2017	2016
<b>CEO Arto Metsänen</b>		
Salaries	407,367	328,607
Bonuses <sup>l*</sup>	-	-5,000
Share based benefit <sup>l*</sup>	23,040	-41,000
<b>Total</b>	<b>430,407</b>	<b>282,607</b>
Fringe benefits	1,114	1,252
<b>Total</b>	<b>431,521</b>	<b>283,859</b>
Statutory pension payments (Finnish TyEL or similar plan)	69,203	71,634
Voluntary pension payments	45,975	54,475
<b>Other members of the Executive Management Group</b>		
Salaries	1,210,808	1,088,080
Compensations for termination of employment	-	-
Bonuses	51,381	30,059
Share based benefit <sup>l*</sup>	48,000	-95,000
<b>Total</b>	<b>1,310,189</b>	<b>1,023,139</b>
Fringe benefits	139,721	30,969
<b>Total</b>	<b>1,449,910</b>	<b>1,054,108</b>
Statutory pension payments (Finnish TyEL or similar plan)	193,648	173,053
Voluntary pension payments	20,966	20,160

<sup>l</sup> Negative amount in 2016 is due to the bonus and the share based incentive plan allowances estimated too high in the previous year.

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 termination 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 29). 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

EUR	2017		2016	
	annual fee	meeting fee	annual fee	meeting fee
Andreas Tallberg, Chairman of the Board of Directors	40,000	7,200	40,000	7,300
Teuvo Salminen, Deputy Chairman of the Board of Directors	30,000	4,500	30,000	4,600
Claus von Bonsdorff	20,000	4,500	20,000	4,600
Pekka Vauramo	20,000	4,500	20,000	3,600
Anu Hämäläinen	20,000	4,500	20,000	4,600
Kalle Reponen <sup>1</sup>	5,000	1,000	20,000	4,600
Sarlotta Narjus	20,000	4,500	15,000	3,100
Kai Mäenpää <sup>2</sup>	15,000	3,000	-	-
Tero Telaranta <sup>3</sup>	5,000	1,500	-	-
<b>Total</b>	<b>175,000</b>	<b>35,200</b>	<b>165,000</b>	<b>32,400</b>

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 40,000 (40,000) annually, the Deputy Chairman EUR 30,000 (30,000) annually and each of the members EUR 20,000 (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 2017	31 December 2016
Andreas Tallberg, Chairman of the Board of Directors	1,500,000	1,500,000
Teuvo Salminen, Deputy Chairman of the Board of Directors	562,277	562,277
Claus von Bonsdorff	172,600	172,600
Pekka Vauramo	250,000	250,000
Anu Hämäläinen	150,000	150,000
Kalle Reponen <sup>1</sup>	-	10,000
Sarlotta Narjus	-	-
Kai Mäenpää <sup>2</sup>	12,500	-
Tero Telaranta <sup>3</sup>	1,000	-

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.

<sup>1</sup> Member of the Board of Directors until 4 April 2017

<sup>2</sup> Member of the Board of Directors from 4 April 2017

<sup>3</sup> Member of the Board of Directors from 21 September 2017

## Executive Management Group, share ownership

Glaston shares	31 December 2017	31 December 2016
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

## Events after End of the Reporting Period

On 2 January 2018, Glaston received a flagging notification, according to which Ilmarinen Mutual Pension Insurance Company owns 7.15% of all of the shares and votes of Glaston Corporation.

Following a decline in local demand, Glaston made a decision in January to discontinue the production operations of its Chinese joint venture Glaston Tools (Sanhe) Co., Ltd. The factory's operations will end during the first quarter of 2018.

On 31 January 2018, Glaston's Nomination Board made its proposal to the Annual General Meeting on the composition and remuneration of the Board of Directors. The Nomination Board proposes that the number of Members of the Board of Directors be seven, and that Antti Kaunonen and Sebastian Bondestam be elected as new members. The Nomination Board proposes that the annual remuneration of the Members of the Board of Directors be increased by 15% and that accordingly the Chairman be paid EUR 46,000, the Deputy Chairman EUR 34,500 and the other Members of the Board EUR 23,000.

# Income Statement of the Parent Company (FAS)

EUR thousand	1 January - 31 December		
	Note	2017	2016
<b>Net sales</b>	2	<b>2,731</b>	<b>2,971</b>
Other operating income	3	5,382	2,719
Personnel expenses	4	-1,751	-1,569
Depreciation, amortization and impairment losses	5	-621	-589
Other operating expenses	6	-5,848	-4,352
<b>Operating profit / loss</b>		<b>-106</b>	<b>-821</b>
Net financial items	7	-647	-7,372
<b>Profit /loss before appropriations and taxes</b>		<b>-753</b>	<b>-8,193</b>
Appropriations	8	938	2,545
Income taxes	9	-178	-16
<b>Profit / loss for the financial year</b>		<b>6</b>	<b>-5,664</b>

# Balance Sheet of the Parent Company (FAS)

EUR thousand	at 31 December		
	Note	2017	2016
<b>Assets</b>			
<b>Non-current assets</b>			
Intangible assets	10	1,480	1,859
Tangible assets	10	253	338
Subordinated loan receivable Group Companies	12,13	36,846	36,846
Investments	11,12	17,218	20,292
<b>Non-current assets, total</b>		<b>55,797</b>	<b>59,335</b>
<b>Current assets</b>			
Non-current receivables	13	3,413	3,883
Current receivables	13	28,921	27,272
Cash and bank		7,482	9,206
<b>Current assets, total</b>		<b>39,816</b>	<b>40,361</b>
<b>Total assets</b>		<b>95,613</b>	<b>99,695</b>

EUR thousand	at 31 December		
	Note	2017	2016
<b>Equity and liabilities</b>			
<b>Equity</b>			
Share capital		12,696	12,696
Share premium account		25,270	25,270
Reserve for invested unrestricted equity		42,987	42,987
Treasury shares		-3,308	-3,308
Retained earnings		-23,437	-17,773
Profit / loss for the financial year		6	-5,664
<b>Total equity</b>	14	<b>54,213</b>	<b>54,207</b>
<b>Accumulated appropriations</b>	15	<b>18</b>	<b>6</b>
<b>Liabilities</b>			
Non-current liabilities	16	7,371	4,243
Current liabilities	17	34,011	41,239
<b>Total liabilities</b>		<b>41,382</b>	<b>45,483</b>
<b>Total equity and liabilities</b>		<b>95,613</b>	<b>99,695</b>

# Parent Company Cash Flow Statement (FAS)

EUR thousand	2017	2016
<b>Cash flow from operating activities</b>		
Profit / loss for the financial period	6	-5,664
Adjustments:		
Income taxes for the period	178	-
Deferred taxes	12	-20
Group contribution	-950	-2,525
Financial income and expenses	647	7,372
Depreciation, amortization and impairment	621	589
Proceeds from disposal of tangible and intangible assets	15	-
Proceeds from disposal of investments	240	7,188
Other adjustments	1,924	22
Cash flow before change in net working capital	2,694	6,963
Change in net working capital		
Change in current interest-free receivables	-3,460	-332
Change in current interest-free liabilities	-54	-694
Cash flow from operating activities before financial items and taxes	-819	5,937
Interests paid and payments made for other financial items and income taxes		
Interests and other financial expenses paid	-331	-7,871
Dividends received	2	2
Interest received	97	222
Income taxes paid	-	-16
Cash flow from operating activities before extraordinary items	-1,051	-1,727
<b>Cash flow from operating activities before extraordinary items</b>	<b>-1,051</b>	<b>-1,727</b>

EUR thousand	2017	2016
<b>Cash flow from investing activities</b>		
Investments in tangible and intangible assets	-172	-824
Proceeds from disposal of tangible and intangible assets	2,834	-
<b>Cash flow from investing activities</b>	<b>2,661</b>	<b>-824</b>
<b>Cash flow from financing activities</b>		
Drawn-down of non-current loans	4,000	257
Change in current intra-group receivables	916	10,772
Change in current intra-group loans	-	3,150
Drawn-down of current loans	2,000	2,000
Repayments of current loans	-10,250	-2,500
Return of capital	-	-1,928
<b>Cash flow from financing activities</b>	<b>-3,334</b>	<b>11,750</b>
<b>Change in cash and cash equivalents</b>	<b>-1,724</b>	<b>9,199</b>
Cash and cash equivalents at the beginning of the period	9,206	7
Cash and cash equivalents at the end of the period	7,482	9,206
<b>Change in cash and cash equivalents</b>	<b>-1,724</b>	<b>9,199</b>

## 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 below.

### 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	2017	2016
<b>Net sales by business</b>		
Manufacturing industry	2,731	2,971
<b>Net sales by country by destination</b>		
Finland	2,327	2,619
Other EMEA	-	-22
Americas	329	285
Asia	75	89
<b>Total</b>	<b>2,731</b>	<b>2,971</b>

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	2017	2016
Charges from group companies	5,382	2,719
Proceeds from sale of business operations	-	-
<b>Other operating income, total</b>	<b>5,382</b>	<b>2,719</b>

## Personnel Expenses

EUR thousand	2017	2016
Salaries and fees	-1,351	-1,234
Pension expenses	-374	-290
Other personnel expenses	-27	-45
<b>Total</b>	<b>-1,751</b>	<b>-1,569</b>
Salaries and remuneration paid to members of the Board of Directors and Managing Director	-642	-481
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	10
<b>Total</b>	<b>9</b>	<b>10</b>

## Depreciation, Amortization and Impairment Losses

EUR thousand	2017	2016
<b>Depreciation and amortization according to plan</b>		
Intangible assets		
Intangible rights	-438	-408
Other capitalized expenditure	-37	-44
Tangible assets		
Machinery and equipment	-146	-138
<b>Total depreciation and amortization according to plan</b>	<b>-621</b>	<b>-589</b>
<b>Total depreciation and amortization according to plan and impairment losses</b>	<b>-621</b>	<b>-589</b>

## Other Operating Expenses

EUR thousand	2017	2016
Rents	-161	-206
Information and communications technology expenses	-2,462	-3,472
Travel expenses	-132	-133
Losses on disposals of assets	-255	-
Intra-group credit loss	-1,937	-
Other expenses	-901	-541
<b>Other operating expenses, total</b>	<b>-5,848</b>	<b>-4,352</b>
<b>Fees paid to auditors</b>		
Fees paid to principal auditors for audit	-62	-59
Fees paid to principal auditors for other services	-4	-19
<b>Total</b>	<b>-66</b>	<b>-78</b>

## Net Financial Items

EUR thousand	2017	2016
<b>Dividend income</b>		
From external parties	2	2
<b>Dividend income, total</b>	<b>2</b>	<b>2</b>
<b>Interest and other financial income</b>		
From group companies	278	855
From external parties	681	0
<b>Interest and other financial income</b>	<b>960</b>	<b>855</b>
<b>Interest and other financial income, total</b>	<b>962</b>	<b>857</b>
<b>Interest and other financial expenses</b>		
To group companies	-231	-208
Impairment losses of investments in non-current assets	-	-7,188
To external parties	-1,379	-833
<b>Interest and other financial expenses, total</b>	<b>-1,610</b>	<b>-8,229</b>
<b>Net financial items, total</b>	<b>-647</b>	<b>-7,372</b>
Other financial income and expenses include foreign exchange gains and losses (net)	54	210

## Appropriations

EUR thousand	2017	2016
Received group contributions	950	2,525
Difference between depreciation and amortization according to plan and depreciation and amortization in taxation	-12	20
<b>Total</b>	<b>938</b>	<b>2,545</b>

## Income Taxes

EUR thousand	2017	2016
Income taxes for operations	-178	-16
Change in deferred tax assets	-	-
<b>Total</b>	<b>-178</b>	<b>-16</b>

## Fixed Assets

Intangible assets EUR thousand	Intangible rights	Other capitalized expenditure	Advance payments and investments in progress	Total
Acquisition cost 1 January, 2017	4,897	630	193	5,720
Additions	-	-	97	97
Disposals	-129	-	-	-129
Reclassifications	231	-	-231	-
<b>Acquisition cost 31 December, 2017</b>	<b>4,999</b>	<b>630</b>	<b>59</b>	<b>5,688</b>
Accumulated amortizations and impairment losses 1 January, 2017	-3,339	-523	-	-3,861
Accumulated amortizations of disposals and transfers	128	-	-	128
Amortization of the period	-438	-37	-	-475
<b>Accumulated amortizations and impairment losses 31 December, 2017</b>	<b>-3,648</b>	<b>-560</b>	<b>-</b>	<b>-4,208</b>
<b>Carrying amount at 31 December, 2017</b>	<b>1,351</b>	<b>70</b>	<b>59</b>	<b>1,480</b>
Carrying amount at 31 December, 2016	1,558	108	193	1,859

Tangible assets EUR thousand	Machinery and equipment	Other tangible assets	Advance payments and investments in progress	Total
Acquisition cost 1 January, 2017	1,240	24	-0	1,264
Additions	76	-	-	76
Disposals	-344	-54	-	-398
Transfers between items	-	-	-	-
<b>Acquisition cost 31 December, 2017</b>	<b>971</b>	<b>-29</b>	<b>-0</b>	<b>942</b>
Accumulated depreciations and impairment losses 1 January, 2017	-927	-0	-	-927
Accumulated depreciations of disposals and transfers	344	39	-	384
Depreciation for the period	-146	-	-	-146
<b>Accumulated depreciations and impairment losses 31 December, 2017</b>	<b>-728</b>	<b>39</b>	<b>-</b>	<b>-689</b>
<b>Carrying amount 31 December, 2017</b>	<b>243</b>	<b>10</b>	<b>-0</b>	<b>253</b>
Carrying amount at 31 December, 2016	313	24	-0	338

# Investments

EUR thousand	Shares Group companies	Shares Others	Subordinated loan receivable Group companies	Total
Carrying amount at 1 January, 2017	17,204	3,088	36,846	57,138
Increase	-	-	-	-
Decrease	-	-3,074	-	-3,074
<b>Carrying amount at 31 December, 2017</b>	<b>17,204</b>	<b>14</b>	<b>36,846</b>	<b>54,064</b>

# 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
<b>Total</b>				<b>17,204</b>
<b>Other</b>				
Other shares and holdings				14
<b>Total</b>				<b>14</b>

# Receivables

EUR thousand	2017	2016
<b>Non-current receivables</b>		
<b>Receivables from group companies</b>		
Loan receivables	3,413	3,883
Total	3,413	3,883
<b>Non-current receivables, total</b>	<b>3,413</b>	<b>3,883</b>
<b>Current receivables</b>		
<b>Receivables from external parties</b>		
Trade receivables	-	2
Other receivables	33	74
Prepaid expenses and accrued income	489	364
Total	522	440
<b>Receivables from group companies</b>		
Trade receivables	7,914	6,381
Loan receivables	19,534	17,925
Group Contribution receivables	950	2,525
Prepaid expenses and accrued income	-	-
Total	28,399	26,832
<b>Current receivables, total</b>	<b>28,921</b>	<b>27,272</b>
<b>Prepaid expenses and accrued income</b>		
Financial items	351	271
Other	166	32
<b>Prepaid expenses and accrued income, total</b>	<b>489</b>	<b>364</b>

During the previous financial year changes have been made in the balance sheet presentation of the Group's internal rate of claims. Previously these have been shown in short-term accrued from Group companies. Now the internal interest receivables are presented in non-current loan receivables from Group companies.

# Equity

EUR thousand	2017	2016
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	44,915
Capital repayment	-	-1,928
Reserve for invested unrestricted equity 31 December	42,987	42,987
Treasury shares 1 January	-3,308	-3,308
Treasury shares 31 December	-3,308	-3,308
Retained earnings 1 January	-23,437	-17,773
Retained earnings 31 December	-23,437	-17,773
Profit / loss for the financial year	6	-5,664
<b>Equity at 31 December</b>	<b>54,213</b>	<b>54,207</b>
<b>Distributable funds at 31 December</b>		
Reserve for invested unrestricted equity	42,987	42,987
Treasury shares	-3,308	-3,308
Retained earnings	-23,437	-17,773
Profit / loss for the financial year	6	-5,664
<b>Distributable funds</b>	<b>16,247</b>	<b>16,241</b>

## Accumulated Appropriations

EUR thousand	2017	2016
Accumulated depreciation difference 1 January	6	25
Increase (+) / decrease (-)	12	-20
<b>Accumulated depreciation difference 31 December</b>	<b>18</b>	<b>6</b>

## Non-current Liabilities

EUR thousand	2017	2016
<b>Liabilities to external parties</b>		
Loans from financial institutions	7,364	4,235
Other liabilities	8	8
Liabilities to external parties, total	7,371	4,243
<b>Non-current liabilities, total</b>	<b>7,371</b>	<b>4,243</b>

## Current Liabilities

EUR thousand	2017	2016
<b>Liabilities to external parties</b>		
Loans from financial institutions	2,121	9,500
Trade payables	257	355
Other liabilities	629	112
Accrued expenses and deferred income	531	365
Liabilities to external parties, total	3,538	10,332
<b>Liabilities to group companies</b>		
Other interest-bearing liabilities	30,469	30,908
Trade payables	3	-
Liabilities to group companies, total	30,472	30,908
<b>Current liabilities, total</b>	<b>34,011</b>	<b>41,239</b>
<b>Accrued expenses and deferred income</b>		
Salary and other personnel expense accruals	274	220
Interests	27	2
Other	51	143
<b>Accrued expenses and deferred income, total</b>	<b>531</b>	<b>365</b>

# Contingent Liabilities

EUR thousand	2017	2016
<b>Leasing liabilities</b>		
Maturity within one year	7	25
Maturity later than one year	-	4
<b>Total</b>	<b>7</b>	<b>29</b>
The leasing agreements have normal terms.		
<b>Other rental liabilities</b>		
Maturity within one year	93	142
Maturity later than one year	272	365
<b>Total</b>	<b>365</b>	<b>506</b>
<b>Pledges</b>		
On behalf of group companies	7,590	8,877
<b>Loans secured with pledged assets and mortgages</b>		
Loans from financial institutions	9,000	13,250
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 Directors' Proposal for Distribution of Profits

The distributable funds of Glaston Corporation, are EUR 16, 247,313 of which EUR 6,150 represents the profit for the financial year. There are no funds that can be distributed as dividends.

The Board of Directors proposes to the Annual General Meeting to be held on 10 April 2018 that the profit for the financial year 2017 be placed in retained earnings and no dividend be paid.

The Board of Directors proposes to the Annual General Meeting that, based on the balance sheet to be adopted for 2017, a

capital repayment of EUR 0.01 per share be paid. Capital is repaid from the reserve for invested unrestricted equity. The capital is repaid to a shareholder who is registered in the Company's shareholders' register maintained by Euroclear Finland Ltd on the record date for payment, 12 April 2018. The Board of Directors proposes to the Annual General Meeting that the capital repayment be paid on 26 April 2018.

On the day the proposal for the distribution of assets was made, the number of shares entitling to dividend was 192,919,754,

which means the total amount of the capital repayment would be EUR 1,929,198.

EUR 14,318,115 will be left in distributable funds.

After the end of the financial year, there have been no material changes in the company's financial position. In the Board's opinion, the proposed distribution of profits does not endanger the company's solvency.

Helsinki, 8 February 2018

Andreas Tallberg  
Chairman of the Board

Claus von Bonsdorff

Sarlotta Narjus

Arto Metsänen  
CEO

Anu Hämäläinen

Kai Mäenpää

Teuvo Salminen  
Deputy Chairman of the Board

Pekka Vauramo

Tero Telaranta

# Auditor's report

## 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, 2017. 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

#### Revenue recognition of construction contracts

We refer to the Summary of significant accounting policies and Note 6 (Construction contracts)

Revenue from construction contracts included in net sales for the reporting period amounts to 68 million euro or 61% of total net sales (2016: 69 million euro or 64% of total net sales).

The Group recognizes revenue from tailored glass-processing machines based on a milestone method. Significant management judgment is required to assess the total estimated costs of the project allocated to the revenue recognized and assess the possible loss when it is expected that the total project costs will exceed the project revenues. Revenue recognition of construction contracts was determined to be a key audit matter due to the risk relating to the appropriate timing of revenue recognition and due to the judgment management uses in relation to the revenue recognition of projects and related provisions.

This matter was also a significant risk of material misstatement referred to in EU Regulation No 537/241, point (c) of Article 10(2).

## 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 14 (Intangible Assets)

As of balance sheet date December 31, 2017, the value of goodwill amounted to EURm 31 representing 32% of the total assets and 80% of equity (2016: EURm 31, 30% of the total assets and 85% 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.

### How our audit addressed the Key Audit Matter

Our audit procedures to address the risk of material misstatement in respect of con-

structions contracts included among other things:

- Assessing the Group's accounting policies over revenue recognition of construction contracts.
- Examination of the project documentation such as contracts and other written communication.
- Analytical procedures throughout the audit period.
- Assessing key elements in management's estimates such as the future costs to complete.
- Considering the Group's disclosures in respect of revenue recognition.

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 8 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 respon-

sibility 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 8, 2018

Ernst & Young Oy  
Authorized Public Accountant Firm

**Kristina Sandin**  
Authorized Public Accountant

**glaston**